

FINAL
LA POSTA MOUNTAIN WARFARE TRAINING FACILITY
ENVIRONMENTAL ASSESSMENT
SAN DIEGO, CALIFORNIA

Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Southwest Division
1220 Pacific Highway
San Diego, California 92132

June 2007

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
EXECUTIVE SUMMARY	ES-1
ES-1 Introduction.....	ES-1
ES-3 Purpose of and Need for the Proposed Action.....	ES-3
ES-4 Alternatives to the Proposed Action	ES-4
ES-5 Summary of Impacts	ES-5
CHAPTER 1.0 – PURPOSE OF AND NEED FOR PROJECT.....	1-1
1.1 Introduction.....	1-1
1.2 Purpose of and Need for the Proposed Action.....	1-8
1.3 Scope of Analysis	1-10
1.4 Intergovernmental Coordination.....	1-10
1.5 Public Outreach.....	1-12
CHAPTER 2.0 – ALTERNATIVES INCLUDING THE PROPOSED ACTION.....	2-1
2.1 Proposed Action Location.....	2-1
2.2 Description of the Proposed Action.....	2-2
2.3 Alternatives to the Proposed Action	2-20
2.4 Alternatives Considered but Eliminated	2-22
2.5 Compensatory Measures for Effects to Listed (and/or Proposed) Species, Critical Habitat, and/or Isolated Drainages That Would Be Implemented as Part of the Proposed Action.....	2-26
2.6 Summary of Impacts	2-34
CHAPTER 3.0 – AFFECTED ENVIRONMENT.....	3-1
3.1 Topography, Geology, Soils, Seismicity, and mineral potential	3-1
3.2 Hydrology/Water Quality	3-5
3.3 Biological Resources	3-9
3.4 Cultural Resources	3-68
3.5 Land Use	3-78
3.6 Public Facilities Access	3-86
3.7 Socioeconomics	3-87
3.8 Traffic and Circulation.....	3-94
3.9 Air Quality	3-96

3.10	Noise	3-102
3.11	Aesthetics.....	3-108
3.12	Environmental Health and Safety	3-111
3.13	Utilities and Public Services	3-113
CHAPTER 4.0 – ENVIRONMENTAL CONSEQUENCES		4-1
4.1	Topography, Geology, Soils, Seismicity, and Mineral Potential.....	4-1
4.2	Hydrology/Water Quality	4-5
4.3	Biological Resources	4-8
4.4	Cultural Resources	4-23
4.5	Land Use	4-25
4.6	Public Facilities Access	4-29
4.7	Socioeconomics	4-31
4.8	Traffic and Circulation.....	4-34
4.9	Air Quality	4-36
4.10	Noise	4-43
4.11	Aesthetics.....	4-50
4.12	Environmental Health and Safety	4-52
4.13	Utilities and Public Services	4-56
CHAPTER 5.0 – CUMULATIVE IMPACTS.....		5-1
5.1	Ongoing and Reasonably Foreseeable Actions.....	5-2
5.2	Environmental Analysis of Cumulative Effects	5-2
CHAPTER 6.0 – OTHER NEPA CONSIDERATIONS.....		6-1
6.1	Possible Conflicts With Federal, Regional, State, and Local Land Use Plans, Policies, and Controls.....	6-1
6.2	Irreversible or Irretrievable Commitment of Resources	6-1
6.3	The Relationship Between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity	6-2
CHAPTER 7.0 – LIST OF PREPARERS AND CONTRIBUTORS		7-1
CHAPTER 8.0 – LIST OF PERSONNEL AND AGENCIES CONTACTED		8-1
CHAPTER 9.0 – ACRONYMS.....		9-1

CHAPTER 10.0 – REFERENCES	10-1
---------------------------------	------

APPENDICES

A	Biological Opinion on Land Withdrawal, Facilities Construction and Operations at Naval Special Warfare, La Posta Mountain Training Facility, Campo California
B	Minerals Potential Report for the Withdrawal of Land from Public Use for Use as a Mountain Warfare Training Facility, La Posta, California
C	Floral List
D	Faunal List
E	45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly (<i>Euphydryas editha quino</i>) for the Expansion of the La Posta Mountain Warfare Training Facility
F	Jurisdictional Determination of Waters of the U.S. for the La Posta Mountain Warfare Training Facility
G	URBEMIS 2002
H	Draft RONA

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1-1	Regional Location Map 1-4
1-2	Project Map 1-7
2-1a	Existing and Proposed Facilities on the Existing Withdrawal 2-5
2-1b	Proposed Development Features on the Existing Withdrawal 2-11
2-2	Development Footprint and Roadway Improvement Area of the Proposed Action in Parcel C 2-14
2-3	Representative Preliminary CQC Range Complex Design 2-16
2-4	Alternative 1 2-21
3-1	Hydrologic Units, Areas, and Subareas..... 3-6
3-2	Existing Withdrawal Area of Focused Rare Plant Surveys and Focused Protocol QCB Endangered Species Surveys, 2004..... 3-11
3-3	Parcel C Area of Focused Rare Plant Surveys and Focused Protocol QCB Endangered Species Surveys, 2004..... 3-13
3-4	Biological Resources for Existing Withdrawal 3-19

3-5	Biological Resources for Parcel C.....	3-21
3-6	Biological Resources for Parcel E.....	3-23
3-7	Biological Resources for Parcel G	3-25
3-8	Nonexcluded QCB Habitat for Existing Withdrawal and Parcels C, G, and E.....	3-40
3-9	2004 QCB Survey Results Existing Withdrawal.....	3-52
3-10	2004 QCB Survey Results Parcel C	3-53
3-11	2004 QCB Habitat Assessment Parcel G	3-54
3-12	2006 QCB Host Plant Survey Area and Results	3-55
3-13	USGS Blue-Line Streams in the Southern Portion of Parcel C.....	3-66
3-14	Planning Areas.....	3-79
3-15	Grazing Allotments	3-82
3-16	Major Statistical Areas and Subregional Areas.....	3-88
3-17	Traffic/Circulation	3-95
3-18	Noise Measurement Locations	3-104
4-1	Effects on Nonexcluded QCB Habitat for the Existing Withdrawal.....	4-15
4-2	Effects on Nonexcluded QCB Habitat for Parcel C	4-17
4-3	Conceptual Development Layout of New Facilities on Parcel C as Utilized for Noise Analysis.....	4-47

LIST OF TABLES

<u>Table</u>	<u>Page</u>	
ES-1	Summary of Impacts	ES-6
1-1	Parcel Description and Size.....	1-5
1-2	Synopsis of Public Meeting Comments	1-13
2-1	Proposed Action Matrix	2-2
2-2	Description of Current Activities	2-7
2-3	Current Activity Level (Number of Person-Days Annually)	2-10
2-4	Description of All Activities in Withdrawal and ROW Parcels After Implementation of the Proposed Action.....	2-18
2-5	Future Activity Level (Number of Person-Days Annually).....	2-20
2-6	Alternatives Considered and Selection Criteria.....	2-24
2-7	Summary of Impacts Table.....	2-34
3-1	Botanical Survey Types, Dates, and Personnel	3-15

3-2	Vegetation Series and Land Cover Types within the Proposed Action Area (Hectares [Acres])	3-17
3-3	Vegetation Series and Land Cover Types within the Total Area of Disturbance (Hectares [Acres])	3-18
3-4	Sensitive Plant Species Observed and/or Potentially Occurring within the Proposed Action Area.....	3-35
3-5	2004 Wildlife Survey Types, Dates, and Personnel	3-41
3-6	Summary of Weather Conditions at La Posta MWTF during 2004 Protocol QCB Surveys	3-43
3-7	Summary of 2006 QCB Host Plant Surveys at La Posta MWTF.....	3-44
3-8	Endangered and Threatened Animal Species Potentially Occurring within the Proposed Action Area.....	3-47
3-9	Nonexcluded QCB Habitat within the Existing Withdrawal, and Parcels C, E, and G (Hectares [Acres]).....	3-50
3-10	Wetland Assessment Types, Dates, and Personnel	3-64
3-11	Previous Investigations within a 1.6-Kilometer (1-Mile) Radius of the Proposed Action Area	3-71
3-12	Previously Recorded Cultural Resources within a 1.6-Kilometer (1-Mile) Radius of the Proposed Action Area	3-72
3-13	Survey Results	3-75
3-14	Population and Estimated Growth for San Diego County and Areas near the Proposed Action Area.....	3-87
3-15	Total Housing Units and Estimated Growth for San Diego County and Areas near the Proposed Action Area.....	3-89
3-16	Total Employment and Estimated Growth for San Diego County and Areas near the Proposed Action Area.....	3-89
3-17	Population and Ethnicity for San Diego County and Areas near the Proposed Action Area	3-90
3-18	Median Household Income for San Diego County and Areas near the Proposed Action Area	3-91
3-19	Age Breakdown for San Diego County and Areas near the Proposed Action Area	3-93
3-20	National and California Ambient Air Quality Standards	3-97
3-21	Ambient Air Quality Summary, Alpine-Victoria Drive Monitoring Station	3-100
3-22	Existing Noise Level Measurements	3-106
4-1	Sensitive Vegetation Communities Affected within the Total Area of Disturbance (Hectares [Acres])	4-9

4-2	Quino Checkerspot Butterfly Occupied Habitat (Hectares [Acres]) with Permanent Direct Effects from Construction Activities.....	4-14
4-3	<i>De minimis</i> Emissions for Nonattainment and Attainment/Maintenance Criteria Pollutants in the San Diego Air Basin.....	4-37
4-4	Estimated Construction Emissions.....	4-39
4-5	Estimated Operations Emissions.....	4-40
4-6	Proposed CQC Complex Weapons and Ammunition.....	4-45
5-1	Projects Evaluated.....	5-2

EXECUTIVE SUMMARY

ES-1 INTRODUCTION

This Environmental Assessment (EA) has been prepared by the Department of the Navy (DON) as lead agency, and the Bureau of Land Management (BLM) as cooperating agency, in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] §§ 4321-4370d [1994]), as implemented by the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] §§ 1500-1508 [1997]) and the guidelines contained in the Chief of Naval Operations Environmental and Natural Resources Program Manual Instruction (OPNAVINST 5090.1B, Change 3), dated October 2002, which establishes procedures for implementing NEPA; and the guidelines contained in the NEPA Handbook (BLM Handbook H-1790-1), dated 25 October 1983, which establishes BLM procedures for implementing NEPA. The EA evaluates the potential environmental consequences of several land use changes between the BLM and the DON and the construction and operation of new military training facilities at and surrounding the La Posta Mountain Warfare Training Facility (MWTF) near Campo, California.

ES-2 PROPOSED ACTION

This EA describes the potential environmental consequences resulting from the following components of the Proposed Action that would take place on or otherwise affect several different parcels of land:

1. transfer of administrative jurisdiction of four parcels of land (totaling 1,370 hectares [3,385 acres]) from the BLM to the DON;
2. withdrawal of three of these four parcels of land (totaling 934 hectares [2,307 acres] from public use (under BLM administrative jurisdiction) and redesignating the land for exclusive use by the DON as the La Posta MWTF, thereby closing these lands to most, if not all, public use (under the administrative jurisdiction of the DON);
3. change in the current land use designation of the fourth of these four parcels (totaling 437 hectares [1,079 acres]) from partially exclusive and partially nonexclusive use by the DON as a Microwave Space Relay Station to exclusive use by the DON as part of the La Posta MWTF (thereby more closely reflecting its ongoing use by the DON for training purposes);

-
4. change the land use of five additional parcels of BLM land (totaling 878 hectares [2,169 acres]) to nonexclusive use by the DON through a right-of-way (ROW) authorization from the BLM for the purposes of conducting training on these parcels (but not for the construction of any facilities or infrastructure on these parcels);
 5. continuation of existing operations and maintenance of existing facilities on the parcel currently designated as a Microwave Space Relay Station and used by the DON for training and the enhancement of existing training facilities on this parcel; and
 6. construction and operation of new training facilities on one of the parcels proposed for withdrawal from public use.

Enhancement of facilities on the existing withdrawal would include upgrading the existing security gate at the main entrance to the MWTF. The current Range 113 Close Quarter Combat facility would be expanded to create a second training space (an adversarial combat house) that would be immediately adjacent to the current training space. The DON is also proposing to enhance sections of Range 115 by incorporating a horizontal ricochet reduction platform to create a fully baffled range and reduce the surface danger zone. Improvements to Range 112 would consist of adding four sniper bullet traps, built into the hillside above the existing Range 112 backstop. Range 112 improvements would also include expansion of existing, or construction of new, decline shooting platforms. Additional improvements would include paving a portion of the parking area associated with one of the shooting platforms.

The Proposed Action includes the future construction of a “Multi-structure Training Complex” (MTC) for special warfare missions within a 24.6-hectare (60.9-acre) development footprint. This development footprint includes an area of 24.0 hectares (59.5 acres) within which the new training complex itself would be situated, plus an area of 0.6 hectare (1.4 acres) that encompasses the construction area for adjacent roadway improvements. Development would include the construction of several complexes of buildings made of concrete and/or ballistic steel with reconfigurable interior walls and points of entry for the purposes of small unit urban tactics training, method of entry training, surveillance, decline shooting, and other NSW skill requirements. Undeveloped observation/firing positions would be located throughout the valley and would be incorporated into training utilizing MTC structures. One facility would contain a multi-level structure totaling approximately 1,449 square meters (15,600 square feet). Each structure’s footprint would cover approximately 121 meters by 182 meters (400 feet by 600 feet) of ground area. Each facility would be spaced approximately 24.4 to 121.9 meters (80 to 400 feet) apart and provide different scenarios incorporating forced entry points and no fire/firing

areas using appropriate bullet traps. Adjacent to several structures would be parking and turnout areas.

Proposed range support components within the southern portion of the main development footprint would include a well and an 18,930-liter (5,000-gallon) water storage tank to provide potable water; septic tank and leach field; and a portable electric generator storage building to supply additional power when required. Solar power would provide electrical services to the well and restroom facility on a regular basis as required. MTC structures may be supplied water and electricity by underground connections if needed.

Outside the proposed MTC, the Proposed Action would include the widening and minor straightening of the existing dirt roadway and the placement of two drainage culverts. The road providing access to this area is currently very rough and suffers from erosion. This road becomes impassable during the rainy season and therefore needs to be graded, widened, and maintained throughout the year to keep this road in an acceptable condition. No paving of the roadway would occur and the surface would remain permeable. Along the proposed widened road, two culverts would be installed near the existing gate to help minimize and control erosion.

Several of the parcels proposed for withdrawal from public use would be used for a variety of training activities, including training in strategic reconnaissance, land navigation, PIC, and patrolling. One of the parcels would be used for live fire.

ES-3 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The lands currently used as an MWTF are administered by the Commanding Officer, NBC, Coronado, California. The training area and facilities are maintained and operated by Naval Special Warfare Group One (NSWG-1). NSWG-1 conducts special warfare operations and provides operational and administrative control for Sea, Air, and Land (SEAL) Teams ONE, THREE, FIVE, and SEVEN. NSWG-1 operates the MWTF for the purpose of providing a location to test and train Special Operations Forces to provide and maintain a level of absolute readiness. NSWG-1's mission is to prepare and deploy Naval Special Warfare forces worldwide at an optimum state of readiness, discipline, and morale in accordance with the contingency and wartime requirements of theater commanders. NSWG-1 deployed forces currently support the U.S. Pacific and Central Commands and are also available to support missions in its designated role as a supported combatant commander in the Global War on Terrorism (GWOT).

The DON requires adequate facilities and ranges to train their personnel and currently conducts ongoing training at several locations. Given the nature of military operations and flux with the world situation after the 11 September 2001 terrorist attack, there has been a continued increase in the need for SOF and for the unique requirements of NSW training and operations, which include a focus on cold weather and mountain warfare environments. The focus is on development of small, well-trained and equipped, highly mobile, independent operational units for deployment to the combat zone. The SEALs are in demand for these anti-terrorism missions. The proposed improvements to the La Posta MWTF would offer training in both of these environs as well as simulating environmental conditions found in other locations throughout the world.

The purpose of the Proposed Action is to provide NSW a semi-remote, NSW-controlled MWTF close to NSW training commands and existing military support functions in San Diego where training in unconventional warfare and special tactical intelligence gathering in hostile settings can be conducted. This would be done by withdrawing lands currently administered by the BLM from public use for NSW training and ensuring that adequate lands remain available for training purposes over the long term. This would provide for enhanced NSW training opportunities by ensuring primacy of use by NSW, preventing incompatible use on federal properties adjacent to and near the proposed MWTF, and fulfilling a requirement for an MWTF within a reasonable travel distance from San Diego-based NSW commands. The La Posta MWTF would integrate into the NSW west coast range complex, which includes San Clemente Island, NBC, Marine Corps Base (MCB) Camp Pendleton, Camp Billy Machen, ocean and harbor areas, and air interoperability space.

ES-4 ALTERNATIVES TO THE PROPOSED ACTION

Alternative 1

This alternative would be similar to the Proposed Action; however, under this alternative, Parcel E would not be withdrawn for exclusive use by the DON. Parcel E would remain under the administrative jurisdiction of the BLM but the DON would propose an ROW authorization for nonexclusive use. This parcel would remain open and available to the public for their use, providing these uses were not incompatible with uses granted under the ROW (as is the case for other ROW parcels). The DON, like other users, would have to get BLM permission to do any improvements on this parcel. Exclusive of the differences noted for Parcel E, the same improvements to the ranges and the same uses would apply to all other parcels as described for the Proposed Action.

No Action Alternative

Under the No Action Alternative, the proposed transfer of administrative jurisdiction from the BLM to the DON and withdrawal of lands from public use for exclusive use by the DON would not occur. The proposed ROWs for the DON on the remaining parcels described above would also not occur. The proposed improvements to the existing facilities and the construction of new facilities would not occur. However, the SEAL teams would still experience extreme pressure to increase their skills in a shortened training time due to the ongoing GWOT. This increased need, without suitable training facilities, could potentially lead to mission failure, and combat readiness may be compromised. This alternative would not meet the objectives or the purpose and need for the Proposed Action.

Alternatives Considered but Eliminated

Seven alternatives were considered for the Proposed Action: (1) the current La Posta facility, (2) MCB Camp Pendleton, (3) Naval Auxiliary Landing Field (NALF) San Clemente Island, (4) Camp Billy Machen, (5) USMC Mountain Warfare Training Center, Bridgeport, California, (6) Warner Springs SERE Camp, and (7) other public land parcels (currently under BLM administrative jurisdiction) to the east of the La Posta facility. Six of these options were eliminated from further consideration because they did not meet the selection criteria for the Proposed Action.

ES-5 SUMMARY OF IMPACTS

This EA describes and evaluates the potential effects of the Proposed Action upon the environment. A full range of environmental issues was evaluated. With implementation of appropriate conservation and compensation measures, no significant impacts would be expected on any resource as a result of the Proposed Action. (Table ES-1).

**Table ES-1
Summary of Impacts**

Resource Area	Proposed Action	Alternative 1	No Action
Geology and Soils	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Hydrology/ Water Quality	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Biological Resources*	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Cultural Resources	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Land Use	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Public Facilities Access	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Socioeconomics	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Traffic and Circulation	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Air Quality	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Noise	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Aesthetics	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Environmental Health and Safety	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Utilities and Public Services	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.

*Further information regarding general and species-specific avoidance, minimization, and compensation measures may be found in Section 2.5.1 and 2.5.2, respectively.

CHAPTER 1.0

PURPOSE OF AND NEED FOR PROJECT

1.1 INTRODUCTION

This Environmental Assessment (EA) has been prepared by the Department of the Navy (DON) as lead agency, and the Bureau of Land Management (BLM) as cooperating agency, in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] §§ 4321-4370d [1994]), as implemented by the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] §§ 1500-1508 [1997]) and the guidelines contained in the Chief of Naval Operations Environmental and Natural Resources Program Manual Instruction (OPNAVINST 5090.1B, Change 3), dated October 2002, which establishes procedures for implementing NEPA; and the guidelines contained in the NEPA Handbook (BLM Handbook H-1790-1), dated 25 October 1983, which establishes BLM procedures for implementing NEPA. The EA evaluates the potential environmental consequences of several land use changes between the BLM and the DON and the construction and operation of new military training facilities at and surrounding the La Posta Mountain Warfare Training Facility (MWTF) near Campo, California.

1.1.1 Overview

This EA describes the potential environmental consequences resulting from the following components of the Proposed Action that would take place on or otherwise affect several different parcels of land (that are described in detail in Chapter 2):

1. transfer of administrative jurisdiction of four parcels of land (totaling 1,370 hectares [3,385 acres]) from the BLM to the DON;
2. withdrawal of three of these four parcels of land (totaling 934 hectares [2,307 acres] from public use (under BLM administrative jurisdiction) and redesignating the land for exclusive use by the DON as the La Posta MWTF, thereby closing these lands to most, if not all, public use (under the administrative jurisdiction of the DON);
3. change in the current land use designation of the fourth of these four parcels (totaling 437 hectares [1,079 acres]) from partially exclusive and partially nonexclusive use by the DON as a Microwave Space Relay Station to exclusive use by the DON as part of the

La Posta MWTF (thereby more closely reflecting its ongoing use by the DON for training purposes);

4. change the land use of five additional parcels of BLM land (totaling 878 hectares [2,169 acres]) to nonexclusive use by the DON through a right-of-way (ROW) authorization from the BLM for the purposes of conducting training on these parcels (but not for the construction of any facilities or infrastructure on these parcels);
5. continuation of existing operations and maintenance of existing facilities on the parcel currently designated as a Microwave Space Relay Station and used by the DON for training and the enhancement of existing training facilities on this parcel; and
6. construction and operation of new training facilities on one of the parcels proposed for withdrawal from public use.

These individual components of the Proposed Action are closely interrelated and are not analyzed separately in this document. Some of these are administrative in nature and some would result in direct changes to the physical environment, but all could potentially affect future land uses and resources in the project area. For example, the transfer of administrative jurisdiction (Action #1) for a particular parcel of land from the BLM to the DON would mean that if a member of the public wanted to use this parcel for a variety of purposes, they would need to ask the DON for authorization to do so in the future, not the BLM as is the case at present. Withdrawal (Action #2) of a particular parcel of land from public use would likely mean, among other things, that this parcel would no longer be open to a number of uses that are currently available to the public under the auspices of public lands and mining laws, such as the filing of mining claims. In this case, a land withdrawal would essentially be a form of authorization to use the lands in question for military training purposes to the exclusion of other uses. An ROW, on the other hand, is a term that the BLM uses for authorizations it issues to allow specific use of public lands for limited purposes such as installation, operation, and maintenance of pipelines, water wells, etc., while that land generally remains open for other public uses (Action #4). In this case, if the BLM grants the DON ROW status on the requested parcels, the ROW authorization could be used to allow some military training, but not major maneuvers. The ROW authorization, however, could effectively exclude other public uses that are deemed incompatible with uses permitted under that authorization (as is the case with any ROW authorization).

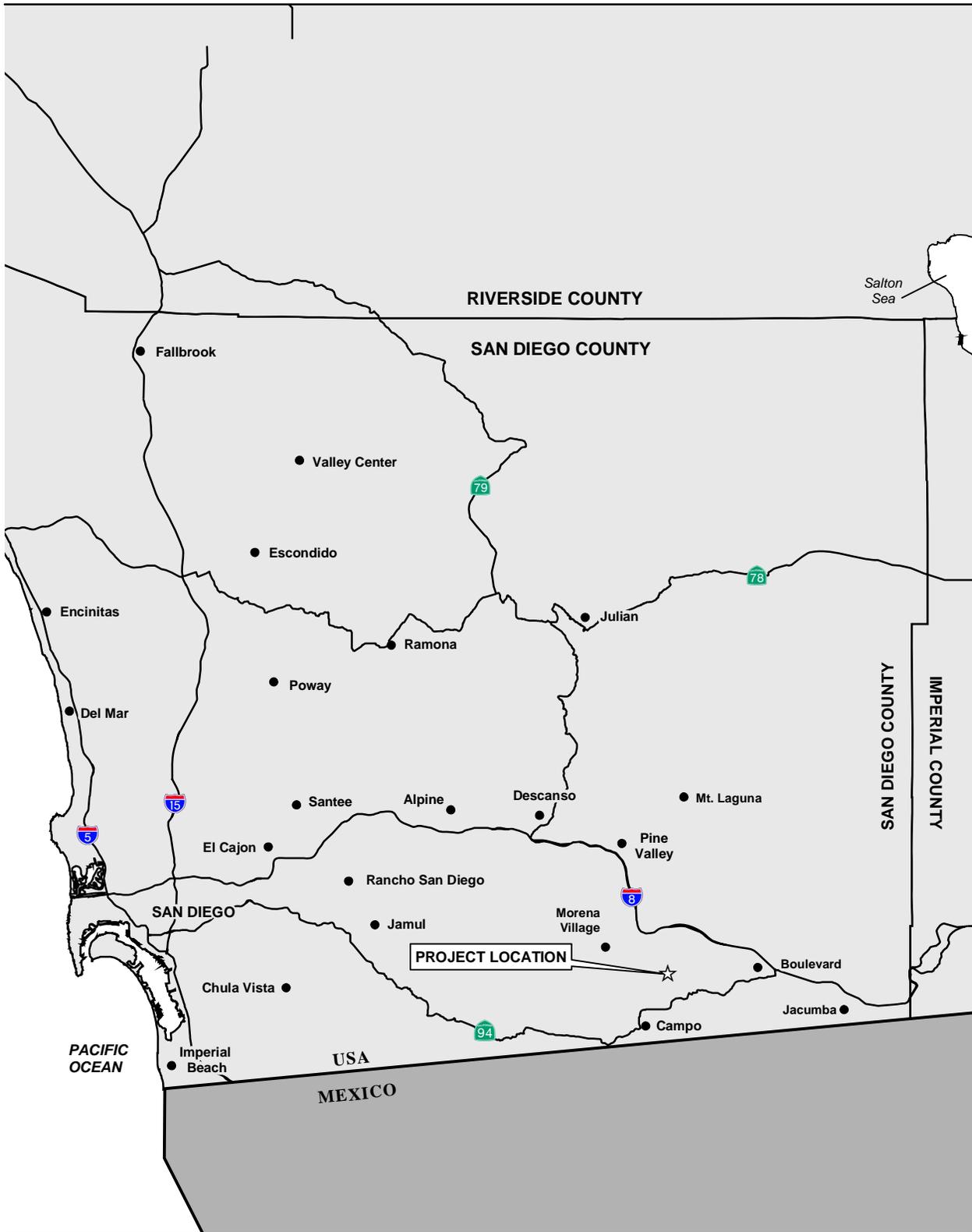
1.1.2 Background

The DON currently conducts training on public lands administered by the BLM in the project area near Campo, California (Figure 1-1), including a 437-hectare (1,079-acre) parcel of land that was withdrawn from public use in 1964 for use by the DON as a Microwave Space Relay Station. The legal description¹ of this parcel of land, hereafter referred to as “the existing withdrawal,” is provided in Table 1-1. The DON is currently using the existing withdrawal as an MWTF (as opposed to its formally designated use as a Microwave Space Relay Station), under an ROW authorization issued by the BLM 29 August 2003. The DON uses other parcels of BLM-administered public lands (discussed in this EA as Parcels C, E, and G) that are immediately adjacent to the existing withdrawal as part of the MWTF under a separate Memorandum of Understanding (MOU) signed in 1998 between the BLM and the DON. The legal description of these parcels is also provided in Table 1-1. The locations of the existing withdrawal and Parcels C, E, and G are also shown in Figure 1-2.

As the existing withdrawal is no longer being used for its original designated purpose, the DON is requesting the designated use of the existing withdrawal be changed from Microwave Space Relay Station use (of which 16 hectares [40 acres] are already designated for exclusive use by the DON, with the balance of 421 hectares [1039 acres] designated for nonexclusive use by the DON) to MWTF exclusive use, which would properly reflect the current DON use of the property. For this component of the Proposed Action, Public Land Order 3457 of 30 September 1964 would be superceded or updated with a new Public Land Order. The DON is also proposing that administrative jurisdiction of this parcel be transferred from the BLM to the DON, that current training operations and maintenance activities continue, that new training operations be added to this withdrawal, and that facilities on the existing withdrawal be enhanced. These actions are described in detail in Chapter 2.

Additionally, 934 hectares (2,307 acres) of BLM-administered public lands adjacent to the existing withdrawal, composed of Parcels C, E, and G, would be withdrawn from public use by the DON. This would occur through a transfer of administrative jurisdiction of the land from the BLM to the DON. The DON proposes that current training operations on these parcels would

¹ Legal description of this and other relevant parcels noted in Table 1-1 is provided in terms of the Township, Range, and Section system (as established as standard practice by BLM), with sections being further subdivided into lots. A survey (or congressional) township is a square unit of land containing approximately 36 square miles. Each square mile (640 acres) is a section. This division of land was laid out using surveys conducted for the General Land Office and is called the U.S. Public Land Survey System. The system is also referred to as the Rectangular Survey System or the Town and Range Survey System.



Source: ESRI; SANDAG; BLM

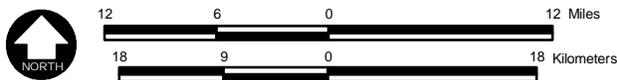


Figure 1-1
Regional Location Map

**Table 1-1
Parcel Description and Size**

Parcel	Legal Description	Parcel Size hectares/acres
Lands under Application for Withdrawal from Public Use		
Existing Withdrawal	Township 17 South, Range 5 East, San Bernardino Meridian Section 23, lot 2, E1/2SW1/4, SE1/4 Section 24, lots 20, 22, SW1/4SW1/4 Section 25, W1/2 Section 26, lots 1, 2, NE1/4, E1/2NW1/4, NE1/4SW1/4, N1/2SE1/4, SE1/4SE1/4.	437 (1,079)
C	Township 17 South, Range 5 East, San Bernardino Meridian Section 14, W1/2 Section 15, SE1/4NE1/4, S1/2SE1/4 Section 22, lots 1 (15.3 hectares [37.8 acres]) & 2 (15.1 hectares [37.4 acres]), NE1/4, E1/2NW1/4, E1/2SW1/4, W1/2SE1/4, Section 23, lot 1 (3.4 hectares [8.3 acres]), N1/2 Section 24, lots 4 (2.4 hectares [6.0 acres]) & 5 (2.6 hectares [6.3 acres]) Section 27, lots 1 (15.1 hectares [37.4 acres]), 9 (0.2 hectare [0.6 acre]) & 10 (2.7 hectares [6.6 acres]).	526 (1,300)
E	Township 17 South, Range 5 East, San Bernardino Meridian Section 24, lots 24 (35.67 acres) & 26 (35.65 acres), Section 25, E1/2.	158 (391)
G	Township 17 South, Range 5 East, San Bernardino Meridian Section 34, lot 7, NE1/4SE1/4 Section 35, lots 2, 3 & 4, NE1/4 S1/2NW1/4, N1/2SW1/4, N1/2SE1/4. Township 18 South, Range 5 East, San Bernardino Meridian Section 2, NE1/4NE1/4.	249 (615)
Subtotal – Exclusive Use Withdrawal Lands		1,370 (3,385)
Proposed Ongoing ROW Access Lands		
A	Township 17 South, Range 5 East, San Bernardino Meridian Section 21, NE1/4SW1/4, N1/2NW1/4SW1/4, S1/2SE1/4NW1/4SW1/4, NW1/4SE1/4.	43 (105)
B	Township 17 South, Range 5 East, San Bernardino Meridian Section 21, SE1/4SE1/4. Section 22, W1/2SW1/4. Section 27, W1/2SW1/4, W1/2NW1/4, Section 28, E1/2NE1/4, SE1/4, Section 33, NE1/4NE1/4, Section 34, lot 3, NW1/4NW1/4.	258 (638)
D	Township 17 South, Range 5 East, San Bernardino Meridian Section 13, lots 5 (13.5 hectares [33.3 acres]) & 14 (33.42 acres), NE1/4, NW1/4SE1/4, S1/2SE1/4 Section 24, lots 1 (13.5 hectares [33.6 acres]), 7 (1.5 hectares [3.6 acres]), 10 (13.9 hectares [34.3 acres]), 11 (1.8 hectares [4.4 acres]) & 14 (1.5 hectares [3.6 acres]), N1/2NE1/4. Township 17 South, Range 6 East, San Bernardino Meridian, Section 18, W1/2NE1/4, NW1/4, E1/2SW1/4, NW1/4SE1/4.	351 (866)
F	Township 17 South, Range 6 East, San Bernardino Meridian Section 31, NW1/4NW1/4, S1/2NW1/4, SW1/4.	113 (280)
H	Township 17 South, Range 6 East, San Bernardino Meridian Section 7, SE1/4NE1/4, E1/2SE1/4, Section 8, NW1/4SW1/4, N1/2NW1/4, SW1/4NW1/4.	113 (280)
Subtotal – ROW Lands		878 (2,169)
Grand Total Withdrawal and ROW Lands		2,248 (5,554)

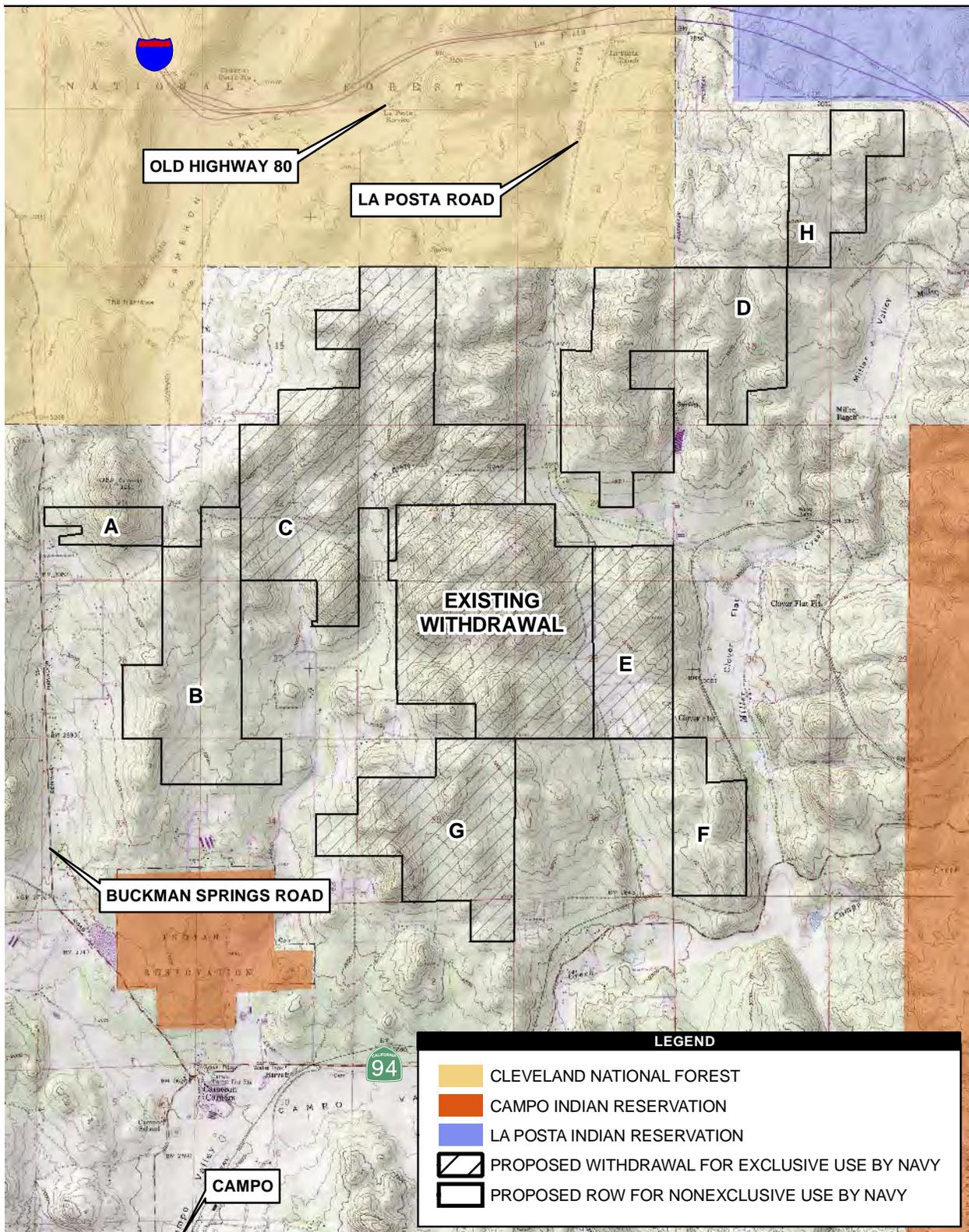
continue, new training facilities would be added to one of these parcels, and new training operations would be added. The actions proposed for these parcels are also described in detail in Chapter 2.

A total of 1,370 hectares (3,385 acres) of land (encompassing the existing withdrawal and Parcels C, E, and G) would be withdrawn from public use for exclusive use by the DON as an MWTF. With the proposed transfer of administrative jurisdiction from the BLM to the DON, this land would be managed by Naval Base Coronado (NBC) and the Commander, Navy Region Southwest (CNRSW).

The DON, through an ROW authorization, would conduct mountain warfare training activities on 878 hectares (2,169 acres) of public lands under BLM jurisdiction. These lands are spread across five separate parcels, discussed in this EA as Parcels A, B, D, F, and H. A legal description of these parcels is presented in Table 1-1 and the location of these parcels is shown in Figure 1-2. DON use of these lands under an ROW authorization would be nonexclusive, meaning that other compatible public uses of the land would be allowed through coordination with the BLM (which would retain administrative jurisdiction over these lands). No improvements to these lands are proposed under the current actions. Future proposals for improvements, if any, on these parcels by the DON or any other users would require authorization by the BLM.

The BLM will use this EA and additional information supplied by the DON to make a recommendation to the Secretary of the Interior regarding the proposed withdrawal from public use of Parcels C, E, and G; the proposed transfer of administrative jurisdiction from the BLM to the DON of the existing withdrawal and Parcels C, E, and G; and the proposed ROW authorizations for DON nonexclusive use of Parcels A, B, D, F, and H.

This EA was prepared using a systematic, interdisciplinary assessment process, designed to provide decision makers with an organized analysis of the environmental consequences of implementing the Proposed Action. The purpose of and need for the Proposed Action is discussed in Section 1.2. The scope of the analysis required is discussed in Section 1.3 while the intergovernmental coordination process and environmental documentation compliance is discussed in Section 1.4. The public outreach process is explained in Section 1.5. Subsequent sections of this document describe the Proposed Action and alternative actions considered (Chapter 2.0), a characterization of the affected environment (Chapter 3.0), and an assessment of the environmental consequences of the Proposed Action (Chapter 4.0). Cumulative impacts



Source: NSWG-1, 2004; BLM; USGS, Cameron Corners Quad



Figure 1-2
Proposed Action Area

under NEPA are addressed in Chapter 5.0. Other NEPA considerations are discussed in Chapter 6.0. A list of individuals participating in the preparation of this EA is provided in Chapter 7.0, while the list of personnel and agencies contacted is provided in Chapter 8.0. Acronyms and abbreviations (Chapter 9.0) and references used in the EA process (Chapter 10.0) are included to assist readers and decision makers in the review and use of this document.

1.2 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The lands currently used as an MWTF are administered by the Commanding Officer, NBC, Coronado, California. The training area and facilities are maintained and operated by Naval Special Warfare Group One (NSWG-1). NSWG-1 conducts special warfare operations and provides operational and administrative control for Sea, Air, and Land (SEAL) Teams ONE, THREE, FIVE, and SEVEN. NSWG-1 operates the MWTF for the purpose of providing a location to test and train Special Operations Forces (SOF) to provide and maintain a level of absolute readiness.

Commander Naval Special Warfare Command (NAVSPECWARCOM) is the maritime component of the United States Special Operations Command (USSOCOM), which is the lead agency for the United States in the prosecution of the Global War on Terrorism (GWOT). The DON uses the existing withdrawal (Figure 1-2) for special warfare training purposes under an ROW reservation issued by the BLM.

NSWG-1's mission is to prepare and deploy Naval Special Warfare (NSW) forces worldwide at an optimum state of readiness, discipline, and morale in accordance with the contingency and wartime requirements of theater commanders. NSWG-1 deployed forces currently support the U.S. Pacific and Central Commands and are also available to support missions as directed by the USSOCOM in its designated role as a supported combatant commander in the GWOT.

The DON requires adequate facilities and ranges to train their personnel and currently conducts ongoing training at several locations. Given the nature of military operations and flux with the world situation after the 11 September 2001 terrorist attack, there has been a continued increase in the need for SOF and for the unique requirements of NSW training and operations, which include a focus on cold weather and mountain warfare environments. The focus is on development of small, well-trained and equipped, highly mobile, independent operational units for deployment to the combat zone. The SEALs are in demand for these anti-terrorism missions. The proposed improvements to the La Posta MWTF would offer training in both of these

environs as well as simulating environmental conditions found in other locations throughout the world.

The use of local facilities is related to keeping SEALs at an adequate personnel tempo that does not require them to be away from their homes and families for extended periods to train and maintain their combat skills. The creation of the DON's Individual Personnel Tempo Program (ITEMPO), in accordance with the congressionally mandated National Defense Authorization Act of 2000, limits the number of days in which training can be conducted away from home to 400 days in the previous two years. This practice of keeping personnel tempo below an excessive level is a major factor driving training requirements. Thus, training must be conducted as much as possible at local facilities in the immediate area. Previously, the NSW community has had the benefit of conducting training at various locations and in a variety of environments. This diversified training has helped to shape the skills, fitness, and degree of readiness now exhibited by NSWG-1 forces. Keeping personnel tempo below an excessive level is a major factor when considering training locations.

NSW operational forces encounter this personnel tempo constraint due to their deployments and training cycles. The increased number of skills required of NSW operational forces and the reduction in the cycle time of deployment training (from 18 to 12 months) to meet national defense requirements puts tremendous pressure on them to reduce training travel time. The two trends (increased training needs and reduced training cycles) require more training to be done in less time. Providing "local" training facilities helps keep personnel tempo down while still training NSW operational forces for deployment. Nearby facilities that allow for training to occur year-round, independent of season, are necessary to meet this need. Together, the proposed land withdrawals and ROW authorizations are needed to enable the DON to have access to the amount and type of space they need to fulfill their mission.

The purpose of the Proposed Action is to provide NSW a semi-remote, NSW-controlled MWTF close to NSW training commands and existing military support functions in San Diego where training in unconventional warfare and special tactical intelligence gathering in hostile settings can be conducted. This would be done by withdrawing lands currently administered by the BLM from public use for NSW training and ensuring that adequate lands remain available for training purposes over the long term. This would provide for enhanced NSW training opportunities by ensuring primacy of use by NSW, preventing incompatible use on federal properties adjacent to and near the proposed MWTF, and fulfilling a requirement for an MWTF within a reasonable travel distance from San Diego-based NSW commands. The La Posta MWTF would integrate into the NSW west coast range complex, which includes San Clemente Island, NBC, Marine

Corps Base (MCB) Camp Pendleton, Camp Billy Machen, ocean and harbor areas, and air interoperability space.

1.3 SCOPE OF ANALYSIS

Since much of the Proposed Action area has seen only limited use from agriculture-related or other intensive land-altering activities, there is the potential for the presence of sensitive biological, and historic and archaeological resources. Additionally, an increased level of fire of live ammunition during training operations would take place on two of the parcels, which could result in an increased level of noise that may be audible in surrounding communities. Further, under the Proposed Action the existing land uses on some parcels would change, including a change in public access to some of the lands. Thus, the primary issues of concern in evaluating the potential impacts of the Proposed Action are the effects on:

- biological resources, including the Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) and its habitat;
- historic and archaeological resources, including recorded and unrecorded prehistoric sites and recorded and unrecorded historic sites;
- noise, including impacts from increased live fire training; and
- land use, including the public's access to and activities on the land proposed for withdrawal.

Consequently, these topical areas have received the greatest emphasis in the evaluations presented in this document. Other issues are also addressed and evaluated in this EA, but to a lesser degree than the primary issues identified above. For each of the other issues, the level of evaluation and depth of discussion in this document are commensurate with the relative degree of importance attributed to each issue in the decision-making process.

1.4 INTERGOVERNMENTAL COORDINATION

As part of the NEPA compliance process, coordination and consultation with cognizant government agencies have been initiated to obtain regulatory input and guidance related to the Proposed Action. The purpose of this process is to ensure that all applicable laws, rules, regulations, and policies have been identified and the Proposed Action has been duly considered in light of these considerations.

For purposes of this EA, the DON is the lead agency and the BLM is the cooperating agency. The BLM is providing regulatory guidance, assistance, and oversight on the EA. The BLM will use the EA and additional information supplied by the DON to make a recommendation to the Secretary of the Interior regarding several components of the Proposed Action as outlined above. In addition to the EA, the regulations at 43 CFR 2310.3-2 also provide that the DON, as the applicant for the withdrawal of lands from public use, shall provide the following additional information, studies, analyses, and reports, as appropriate:

- A report identifying the present users of the lands involved, explaining how the users will be affected by the proposed use and analyzing the manner in which existing and potential resource uses are incompatible with or conflict with the proposed use of the lands and resources that would be affected by the requested action.
- A report specifying that the applicant or using agency has acquired or proposes to acquire, rights to the use of the water in conformity with applicable state laws and procedures relating to the control, appropriation, use, and distribution of water, or whether the withdrawal is intended to reserve, pursuant to federal law, sufficient unappropriated water to fulfill the purposes of the withdrawal.
- An EA to include a report on the identification of cultural resources; identification of the roadless areas or roadless islands having wilderness characteristics; a mineral resource analysis prepared by a qualified mining engineer, engineering geologist, or geologist; a biological assessment of any listed, or proposed endangered or threatened species; an analysis of the economic impact of the proposed uses and changes in use associated with the requested action on individuals, local communities, state and local government interests, the regional economy, and the nation as a whole; and a statement as to the extent and manner in which the public participated in the environmental review process.
- A statement with specific supporting data as to whether the lands involved are floodplains or are considered wetlands; whether the existing or proposed uses would affect or be affected by such floodplains or wetlands.
- A statement of consultation that has been or will be conducted with other federal agencies; with regional, state, and local government bodies, and with individuals and nongovernmental groups regarding the requested action.

These reports are being prepared concurrent with the EA and they will be submitted to the Secretary of the Interior by the BLM as part of the application for the withdrawal of the lands that are the subject of this EA. These reports also serve as the basis for various sections in the EA. Additional documentation required in support of the Proposed Action includes preparation of a Biological Assessment (BA) for use in consultation with the U.S. Fish and Wildlife Service (USFWS), a Biological Opinion (BO) that would be issued by the USFWS, a cultural resources report for use in consultation with the State Historic Preservation Officer (SHPO), grading permits, an update to the National Pollutant Discharge Elimination System (NPDES) permit, an erosion control plan, a stormwater pollution prevention plan (SWPPP), a geotechnical investigation, a site restoration plan, and a wetlands delineation report.

1.5 PUBLIC OUTREACH

Although not required for preparation of an EA under NEPA, in accordance with the NEPA regulations of the cooperating agency (the BLM), the DON hosted a public outreach workshop to provide the public with an opportunity to find out more about the Proposed Action and alternatives. The workshop allowed persons to ask questions from representatives of the DON and BLM and to comment on local and community issues. The public workshop was held on Tuesday, 13 January 2004 from 1600 to 2000 at the Mountain Empire Community Center at 976 Sheridan Road in the community of Campo, California.

Approximately 46 members of the public attended the meeting. Representatives from Naval Facilities Engineering Command (NAVFACENGCOM) Southwest, CNRSW, NSWG-1, BLM, and the contractor (EDAW) were available to answer questions. Comment sheets were available to record written comments, and a court reporter was available to record verbal comments. Some of the local organizations/agencies represented at the meeting included the Eastern Empire Guardian, St. Vincent de Paul Village, the Campo-Lake Morena Planning Group, Veterans of Foreign Wars Post 2080, the Mountain Empire Historical Society, and the San Diego County Sheriffs Department. Approximately 27 of the attendees requested a copy of the Notice of Availability. Comments received ranged from support for the project to no support for the project. Specific comments focused on noise impacts, public access, biological resources, and cultural resources, among others. A listing of meeting comments is provided in Table 1-2.

Table 1-2
Synopsis of Public Meeting Comments

Comments	No. of Comments
Environmental Issues	
<u>Transportation and Emergency Access</u>	
Keep dirt road in NE corner of NE corner of Section 2 (Parcel G) open for emergency secondary access	3
Navy trespass on private property	2
Increased traffic from Navy operations	2
Cumulative traffic from S.D. & A.E. train operations	1
St. Vincent de Paul (2155 Campo Truck Trail) gated secondary access	1
Section 13, Parcels 8 and 9 (Parcel C) access lease w/BLM (interested in purchasing property)	1
Location of future roads and fencing	1
<u>Noise</u>	
Nonspecific	1
Sound of explosives; sound of gunfire, especially at night	4
Military aircraft, helicopters, especially at night	4
Cumulative military and Border Patrol aircraft	1
Future “urban shooting area”	1
<u>Hydrology/Water Quality</u>	
Lead buildup from ammunition, will leach into water table	2
Navy wells could lower water table, impact groundwater supply	3
Water conservation in well-dependent area	1
Leave native vegetation intact to protect watershed, minimize erosion	2
Erosion problem	1
Nonspecific	1
<u>Public Safety</u>	
More visible warning of “hot fire” exercises near St. Vincent de Paul (currently small flag)	1
Accumulation of dry brush/fuel management	2
Fire hazard from training activities	3
Danger from ammunition from firing ranges, safety zone	1
<u>Recreation</u>	
Existing horse trails through Parcel C (historical stage coach system)	4
Future horse trail system	1
Access to rabbit hunting	1
<u>Land Use</u>	
Project should comply with Campo/Lake Morena Community Character Statement	1
Proposed Action will prevent adverse development with associated water use	2
Prevent Navy from developing land	1
<u>Visual/Aesthetics</u>	
Existing and future light pollution	1
Avoid excessive signage	1
Impact from landform alteration	2
Minimize grading and number of structures, remove buildings and equipment that are not being used	2
Protect “visual open space”	1

Comments	No. of Comments
<u>Biological Resources</u>	
Wildlife corridors should not be blocked by fences	3
Impacts to sensitive and endangered species	3
Impacts to vegetation	1
Keep area in "pristine natural condition"	1
<u>Socioeconomics</u>	
Decreased property value	1
Decreased quality of life, and decreased peace and quiet	1
Positive economic impact, less tax dollars spent	1
Reduce the number of individuals at the facility	1
<u>Cultural Resources</u>	
Wants access to historic and archeological sites	1
Protect historical and prehistoric artifacts from looting and damage	2
<u>Hazardous Materials</u>	
Past and current storage/disposal of toxic materials	1
Pollutants (lead, oil waste) from old antennae tower	1
<u>Administration and Procedural Issues</u>	
EIS should be prepared	1
Lack of trustworthiness of Navy	1
Aggressive behavior of Navy personnel	1
Land should revert to BLM should Navy cease to need it	1
<u>Air Quality</u>	
Dust from Navy operations and aircraft	1
Environmental Issues	
Supports Proposed Action	62*
Supports Alternative 1	1
Supports Withdrawal of all BLM land to Navy	2
Opposes Proposed Action	2
Has concerns about Proposed Action	7
Total Comments Received	74

*Includes signatories of the VFW letter

CHAPTER 2.0

ALTERNATIVES INCLUDING THE PROPOSED ACTION

This chapter describes the Proposed Action and potential alternatives to the Proposed Action. Section 2.1 describes the location where the Proposed Action would take place. Section 2.2 describes the Proposed Action including the proposed land use changes and the construction and operation of new training facilities. Section 2.3 describes the alternatives to the Proposed Action, analyzed in detail in the EA, including the No Action Alternative. Section 2.4 describes the alternatives considered but eliminated from further consideration and the criteria used to screen potential alternatives. Section 2.5 describes the measures incorporated into the project design to avoid, minimize, and compensate for effects to listed (and/or proposed) species and/or critical habitat that would be affected by the Proposed Action. Section 2.6 provides a summary of impacts resulting from implementation of the Proposed Action.

2.1 PROPOSED ACTION LOCATION

The 437-hectare (1,079-acre) area currently withdrawn as a Microwave Space Relay Station (the existing withdrawal) is located within the unincorporated portion of San Diego County, 91.7 kilometers (57 miles) east of downtown San Diego and 6 kilometers (4 miles) south of Interstate 8 on La Posta Road (Figure 1-2). There are a number of other federally administered lands in the immediate area, with a portion of the Cleveland National Forest to the north and public lands under the administrative jurisdiction of the BLM to the immediate north, east, south, and west of the existing withdrawal. Some privately owned land abuts the existing withdrawal to southwest, southeast, and northeast. The unincorporated community of Campo is located approximately 5 kilometers (3.1 miles) to the southwest. Discontiguous portions of the Campo Indian Reservation are located less than 5 kilometers (3.1 miles) to the southwest and east of the site, while the La Posta Indian Reservation is located about 5 kilometers (3.1 miles) northeast of the site (Figure 1-2).

Table 1-1 described two sets of public lands associated with the Proposed Action. First are those lands for which the DON has filed an application to withdraw from public use, including settlement, sale, location, or entry under the general land laws, including mining laws, subject to valid existing rights, for exclusive use for military purposes. These are Parcels C, E, and G immediately adjacent to the existing withdrawal as shown in Figure 1-2. Second are those lands where the DON is seeking an ROW authorization for ongoing training purposes but where it is

not seeking exclusive use. These are Parcels A, B, D, F, and H, which are nearby but not immediately adjacent to the existing withdrawal as shown in Figure 1-2.

2.2 DESCRIPTION OF THE PROPOSED ACTION

This section describes the proposed land withdrawal request, the ROW authorization request, a description of the existing facilities and their usage, the proposed enhancement of the existing facilities, and the proposed new facilities and training operations that make up the Proposed Action. Table 2-1 contains a summary matrix of all the components of the Proposed Action.

**Table 2-1
Proposed Action Matrix**

Components of Proposed Action	DON Actions/ Outcomes	BLM Actions/ Outcomes
1. The DON currently has an existing withdrawal of 437 hectares (1,079 acres) from the BLM for Microwave Space Relay Station, partially for exclusive and partially for nonexclusive use. It is requested that the use designation of this withdrawal be changed to MWTF exclusive use.	Administrative change to the existing use of the area. This would accurately reflect the current DON use of the property.	Administrative change to the existing use of the area. This would properly reflect the current DON use of the property.
2. Withdrawal request for 934 hectares (2,307 acres) from the BLM for exclusive DON use as an MWTF: Parcel C 526 hectares (1,300 acres) Parcel E 158 hectares (391 acres) Parcel G 249 hectares (615 acres)	Obtain exclusive use of 934 hectares (2,307 acres).	Change of administrative jurisdiction from the BLM to the DON of 934 hectares (2,307 acres) for exclusive use.
3. Use of 878 hectares (2,169 acres) of public land by the DON by means of a nonexclusive ROW: Parcel A 43 hectares (105 acres) Parcel B 258 hectares (638 acres) Parcel D 351 hectares (866 acres) Parcel F 113 hectares (280 acres) Parcel H 113 hectares (280 acres)	Obtain nonexclusive use of additional 878 hectares (2,169 acres) from the BLM.	Approve nonexclusive ROW for the DON. Authorize use of the public lands by the DON for mountain warfare training activities.
4. Existing facilities would be maintained and enhanced and new features would be installed on lands proposed for withdrawal from public use including: <ul style="list-style-type: none"> • Construct a multi-structure training complex, expand existing MWTF Range Complex • Improve access road 	Provide necessary facilities to train NSW operational forces.	None.

2.2.1 Proposed Transfer of Administrative Jurisdiction, Withdrawal from Public Use, and ROW Requests

Administrative Change to 437 Hectares (1,079 Acres) of Public Lands

For this component of the Proposed Action involving the existing withdrawal parcel (described in Table 1-1 and shown in Figure 1-2), existing language in Public Land Order 3457 of 30 September 1964, would be updated to redesignate the use of this land from a Microwave Space Relay Station to an MWTF to accurately portray its existing use. Of this area, 16 hectares (40 acres) are already withdrawn for exclusive use by the DON and are fenced, with the balance of the parcel (421 hectares [1,039 acres]) being in nonexclusive use status. The DON is proposing to change the withdrawal status of this entire parcel to exclusive use for military purposes. Administrative jurisdiction of this parcel would also be transferred from the BLM to the DON as a part of this component of the Proposed Action. The DON applied to withdraw the described property on 26 December 2001 and revised the application on 4 November 2003 and 5 March 2004.

Withdrawal of 934 Hectares (2,307 Acres) of Surrounding Public Lands

The DON is also requesting to withdraw from public use an additional 934 hectares (2,307 acres) for exclusive use as an MWTF. These are Parcels C, E, and G as described in Table 1-1 and shown in Figure 1-2. Parcel C, which is 526 hectares (1,300 acres), is located to the north and northwest of the existing withdrawal. Parcel E, which is 158 hectares (391 acres), is located east of the existing withdrawal. Parcel G, which is 249 hectares (615 acres), is located south of the existing withdrawal.

Administrative jurisdiction of these lands would also be transferred from the BLM to the DON. This component of the Proposed Action allows the DON a greater degree of administrative control of property than is currently provided by a Memorandum of Agreement with the BLM. It would segregate the public lands from further development and discontinue public use except in cases of existing easements or rights assigned, including grazing rights. Existing third-party uses that are currently authorized would remain in effect (at least until they expire or can be properly terminated) when administrative jurisdiction is transferred to the DON.

Public access would continue to be granted per existing rights and would be allowed following review on a case-by-case basis (i.e., hunting and horseback riding) on the condition that it does not conflict with the DON training mission. Following transfer of administrative jurisdiction, the

DON would have control over the lands for purposes of authorizing most third-party uses (grazing, public access, etc.), but the BLM may have residual jurisdiction over the lands in regard to mineral leasing. Future requests for third-party authorizations would be subject to future consultation. The precise terms of the withdrawal would be subject to change by the Secretary of the Interior.

Together with the existing withdrawal parcel, the entire area encompassing Parcels C, E, and G would also be designated as the La Posta MWTF. The total area proposed for withdrawal from public use for exclusive use by the DON and transfer of administrative jurisdiction from the BLM to the DON would be approximately 1,370 hectares (3,385 acres).

Right-of-Way Requests for Public Lands

The Proposed Action would also include a request for the use of 878 hectares (2,169 acres) of land through an ROW authorization to conduct mountain warfare training activities on public lands under BLM administrative jurisdiction. The property for which ROWs are being requested would consist of land in five parcels near the existing withdrawal. These are Parcels A, B, D, H, and F as described in Table 1-1 and shown in Figure 1-2. Parcels A and B are located west of the existing withdrawal; Parcels D and H are northeast of the existing withdrawal; and Parcel F is southeast of the existing withdrawal. The DON's use of the lands under an ROW authorization would be nonexclusive, i.e., other compatible uses of the land would be allowed with coordination by the BLM. No construction of facilities or infrastructure is planned for these parcels.

2.2.2 Existing Facilities and Usage

The existing withdrawal has been used by NSW, the U.S. Border Patrol, the San Diego County Sheriff's Department, and others for training since 1985. It is currently being used exclusively by NSW. Training is conducted both day and night (generally concluding prior to 11:00 p.m.). Existing facilities include a microwave dish, telescope dome, seven buildings used for administration and storage, a range complex, and a helipad, along with other support facilities.

Current training areas and facilities on the existing withdrawal are depicted in Figure 2-1a. Descriptions of current uses are included in Table 2-2. The current training activities within the existing withdrawal include classroom training, communications training, land navigation/orienteering, strategic reconnaissance, photo image capture (PIC), sniper stalking, air operations, and patrolling. In general, these types of training activities are conducted by two to four persons on foot, dropped off by vehicle from existing roadways; however, that number can vary.

This page intentionally left blank.

**Table 2-2
Description of Current Activities**

Activity	Purpose	Personnel	Equipment	Location	Time of Day	Special Requirements
Live Fire/ Qualification and Sustainment Training	Qualification and sustainment training in small arms up to 7.62-millimeter (mm).	Up to 50 on ranges, 16 in CQC facility, 4 at decline shooting positions, additional personnel include up to 10 trainers	Targets and bullet traps, small arms up to 7.62-mm, and tactical gear	Existing Withdrawal - Live fire ranges, CQC facility, decline shooting positions	Daytime and nighttime	Surface danger zone required
Photo Image Capture (PIC)	Learn to operate PIC equipment in darkness, become familiar with capabilities of equipment under varying light conditions and, having mastered the above, become skillful at capturing photo images of a range of objects	Two to four people on foot	Digital camera with a satellite hook-up	Existing Withdrawal; Parcels B, C, E, and G - On roads	Daytime and nighttime	Training must be conducted away from areas with nighttime lighting
Patrolling	Tactical training aimed at avoiding detection and leaving no signature while moving across natural terrain	Four to six people on foot	None	Existing Withdrawal; Parcels C, E, and G - On and off trails (trails include foot trails, horse trails, and roads); may involve hiding in shrubs	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Land Navigation/Orienteering	Learn to navigate to a pre-specified target location in order to obtain coordinates to navigate to the next pre-specified target location	One to four people on foot	Map and compass	Existing Withdrawal; Parcels C, E, and G - On trails (trails include foot trails, horse trails, and roads), generally in more open areas (i.e., between shrubs)	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas

Activity	Purpose	Personnel	Equipment	Location	Time of Day	Special Requirements
Air Operations	Medical evacuations and for VIP visits	Up to 16 people, 8 per helicopter	Two helicopters, helicopter landing pad	Existing Withdrawal - Helipad	Primarily daytime, seldom nighttime but still require that capability	Minimal fire fighting capability (fuel fire extinguisher) at the helipad
Strategic Reconnaissance	Integrate patrolling and land navigation skills in order to meet tactical training objective of reaching a target location, with the aid of forward intelligence transmitted via radio, while remaining concealed and without leaving any signature	Two to four people, usually in teams of two	Map, compass, and radio	Existing Withdrawal; Parcels C, E, and G - On and off trails (trails include foot trails, horse trails, and roads); may involve hiding in shrubs	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Sniper Activity	Practice of clandestine movement, reconnaissance and shooting into fixed and mobile bullet traps.	Two people on foot	Personal tactical assault gear including rifles	Existing withdrawal and Parcel C – in hilly terrain.	Daytime and nighttime	Terrain topography and targets must be similar to those encountered in conflict areas
Communications Training	Learn to operate communications equipment, become familiar with capabilities of different communications systems	Up to 50	Communication systems	Existing Withdrawal; Parcels B, C, E, and G - On and off trails	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Classroom	Train personnel in any of the above listed activities prior to actually attempting them in the field	Up to 50	Indoor classroom and audiovisual aids	Existing withdrawal	Daytime and nighttime	Power

Several types of live fire small arms training currently take place at the La Posta MWTF: marksmanship, close quarters combat, shotgun and decline shooting. The MWTF consists of five certified ranges; 110, 112, 113, 114, and 115.

Marksmanship training occurs at ranges 110 and 115. Training practices consist of personnel firing handheld weapons at targets with the bullets impacting into a dirt berm.

Close quarters combat (CQC) training is conducted at Range 113, adjacent to Range 115. This range consists of a 638-square-meter (6,800-square-foot) concrete pad with a steel weather cover over reconfigurable ballistic steel walls. The entire range is surrounded by an earthen berm. Training practices include building entry techniques and room clearance for various scenarios from hostage rescue to GWOT missions. All rounds are contained within the ballistic steel walls.

Shotgun training is conducted at Range 114, which is in the footprint of Range 115, but oriented perpendicular to Range 115 itself (in the westernmost portion of Range 115) with the rounds impacting steel plates and the dirt berm between ranges 115 and 113. Training practices consist of personnel firing weapons at steel targets that support skill development and familiarization with a shotgun.

Decline shooting is performed at Range 112, which typically utilizes a 30.5 by 2.4-meter (100 by 8-foot) backstop within the surface danger zone of Range 115 as its impact area. Decline shooting is performed by qualified SOF snipers only. This training is conducted from various pre-designated positions, including two different structures that are designated part of Range 112, a shooting platform located 182.9 meters (200 yards) from the backstop and a second located 274.3 meters (300 yards) from the backstop. The closer structure consists of a 6.1 by 15.2-meter (20 by 50-foot) platform, while the more distant structure consists of a 6.1 by 6.1-meter (20 by 20-foot) platform atop a 6.1-meter (20-foot) tall building. The former structure has a parking area nearby, while the latter structure is connected to a parking area by a 3-meter (10-foot) wide road. Targets on Range 112 are placed on a large rubber bullet trap specifically designed to encapsulate bullet fragments. All ranges are certified by NAVFACENGCOM, Southwest. Current range facilities are shown in Figure 2-1a.

Similar communications training, land navigation/orienteering, reconnaissance, PIC, sniper stalking, and patrolling, are currently ongoing in Parcels C, E, and G under an MOU with the BLM. In Parcel B only PIC is done. Live fire and classroom training do not currently take place in these parcels. Table 2-3 lists the location, type of activities, and the number of personnel

currently training on the La Posta MWTF. One “person-day” is defined as one person being on the site for 8 hours.

**Table 2-3
Current Activity Level (Number of Person-Days¹ Annually)**

Parcel	Activity									Total
	Live Fire	Photo Image Capture	Patrolling	Land Navigation	Air Operations	Strategic Recon	Sniper Activity	MOUT ²	Communications Training	
A	0	0	0	0	0	0	0	0	0	0
B	0	100	0	0	0	0	0	0	12	112
C	0	100	50	200	0	300	24	0	12	686
D	0	0	0	0	0	0	0	0	0	0
E	0	200	100	100	0	200	0	0	12	612
F	0	0	0	0	0	0	0	0	0	0
G	0	200	200	100	0	0	0	0	12	512
H	0	0	0	0	0	0	0	0	0	0
Existing Withdrawal	3,556	500	600	1,000	5	2,000	24	2,500	24	10,209
Total	3,556	1,100	950	1,400	5	2,500	48	2,500	72	12,131

¹ “Person-Day” is defined as one person on-site for 8 hours.

² Military Operations in Urban Terrain (MOUT).

2.2.3 Proposed Enhancement of Existing Facilities

Enhancement of facilities on the existing withdrawal would also be part of the Proposed Action (Figure 2-1b). The existing security gate at the main entrance to the MWTF would be upgraded. Existing single strand barbwire fencing would be replaced by 1.2-meter (4-foot) high security fencing for a distance of 152.4 meters (500 feet) to either side of the entrance.

Existing range facilities that would be modified or improved as part of the Proposed Action on the proposed withdrawal areas would include expansion of the current Range 113 CQC facility. The current facility on Range 113 measures approximately 632 square meters (6,800 square feet). The DON is proposing to expand this by 929 square meters (10,000 square feet) to create a second training space (an adversarial combat house) that would be immediately adjacent to the current training space. Though divided internally, these two parts of Range 113 would share a common roof structure.

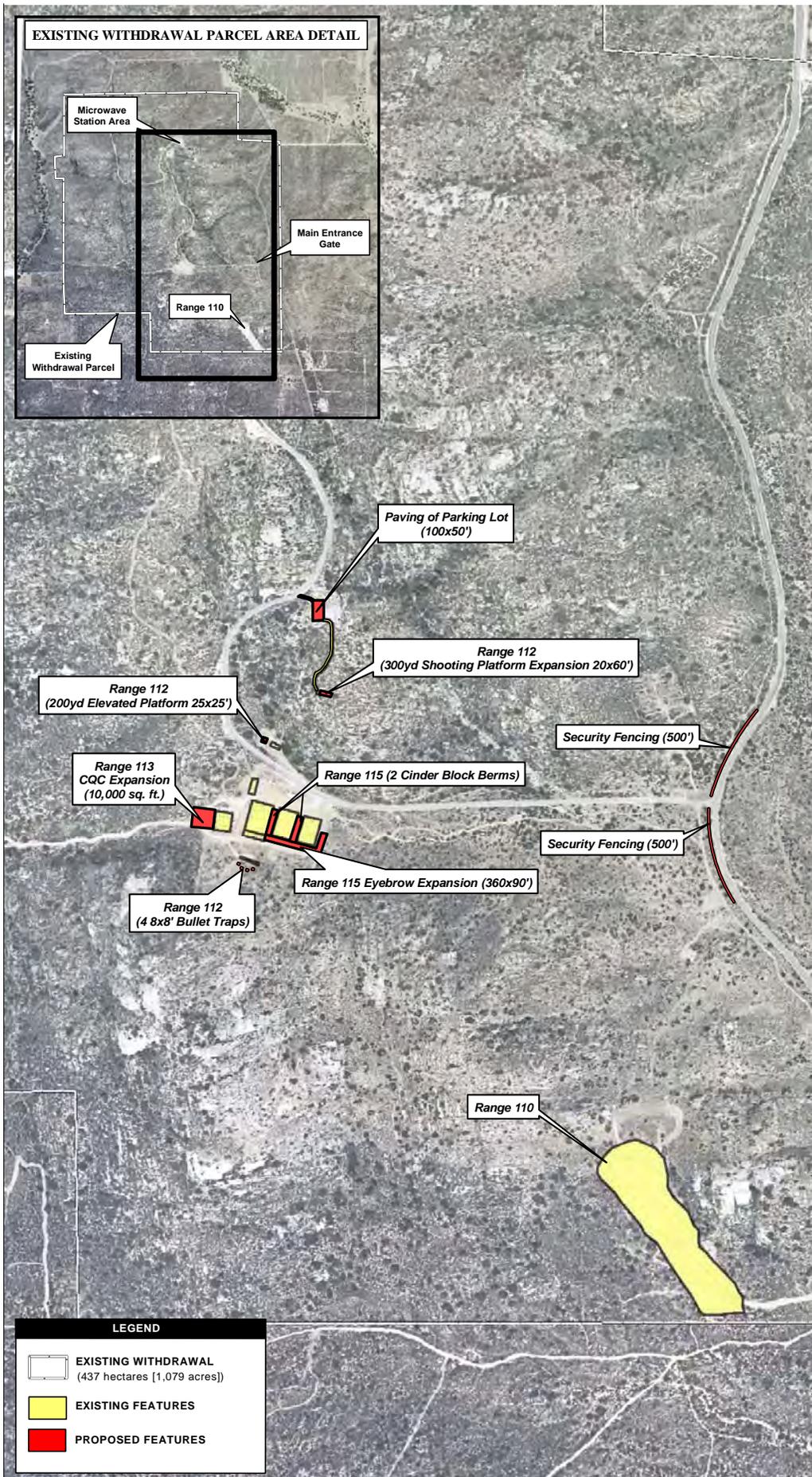


Figure 2-1b
 Proposed Development
 Features on the Existing Withdrawal
 Page 2-11

This page intentionally left blank.

The DON is also proposing to enhance sections of Range 115 by incorporating a horizontal ricochet reduction platform, commonly called an eyebrow, which can be installed over the tops of targets. Part of Range 115 already has an eyebrow constructed, with the proposed new construction to measure approximately 109.7 meters (360 feet) with a depth (distance from front edge to back wall) of 9.1 meters (30 feet). When constructed, this would make the entire Range 115 eyebrow approximately 213 meters (700 feet) in length. This construction would create a fully baffled range and would reduce the surface danger zone by half. Range 115 would also be improved through the upgrade of the two internal berms that currently separate the range into three separate training spaces. These dirt berms would be replaced with cinder block separation structures.

Improvements to Range 112 would consist of adding four sniper bullet traps, each measuring 2.4 meters (8 feet) by 2.4 meters (8 feet), built into the hillside above the existing Range 112 backstop within the surface danger zone of Range 115. The basic construction would be three walls and a roof made from railroad ties, with a swinging steel plate suspended in the center to provide immediate feedback upon contact.

Range 112 improvements would also include expansion of existing or construction of new decline shooting platforms. A new decline shooting structure consisting of a 7.6 by 7.6-meter (25 by 25-foot) shooting platform atop a 15.2-meter (50-foot) tall tower would be constructed near the existing shooting platform located 182.9 meters (200 yards) from the backstop. Additionally, the existing decline shooting structure located 274.3 meters (300 yards) from the backstop would be expanded. Currently consisting of a 6.1 by 6.1-meter (20 by 20-foot) platform atop a 6.1-meter (20-foot) tall building, this structure would be enlarged to accommodate a 6.1 by 24.4-meter (20 by 80-foot) shooting platform (while the building height would remain the same). Additional improvements would include paving a 15.2 by 30.5-meter (50 by 100-foot) portion of the parking area associated with this shooting platform.

2.2.4 Proposed Training Complex

The Proposed Action includes the future construction of a “Multi-structure Training Complex” (MTC) for special warfare missions within a 24.6-hectare (60.9-acre) development footprint in Parcel C (Figure 2-2). This development footprint includes an area of 24.0 hectares (59.5 acres) within which the new training complex itself would be situated, plus an area of 0.6 hectare (1.4 acres) that encompasses the construction area for adjacent roadway improvements. NSW requires unique target sites that can mirror the complex lessons learned in the GWOT, as well as the ability to maintain those skills for future missions. The MTC would be constructed in



Source: US Navy, Tierra Data

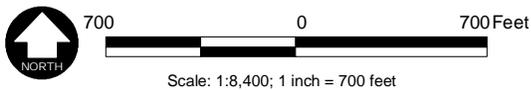


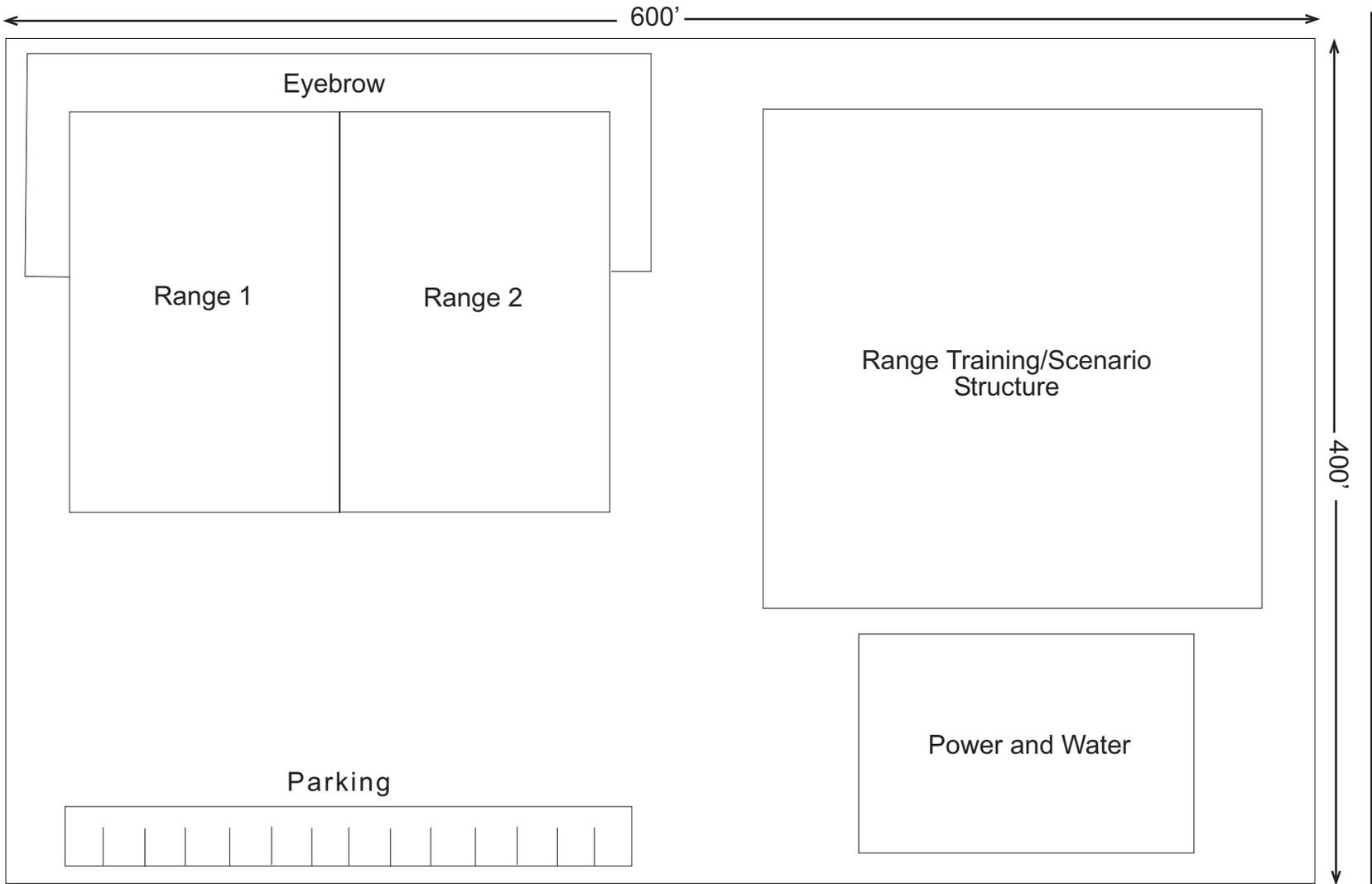
Figure 2-2
Development Footprint and Roadway Improvement
Area of the Proposed Action in Parcel C

Parcel C over several phases. Each training facility would provide unique capabilities emphasizing tactical flexibility, natural terrain surveillance, and dynamic movement to and from the MTC site. A generalized mock-up of the proposed development of an individual range complex facility is shown in Figure 2-3. Development would include the construction of several complexes of buildings made of concrete and/or ballistic steel with reconfigurable interior walls and points of entry for the purposes of small unit urban tactics training, method of entry training, surveillance, decline shooting, and other NSW skill requirements. Undeveloped observation/firing positions would be located throughout the valley and would be incorporated into training utilizing MTC structures. One facility would contain a multi-level structure totaling approximately 1,449 square meters (15,600 square feet). Each structure's footprint would cover approximately 121 meters by 182 meters (400 feet by 600 feet) of ground area. Each facility would be spaced approximately 24.4 to 121.9 meters (80 to 400 feet) apart and provide different scenarios incorporating forced entry points and no fire/firing areas using appropriate bullet traps. Adjacent to several structures would be parking and turnout areas. The precise configurations of each facility would vary, but all direct development would be restricted to the 24.6-hectare (60.9-acre) footprint within Parcel C.

Proposed range support components within the southern portion of the main development footprint in Parcel C would include a well and an 18,930-liter (5,000-gallon) water storage tank to provide potable water; septic tank and leach field to support a 6.1 by 6.1-meter (20 by 20-foot) restroom; and a portable electric generator storage building to supply additional power when required. Solar power would provide electrical services to the well and restroom facility on a regular basis as required. MTC structures may be supplied water and electricity by underground connections if needed.

Because of the evolving nature involved in the GWOT and the warfare skills required for NSW mission success, a detailed layout of the MTC is unavailable at this time. For purposes of evaluating environmental impacts, it would be assumed that all of the 24.0-hectare (59.5-acre) potential main development area footprint shown in Figure 2-2 would be graded and developed. Once built, regular security patrols over the entire Proposed Action area would occur on a rotating basis utilizing all-terrain vehicles on existing roads and trails.

Outside the proposed MTC, the Proposed Action would include the widening and minor straightening of the existing dirt roadway and the placement of two drainage culverts within Parcel C. The road providing access to this area is currently very rough and suffers from erosion. This road becomes impassable during the rainy season and therefore needs to be graded, widened, and maintained throughout the year to keep this road in an acceptable



Source:

Figure 2.3
Research Summary

condition. The existing dirt road would be widened to 7.3 meters (24 feet). Widening would occur from the most northern point of the MTC construction footprint to the southern section where the dirt road intersects with an existing 7.3-meter (24-foot) wide dirt road. Widening would continue eastward to the southern intersecting road that leads to the existing withdrawal gate, and then south along this road to the point where the road crosses from Parcel C to the existing withdrawal (and transitions to an already improved road). No paving of the roadway would occur and the surface would remain permeable. Along the proposed widened road, two culverts would be installed near the existing withdrawal gate site to help minimize and control erosion. The culverts would consist of 70-centimeter (24-inch) pipe, each with a length of 15.2 meters (50 feet). For purposes of evaluating environmental impacts, it would be assumed that all of the 0.6-hectare (1.4-acre) roadway improvement area shown in Figure 2-2 would be graded. Combined with the potential development of the MTC itself, this would result in a total area of disturbance of 24.6 hectares (60.9 acres) in Parcel C.

2.2.5 Proposed New Training Areas

Among the parcels proposed for withdrawal from public use, Parcels E and G would be used for a variety of training activities, including training in strategic reconnaissance, land navigation, PIC, and patrolling, as would Parcel C inside and outside of the proposed new training complex described in Section 2.2.4. Parcel C would be used for live fire (as is the existing withdrawal parcel; this use would continue). Sniper activity in the hills of Parcel C will consist of one or two men moving clandestinely on foot to a position, performing reconnaissance, and possibly taking a shot. Parcel G would be encumbered by the surface danger zone from ranges on the existing withdrawal parcel. Among the ROW parcels, Parcel B would be used for photo image capture only. No live or blank ammunition would be used in any of the ROW parcels. A summary of proposed new training areas and their uses by parcel may be found in Table 2-4. The anticipated level of future use in all withdrawal and ROW parcels is shown in Table 2-5.

2.2.6 Construction Phasing

The MTC, or portions of it, in Parcel C could potentially be constructed as a Military Construction (MILCON) project. The location is a secondary alternative for a Fiscal Year 2010 project currently planned but not programmed. If this project becomes a MILCON it would take 12 to 18 months to complete, with the vegetation clearing phase of construction being conducted outside the QCB flight season. However, there is the potential the MTC would be constructed

Table 2-4
Description of All Activities in Withdrawal and ROW Parcels
After Implementation of the Proposed Action

Activity	Purpose	Personnel	Equipment	Location	Time of Day	Special Requirements
Live Fire/ Qualification and Sustainment Training	Qualification and sustainment training in small arms up to 7.62-mm.	Up to 50 on ranges, 16 in CQC facility, 4 at decline shooting positions, additional personnel include up to 10 trainers	Targets and bullet traps, small arms up to 7.62-mm, and tactical gear	Existing Withdrawal - Live fire ranges, CQC facility, decline shooting positions	Daytime and nighttime	Surface danger zone required
Photo Image Capture (PIC)	Learn to operate PIC equipment in darkness, become familiar with capabilities of equipment under varying light conditions and, having mastered the above, become skillful at capturing photo images of a range of objects	Two to four people on foot	Digital camera with a satellite hook-up	Parcels B, C, E, and G – on roads.	Daytime and nighttime	Training must be conducted away from areas with nighttime lighting
Patrolling	Tactical training aimed at avoiding detection and leaving no signature while moving across natural terrain	Four to six people on foot	None	Parcels C, E, and G - On and off trails (trails include foot trails, horse trails, and roads); may involve hiding in shrubs	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Land Navigation/Orienteering	Learn to navigate to a pre-specified target location in order to obtain coordinates to navigate to the next pre-specified target location	One to four people on foot	Map and compass	Parcels C, E, and G - On trails (trails include foot trails, horse trails, and roads), generally in more open areas (i.e., between shrubs)	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Air Operations	Integration of rotary wing platforms into training scenario, medical evacuation, and for VIP visits	Up to 16 people, 8 per helicopter	Two helicopters, helicopter landing pad, fast rope	Existing Withdrawal and Parcel C	Primarily daytime, seldom nighttime but still require that capability	Minimal fire fighting capability (fuel fire extinguisher) at the helipad

Activity	Purpose	Personnel	Equipment	Location	Time of Day	Special Requirements
Strategic Reconnaissance	Integrate patrolling and land navigation skills in order to meet tactical training objective of reaching a target location, with the aid of forward intelligence transmitted via radio, while remaining concealed and without leaving any signature	Two to four people, usually in teams of two	Map, compass, and radio	Parcels C, E, and G - On and off trails (trails include foot trails, horse trails, and roads), may involve hiding in shrubs	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Sniper Activity	Practice of clandestine movement, reconnaissance and shooting into fixed and mobile bullet traps.	Two people on foot	Personal tactical assault gear including rifles	Existing Withdrawal and Parcel C – in hilly terrain.	Daytime and nighttime	Terrain topography and targets must be similar to those encountered in conflict areas
Communications Training	Learn to operate communications equipment, become familiar with capabilities of different communications systems	Up to 50	Communication systems	Parcels C, E, and G - On and off trails	Daytime and nighttime	Terrain and topography must be similar to those encountered in potential conflict areas
Live Fire/Urban Tactics	The training objective is to secure all buildings, eliminate all threats, rescue hostages, gather intelligence, and deny assets to the enemy. Urban warfare training includes multiple buildings, streets, and access points. It requires the capability to support the integration of assault vehicles and helicopters into training.	Multiple, up to 24 persons as assault force, up to 10 role players as opposition forces, up to 10 observers, and trainers	Urban setting that includes multiple buildings, streets, and access points. Wheeled vehicles (up to 12). Personal tactical assault gear including rifles	Parcel C - Along established access roads, at built locations that could support this type of training	Daytime and nighttime	A built facility and access roads
Classroom Training	Train personnel in any of the above-listed activities prior to actually attempting them in the field	Up to 50	Indoor classroom and audiovisual aids	Existing withdrawal	Daytime and nighttime	Power

**Table 2-5
Future Activity Level (Number of Person-Days¹ Annually)**

Parcel	Activity									Total
	Live Fire	Photo Image Capture	Patrolling	Land Navigation	Air Operations	Strategic Recon	Sniper Activity	MOUT ²	Communications Training	
A	0	0	0	0	0	0	0	0	0	0
B	0	100	0	0	0	0	0	0	90	190
C	1,956	100	50	200	15	336	60	2,875	90	5,682
D	0	0	0	0	0	0	0	0	0	0
E	0	200	100	100	0	200	0	0	90	690
F	0	0	0	0	0	0	0	0	0	0
G	0	200	200	100	0	0	0	0	90	590
H	0	0	0	0	0	0	0	0	0	0
Existing Withdrawal	1,956	500	600	1,000	5	2,000	60	2,875	180	9,176
Total	3,912	1,100	950	1,400	20	2,536	120	5,750	540	16,328
Current Activity Level	3,556	1,100	950	1,400	5	2,500	48	2,500	72	12,131

¹ "Person-Day" is defined as one person on-site for 8 hours.

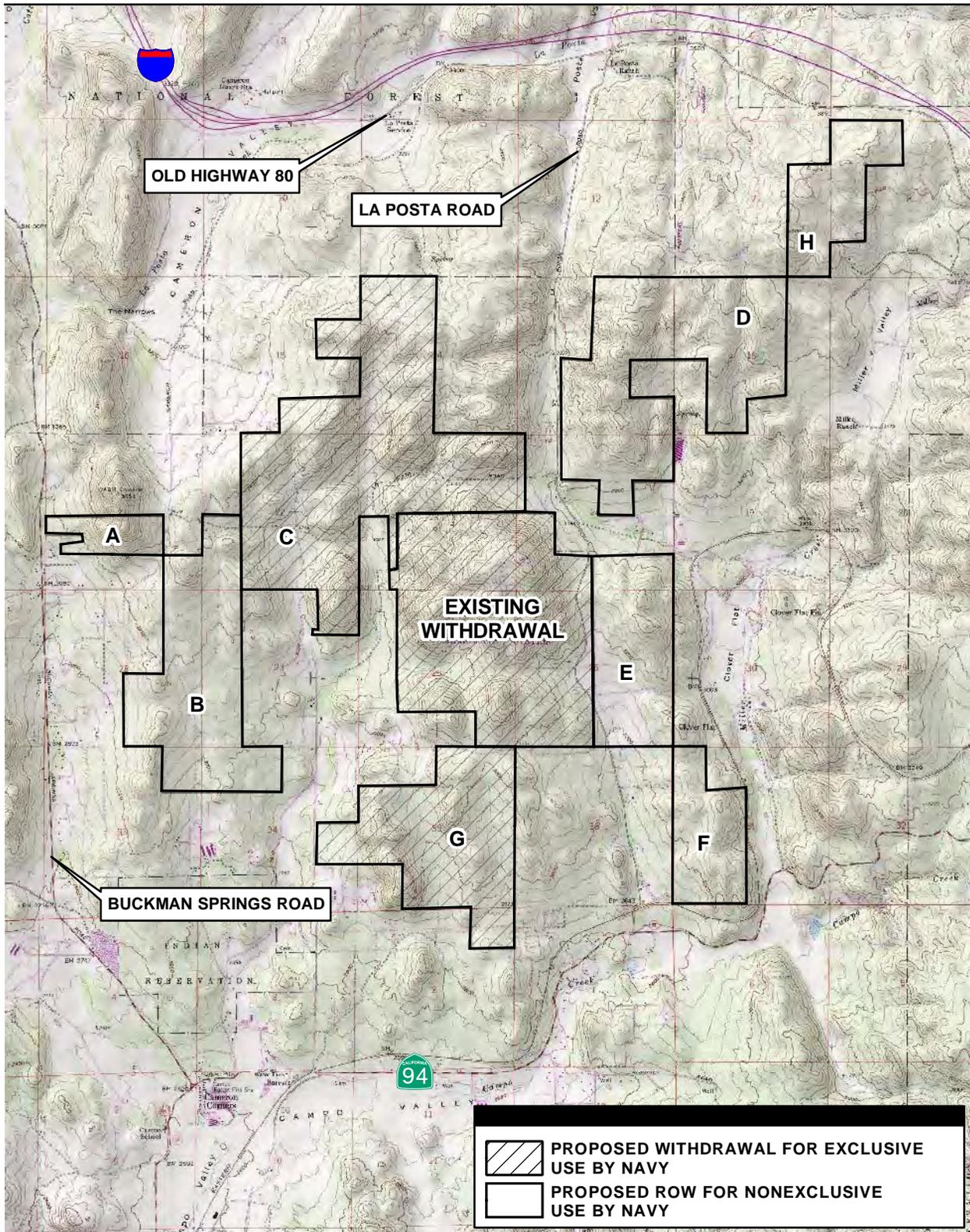
² Military Operations in Urban Terrain (MOUT)

partially or completely by NSW personnel, Naval construction engineers (Seabees), or some type of similar manpower. Regardless of the method of development, the overall areas of construction would be similar and would remain within the 24.6-hectare (60.9-acre) potential disturbance footprint shown in Figure 2-2. Before construction commences, all site approvals would be met. If there is no MILCON for this project then construction of this project would be done as time and materials become available and could be expected to start in 2007 and could take 2 to 3 years to complete.

2.3 ALTERNATIVES TO THE PROPOSED ACTION

2.3.1 Alternative 1

This alternative would be similar to the Proposed Action; however, under this alternative, Parcel E would not be withdrawn for exclusive use by the DON (Figure 2-4). Parcel E would remain under the administrative jurisdiction of the BLM but the DON would propose an ROW authorization for nonexclusive use. This parcel would remain open and available to the public for their use, providing these uses were not incompatible with uses granted under the ROW (as is the case for other ROW parcels). The DON, like other users, would have to get BLM permission to do any improvements on this parcel. This alternative would still meet the purpose and need of the Proposed Action.



Source: NSWG-1, 2004; BLM; USGS, Cameron Corners Quad

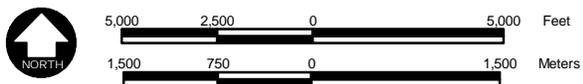


Figure 2-4
Alternative 1

Exclusive of the differences noted for Parcel E, the same improvements to the ranges and the same uses would apply to all other parcels as described for the Proposed Action.

2.3.2 No Action Alternative

Under the No Action Alternative, the proposed transfer of administrative jurisdiction from the BLM to the DON and withdrawal of lands from public use for exclusive use by the DON would not occur. The proposed ROWs for the DON on the remaining parcels described above would also not occur. The proposed improvements to the existing facilities and the construction of new facilities would not occur. However, the SEAL teams would still experience extreme pressure to increase their skills in a shortened training time due to the ongoing GWOT. This increased need, without suitable training facilities, could potentially lead to mission failure, and combat readiness may be compromised. This alternative would not meet the objectives or the purpose and need for the Proposed Action.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED

The DON controls very little property in southern California that could provide the capability for mountain warfare training and live fire operations. The La Posta MWTF is located on withdrawn public lands and, with the exception of the Warner Springs Survival, Evasion, Resistance, and Escape (SERE) Camp, would provide the only DON-controlled area capable of supporting urban and mountain warfare training within a reasonable travel distance from San Diego-based NSW commands.

NSWG-1 used six criteria in considering the setting for the NSW training previously described. A potential location would need to meet all six criteria to satisfy the purpose of and need for the Proposed Action. A candidate location would need to:

1. Be military owned or controlled.
2. Be NSW managed and controlled to ensure NSW primacy of use. At ranges and training areas not under NSW control, such as Marine Corps bases or other Department of Defense (DoD) locations, scheduling is done through a scheduling agent. The scheduling agent schedules units according to a preset priority and usually NSW has a low priority. This situation does not always allow a training schedule that meets NSW training requirements. NSW primacy of use is the only way to ensure training resources are available at the time required. A local officer in charge accountable to the NSW command and control

infrastructure that provides adequate local control of military uses and fosters community awareness and outreach is the only way to sustain continued use.

3. Have the capacity to support the development of small arms ranges and other training mockups.
4. Provide a semi-remote/undeveloped location to support required safety zones associated with live fire ranges and that is protected from encroachment by other uses.
5. Provide rugged, mountainous terrain and extreme environmental conditions. The environment must replicate the conditions found in potential combat areas as closely as possible. Elevations at least 3,000 feet above sea level and the potential for occasional ice and snow are required. There should be a wide range of temperatures present throughout the year.
6. Be close enough to the NSWG-1 command support structures to meet ITEMPO criteria (i.e., personnel can train adequately but are not required to be away from their homes and families).

Seven alternatives were considered for the Proposed Action: (1) the current La Posta facility, (2) MCB Camp Pendleton, (3) Naval Auxiliary Landing Field (NALF) San Clemente Island, (4) Camp Billy Machen, (5) USMC Mountain Warfare Training Center, Bridgeport, California, (6) Warner Springs SERE Camp, and (7) other public land parcels (currently under BLM administrative jurisdiction) to the east of the La Posta facility. Six of these options were eliminated from further consideration because they did not meet the selection criteria for the Proposed Action as shown in Table 2-6. Further discussions of reasons for rejection are given below.

2.4.1 MCB Camp Pendleton

MCB Camp Pendleton is located approximately 97 kilometers (60 miles) north of downtown San Diego. Owing to the unpredictable traffic conditions along the route to MCB Camp Pendleton, travel time is typically increased to levels that do not meet training mission success criteria for range access time. NSWG-1 does have a training facility on MCB Camp Pendleton. The MCB Camp Pendleton facility is military owned and controlled, has the potential for development, and offers some remote areas. However, it also has extreme operational constraints due to scheduling conflicts with the Marine Corps. The Marine Corps owns the entire facility and has scheduling priority over NSWG-1. NSWG-1 has had scheduled training interrupted or even canceled at MCB Camp Pendleton due to Marine Corps priority and it is

**Table 2-6
Alternatives Considered and Selection Criteria**

Alternative Location	Military Owned or Controlled	Minimal Scheduling Conflicts NSWG-1 Managed and Controlled	Proximity to La Posta MWTF/Able to Support Development of Small Arms Ranges	Semi-Remote/Undeveloped Location	Rugged Mountain Terrain	Proximity to NSWG-1
La Posta MWTF	X	X	X	X	X	X
MCB Camp Pendleton	X			X		X
NALF San Clemente Island	X			X		
Camp Billy Machen	X	X	X	X		
USMC Mountain Warfare Training Center, Bridgeport, CA	X			X	X	
Warner Springs SERE Camp	X			X	X	X
Other BLM parcels				X		

Note: X= meets criteria

estimated that as much as 80 percent of NSWG-1 scheduled activities was affected in the 3 years from 1995 to 1998. One of the identified needs for the Proposed Action is that the established training area must have minimal scheduling conflicts, which is not the case at MCB Camp Pendleton. Another constraint is that MCB Camp Pendleton range regulations do not allow for the unique, unconventional warfare training requirements of NSW. Further, MCB Camp Pendleton is within a temperate coastal zone and unable to produce cold weather training conditions. Thus, for these reasons, it was eliminated from further detailed consideration.

2.4.2 NALF San Clemente Island

NALF San Clemente Island is located approximately 105 kilometers (65 miles) northwest of downtown San Diego in the Pacific Ocean. Access to the island is limited and requires the use of prearranged water or air transportation. This island is entirely military controlled and offers excellent training facilities for a variety of functions. The island's relative isolation, restricted airspace, varied topography, adjacent seas, and clear water conditions permit a great deal of flexibility in accommodating training exercises. However, the island is already heavily utilized by NSWG-1 and other NSW components and is also constrained by a variety of cultural and natural resource issues.

Since the facility is over 100 kilometers (62 miles) from NSWG-1 over water and is difficult to access, it does not meet the personnel tempo requirements in the alternatives criteria. Travel

restrictions do not provide for 1 day out and back training opportunities. Typically, the training is for a longer period of time, which affects ITEMPO. There is also insufficient mountainous terrain available and the requisite cold weather environment does not exist. Thus, for these reasons, it was eliminated from further detailed consideration.

2.4.3 Camp Billy Machen

Camp Billy Machen, Desert Warfare Training facility is located in the Chocolate Mountain Aerial Gunnery Range, approximately 282 kilometers (175 miles) from downtown San Diego. The area is utilized by NSWG-1 for training, but due to its distance from NSWG-1, more travel time and in many cases extended overnight visits of 1 week or more for personnel are required. This does not meet the personnel tempo requirements in the alternatives criteria. The terrain is largely flat open desert and not suitable for use as a mountain warfare training facility. The mountainous part of Camp Billy Machen is an aerial gunnery and bombing range, access is restricted, and it is not available for other training exercises. The requisite cold weather environment does not exist. Thus, for these reasons, it was eliminated from further detailed consideration.

2.4.4 USMC Mountain Warfare Training Center, Bridgeport, California

The USMC Mountain Warfare Training Center is located in Bridgeport, California, approximately 928 kilometers (577 miles) from downtown San Diego. The USMC facility is military owned and controlled; has the potential for development; and offers remote areas, rugged mountain terrain, and extreme environmental conditions. However, due to its distance to NSWG-1, it does not meet the personnel tempo requirements in the alternatives criteria. It also has extreme operational constraints due to scheduling conflicts with the Marine Corps. The Marine Corps owns the entire facility and has scheduling priority over NSWG-1. One of the identified needs for the Proposed Action is that the established training area must have minimal scheduling conflicts, which is not the case at Bridgeport. Thus, for these reasons, it was eliminated from further detailed consideration.

2.4.5 Warner Springs SERE Camp

The Warner Springs SERE Camp is located in northeastern San Diego County, approximately 108 kilometers (67 miles) from downtown San Diego. The area supports the operational mission of SERE training and thus it is not operationally controlled by NSWG-1. The majority of the camp is situated on publicly owned land such as the Vista Irrigation District and the Cleveland

National Forest. A wide variety of flora, fauna, and terrain benefits instruction. The SERE Camp offers remote areas, rugged mountain terrain, and extreme environmental conditions. However, there are no active firing ranges at Warner Springs and the small arms training capability for current use and future development is limited. Thus, for these reasons, it was eliminated from further detailed consideration.

2.4.6 Other Public Lands

Other public lands under the administrative jurisdiction of the BLM to the east of La Posta were also considered for withdrawal. These parcels were located in relatively flat areas and lacked the required mountainous terrain and extreme environmental conditions. They were not in proximity to the existing withdrawal and were even farther away from NSWG-1. Thus, they did not meet the personnel tempo requirements in the alternatives criteria and were eliminated from further detailed consideration.

2.5 COMPENSATORY MEASURES FOR EFFECTS TO LISTED (AND/OR PROPOSED) SPECIES, CRITICAL HABITAT, AND/OR ISOLATED DRAINAGES THAT WOULD BE IMPLEMENTED AS PART OF THE PROPOSED ACTION

The following measures would be implemented as part of the Proposed Action to compensate for effects to listed and/or proposed species and/or critical habitat that would be affected by the Proposed Action.

2.5.1 General Avoidance, Minimization, and Compensation Measures

Conservation measures to avoid and minimize effects to biological resources for the Proposed Action area would be implemented during the improvement of existing features and construction of new features. These measures were developed from existing plans, regulations, and consultations between the DON and USFWS. Primary sources of this information include the *Naval Base Coronado Integrated Natural Resources Management Plan* (INRMP) (U.S. DON 2002a), and Biological Opinions (BOs) issued by the USFWS for previous Endangered Species Act (ESA) consultations completed for the DON.

The NBC INRMP details natural resources management programs as well as goals and objectives for conservation planning. The following avoidance, minimization, and compensation measures would apply to all construction activities within the study area. These measures are standard construction specifications to prevent environmental degradation during construction.

-
1. Provision would be made to inform the construction contractor(s), prior to the bidding process, about the biological constraints of this project. The contractor(s) would be responsible for impacts to sensitive biological resources beyond those identified in this report that occur as a direct result of construction activities. All biologically sensitive areas to be avoided would be clearly marked on project maps provided to the contractor. These areas would be designated as “no construction” zones. These areas would be flagged by the project biologist prior to the onset of construction activities. The limits of construction would be clearly delineated on the ground by flagging, survey lath, or wooden stakes.
 2. A contractor education program would be implemented to ensure that contractors and all construction personnel are fully informed of the biological resources associated with this project. This program would focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field (e.g., areas delineated on maps and by flags or fencing), (c) sensitive construction practices (see numbers 3 through 10, below), (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of noncompliance. This program would be conducted by a qualified biologist and would be a requirement for all construction personnel.
 3. Vehicles would use existing access roads to the greatest extent feasible. Where new access is required, rubber-tired vehicles would follow a one-lane route (4.6 meters [15 feet] wide) over existing vegetation. To avoid the possibility of wildfire from hot vehicle parts in contact with vegetation, the vegetation would be cut to less than 10 centimeters (4 inches) in height to reduce the fire risk. The same route would be used to reach a given construction location and return to the existing access road even if this required construction vehicles to back out of such areas. All access routes outside of existing roads or the construction corridor would be clearly marked (i.e., flagged and/or staked) prior to the onset of construction. All access routes outside of existing roads or the construction corridor would be delineated on the grading plans and reviewed by a qualified biologist.
 4. Stockpile (e.g., topsoil stockpile) areas would be located in disturbed areas currently lacking native vegetation wherever feasible. Such areas would be delineated on the grading plans and reviewed by a qualified biologist.
 5. Staging areas would be located outside of sensitive habitat and within disturbed habitat to the degree feasible. Staging areas would be delineated on the grading plans and reviewed

by a qualified biologist. If staging areas outside the construction footprint are used, they will be surveyed for biological resources prior to their use.

6. Fueling of equipment would take place according to Best Management Practices (BMPs). Contractor equipment would be checked for leaks prior to operation and repaired as necessary. "Fueling zones" would be designated on construction maps and would be situated a minimum distance of 30.4 meters (100 feet) from all drainages.
7. Construction in or adjacent to sensitive areas would be appropriately scheduled to minimize potential impacts to biological resources.
8. Erosion and siltation of off-site areas during construction would be minimized. Sediment runoff would be contained within the limits of construction to the extent feasible through the use of siltation fences, straw bales, sand bags, or silt ponds. An erosion control plan would be required of the contractor. The contract supervisor or the DON would be responsible for ensuring that the erosion control plan is developed and implemented. The plan would include the use of hay bales, silt fences, siltation basins, or other devices necessary to stabilize the soil in denuded or graded areas during the construction and revegetation phases of the project.
9. A site restoration plan would be prepared and implemented for all areas where vegetation would be temporarily removed for construction. The plan would detail appropriate plant mixes and methods for reestablishing native vegetation consistent with preexisting vegetation communities.
10. Appropriate fencing and signage would be installed to restrict access and avoid potential impacts to the sensitive resources remaining in the undisturbed portions of the site.
11. Dust produced in or adjacent to habitat would be minimized using measures (such as chemical treatment) on the ground surface to minimize dust must be biologically sound.
12. Invasive exotic plants would be monitored and controlled in areas of temporary ground disturbance for a period of 3 years following construction.

2.5.2 Species-Specific Avoidance, Minimization, and Compensation Measures

In addition to implementing general avoidance, minimization, and compensation measures, the Proposed Action would also include species-specific measures to ensure that effects to environmental resources were avoided or minimized to the extent feasible. The INRMP does not include QCB-specific avoidance or minimization measures for the La Posta MWTF (U.S. DON 2002a) because the species was not known to occur at the facility prior to conducting focused surveys in support of the Proposed Action. Because 1,231 hectares (3,041 acres) of nonexcluded QCB habitat was identified during habitat assessments for the QCB, and QCBs were observed during protocol level surveys of a 202-hectare (500-acre) area encompassing potential development locations on the existing withdrawal parcel and on Parcel C, the DON proposes minimization and compensation measures for the species as part of the Proposed Action. These minimization and compensation measures detailed below have incorporated guidance from the project BO as issued by the USFWS on April 20, 2007 (Appendix A). The next update of the INRMP will address the presence of the QCB and its habitat and will incorporate an effective conservation program for the species.

Because the QCB is known to exist within the existing withdrawal parcel and Parcel C, the following is proposed. These measures will avoid/minimize direct impacts to the QCB and occupied QCB habitat.

- The DON shall control the introduction of and spread of nonnative plants throughout La Posta MWTF. To prevent introduction of new invasive weed species, the DON shall require that trainees' shoes and vehicles be free of soil and seed prior to travel throughout the installation. To control the spread of existing nonnative species on base, the DON shall implement a weed control program. The weed control program may be included as part of the QCB Habitat Enhancement Plan.
- The DON shall educate all trainees who use La Posta MWTF about the QCB and the DON's stewardship role regarding this species. Specifically, the DON shall include material regarding QCB appearance and biology in briefings or range manuals distributed for the La Posta MWTF.
- In addition to those measures listed above, direct impacts to QCB and QCB habitat associated with construction and expansion of facilities would be specifically avoided/minimized as follows.
 - The DON shall have a biological monitor present during the initial phases of clearing for construction projects to ensure that construction sites are appropriately marked and to

ensure adequate communication regarding conservation measures and location QCB habitat. The DON shall brief all contractors or DON construction personnel regarding the presence of QCBs and habitat at La Posta MWTF, and the need to minimize the effective size of project footprints.

- The DON shall avoid, to the extent practicable, larval clusters that occur within the proposed construction area in Parcel C, and in all other areas where facilities development or expansion is proposed. Specifically, the DON shall adhere to the following:
 - Construction personnel shall use existing roads or existing parking lots for staging areas whenever possible.
 - Botanical surveys shall be conducted as close to the flowering period of white snapdragon (*Antirrhinum coulterianum*) as possible and within 1 year prior to construction. Surveys shall be conducted prior to grading activities to identify the locations of all primary and secondary host plants that lie within the clearly defined construction footprint, and;
 - Construction personnel shall avoid host plants where possible. This may be accomplished by slight modifications in construction boundaries, where possible, or by marking a buffer area around host plants. The USFWS acknowledges that due to the host plant distribution within the proposed construction footprint, in many instances, avoiding host plants will not be possible.
- The DON shall conduct host plant and larval surveys during spring for 1 to 3 years preceding construction to gain understanding of the host plant dynamics and QCB use of construction sites and thereby allow for successful collection of QCB larvae and white snapdragon seed. Seed collection shall be conducted by personnel qualified to identify, collect, and properly store white snapdragon seed. The DON shall collect seed from host plants identified within the construction footprint of all proposed facilities and utilize this seed to enhance QCB habitat outside the construction footprint. At least 2 years of seed collection prior to construction/disturbance of plants is likely necessary to collect sufficient seed for meaningful habitat augmentation. Based on USFWS meetings with the Range Manager, the area behind each range (safety arc) is a "no walk zone" and may provide an appropriate enhancement site to minimize the impact of unavoidable host plant impacts. The location of enhancement areas shall be identified as discussed below.
- Larval salvage shall be conducted by personnel qualified to identify, handle, and maintain QCB larvae. The DON shall use a combination of techniques to relocate larvae

outside the construction footprint, including an examination of host plants detected within the construction footprint for larvae during the active season, and moving larvae detected to a pre-selected area (i.e., QCB Management Areas) at least 10 meters (32.8 feet) from the edge of the construction limits. Movement of larvae to the QCB Management Area shall be conducted in accordance with the Habitat Enhancement Plan. The DON shall maintain larvae recovered from the construction limits through diapause and release these larvae to QCB Management Areas, using qualified personnel. Post-diapause larvae or adult butterflies recovered immediately preceding construction may also be relocated. All salvage work shall be conducted in accordance with a QCB salvage protocol that may be included as part of the QCB Habitat Enhancement Plan.

- A QCB habitat enhancement program would be implemented. The DON shall develop a comprehensive QCB Habitat Enhancement Plan for La Posta MWTF, which will be included as part of the INRMP for the installation. The QCB Habitat Enhancement Plan shall use enhancement/restoration guidelines provided in the Recovery Plan, shall be consistent with the recovery objectives for the species, and include: (1) identification local areas of importance to the species on the installation or in adjacent areas proposed as QCB Management Areas (e.g., all areas where QCB adults, larvae, eggs, and potential host plants have been identified); cryptobiotic crusts, hilltops, ridgelines, and topographic features of likely importance to the butterfly; potential corridors to other known occurrences; and overlap with training areas; (2) the boundaries of areas managed to support QCB (QCB Management Areas); (3) specific management strategies (i.e. specifics regarding weed management, host-species augmentation, application of controlled burns) that will be implemented to benefit QCB in areas of the base; (4) mission-compatible mechanisms for avoiding trampling of QCB larvae, host plants, or cryptobiotic crusts in any key areas if importance; (5) a habitat monitoring program designed to detect any significant changes in QCB habitat that could lead to decline of populations at La Posta MWTF; (6) A Chapter or Appendix that describes in detail the larval salvage and release techniques to be used; and (7) a QCB population monitoring program designed to detect changes in distribution, in which select occurrences on the MWTF are surveyed at least once every 4 years. The QCB Habitat Enhancement Plan shall be completed and receive USFWS concurrence prior to construction of facilities within Parcel C.
- The DON shall identify QCB Management Areas and focus management of QCB habitat in these areas to lessen the impact of the permanent modification of QCB habitat associated with construction and expansion of facilities at La Posta MWTF. Specifically, the DON shall:

-
- Identify one or more sites that support a total of at least 25.00 hectares (61.78 acres) of occupied QCB habitat, and manage this habitat under the guidance of the QCB Habitat Enhancement Plan to offset the permanent modification of 25.00 hectares (61.78 acres) of occupied QCB habitat. QCB Management Areas may be within the boundaries of the La Posta MWTF (preferably in areas that currently receive no use to reduce conflict), or may be off of the installation (in parcels that are acquired or encumbered for conservation) but shall be within dispersal distance/flight distance of Parcel C and/or the existing withdrawal. Occupation of proposed management areas may be confirmed based on previous surveys or surveys conducted in support of identification of such sites.
 - Enhance at least 0.40 hectare (1 acre) of habitat adjacent to the sniper platform constructed within the existing withdrawal in 2006 and manage this site to support QCB under the guidance of the QCB Habitat Enhancement Plan.
 - In addition to those measures listed above, direct impacts to QCB and QCB habitat associated with training (foot traffic) would be specifically avoided/minimized through surveys and monitoring as follows.
 - The DON shall augment or restore QCB habitat to appropriate areas to lessen the impact of detected or anticipated QCB habitat degradation and/or QCB injuries/fatalities associated with ongoing foot traffic in QCB habitat within La Posta MWTF. The DON shall include enhancement measures to address degradation associated with foot traffic in the Habitat Enhancement Plan.
 - The DON shall complete QCB surveys initiated in 2006 to include all parcels of La Posta MWTF proposed for exclusive use for the DON (approximately 1,012 hectares [2,500 acres]). QCB surveys are being conducted in all areas within the proposed withdrawal that were not surveyed as part of this EA. Of the 1,012 hectares (2,500 acres) previously unsurveyed, 506 hectares (1,250 acres) were surveyed during the 2006 flight season, and the remaining acreage will be surveyed in 2007. Surveys conducted during 2006 covered Parcel E, Parcel G, and the eastern portion of the existing withdrawal.
 - If QCB were detected during focused surveys in areas used for training, the DON would reinitiate consultation with the USFWS. If appropriate, a monitoring program would be established for both the QCB and its habitat. The habitat monitoring component of the program would be designed to detect any significant changes in QCB habitat (such as increased abundance of invasive exotic plant species) that could lead to the decline of populations at the MWTF. The QCB population monitoring component of the program

would detect changes in the population size and distribution. Because QCB populations are known to fluctuate (sometimes dramatically) from year to year, changes in the number of QCB detected at the La Posta MWTF would be compared with population changes throughout the region to distinguish natural fluctuations in population from those that may be caused by training. Appropriate management activities would be implemented if training were determined to be the cause of significant negative impacts to the QCB at the La Posta MWTF.

In addition the above avoidance/minimization measures, the DON shall submit an annual report to the USFWS that describes and summarizes the implementation of the proposed project, including a cumulative total of the amount of habitat impacted in order to track take, and its associated conservation measures. The USFWS Division of Law Enforcement, San Diego, California (619-557-5063) and the USFWS Carlsbad Office (760-431-9440, ext. 274, 260, or 243) shall be notified immediately should any QCB adults or larvae be found sick, injured, or dead in the project area. Written notification to both offices shall be made within 5 calendar days and include the collection date and time, location of the butterfly(s), and any other pertinent information. Care shall be taken in handling dead specimens to preserve biological material in the best possible state.

2.5.3 Isolated Drainage-Specific Avoidance and Minimization Measures

Due to the occurrence of unvegetated drainages within the area of potential development within Parcel C, layout of the new facilities will be designed to avoid any permanent direct or indirect impacts to these waterbodies. Because the area of proposed roadway improvement coincides with one drainage that flows under the road through a culvert, the DON proposes minimization measures for this drainage as part of the Proposed Action, and general avoidance measures to preclude indirect impacts to the other drainages. No compensation is proposed for the effects of the roadway improvements, as after development these seasonally flowing isolated waterbodies will function as they do currently. However, in addition to the general measures noted above regarding appropriate erosion and sediment controls and BMPs designed to avoid the influx of contaminants into drainages, the following measures will provide that impacts to the unvegetated drainages are avoided/minimized.

- The DON shall site the new facilities to avoid any permanent impacts to the unvegetated drainages from new development.
- The DON shall site the limits of the proposed roadway improvements to avoid impacts to drainages that parallel and neighbor the roadway.

- During installation of the new roadway culverts, the DON shall prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses.
- Prior to development, the DON shall obtain concurrence from the ACOE and EPA that the onsite waterbodies are isolated and not under federal jurisdiction, and that no further measures are necessary.

2.6 SUMMARY OF IMPACTS

This EA describes and evaluates the potential effects of the Proposed Action upon the environment. A full range of environmental issues was evaluated. With implementation of appropriate conservation and compensation measures, no significant impacts would be expected on any resource as a result of the Proposed Action. Table 2-7 is a summary of all the impacts expected as part of this EA.

Table 2-7. Summary of Impacts Table

Resource Area	Proposed Action	Alternative 1	No Action
Geology and Soils	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Hydrology/ Water Quality	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Biological Resources	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Cultural Resources	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Land Use	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Public Facilities Access	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Socioeconomics	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Traffic and Circulation	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Air Quality	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Noise	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Aesthetics	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Environmental Health and Safety	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.
Utilities and Public Services	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.	Significant Impacts: None. Mitigation: None.

CHAPTER 3.0

AFFECTED ENVIRONMENT

The Proposed Action area discussed in Chapter 3.0, Affected Environment, refers to the existing withdrawal; Parcels C, E, and G, which are requested for withdrawal from public use for exclusive use by the DON; as well as Parcels A, B, D, F, and H, which are the subject of an ROW authorization request for nonexclusive use by the DON.

3.1 TOPOGRAPHY, GEOLOGY, SOILS, SEISMICITY, AND MINERAL POTENTIAL

3.1.1 Topography

The Proposed Action area lies within the geologic feature known as the Peninsular Ranges Batholith. The Peninsular Ranges Batholith includes a series of north-northwest-trending mountain ranges (plutons) formed during subduction of the Farallon oceanic plate beneath the western margin of North America. It is divided on the basis of age into the older western zone (greater than 100 million years old) and the younger eastern zone (less than 100 million years old). Gabbro peaks (e.g., Los Pinos Mountain) are scattered in the western zone (CBI 2003). The topography in the Proposed Action area consists of rugged, mountainous terrain with steep slopes, sheer rock cliffs, and frequent rock outcroppings. Elevations range between 975 meters and 1,220 meters (3,200 and 4,000 feet) above mean sea level (U.S. DON 1998).

3.1.2 Geology

The landforms of the Proposed Action area are the result of the underlying geology. The rock outcrops found in the Proposed Action area are primarily decomposing granite. These ranges have been faulted and eroded in-place longer than other California mountain systems, have not been significantly folded, and have erosional surfaces and drainage patterns quite different from the Transverse and Coast ranges. They also have fewer landslides than the San Gabriel and San Bernardino mountains. The Laguna and Cuyamaca mountains, both part of the Peninsula Ranges, cover the east side of the Descanso Forest Service Ranger District (north of the Proposed Action area), with smaller peaks and ranges to the west. This district is dominantly granitic with scattered zones of gabbro intrusive and hybrid rocks — mixed granitic-metamorphic rocks. A large zone of schist extends from north of Cameron Corners to north of Julian. The schist is of interest because of occurrences of gold-bearing veins (USFS 2005).

3.1.3 Soils

Soils in the Proposed Action area consist of Mottsville-Calpine and the Tollhouse-La Posta Rock land association. The Mottsville series is a deep, loamy coarse sand, occurring in valleys and on alluvial fans. The Calpine series is also granitic and on alluvial fans, but it is on very deep coarse sandy loams. Tollhouse soils are excessively drained, shallow or very shallow coarse sandy loams. About 10 percent of the surface is typically covered with rock outcrops and 20 percent with boulders. Permeability of these soils is rapid, runoff is medium to rapid, and the erosion hazard is moderate to high. The La Posta series consists of somewhat excessively drained loamy coarse sands. Rock outcrops cover 5 to 10 percent of the surface in some areas. The La Posta rocky loamy coarse sand is moderately sloping to moderately steep and is 40.6 to 81.3 centimeters (16 to 32 inches) deep. Permeability is rapid, runoff is medium, and the erosion hazard is moderate (U.S. DON 2002a).

3.1.4 Seismicity

The California Geological Survey (CGS), formerly the California Division of Mines and Geology, classifies faults as active or potentially active, according to the Alquist-Priolo Special Studies Zone Act of 1972. The CGS defines an active fault as a fault that has exhibited sediment displacement within the last 11,000 years (Holocene Epoch) and a potentially active fault as a fault that has exhibited sediment displacement during the Pleistocene Epoch (from about 1.6 million years ago to the beginning of the Holocene Epoch). Fault activity causes damage in a variety of ways. Hazards can include landslides, ground shaking, surface displacement and rupture, and the triggering of tsunamis. Generally speaking, the type of damage caused at a particular location depends on:

- Proximity to an active fault,
- Frequency and severity of the earthquake,
- Potential for surface rupture,
- Composition of the surface and subsurface materials, and
- Topography.

San Diego County lies within an active seismic region capable of subjecting the area to earthquakes of Seismic Zone 4 rating, as defined in *Naval Facilities Engineering Command Design Manual Two* (U.S. DON 1989). The seismic zone rating establishes building requirements for an area based on the probability of a high seismic event occurring in that

region. Seismic Zone 4 is the highest rating, indicating the strictest building requirements. The seismic shaking hazard rating for the Proposed Action area is 20 to 30 percent peak ground acceleration.

Major fault lines in the San Diego area tend to run northwest, although a secondary pattern of northeast-trending faults exists. There are no faults near the Proposed Action area, but faults that may affect it are the Elsinore and Earthquake Valley faults (U.S. DON 2002a), which are located approximately 15 kilometers (9.3 miles) and 25 kilometers (15.5 miles), respectively, to the northeast. These all have been historically active, and a major seismic event (6.2 or greater on the Richter scale) can reasonably be expected in San Diego County every 100 years.

3.1.5 Mineral Potential

The Proposed Action area is underlain by the granodiorite and tonalite plutonic rocks of the La Posta pluton. No gem-bearing pegmatites occur within the La Posta pluton and the major gold deposits within San Diego County occur in older metamorphic rocks (i.e., Julian Schist) that have been intruded by the La Posta pluton. In the Jacumba area to the east, several former feldspar prospects and a closed mica mine have been developed in the La Posta rocks, and other mineral deposits have been found along contacts of the La Posta pluton with overlying metamorphic screen rocks. Gold within pegmatite dikes within the La Posta pluton have not been known to be found in economic concentrations. It is highly unlikely that the Proposed Action area parcels contain economic deposits of critical or strategic minerals.

The decomposed tonalite and granodiorite and the coarse-grained granular soils beneath the Proposed Action area may represent a source of sand and gravel on the hillsides and alluvial valleys at the site. The economic value and volume of sand and gravel are unknown and have not been explored.

The land involved is not valuable for leasing act minerals with the exception of sand and gravel and minerals found in potential unmapped pegmatites (feldspar) on the property. Sand and gravel potential exists on the hillsides and alluvial valleys of the property. Pegmatites may occur within the La Posta pluton rocks on the hilltops and hillsides of the property.

All mining claims and patents on the areas proposed for withdrawal are listed as forfeited or closed according to BLM and USGS records, with the exception of one series of claims that were subjected to a forfeiture appeal within the last 2 years. Additional appeals may be possible with the Arkiebar Mine claims within withdrawal parcel "G." Further information on minerals

potential at the site may be found in the Minerals Potential Report for the Withdrawal of Land from Public Use for Use as a Mountain Warfare Training Facility, La Posta, California, included with this EA as Appendix B.

3.4.2 Inventory Results

3.4.2.1 Archival Research

A records search was conducted at the South Coastal Information Center (SCIC), Department of Anthropology, San Diego State University. The conventional 1.6-kilometer (1-mile) radius was searched for previous survey coverage and previously recorded historic and prehistoric sites. Sixteen cultural resource investigations have been conducted in the area. These are listed in Table 3-11.

Table 3-11
Previous Investigations within a 1.6-Kilometer (1-Mile) Radius
of the Proposed Action Area

Author	Title	NADB Document No.	Year
American Pacific Environmental Consultants, Inc.	Morena Lake Development TPM 15326 EAD Log #78-21-19 San Diego County, California.	1120060	1979
Berryman, Stanley R.	Archaeological Survey Report: Rattlesnake Acres.	1120191	1975
Berryman, Stanley R.	Archaeological Reconnaissance of the Stallings Lot Split in Campo, California.	1120363	1980
Crotteau, Karen	Negative Archaeological Survey Report 11-SD-94, P.M. 54.7-54.8 - Improving Drainage by Raising the Roadbed Out of the Floodplain.	1126524	1983
Culbert, Jan and Cari Verplanck	Morena Grazing Allotment Permit Renewal.	1123256	1995
DeCosta, Joan M.	An Archaeological Survey Report of Route 94 from 0.5 Mile East to 1.3 Mile East of La Posta Road, 11-SD-94/P.M.56.1-56.8.(11209-194050).	1120015	1981
Fink, Gary R.	A Cultural Resource Assessment for Three Roads in the Lake Morena Area: Lake Morena Drive, Oak Drive, Buckman Springs Road Project: UJ0171.	1120932	1979
Pettus, Roy E.	An Archaeological Survey for Proposed Utility Pole Relocation and Minor Roadway Realignment at Six Locations on Highway 94 in South San Diego County, California (11-SD-94 P.M. 20.85 to 54.25).	1121300	1980
Rosen, Martin	Historical Property Survey Report for Old Highway 80, San Diego County, California.	1128282	2001
Smith, Brian F.	An Archaeological Survey of the 700-Acre Balian Subdivision, County of San Diego.	1121419	1989
Smith, Brian F.	An Archaeological Survey of the Stiles Lot Split Project Campo County of San Diego.	1122230	1991
Smith, Brian F.	Results of Archaeological Survey and the Evaluation of Cultural Resources at the Sanger Lot Split Project, Morena Village.	1122576	1992a

Author	Title	NADB Document No.	Year
Smith, Brian F.	Result of A Archaeological Survey of the La Posta Recycling Center Project.	1125791	1992b
Taylor, Clifford	Final Report & Campo Indian Preservation-Cultural Resource Inventory.	1124365	1982
U.S. Department of Navy	A Cultural Resources Inventory Survey of the La Posta Astrophysical Observatory.	-	1996
Wade, Sue	Cultural Resource Survey Pacific Cove La Posta Road Property.	1127564	2000

A total of 38 cultural resources have been recorded within a 1.6-kilometer (1-mile) radius of the Proposed Action area. Of these, 31 are prehistoric and 7 are historic period resources. Of the historic period resources, one, the La Posta Astrophysical Observatory facility consists of seven buildings. These previously recorded cultural resource sites are summarized in Table 3-12.

Table 3-12
Previously Recorded Cultural Resources within a 1.6-Kilometer
(1-Mile) Radius of the Proposed Action Area

Permanent Trinomial (CA-SDI-)	Primary Number (P-37-)	Site Description	Year Recorded
5499	-	Isolated quartz projectile point	ND
5500	-	One rock cairn and duck, possible trail	ND
6746	-	Lithic scatter with groundstone	1977
6747	-	Lithic and ceramic scatter with bedrock milling	1977
6748	-	Lithic and ceramic scatter with groundstone and hammerstone	1977
9028	-	Small lithic and ceramic scatter with bedrock milling	1977
9029	-	Small lithic and ceramic scatter with bedrock milling	1977
10,848	-	Habitation site with bedrock milling, lithics, and ceramics	1987
12,306	-	Extensive bedrock milling, a petroglyph, a cupule, and lithics	1991
12,645	-	Lithic and ceramic scatter with bedrock milling, groundstone, and a knife fragment	1992
12,646	-	Lithic and ceramic scatter with bedrock milling	1992
15,878	019192	Small lithic scatter	2000
15,903	019248	Lithic and ceramic scatter with bedrock milling, a point tip, and a burned bone fragment	2000
15,904	019250	Ceramic scatter	2000
15,905	019251	Five loci with bedrock milling, groundstone, lithics, and a ceramic scatter	2000
15,906	019252	Three granite rock rings	2001
15,907	019253	Rock shelter with stacked cobble masonry wall	2000

Permanent Trinomial (CA-SDI-)	Primary Number (P-37-)	Site Description	Year Recorded
15,908	019254	Four loci with lithic and ceramic scatters, bedrock milling, groundstone, small and large mammal bones, and several tools	2000
15,909	019255	Lithic and ceramic scatter	2000
15,910	019256	Ceramic scatter	2000
15,911	019259	Sparse ceramic scatter and a rock ring	2001
15,912	019260	Lithic and ceramic scatter and a groundstone fragment	2001
15,915	019263	Lithic scatter	2001
15,916	019264	Dispersed lithic and ceramic scatter	2001
15,917	019266	Small lithic and ceramic scatter	2001
15,918	019267	Moderate lithic and ceramic scatter	2001
15,919	019268	Rock ring and lithic scatter	2000
15,920	019269	Small lithic scatter	2000
–	019249	1900s cabin	1996
–	017130	Isolated bifacial mano	1999
–	019257	Foundation and tractor parts adjacent to 1920s house and historic dump	2000
–	019265	Historic trash dump with sun-altered glass and soldered seam cans; also several 6-volt batteries and a segment of stovepipe	2000
15,921	019270	Small ceramic scatter of four brownware sherds	2000
15,922	019271	One circular cupule	2000
15,923	019272	One petroglyph (fertility figure) in the form of a natural fissure enhanced by pecking	2000
–	024023	A 53-kilometer (33-mile) segment of old U.S. 80. A two-lane undivided highway with 10 associated bridges. The segment is located in the eastern part of San Diego county.	2000
–	024784	An early 20 th century house with several cement foundations, two wells, cement pads, and barbed-wire fences.	2001
–	–	La Posta Astrophysical Observatory: Buildings 586, 587, 588, 589, 591, 598, and 599	1996-1997

Of these 38 previously recorded cultural resources, only 7 are recorded within the Proposed Action area or very near the Proposed Action area boundaries. The La Posta Astrophysical Observatory facility is within the boundaries of the La Posta Microwave Space Relay Station in the existing withdrawal. The remaining 6 resources are within or very near Parcel G. CA-SDI-15,919 is a rock ring with debitage located on the south boundary of Parcel G. CA-SDI-15,920 is a lithic scatter located near the southeast corner of the parcel. CA-SDI-15,921 is a ceramic scatter located near the southeast corner of Parcel G. CA-SDI-15,922 is a single cupule located in the southeast part of the parcel. CA-SDI-15,923 is a petroglyph located in the northern part of Parcel G. CA-SDI-15,878 is a lithic scatter recorded outside of the Proposed Action area, but very close to the eastern border.

The La Posta Astrophysical Observatory facility (Buildings 586 to 589, 591, 598, and 599) has been evaluated and determined ineligible for NRHP (U.S. DON 1996). The facility has not been evaluated for the California Register of Historical Resources nor has its eligibility for local listing been considered.

Historic Maps

Historic USGS maps housed at the SCIC include an 1872 map of the Western Portion of San Diego County, a 1955 map of Historic Stagecoach Routes of San Diego, the 1959 Campo USGS 15-minute quadrangle, and a 7.5-minute Cameron Corners quadrangle. In 1959, the roads identified within the Proposed Action area included La Posta Road, Cameron Road, and La Posta Truck Trail.

3.4.2.2 Other Information Sources

In an effort to obtain first-hand information about potentially historic resources within the Proposed Action area, an informal interview was conducted on 8 April 2004. Local residents Jean Bates, Richard E. Bordstadt, Roger W. Challberg, and Arvilla E. Johnson participated. The history of the area, historic events, and the physical remains of those events were discussed. Topics included cattle ranching; the La Posta Microwave Space Relay Station; activities of the U.S. Soil Conservation Service, U.S. Farm Bureau, and California Conservation Corps; land ownership; and transportation routes. These activities resulted in a historic built environment of a Microwave Space Relay Station, quail habitats, culverts, roads, a spike camp, rock walls, check dams, and a corral.

The Riverside BLM office was visited in an effort to review the General Land Office records on file. These records provided information related to land surveys conducted by the federal government in the area from 1856 to 1859, and a second set of federal land surveys conducted from 1916 to 1921.

Other historic material reviewed by EDAW included Kenhelm W. Stott's *Stage Coach Operations in San Diego and Imperial Counties 1857-1874* and B.B. Moore's *Map Showing Roads and Trails in Use from 1769-1885 in San Diego County*.

3.4.3 Survey Results

An intensive survey was conducted for the existing withdrawal and Parcels C, E, and G (Underwood and Gregory 2004). Twenty-four sites and four isolated finds were identified

during the survey. Five of the sites were previously recorded. Resources were found within the existing withdrawal parcel and Parcels C, E, and G. The sites and isolates are discussed below by parcel and are summarized in Table 3-13.

**Table 3-13
Survey Results**

Permanent Trinomial CA-SDI-	Primary Numbers P-37-	Temporary Number	Description	NRHP Eligibility¹
Existing Withdrawal Parcel				
CA-SDI-17,223H	025894		Historic period mining cairn	Not Eligible
CA-SDI-17,224H	025895		Historic period camp	Eligible
CA-SDI-17,228	025899		Prehistoric camp	Eligible
	025900		Livestock watering tank and trough	Not Eligible
CA-SDI-17,231/H	025903		Prehistoric habitation area and historic period ranch features	Eligible
	025909		New La Posta Road	Not Eligible
		LP-JU-I-1	Two isolated flakes	Not Eligible
		LP-JU-I-2	One isolated flake	Not Eligible
Parcel C				
CA-SDI-17,229H	025901		Historic period refuse deposit	Not Eligible
CA-SDI-17,230H	025902		Historic period refuse deposit	Not Eligible
CA-SDI-17,232H	025904		Historic period refuse deposit	Not Eligible
CA-SDI-17,233H	025905		Historic period refuse deposit	Not Eligible
	025906		Concrete quail guzzler	Not Eligible
CA-SDI-17,235H	025910		La Posta Truck Trail	Not Eligible
	025911		Drainage ditch and livestock trough	Not Eligible
Parcel E				
	025912		Aermotor windmill and well	Not Eligible
		LP-JU-I-4	One isolated tin can	Not Eligible
Parcel G				
CA-SDI-15,919			Prehistoric rock ring	Not Eligible
CA-SDI-15,920			Prehistoric lithic scatter	Not Eligible
CA-SDI-15,921			Prehistoric ceramic scatter	Not Eligible
CA-SDI-15,922			Prehistoric bedrock mortar	Not Eligible
CA-SDI-15,923			Prehistoric rock art	Eligible
CA-SDI-17,225	025896		Prehistoric bedrock mortar	Not Eligible
CA-SDI-17,226H	025897		Historic period cairn and rock ring	Not Eligible
CA-SDI-17,227H	025898		Historic period cairn	Not Eligible
CA-SDI-17,234	025907		Prehistoric ceramics	Not Eligible
	025908		Concrete quail guzzler	Not Eligible
		LP-JU-I-3	One isolated flake	Not Eligible

¹ To be confirmed by the DON.

Existing Withdrawal Parcel

The survey located eight previously unidentified cultural resources within the existing withdrawal parcel. These consist of six sites and two isolates. Four of the sites are historic period resources (CA-SDI-17,223H, CA-SDI-17,224H, P-37-025900, and P-37-025909). These, along with a site containing both prehistoric and historic period material (CA-SDI-17231/H), reflect the activities related to ranching, mining, and transportation. The prehistoric component of CA-SDI-17231/H is a large habitation area with bedrock milling, flaked lithics, and ceramics. Site CA-SDI-17228 is a rock ring with a scatter of prehistoric ceramics. LP-JU-I-1 consists of two isolated metavolcanic flakes. LP-JU-I-2 consists of one cryptocrystalline silicate flake.

Parcel C

This parcel contains seven previously unrecorded cultural resources. All of the sites date to the historic period. Four of these are refuse scatters (CA-SDI-17229H, CA-SDI-17230H, CA-SDI-17232H, and CA-SDI-17233H) located along the La Posta Truck Trail (CA-SDI-17235). The remaining two sites are associated with game/hunting (P-37-025906) and ranching (P-37-025911).

Parcel E

One site, P-37-025912, and one isolate, LP-JU-I-4, were identified in Parcel E. The site consists of a windmill used to pump water. The windmill is on a four-legged galvanized steel tower. The isolate is a hole-in-cap, solder top can.

Parcel G

This parcel contained the most cultural resources. The records search identified five sites in or very near the parcel, and another five were identified during the survey. All five previously documented prehistoric resources (CA-SDI-15,919, CA-SDI-15,920, CA-SDI-15,921, CA-SDI-15,922, and CA-SDI-15,923) were visited. The rock ring at CA-SDI-15,919 was located, but the two flaked lithics were not found. Only one of the six flaked lithics originally recorded at CA-SDI-15,920 was found during the recent field work. A single ceramic sherd was found at CA-SDI-15,921. Originally, four sherds had been recorded at the site. The reported cupule at CA-SDI-15,922 was determined to be an incipient mortar. Site CA-SDI-15,923, a fertility symbol, was found as originally recorded.

The newly identified resources include two prehistoric, three historic period sites, and one isolate. The prehistoric resources are an incipient mortar (CA-SDI-17,225) and a scatter of ceramics (CA-SDI-17,234) that all appear to be from the same vessel. The historic period sites are CA-SDI-17,226H, consisting of two rock features, CA-SDI-17,227H, a single rock feature, and P-37-025908, a watering area for avian wildlife. The isolate, LP-JU-I-3, is a metavolcanic flake.

3.4.4 Section 106 Compliance

For the La Posta MWWTF, compliance with Section 106 of the National Historic Preservation Act and 36 CFR 800 has been accomplished under the San Diego Metropolitan Area Programmatic Agreement (Metro Area PA), executed in February 2003 between the Commander Navy Region Southwest (CNRSW), the Advisory Council on Historic Preservation, and the California State Historic Preservation Officer (CASHPO). The Metro Area PA provides for CNRSW determinations of an undertaking's area of potential effects (APE), identification of potentially affected historic properties, and assessment of "no historic properties affected" and "no adverse effect" without the further consultations with CASHPO normally required under 36 CFR 800.

In accordance with 36 CFR § 800.4 and 36 CFR § 800.16(d), and in conformance with Stipulation 6 of the Metro Area PA, CNRSW identified an APE as the geographic area within which the proposed project could directly or indirectly affect historic properties, including considerations of expected ground disturbance, potential visible and audible effects, and possible indirect effects. Cultural resource studies (US DON 1996; Underwood and Gregory 2004) have identified archaeological and built resources at La Posta. The La Posta Astrophysical Observatory facility (Buildings 586 to 589, 591, 598, 599) noneligibility determinations were reviewed and concurred with by CASHPO in 1996 (US DON 1996). Twenty-four sites and four isolated finds were documented as a result of a 2004 survey at La Posta (Underwood and Gregory 2004). Four of these sites were preliminarily assessed as eligible to the NRHP: CA-SDI-17,224H, a historic camp; CA-SDI-17,228, a Late Prehistoric camp; CA-SDI-17,231/H, a Late Prehistoric village site; and CA-SDI-15,923, a Late Prehistoric rock art.

3.5 LAND USE

3.5.1 Applicable Plans and Policies

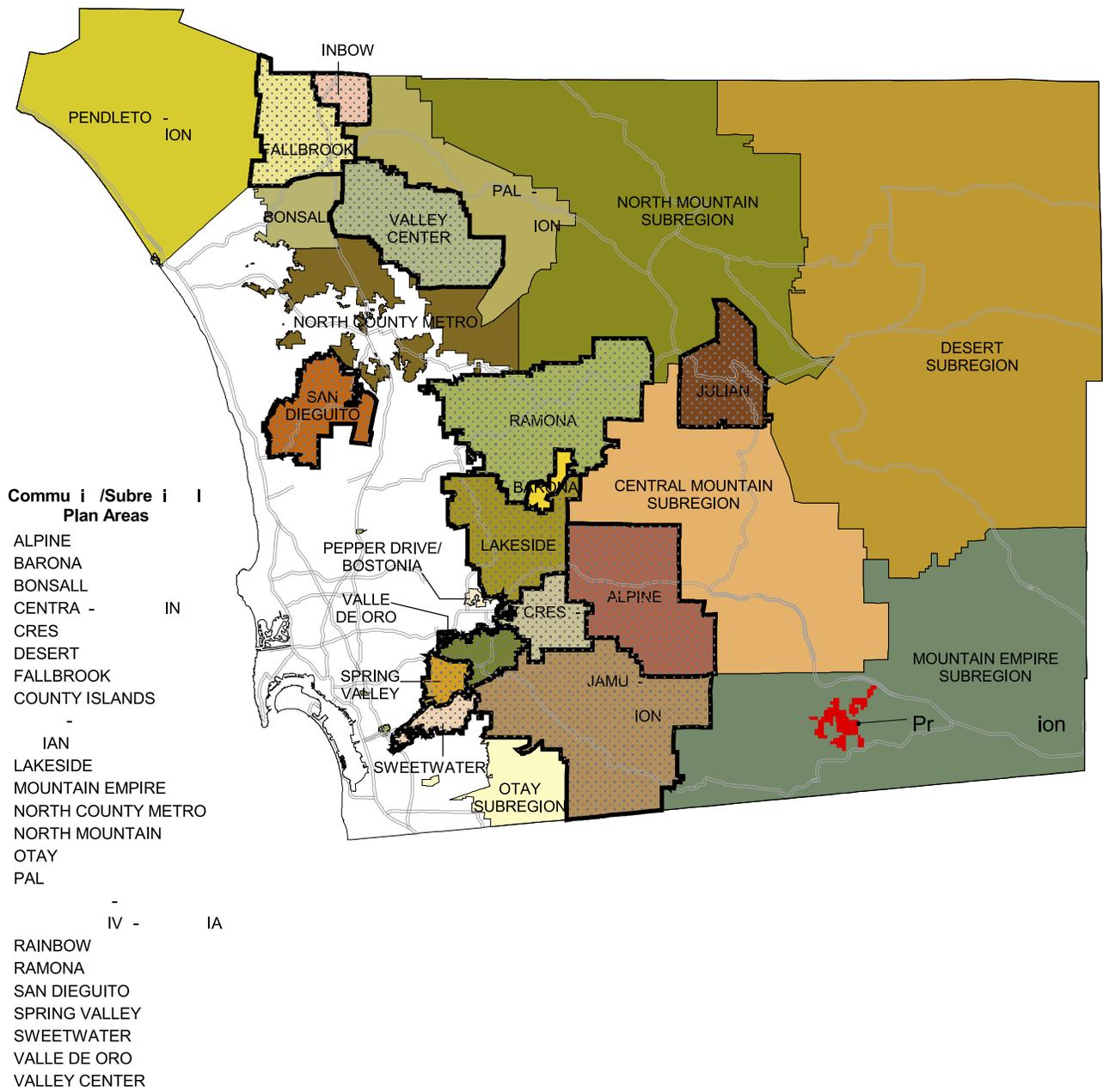
The following land use plans and policies are established by regulating authorities, including the DON and the County of San Diego and are applicable to the Proposed Action area.

Naval Base Coronado Integrated Natural Resources Management Plan (INRMP). The INRMP (U.S. DON 2002a) was developed to guide natural resource conservation and management efforts in support of land use and military mission requirements and responsibilities at NBC, including the existing withdrawal. The INRMP summarizes baseline information and agreements through which compliance with regulatory and planning processes are accomplished. The INRMP provides technical guidance for the planning and preparation of Base approvals, management actions, orders, instructions, guidelines, standard operating procedures, and other plans, for integrating natural resource management efforts into the decision-making process.

BLM South Coast Resource Management Plan and Record of Decision. The South Coast Resource Management Plan (BLM 1994) provides management guidance and identifies land use decisions to be implemented for management of the public lands in Los Angeles, Orange, and western San Diego, San Bernardino, and Riverside counties, including the lands within the Proposed Action area.

San Diego County General Plan 2020. General Plan 2020 (County of San Diego 2003a) is a multiyear project that began in August 1998, to update the San Diego County General Plan. General Plan 2020 will form a framework into which the unincorporated communities will grow, shaping the future of San Diego County. The end product will be a document designed to protect the environment, accommodate population growth, and link that growth to the provision of required facilities and services. While the Proposed Action area is located in San Diego County, the County has no land use jurisdiction over the facility since the federal government owns it. It is currently designated in the County General Plan as Public/Semi Public lands that indicates lands generally owned by public agencies, including military bases. The County has no land use jurisdiction over federally owned public lands (County of San Diego 2003b). Under General Plan 2020 this area is designated as Open Space (Conservation).

Mountain Empire Subregional Plan. The Proposed Action area is located in the Mountain Empire subregion (Figure 3-14). The Mountain Empire Subregional Plan (San Diego 1995) is a subset of the San Diego County General Plan and focuses on six areas with their own unique



Sourc :

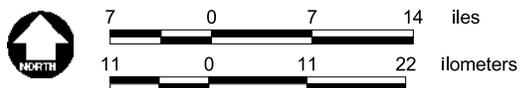


Figure -

identities within the Mountain Empire subregional area. The six areas are similar in many natural characteristics such as topography, water resources, and environment. These areas are Tecate, Potrero, Boulevard, Campo (where the Proposed Action area is located), Jacumba, and the remainder of the plan area. The Lake Morena/Campo sponsor group, which is the County-sponsored link between the community and the County dealing with planning and land use, provides land use planning guidance for this area.

3.5.2 On-Site Land Use

3.5.2.1 Current Use of Existing Withdrawal

The existing withdrawal area is used primarily for sustainment of the advanced skills SEALs have received in weapons and tactics prior to deployment. Common operations conducted on the existing withdrawal include:

- Reconnaissance and intelligence gathering
- Cold weather and mountain survival
- Land navigation
- Patrolling operations
- Communication exercises
- Sniper live fire exercises
- Small arms live fire exercises
- Building entry and clearing
- Obstacles breaching and forcible entry

Training operations typically conducted focus on lightly armed, small teams (two to eight individuals) moving on foot. The training refines and reinforces the skills necessary for those teams to operate in a hostile environment. Shooting skills are practiced at the range complex. There are three small arms ranges, a sniper range, and a CQC facility Simunition™ and special range and training rounds are fired at these ranges instead. The following ammunition can be used on the small arms ranges, the sniper range, and the CQC house: .22 caliber, .38 caliber, .45 caliber, .357 caliber, 9-mm, 5.56 mm, 7.62 mm, and 00 buckshot.

On-site land use in the existing withdrawal consists of operational training facilities and training areas. Existing training facilities include:

-
- Eight buildings (including nonoperational microwave dish)
 - Helicopter pad
 - General purpose storage area
 - Breaching facility
 - Range complex (three small arms ranges)
 - CQC facility
 - Sniper range
 - Three water wells
 - Simulated enemy missile site

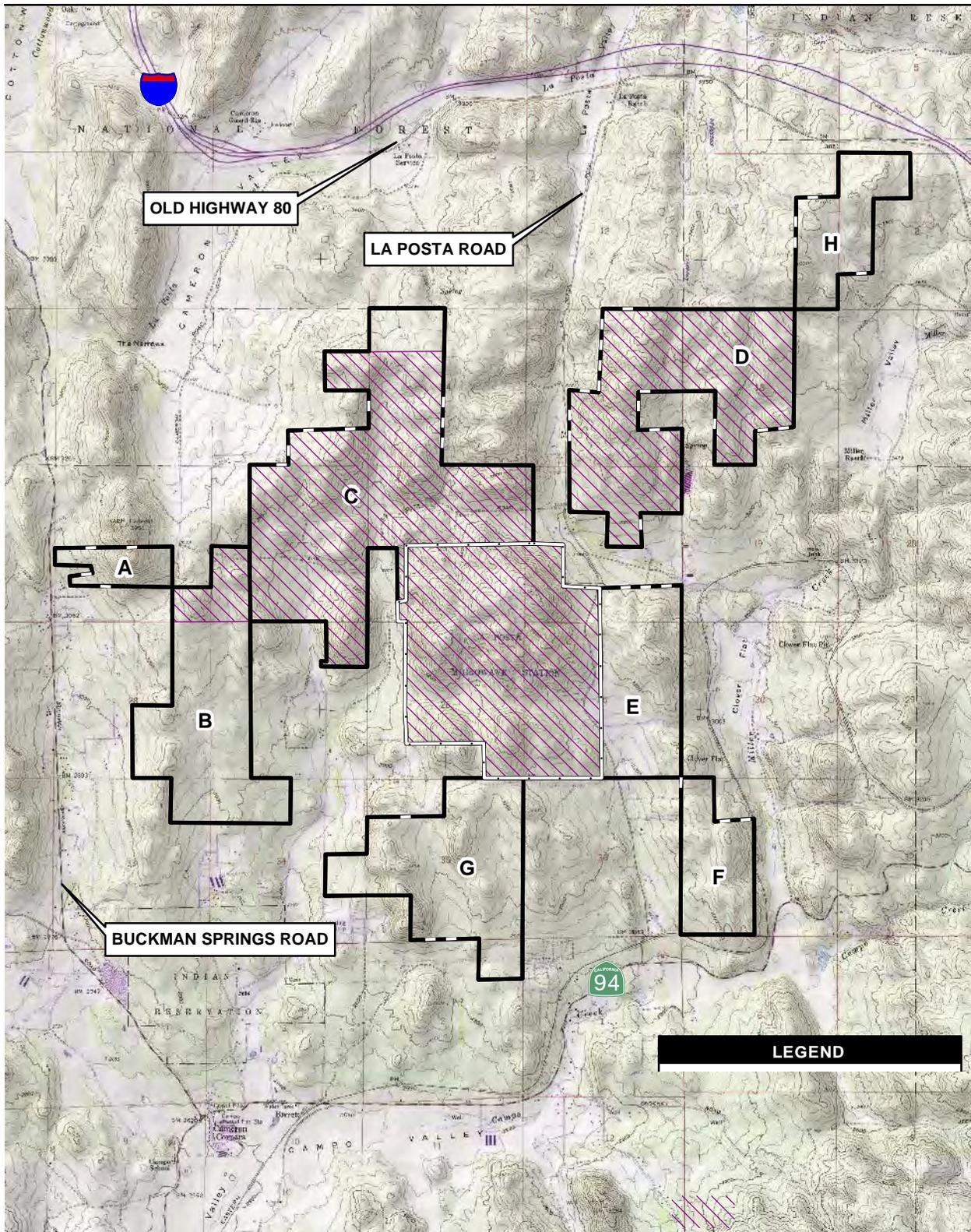
The eight buildings at the facility are permanent structures, including the nonoperational microwave dish aboard the facility. These buildings are located on the hill around the microwave dish and are used as offices and classrooms, and berthing spaces. (U.S. DON 1998).

Units training in the Proposed Action area can vary in size from 20 to as many as 200 individuals. The majority of units training in the Proposed Action area are either SEAL Platoons numbering approximately 20 sailors (14 to 16 platoon members plus a training cadre) or a Basic Underwater Demolition/SEAL class numbering approximately 60 sailors. Other units that train or have trained in the recent past in the Proposed Action area are NSW reserve units, explosive ordnance disposal (EOD), and special operations units from the Army and the Air Force.

3.5.2.2 Current Use of Proposed Withdrawal and ROW Parcels

Among the proposed withdrawal parcels, the existing withdrawal parcel and portions of Parcels C and E are part of the Clover Flat grazing allotment (Figure 3-15). There are 934.0 hectares (2,308 acres) of this grazing allotment within these parcels. (The Clover Flat grazing allotment also includes Parcel D and part of Parcel B among the ROW parcels.) This grazing allotment can be utilized for year-round cow-calf operations. The grazing lessee has a water well in the eastern portion of the existing withdrawal, which is the western half of Section 25, Township 17 South, Range 5 East.

All mining claims and patents on the areas proposed for withdrawal are listed as forfeited or closed according to BLM and USGS records, with the exception of one series of claims that were subjected to a forfeiture appeal within the last 2 years. No mining is currently occurring in association with these claims.



Source: USGS, Cameron Corners Quad; BLM



Figure 3-15
Grazing Allotments

In addition to grazing leases and mining claims, the following are existing authorized uses on lands proposed for withdrawal:

- An apiary permit issued annually to Gibbs Apiaries in the east ½ of Section 25, Township 17 South, Range 5 East (Parcel E).
- An ROW for a powerline, serial number CARI 2477, issued to San Diego Gas and Electric in Lot 22 of Section 24 and the east ½ of the northwest ¼ of Section 25, Township 17 South, Range 5 East (existing withdrawal).
- An ROW for a powerline, serial number CARI 6545, issued to Mountain Empire Electric in Lot 20 and the southwest ¼ of the southwest ¼ of Section 24, Township 17 South, Range 5 East (existing withdrawal).

The following are authorized uses on lands proposed for ROW:

- An ROW for an access road, serial number CACA 6804, issued to Carl Buchheim in the southeast ¼ of the southeast ¼ of Section 21, Township 17 South, Range 5 East (Parcel B).
- An ROW for an access road, serial number CACA 20294, issued to Dale Schutte in the northwest ¼ of Section 8, Township 17 South, Range 6 East (Parcel H).
- An ROW for a powerline, serial number CACA 42361, issued to San Diego Gas and Electric Co. in the southwest ¼ of Section 8, Township 17 South, Range 6 East (Parcel H).
- An ROW for a telephone line, serial number CACA 44408, issued to SBC Pacific Bell in the southwest ¼ of Section 8, Township 17 South, Range 6 East (Parcel H).
- An ROW for a site testing and monitoring wind energy project, serial number CACA 45248, issued to Pacific Wind Development LLC for the public lands in Section 7, Township 17 South, Range 6 East (Parcel H).

The following applications are pending with the BLM on lands proposed for withdrawal and ROW:

- An ROW application, CACA 28407, filed by San Diego County in Sections 24 and 25, Township 17 South, Range 5 East (Parcel E and the existing withdrawal).
- An ROW application, CACA 46885, filed by San Diego Gas and Electric Co. in Section 18, Township 17 South, Range 6 East (Parcel D).

-
- An ROW application, CACA 44173, filed by Pacific Bell in Section 8, Township 17 South, Range 6 East, which is where Parcel H is located.

The BLM does not have any record of an authorization for the existing La Posta Road, maintained by San Diego County, running from Interstate 8 (I-8), south, through the existing withdrawal and through Parcel E, and continuing south to State Route (SR) 94. It is possible this road qualifies as a statutory ROW under Reserved Statute 2477.

Public recreational activities, such as horseback riding, camping, hiking, and hunting, are currently allowed in the proposed withdrawal and ROW parcels. Although a BLM-maintained trail system does not exist, a social trail system has developed over the course of time that is reflective of the use of the area by the public.

An interagency agreement between the DON and the U.S. Forest Service allows military personnel to maneuver through the Cleveland National Forest to a training objective on Mount Laguna. The entire Proposed Action area provides NSW operators with the opportunity to train in a tactical manner for extended periods of time. Small units and teams can be inserted tactically and move over long distances. This training provides units with the ability to operate and support themselves in extreme conditions over long periods of time.

3.5.3 Surrounding Land Use

The land surrounding the Proposed Action area consists primarily of public lands administered by the BLM and the U.S. Forest Service, private lands with a variety of owners, and portions of the Campo and La Posta Indian Reservations. A portion of the Descanso Ranger District of the Cleveland National Forest is north of the main portion of the Proposed Action area.

A purchase of 124.4 hectares (220 acres) of land contiguous to the existing withdrawal was recently made (2006) by the Nature Conservancy (TNC) from a private landowner using a combination of funding from the DOD, the State of California, and TNC in accordance with the "Buffer Lands Initiative Memorandum of Understanding." These parcels were purchased to act as a buffer from incompatible land use around the MWTF. The intent of these parcels is that they not be used by the public or the military. The Buffer Lands Initiative MOU precludes the use of this acquisition land as compensation for military impacts within the boundaries of the installation. The surface danger zone from the MWTF small arms range does not pass over the purchased property. However, it does encumber most of Parcel G and some privately held property. The privately held portion where the surface danger zone passes over is to be used

under easement provisions that would be purchased by TNC using the same encroachment partnering vehicle (Penwell 2006).

Predominant land uses in the general area are rural residential, agriculture, and recreation (e.g., horseback riding, hiking, and camping). The public land that is part of the Proposed Action area is designated Public/Semi Public lands. The community located nearest to the Proposed Action area is Campo (San Diego 2003b) (see Figure 1-1).

3.6 PUBLIC FACILITIES ACCESS

The existing withdrawal was designated in a 1964 Public Land Order, which stated the lands were "...withdrawn from all forms of appropriation under the public lands law..." and "...reserved for use of the Department of the Navy for a Microwave Space Relay Station." Approximately 16.2 hectares (40 acres) of land around the microwave space relay station structures have been fenced for security purposes and are not open to public use. Although the DON's current use of the existing withdrawal is not entirely compatible with use by the general public, the lands are generally not fenced and are available for some use by the local public. There are no existing recreation and community support facilities within or near the Proposed Action area although some areas have social trails that are used for recreational purposes. The remainder of the Proposed Action area is currently not withdrawn and can be used by the general public.

3.7 SOCIOECONOMICS

This section discusses existing conditions for population, housing, employment, minority population trends, income, and environmental justice for children. Other resource areas that could affect the public are addressed in Section 3.5 (Land Use), Section 3.6 (Public Access/Coastal Zone Management), Section 3.9 (Air Quality), Section 3.10 (Noise), and Section 3.13 (Utilities and Public Services).

3.7.1 Population

The Proposed Action area is located within the SANDAG East County Major Statistical Area (MSA) 6 and Mountain Empire Subregional Area (SRA) 62 (Figure 3-16). Table 3-14 presents population characteristics, including populations in 2000, as well as projected populations for 2010, 2020, and 2030 and the percent change for these statistical areas. As shown in Table 3-14, the total county population is projected to increase 38 percent from 2000 to 2030. MSA 6 is expected to experience a much greater increase (112 percent) as is SRA 62 (118 percent).

**Table 3-14
Population and Estimated Growth for San Diego County
and Areas near the Proposed Action Area**

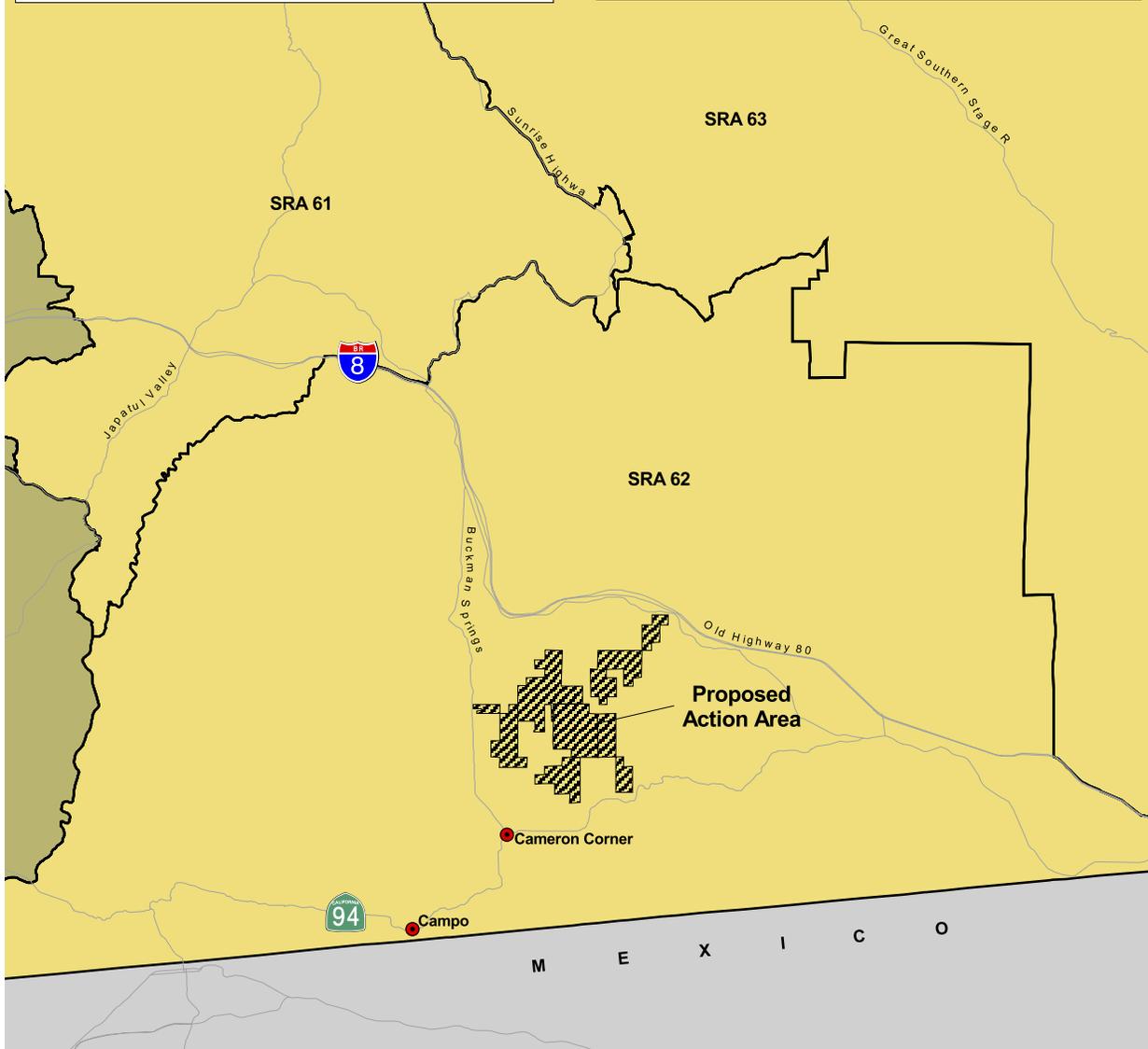
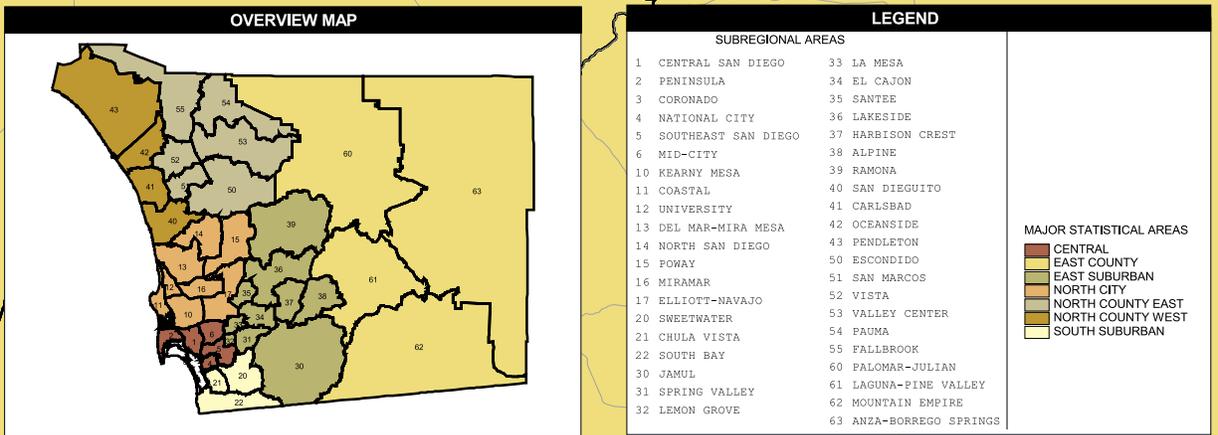
	2000 ¹	2010	2020	2030	Percent Change
San Diego County	2,813,833	3,235,675	3,598,871	3,889,604	38%
MSA 6	21,104	24,726	27,597	44,755	112%
SRA 62	6,485	7,450	8,198	14,165	118%

¹From 2000 Census.

Source: SANDAG 2002a, b, c; 2003a, b.

3.7.2 Housing

According to the 2000 census, the housing stock in San Diego County was 1,040,149 units. The largest portion of the housing stock in 2000 was composed of single-family units (60 percent). Multi-family units accounted for 35 percent of the remaining housing stock in the county. As shown in Table 3-15, the number of housing units for the county is expected to increase 33 percent from 2000 to 2030. A much greater increase (85 percent) is projected for MSA 6 over the same period. SRA 62 is expected to experience an even larger increase (116 percent).



Source: SANDAG 2000

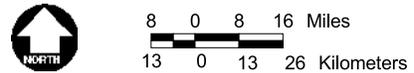


Figure 3-16
Major Statistical Areas
and Subregional Areas

Table 3-15
Total Housing Units and Estimated Growth for San Diego County
and Areas near the Proposed Action Area

	2000 ¹	2010	2020	2030	Percent Change
San Diego County	1,040,149	1,161,259	1,267,943	1,379,644	33%
MSA 6	11,688	12,280	13,357	21,568	85%
SRA 62	2,673	2,987	3,269	5,774	116%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c; 2003a, b.

3.7.3 Employment

The economy of the San Diego region is based primarily on the service, retail trade, government, and manufacturing sectors. As of October 2003, the county average unemployment rate was 4.2 percent, well below the state rate of 6.9 percent (EDD 2003).

The estimated total employment for San Diego County, MSA 6, and SRA 62 is shown in Table 3-16. The estimated total employment for the county is expected to increase 36 percent from 2000 to 2030. MSA 6, which includes the Proposed Action area, has a much greater anticipated increase of 88 percent. SRA 62 is projected to have a much greater increase of 103 percent.

Table 3-16
Total Employment and Estimated Growth for San Diego County
and Areas near the Proposed Action Area

	2000 ¹	2010	2020	2030	Percent Change
San Diego County	1,384,673	1,590,206	1,777,652	1,883,395	36%
MSA 6	6,837	8,213	10,056	12,882	88%
SRA 62	2,030	2,740	3,257	4,129	103%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c; 2003a, b.

3.7.4 Environmental Justice

Executive Order 12898, 59 Federal Register 7629, Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations, signed in February 1994, directs federal agencies "...to make achieving environmental justice part of its mission by identifying

and addressing...disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority population and low-income population in the [U.S.].” The aim of the Executive Order is to prevent low-income and minority populations from being subjected to disproportionately adverse environmental effects.

The following provides information on the race and ethnicity of populations near the Proposed Action area, as well as economic status. The goal is to identify whether there are minority or low-income populations in the vicinity of the Proposed Action area. To provide a context for considering these data, it is appropriate to compare the same categories for the local jurisdiction and larger region. Therefore, these data provide information on ethnicity and median income for the Proposed Action area compared to the local jurisdiction and San Diego County. For this EA, the environmental justice-affected environment is described in terms of minority and low-income population in the East County MSA and SRA 62.

3.7.4.1 Minority Population Trends

Table 3-17 presents the information on minority populations for San Diego County and the areas near the Proposed Action area. As can be seen by this table, most of the individuals in the surrounding area are nonminority. MSA 6 has a lower minority population percentage than the county as a whole. SRA 62 also has a lower minority population percentage than the county as a whole.

**Table 3-17
Population and Ethnicity for San Diego County
and Areas near the Proposed Action Area**

Race/Ethnicity¹	MSA 6	SRA 62	San Diego County
White	15,239	3,939	1,548,833
Black	377	152	154,487
Other	1,575	669	359,548
Hispanic ²	3,913	1,725	750,965
Total	21,104	6,485	2,813,833
Total Minority	5,865	2,546	1,265,000
Percent Minority	28%	39%	45.0%

¹ From 2000 Census.

² The Hispanic category is an ethnic, rather than a racial distinction. These tables therefore include only non-Hispanic individuals in the black, white, and other categories to avoid overcounting.

Source: SANDAG 2001, 2003c, d.

3.7.4.2 Median Household Income

Table 3-18 presents the information on low-income populations for San Diego County and areas near the Proposed Action area. As can be seen by this table, most of the individuals in the surrounding area have an income less than the county median. Both MSA 6 (\$40,809) and SRA 62 (\$36,235) have a median estimated income lower than the county as a whole (\$47,538). Additionally, in 1999 (the last year for which data are available) 8.9 percent of all individuals in San Diego County were considered below poverty level.

Table 3-18
Median Household Income for San Diego County
and Areas near the Proposed Action Area

Area	Median Income ¹	Median Income by County	Percent of County Median
MSA 6	\$40,809	\$47,538	86%
SRA 62	\$36,235	\$47,538	76%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c

Census Tract 211, which geographically corresponds very closely to SRA 62, has a population of 14.4 percent below poverty level (U.S. Census Bureau 2000).

3.7.4.3 Environmental Health and Safety Risks to Children

Executive Order 13045, Environmental Health and Safety Risks to Children (62 Fed. Regs. 1988 [1997]), was signed in 1997. The policy of the Executive Order states that:

A growing body of scientific knowledge demonstrates that children may suffer disproportionately more environmental health risks and safety risks. These risks arise because: children's neurological, immunological, digestive, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults; children's size and weight may diminish their protection from standard safety features; and children's behavior patterns may make them more susceptible to accidents because they are less able to protect themselves. Therefore, to the extent permitted by law and appropriate, and consistent with the agency's mission, each Federal agency:

(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and

(b) ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

Under the definitions provided in Executive Order 13045, covered regulatory actions include those that may be “economically significant” (under Executive Order 12866) and “concern an environmental health risk or safety risk that an agency has reason to believe may disproportionately affect children.” Further, Executive Order 13045 defines “environmental health risks and safety risks” [to] “mean risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breath, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to).” To comply with the executive order, this section of the EA discusses child-specific environmental health risk and safety risk issues associated with the Proposed Action.

At the time of preparation of this document, there were no published strategies or guidelines on the implementation of the Executive Order. It is possible, however, to summarize likely sources of environmental health and safety risks to children resulting from the project alternatives, and to characterize the potentially impacted populations.

Census 2000 demographic profiles were obtained from SANDAG for the Proposed Action area. Demographic census data are broken down by age into 5-year increments up through age 19 (Table 3-19). Because of this presentation of data, in this analysis children are considered to be from the age of birth to 19 years old.

The Proposed Action area is located within the Mountain Empire Unified School District. The closest schools to the Proposed Action area are Campo Elementary School, Clover Flat Elementary School, and Campo High Continuation School. All of these schools are located at least 1.6 kilometers (1 mile) from the Proposed Action area. There are no day care centers or other youth facilities within 1.6 kilometers (1 mile) of the Proposed Action area.

Table 3-19
Age Breakdown for San Diego County
and Areas near the Proposed Action Area

Age¹	MSA 6	Percent of total in MSA 6	SRA 62	Percent of total in SRA 62	San Diego County	Percentage of Total in San Diego County
Under 5	1,050	5%	382	6%	198,621	7%
5 to 9	1,348	6%	484	8%	212,829	8%
10 to 14	1,588	8%	543	8%	199,669	7%
15 to 19	1,609	8%	654	10%	198,993	7%
20 and older	15,509	73%	4,422	68%	2,002,795	71%
Total	21,104	100%	6,485	100%	2,812,907	100%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c.

3.8 TRAFFIC AND CIRCULATION

3.8.1 Regional Roadways and Circulation

3.8.1.1 Primary Roadways

The principal east-west routes in the vicinity of the Proposed Action area are I-8, the primary highway between San Diego and Yuma, Arizona, that passes north of the area, and SR 94, the primary road between San Diego and Tecate, California, which passes south of the area. La Posta Road, a two-lane rural collector road, connects I-8 to SR 94 and runs through the Proposed Action area (Figure 3-17). La Posta Road had an average weekday traffic volume of 851 in 2000. This number is expected to increase to 1,051 by 2020 (SANDAG 2003e).

3.8.1.2 Circulation Patterns

La Posta Road provides access to the Proposed Action area from either I-8 to the north or SR 94 to the south. From La Posta Road, the existing withdrawal area can be accessed through a locked gate. Additional access to the existing withdrawal is via dirt roads and trails. The majority of the dirt roads and trails leading onto the existing withdrawal are gated.

3.8.2 Proposed Action Area Roadways and Circulation

The primary access within the existing withdrawal is via a one-lane paved road approximately 2.4 kilometers (1.6 miles) in length. The road extends from La Posta Road to the nonoperational microwave dish where the majority of the facilities are located. There is approximately 1 hectare (2.5 acres) of paved area that provides parking and controls drainage around the existing buildings. This road also provides access to the range complex and the CQC facility. In addition to this, there are approximately 13 kilometers (8 miles) of unpaved roads and truck trails that provide access to the more remote areas of the facility. These roads are subject to severe erosion and washout during heavy rains. The traffic volume is extremely light and averages less than 10 vehicles per day (U.S. DON 1998). Access to the withdrawal parcels and ROW parcels is via dirt roads or trails off of Buckman Springs or La Posta Road.



Source: Thomas Bros, 2002



No Scale

Figure 3-17
Traffic/Circulation

3.9 AIR QUALITY

3.9.1 Applicable Regulations, Plans, and Policies

The Federal Clean Air Act (CAA) (42 USC § 7401) requires the adoption of National Ambient Air Quality Standards (NAAQS) to protect the public health, safety, and welfare from known or anticipated effects of air pollution. Current standards are set for sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter equal to or less than 10 microns in size (PM₁₀), fine particulate matter equal to or less than 2.5 microns in size (PM_{2.5}), and lead (Pb). These pollutants are collectively referred to as criteria pollutants. The State of California Air Resources Board (CARB) has established additional standards, which are generally more restrictive than the NAAQS. Federal and state standards are shown in Table 3-20.

The 1990 Amendments to CAA Section 176 require the USEPA to promulgate rules to ensure that federal actions conform to the appropriate State Implementation Plan (SIP). These rules, known together as the General Conformity Rule (40 CFR §§ 51.850-860 and 40 CFR §§ 93.150-.160), require any federal agency responsible for an action in a nonattainment area to determine that the action conforms to the applicable SIP or that the action is exempt from the General Conformity Rule requirements. This means that federally supported or funded activities will not (1) cause or contribute to any new air quality standard violation, (2) increase the frequency or severity of any existing standard violation, or (3) delay the timely attainment of any standard, interim emission reduction, or other milestone. Actions would conform to an SIP and be exempt from a conformity determination if an applicability analysis showed that the total direct and indirect emissions from the project construction and operation activities would be less than specified emission rate thresholds, known as *de minimis* limits, and that the emissions would be less than 10 percent of the area emission budget. DON policy and procedures for compliance with the General Conformity Rule are provided in CNO OPNAVINST 5090.1B Change-3, Appendix G, Clean Air Act General Conformity Guidance (DON 2002c).

The Proposed Action area is located in the San Diego Air Basin (SDAB), which covers the same area as San Diego County. In San Diego County, the San Diego Air Pollution Control District (SDAPCD) is the agency responsible for protecting the public health and welfare through the administration of federal and state air quality laws and policies. Included in the SDAPCD's tasks are the monitoring of air pollution, the preparation of the San Diego County portion of the

**Table 3-20
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	NAAQS ¹		CAAQS ²
		Primary ³	Secondary ⁴	Concentration ⁵
Ozone (O ₃) ⁶	1-Hour	-	-	0.09 ppm (180 µg/m ³)
	8-Hour	0.08 ppm (157 µg/m ³)	Same as Primary Standard	0.070 ppm (137 µg/m ³) ⁹
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	None	9.0 ppm (10 mg/m ³)
	1-Hour	35 ppm (40 mg/m ³)		20 ppm (23 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual Average	0.053 ppm (100 µg/m ³)	Same as Primary Standard	-
	1-Hour	-		0.25 ppm (470 µg/m ³)
Sulfur Dioxide (SO ₂)	Annual Average	0.03 ppm (80 µg/m ³)	-	-
	24-Hour	0.14 ppm (365 µg/m ³)	-	0.04 ppm (105 µg/m ³)
	3-Hour	-	0.5 ppm (1300 µg/m ³)	-
	1-Hour	-	-	0.25 ppm (655 µg/m ³)
Suspended Particulate Matter (PM ₁₀)	24-Hour	150 µg/m ³	-	50 µg/m ³
	Annual Arithmetic Mean	50 µg/m ³	Same as Primary Standard	20 µg/m ³ note 7
Fine Particulate Matter (PM _{2.5}) ⁶	24-Hour	65 µg/m ³	-	-
	Annual Arithmetic Mean	15 µg/m ³	Same as Primary Standard	12 µg/m ³ note 7
Lead (Pb) ⁸	30-Day Average	-	-	1.5 µg/m ³
	Calendar Quarter	1.5 µg/m ³	Same as Primary Standard	-
Hydrogen Sulfide (HS)	1-Hour	No Federal Standards		0.03 ppm (42 µg/m ³)
Sulfates (SO ₄)	24-Hour			25 µg/m ³
Visibility Reducing Particles	8-Hour (10 am to 6 pm, Pacific Standard Time)			In sufficient amount to produce an extinction coefficient of 0.23 per km due to particles when the relative humidity is less than 70 percent.
Vinyl chloride ⁸	24-Hour			0.01 ppm (26 µg/m ³)

¹ NAAQS (other than O₃, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is not to be exceeded more than once per year. The annual standard is attained when the 3-year average of the weighted annual mean at each monitor within an area does not exceed 50 µg/m³. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, do not exceed 65 µg/m³. The annual standard is attained when the 3-year average of the weighted annual mean at single or multiple community-oriented monitors does not exceed 15 µg/m³.

² California Ambient Air Quality Standards for O₃, CO (except Lake Tahoe), SO₂ (1- and 24-hour), NO₂, PM₁₀, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.

³ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

⁴ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; km = kilometer
Source: CARB 2006a; USEPA 2006a.

⁵ Concentration expressed first in units in which it was promulgated. Ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.

⁶ The federal 1-hour O₃ standard was revoked for most areas of the United States, including all of California on 15 June 2005.

⁷ On 5 June 2003, the Office of Administrative Law approved the amendments to the regulations for the state ambient air quality standards for particulate matter and sulfates. Those amendments established a new annual average standard for PM_{2.5} of 12 µg/m³ and reduced the level of the annual average standard for PM₁₀ to 20 µg/m³. The approved amendments were filed with the Secretary of State on 5 June 2003. The regulations became effective on 5 July 2003.

⁸ The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

⁹ The Air Resources Board approved this concentration on 28 April 2005 and it is expected to become effective in early 2006.

SIP, and the promulgation of Rules and Regulations. The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the county; this list of strategies is called the Regional Air Quality Strategy. The Rules and Regulations include procedures and requirements to control the emission of pollutants and prevent significant adverse impacts.

3.9.2 Climate and Meteorology

Southern California is classified as having a semiarid climate, although it contains three distinct zones of rainfall with coinciding floristic patterns. The climatic zones may be roughly defined as being coincident with the broad geographic regions composed of coast, mountains, and desert. Subregions exist within these regions and consist of coastal valleys lying below the mountains, separated from the ocean shore by plateaus and low hills immediately behind the coastline. The main features that characterize the Proposed Action area are inland mountains.

The Proposed Action area is best characterized by climatological data taken at Campo, California, which is located less than 5 kilometers (3 miles) from the Proposed Action area. These data indicate a temperature range of 1 to 34°C (33 to 94°F). Annual average rainfall in this area is 38 centimeters (15 inches), with the greatest rainfall occurring between the months of November and April where average monthly rainfall exceeds 2.5 centimeters (1 inch) (WRCC 2003).

3.9.3 Compliance with Air Quality Standards/Regional and Local Air Quality

Specific geographic areas are classified as either “attainment” or “nonattainment” for each pollutant based upon the comparison of measured data with NAAQS and state standards. The SDAB currently meets the federal standards for all criteria pollutants except O₃, for the 8-hour standard, and meets state standards for all criteria pollutants except O₃, PM_{2.5}, and PM₁₀. On 15 April 2004, the USEPA issued the initial designations for the 8-hour O₃ standard, and the majority of the SDAB is classified as “basic” nonattainment (USEPA 2006b; SDAPCD 2004). Basic is the least severe of the six degrees of O₃ nonattainment. The SDAPCD must submit an air quality plan to the USEPA in 2007; the plan must demonstrate how the 8-hour O₃ standard will be attained by 2009 (SDAPCD 2004). Small portions of the eastern portion of San Diego County associated with the Campo Cuyapaipe, La Posta, and the Manzanita Indian Reservations are designated as attainment (USEPA 2006b). The SDAB is a federal “maintenance area” for CO, following a 1998 redesignation as a CO attainment area.

The SDAB is currently classified as a state “serious” O₃ nonattainment area and a state nonattainment area for PM₁₀. For PM_{2.5}, the SDAB is currently classified as a state nonattainment area.

The closest SDAPCD air quality monitoring station in the SDAB is the Alpine monitoring station, located at 2300 Victoria Drive, Alpine, approximately 37 kilometers (23 miles) northwest of the Proposed Action area. The station monitors O₃ and NO₂. No other monitoring stations are located near enough to the Proposed Action area to be used to characterize other criteria pollutants. Table 3-21 summarizes the excesses of standards and the highest pollutant levels recorded at this station for the years 2000 to 2005.

3.9.4 Local Sources of Pollutants

Regional Sources

The most significant regional sources of O₃, NO₂, and CO are automobiles and other on-road vehicles. O₃ is formed by the atmospheric reaction, in sunlight, of volatile organic compounds (VOC) and oxides of nitrogen (NO_x), which are combustion products from gas and diesel engines.

Other important sources of VOC are paints, coatings, and process solvents. Combustion sources like vehicles, diesel engines, and industrial facilities also emit the fine particulate matter.

The major sources of PM₁₀ are construction, demolition, and dust from paved and unpaved roads. Coarser particles are directly emitted from activities that disturb the soil including travel on roads and construction, mining, or agricultural operations. Other sources include wind-blown dust, pollen, salts, brake dust and tire-wear. Although PM_{2.5} is a subset of PM₁₀, it differs from the rest of PM₁₀. While the majority of ambient PM₁₀ results from direct emissions of the pollutant, a significant amount of the ambient PM_{2.5} results not only from direct emissions but also from transformation of precursors and condensing of gaseous pollutants in the atmosphere. Other than direct PM_{2.5} emissions, the key pollutants contributing to PM_{2.5} concentrations in the atmosphere are SO₂, NO_x, VOC, and ammonia (USEPA 2006c).

Odors

During visits on 3 March 2004 and 16 March 2004, weapons firing generated small amounts of sulfurous smells. These odors were not detectable beyond 61 meters (200 feet) from the weapons. No other offensive odors were detected in the project area or at nearby properties.

**Table 3-21
Ambient Air Quality Summary, Alpine-Victoria Drive Monitoring Station**

Pollutant	Averaging Time	California Air Quality Standards	Federal Primary Standards	Maximum Concentrations ⁽¹⁾					Number of Days Exceeding Federal Standard ⁽²⁾					Number of Days Exceeding State Standard ⁽²⁾				
				2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Ozone	1 hour	0.09 ppm	0.12 ppm	0.135	0.121	0.125	0.106	0.113	1	0	1	0	0	22	13	18	5	8
	8 hour	none	0.08 ppm	0.116	0.100	0.103	0.90	0.88	15	12	6	2	1	-	-	-	-	-
Nitrogen	1 hour	0.25 ppm	none	0.067	0.068	0.071	0.063	0.061	-	-	-	-	-	0	0	0	0	0
Dioxide	Annual	none	0.053 ppm	0.014	0.013	0.014	0.011	0.011	0	0	0	0	0	-	-	-	-	-

“-” = data not available or applicable.

⁽¹⁾ Concentration units for ozone and nitrogen dioxide are in parts per million (ppm). ⁽²⁾ For annual standards, a value of 1 indicates that the standard has been exceeded.

Source: CARB 2006b.

Sensitive Air Quality Receptors

Sensitive receptors are those populations that are more susceptible to the effects of air pollution than the population at large. Sensitive receptors in proximity to localized sources of toxics and CO are of particular concern. Sensitive receptors include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. For air quality analysis, sensitive receptors within 400 meters (0.25 mile) of a site are typically identified.

The nearest sensitive receptors to the project area are the single-family homes adjacent and west of La Posta Road, approximately 122 meters (400 feet) south of the existing property boundaries and approximately 183 meters (600 feet) east of the boundary of Parcel C.

3.10 NOISE

Noise is generally defined as unwanted or annoying sound that is typically associated with human activity and that interferes with or disrupts normal activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day and the type of activity during which the noise occurs, and the sensitivity of the individual. Therefore, the “A-weighted” noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are sometimes written dB(A) or dBA.

In the United States, several noise metrics have been developed to describe noise levels depending on the character of the noise. Average noise levels over a period of minutes or hours are usually expressed as dB L_{eq} , the equivalent noise level. The period of time average may be specified; $L_{eq(3)}$ would be a 3-hour average. For continuous noise sources, such as roadways, noise levels are often averaged over a period of 24 hours and are normally weighted to account for greater human sensitivity to noise in the evening and nighttime hours. These 24-hour noise metrics are the Community Noise Equivalent Level (CNEL) and the Day-Night level (DNL or L_{dn}). However, as the firing ranges at the existing withdrawal do not operate during the nighttime hours, the L_{eq} is the most appropriate method for describing noise impacts due to the Proposed Action.

3.10.1 Applicable Plans, Policies, and Regulations

Planning in the Noise Environment, Naval Facilities Engineering Command (NAVFAC) P-970, published by the U.S. Departments of the Air Force, Army, and Navy (U.S. DON 1978), provides compatibility criteria for various land uses. Exterior sound levels up to 65 dBA CNEL are compatible with land uses such as residences, transient lodging, classrooms, and medical facilities. Appropriate noise mitigation is required for development in areas where the CNEL would exceed 65 dBA. Sound levels exceeding 75 dBA CNEL are incompatible with these types of land uses. Currently, there are no DON regulations that restrict noise emissions from stationary noise sources either at the property line or within a DON facility.

NAVFAC P-970 also indicates that impulse sounds should be considered separately when the peak noise level exceeds 110 dBA, and that when peak sound levels exceed 140 dBA, evaluation of effects such as hearing loss and structural damage should be undertaken.

3.10.2 Noise Sources

The dominant noise sources in the Proposed Action area are the various training operations at the existing weapons ranges. Other noise sources include ongoing facilities maintenance and construction, off-road vehicular traffic, vehicular traffic to and from the microwave area, aircraft flyovers, agricultural activities, and vehicles on La Posta Road. The Proposed Action area is not located near an airport or rail operations.

3.10.3 Sensitive Receptors

Human noise-sensitive receptors are generally considered to be persons who occupy areas where noise is an important attribute of the environment. These areas often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, education facilities, and libraries. Noise-sensitive receptors may also include wildlife, including certain songbirds.

3.10.3.1 Proposed Action Area

The Proposed Action area is located in an area with primarily rural residential and agricultural land uses. The nearest noise-sensitive receptors to the Proposed Action area are located north and west of the existing withdrawal approximately 152 meters (500 feet) and 304 meters (1,000 feet), respectively, and consist of single-family residential land uses. They are both approximately 1,524 meters (5,000 feet) from the existing small arms ranges. There are no sensitive noise receptors within the boundaries of the Proposed Action area.

3.10.4 Existing Noise Levels

Noise level measurements were conducted at various locations on 3, 16, and 19 March 2004 (Figure 3-18). Ambient noise measurements included the range (approximately 15 meters [50 feet] behind the firing line), existing property boundaries, and residential properties in the surrounding community. Noise meters used included two Larson-Davis Laboratories Model 712 Type 2 sound level meters and a Larson-Davis Laboratories Model 720 Type 2 sound level meter. The meters were calibrated before and after use according to the manufacturer's recommendations.

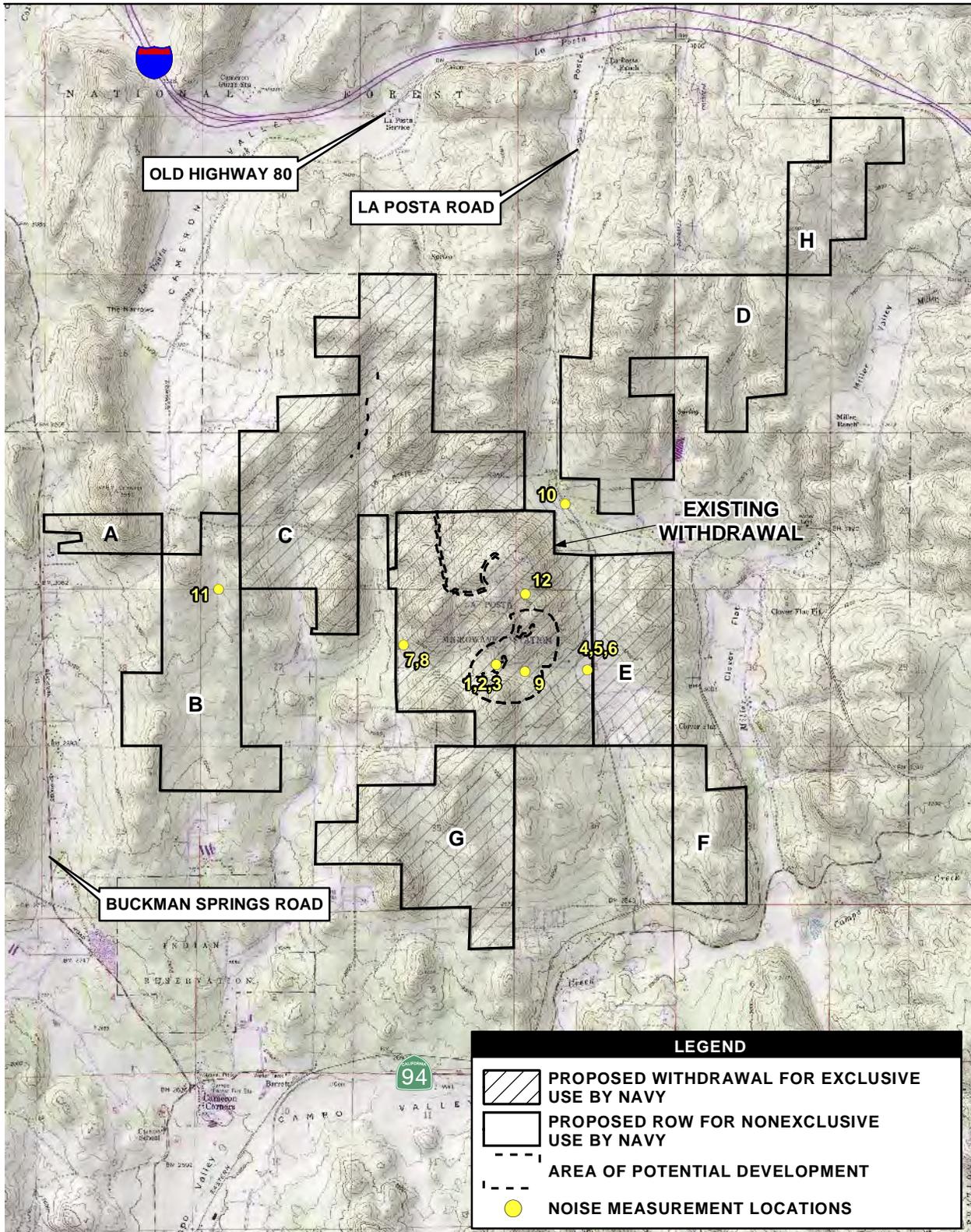


Figure 3-18
Noise Measurement Locations

The following parameters were used with all the meters:

Filter: A-weighted
Response: Fast
Time History Period: 1 second

Noise measurements 1, 4, 10, 11, and 12 were taken on 3 March 2004. The temperature ranged from 9°C (49°F) in the morning to 14°C (57°F) in the afternoon, with a westerly wind constant throughout the day. Average wind speeds were 3 kilometers per hour (kph) (2 miles per hour [mph]) with gusts of up to 19 kph (12 mph). During the measurement period on 3 March, approximately 15 personnel were at the range complex firing a combination of 9-mm (M9) pistols, and 5.56-mm (M4) rifles. Measurement Site (MS) 1 was located approximately 15 meters (50 feet) east of the firing line in a range area adjacent to the active range, with an intervening 3.3-meter-high (10-foot-high) earthen berm. Noise measurements at MS 1 represent noise levels in the range area with attenuation due to the existing berms. MS 4 was located approximately 15 meters (50 feet) west of La Posta Road inside the fenced area of the existing withdrawal and represents ambient noise levels at the western edge of the existing withdrawal. MS 10 was located 15 meters (50 feet) north of La Posta Road across from 2460 La Posta Road and is representative of ambient daytime noise levels in that area at the nearest residential land uses. MS 11 was located at the northern terminus of Campo Truck Trail near the entrance to Wandering Springs Ranch and is representative of ambient daytime noise levels in that area. MS 12 was located just south of the parking lot area for the existing withdrawal and is representative of ambient noise levels at the on-site offices and facilities.

Noise measurements 2, 5, and 7 were taken on 16 March 2004 with approximately 30 personnel firing 9-mm pistols. The temperature ranged from 24°C (75°F) in the morning to 27°C (80°F) in the afternoon, with westerly winds constant throughout the measurement period. Average wind speeds were 5 kph (3 mph) with gusts of up to 29 kph (18 mph). MS 2 was located directly behind the firing line approximately 15 meters (50 feet) and represents noise levels at the range during M9 firing. MS 5 was located in the same location as MS 4 and represents noise levels at the eastern property boundary, along La Posta Road, during M9 firing. MS 7 was taken at the western property boundary approximately 1.6 kilometer (1 mile) south of the northern boundary of the existing withdrawal and represents noise levels at the western property boundary with an active range.

Noise measurements 3, 6, 8, and 9 were taken on 19 March 2004 with approximately 30 personnel firing 5.56-mm rifles, the most commonly used round. The temperature was 23°C (73°F) with no measurable wind. MS 3 was located behind the firing line approximately 15

meters (50 feet) and represents the noise levels at the range during M4 firing. MS 6 was at the same location as MS 4 and MS 5 and represents noise levels along the eastern property boundary during M4 firing. MS 8 was positioned in the same location as MS 7 and represents the ambient noise level along the western property line. MS 9 was located approximately 305 meters (1,000 feet) west of MS 6 and is used to calculate the noise attenuation over distance at the existing withdrawal. Existing noise level measurements are summarized in Table 3-22.

**Table 3-22
Existing Noise Level Measurements**

ID No.	Location	Date	Time	Noise Level, dBA		
				L _{eq}	L _{max}	L _{min}
1	Firing range, 15 meters (50 feet) north of firing line	3 March 2004 ¹	10:30 – 11:29	80	96	36
2	Firing range, 15 meters (50 feet) behind firing line	16 March 2004 ²	9:16 – 11:31	90	112	36
3	Firing range, 15 meters (50 feet) behind firing line	19 March 2004 ³	7:49 – 9:00	87	112	36
4	Eastern property boundary (46 meters [150 feet] south of entrance gate)	3 March 2004	12:19 – 12:35	49	64	34
5	Eastern property boundary (46 meters [150 feet] south of entrance gate)	16 March 2004	9:22 – 10:17	54	76	34
6	Eastern property boundary (46 meters [150 feet] south of entrance gate)	19 March 2004	7:53 – 8:38	45	64	33
7	Western property boundary	16 March 2004	10:34 – 11:19	54	78	33
8	Western property boundary	19 March 2004	8:43 – 8:53	38	53	33
9	30 meters (100 feet) south of access road, approximately 1,000 feet east of range	19 March 2004	7:56 – 9:04	51	93	37
10	Residential area along La Posta Road north of existing site	3 March 2004	15:29 – 15:41	57	77	33
11	Residential properties along Campo Truck Trail east of existing site	3 March 2004	13:47 – 14:13	48	65	36
12	Microwave Space Relay Station parking lot	3 March 2004	16:14 – 16:19	41	54	34

¹ Temperatures ranged from 9°C (49°F) in the morning to 14°C (57°F) in the afternoon. Winds from the west at 3 kph (2 mph) gusting up to 19 kph (12 mph).

² Temperatures ranged from 24°C (75°F) in the morning to 27°C (80°F) in the afternoon. Winds from the west at 5 kph (3 mph) gusting up to 29 kph (18 mph).

³ Temperature was 23°C (72°F) with no measurable wind.

As shown in Table 3-22, average noise levels at the range area during firing exercises exceeds 80 dBA L_{eq} and can vary by approximately 10 dBA L_{eq} depending on location. Noise levels along the eastern property boundary are generally unaffected by weapons fire due to traffic noise generated by vehicles on La Posta Road. Noise levels along the western boundary show an

increase of approximately 16 dBA L_{eq} over ambient noise levels with the range active; however, during range activities, the observed L_{max} increased by less than 2 dBA over ambient when weapons were fired. Measurements taken on 16 March may have been influenced by wind gusts as noise levels along the eastern and western property boundaries are similar for that day. Due to the similarity of noise levels recorded at MS 5 and MS 7, it can be assumed that noise levels at the eastern and western property boundaries from weapons firing at the existing ranges are of similar magnitude. As winds were calm during the 19 March measurements, it has been determined that the noise level readings taken at MS 6 are most representative of the actual influence of weapons fire at the property boundaries.

3.11 AESTHETICS

The Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to protect the quality of scenic values on public lands (43 USC 1701). BLM has developed the Visual Resource Management (VRM) system. When a specific project is proposed, the degree of contrast between the proposed activity and the existing landscape is measured (Contrast Rating). The Contrast Rating process compares the proposed activity with existing conditions element-by-element (form, line, color, texture) and feature-by-feature (land/water, surface, vegetation, structures). The Contrast Rating is compared to the appropriate Management Class to determine if contrasts are acceptable. If the proposed project exceeds the allowable contrast, a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts. The VRM Management Class Objectives are defined as follows (BLM 2002):

- Class 1: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to wilderness areas, wild and scenic rivers, and other similar situations.
- Class 2: Changes in any of the basic elements caused by management activity should not be evident in the characteristic landscape. Contrasts are visible but must not attract attention.
- Class 3: Changes to the basic elements caused by management activity may be evident, but should remain subordinate to existing landscape.
- Class 4: Any contrast may attract attention and be a dominant feature of the landscape in terms of scale, but it should repeat the form, line, color, and texture of the characteristic landscape.
- Class 5: This classification is applied to areas where natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications.

The Proposed Action area lies within the mountainous region of eastern San Diego County. It is characterized by a series of mountain ranges and hills and it is almost completely undeveloped aside from rural residential and some agricultural use. Development within the existing withdrawal consists of a 16-hectare (40-acre) fenced area containing eight buildings (including the nonoperational microwave dish) used for office, classroom, and berthing space; a helicopter pad; a general purpose storage area; a paved access road with a metal gate; and a small arms

range complex (three small arms ranges) including a CQC facility and three water wells. The open space in the Proposed Action area affords a view and a sense of the southern California mountain region as it essentially was before the explosive population growth in the nearby coastal urban areas. The existing withdrawal and surrounding public lands are BLM Class 3.

3.11.1 Viewscape

The general viewscape of the Proposed Action area is that of rugged, mountainous terrain with steep slopes, sheer rock cliffs, and frequent rock outcroppings. The satellite dish is a highly prominent landmark and portions are visible for many miles from outside the Proposed Action area. Access to the existing withdrawal is provided from La Posta Road up a paved, single-lane road, and other limited portions of the Proposed Action area are crossed by unimproved dirt roads. Development in the existing withdrawal area is devoted entirely to operations and training activities.

3.11.2 Visibility from Areas Surrounding the Proposed Action Area

Land uses surrounding the Proposed Action area are devoted almost entirely to rural residential or agricultural pursuits with some additional recreational use, primarily by adjacent residents. Due to its location in the unincorporated part of eastern San Diego County and the distance from any developed areas such as the communities of Cameron Corners or Campo, much of the Proposed Action area cannot be viewed by the general public from off-site. Exceptions are the Microwave Space Relay Station, including the satellite dish and lights from the 16.2-hectare (40-acre) fenced compound; portions of the existing withdrawal area, including the gate, access road, pumphouse for well, and portions of the range complex; and portions of Parcel E visible from La Posta Road. The exterior portions of all the parcels proposed for withdrawal or ROW are visible from public roads in the area. However, the area proposed for development within Parcel C is not visible from off-site. The Proposed Action area is also viewable by military personnel engaged in normal training activities at the Proposed Action area; however, they are not considered sensitive viewers.

3.11.3 Light and Glare

Light sources in the Proposed Action area include building (administrative) lighting for safety and security. The lighting is concentrated around the eight buildings used for office, classroom, and berthing space. Security lights may be on at night for security or training purposes.

Glare is reflective light that can be visually unpleasant or possibly unsafe due to the potential for temporary “blindness.” Glare is created by light (usually from the sun) bouncing off of smooth surfaces such as glass, metal, water, or polished stone. Development within the existing withdrawal consists of buildings and structures that were primarily designed and constructed for utility rather than aesthetics. There is a lack of decorative surfaces, including those that could cause glare, with the exception being the microwave dish. The majority of buildings and structures have nonreflective surfaces. The metal sidings of some of the larger maintenance and storage buildings, however, do have some potential for glare.

3.11.4 Designated Scenic Areas

There are two scenic corridors identified on the “Scenic Highway System Plan Map” that are in proximity to the Proposed Action area. These third priority scenic routes are:

- I-8, from SR 79 east to Imperial County Line, and
- Buckman Springs Road, from Lake Morena Drive to SR 94

3.12 ENVIRONMENTAL HEALTH AND SAFETY

3.12.1 Hazardous Materials and Wastes

The ammunition and explosives safety policies of the DON are directed at providing high-quality ammunition in sufficient quantity to satisfy fleet requirements in a safe manner. These policies emphasize safe and efficient operating requirements while maximizing the protection of valuable resources and personnel. If unexploded ordnance was encountered, military explosive ordnance disposal teams would be mobilized to the area to effect disposal (U.S. DON 1998). All lead-based paint has been encapsulated. Weapons cleaning solvents and residue are properly stored and disposed of. Solvent tanks are self-contained and solvent is filtered to extend useful life. Lead from range maintenance activities is stored and disposed of properly (Penwell 2004). Universal wastes, a subset of hazardous wastes that includes even household types of items such as alkaline batteries, all lamps except incandescent lamps, mercury-containing devices such as thermostats, cathode ray tubes, consumer electronic devices, and aerosol containers, are also present on the site and are currently being segregated, stored, managed, and properly disposed of in accordance with the current (2006) CNRSW Environmental Waste Management Plan.

3.12.2 Range Safety

The existing range complex is bermed and configured to fire into a hillside. A surface danger zone extending out to 1,840 meters (2,102 yards) from the firing position has been established. The current MWTF has a variety of range safety procedures in place to ensure human health and safety. All military personnel and visitors are required to check in with the Officer in Charge prior to entering the facility. The firing ranges and surface danger zones are controlled actively during any firing exercises. Fire prevention is a concern at the facility. Due to the abundance of vegetation, a fire that occurred during high wind conditions could quickly exceed immediate suppression capabilities. There are currently no formal firebreaks on-site other than existing roads and trails. To minimize range-related fire risks, tracer rounds, which are a common ignition source, are not allowed on the facility at any time. No explosive projectiles are used, therefore, there is no explosive residue (Penwell 2004).

3.12.3 Ammunition Storage

Temporary storage of pyrotechnics, flash-bang devices, and breaching charges occurs within the existing withdrawal (Penwell 2004). The DON has site approval to store Hazard/Division 1.3/1.4 munitions with a total Net Explosive Weight of 136 kilograms (300 pounds). The

explosive quantity distance arc is 30.5 meters (100 feet) which does not encumber the helo pad. There are no Hazards of Electromagnetic Radiation to Ordnance susceptible or unsafe munitions used at the MWTF (Bacon 2004).

3.12.4 Installation Restoration

There are no active installation restoration sites on the MWTF (Penwell 2004).

3.13 UTILITIES AND PUBLIC SERVICES

3.13.1 Water System

Potable water is trucked into the facility in bottles and is used for drinking. Two water wells supply the Proposed Action area with water for sewage and bathing (U.S. DON 1998). The primary well is located near the main gate at a depth of approximately 168 meters (550 feet). This well produces about 23 liters per minute (6 gallons per minute) of flow. The well was metered in March 2003 and since that time has produced about 719,228 liters (190,000 gallons) (Hucker 2004).

3.13.2 Sewer System

The sewage system at the facility consists of four installed septic systems with leach fields that are cleared every 2 years. Portable chemical toilets are used as needed (Hucker 2004).

3.13.3 Electricity

Power for the Proposed Action area is provided by the Mountain Empire Electric Cooperative. The existing electrical power supply is a 12/470y circuit system, which is adequate for current use. Average monthly usage is approximately 5,000 kilowatts (Hucker 2004). One emergency generator is on-site.

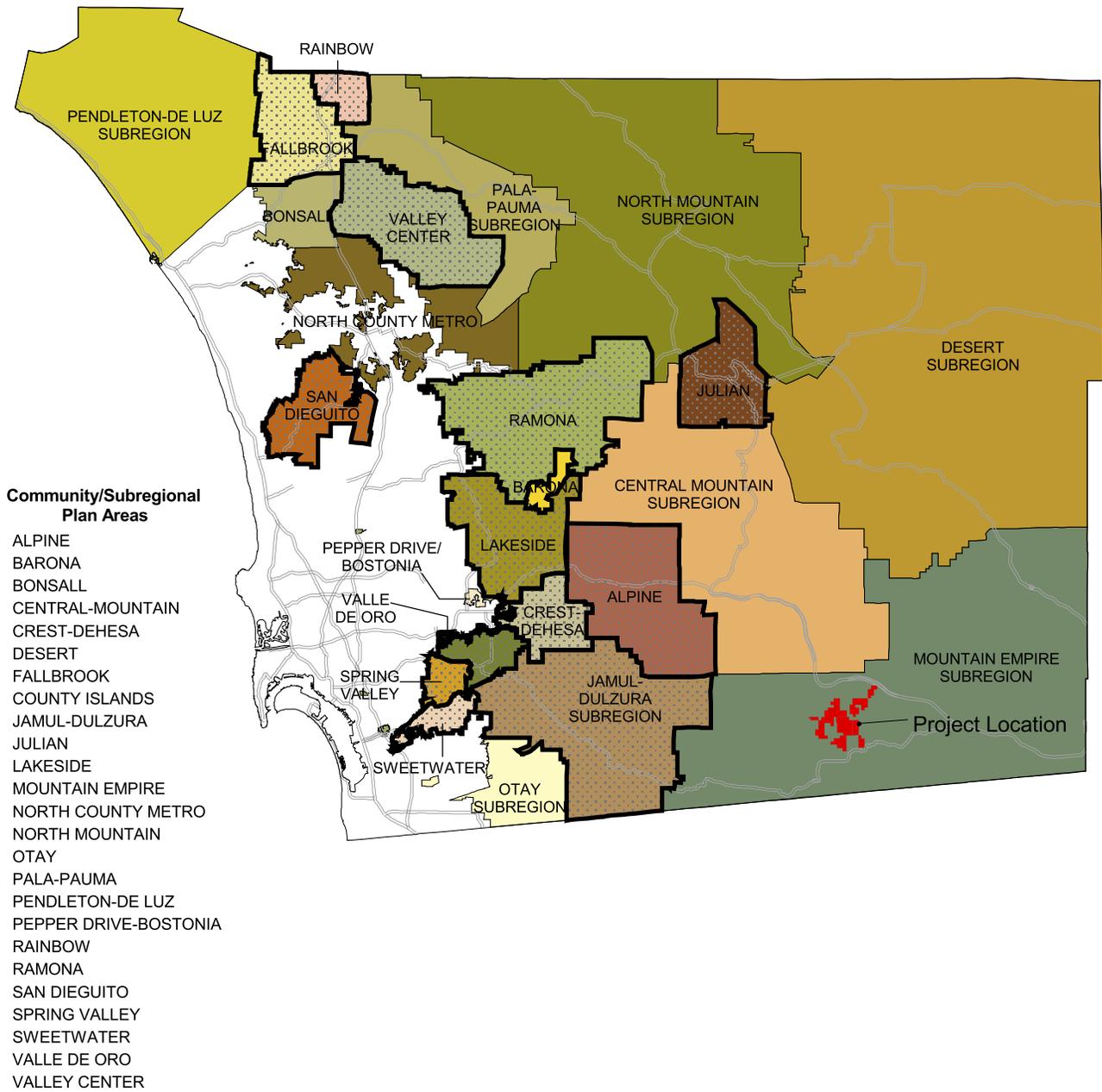
3.13.4 Solid Waste

Solid waste is currently taken off-site and disposed of in a solid waste landfill.

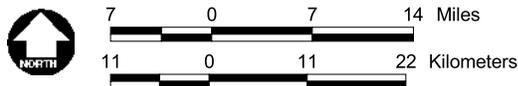
3.13.5 Police and Fire

Police services to the area are provided by the San Diego County Sheriff's Department, which maintains a substation in the community of Campo. Additional police services are provided by the California Highway Patrol, which maintains a station in El Cajon, California, and the U.S. Border Patrol, which maintains a station in Campo.

Fire services are provided by the California Department of Forestry, which maintains stations in Campo, Dulzura, and Boulevard. The U.S. Forest Service maintains a fire station at Cameron Corners. The Campo Fire and Rescue Service serves San Diego County Service Area 112, which includes the Proposed Action area.



Source: SANDAG



**Figure 3-14
Planning Areas**

identities within the Mountain Empire subregional area. The six areas are similar in many natural characteristics such as topography, water resources, and environment. These areas are Tecate, Potrero, Boulevard, Campo (where the Proposed Action area is located), Jacumba, and the remainder of the plan area. The Lake Morena/Campo sponsor group, which is the County-sponsored link between the community and the County dealing with planning and land use, provides land use planning guidance for this area.

3.5.2 On-Site Land Use

3.5.2.1 Current Use of Existing Withdrawal

The existing withdrawal area is used primarily for sustainment of the advanced skills SEALs have received in weapons and tactics prior to deployment. Common operations conducted on the existing withdrawal include:

- Reconnaissance and intelligence gathering
- Cold weather and mountain survival
- Land navigation
- Patrolling operations
- Communication exercises
- Sniper live fire exercises
- Small arms live fire exercises
- Building entry and clearing
- Obstacles breaching and forcible entry

Training operations typically conducted focus on lightly armed, small teams (two to eight individuals) moving on foot. The training refines and reinforces the skills necessary for those teams to operate in a hostile environment. Shooting skills are practiced at the range complex. There are three small arms ranges, a sniper range, and a CQC facility Simunition™ and special range and training rounds are fired at these ranges instead. The following ammunition can be used on the small arms ranges, the sniper range, and the CQC house: .22 caliber, .38 caliber, .45 caliber, .357 caliber, 9-mm, 5.56 mm, 7.62 mm, and 00 buckshot.

On-site land use in the existing withdrawal consists of operational training facilities and training areas. Existing training facilities include:

-
- Eight buildings (including nonoperational microwave dish)
 - Helicopter pad
 - General purpose storage area
 - Breaching facility
 - Range complex (three small arms ranges)
 - CQC facility
 - Sniper range
 - Three water wells
 - Simulated enemy missile site

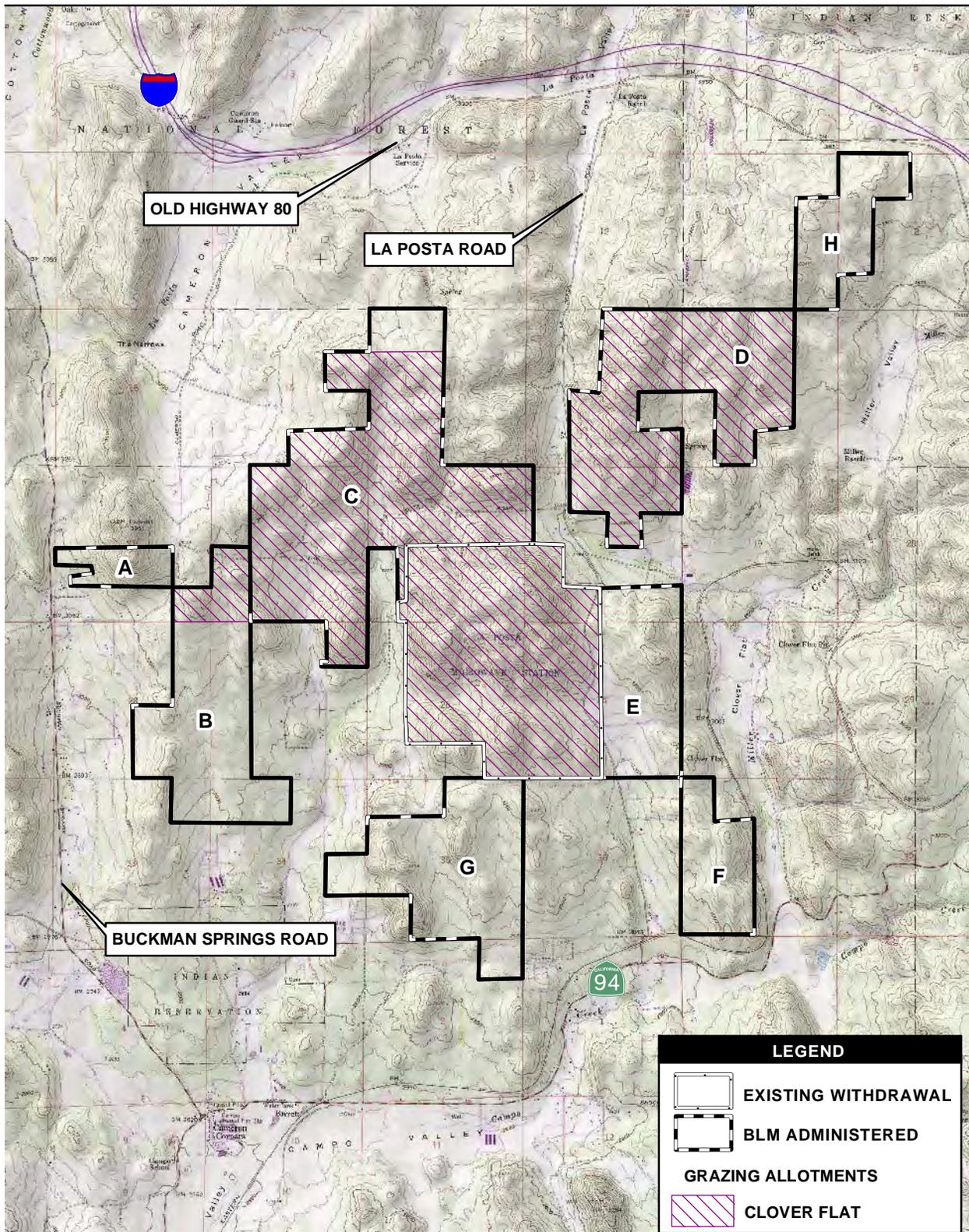
The eight buildings at the facility are permanent structures, including the nonoperational microwave dish aboard the facility. These buildings are located on the hill around the microwave dish and are used as offices and classrooms, and berthing spaces. (U.S. DON 1998).

Units training in the Proposed Action area can vary in size from 20 to as many as 200 individuals. The majority of units training in the Proposed Action area are either SEAL Platoons numbering approximately 20 sailors (14 to 16 platoon members plus a training cadre) or a Basic Underwater Demolition/SEAL class numbering approximately 60 sailors. Other units that train or have trained in the recent past in the Proposed Action area are NSW reserve units, explosive ordnance disposal (EOD), and special operations units from the Army and the Air Force.

3.5.2.2 Current Use of Proposed Withdrawal and ROW Parcels

Among the proposed withdrawal parcels, the existing withdrawal parcel and portions of Parcels C and E are part of the Clover Flat grazing allotment (Figure 3-15). There are 934.0 hectares (2,308 acres) of this grazing allotment within these parcels. (The Clover Flat grazing allotment also includes Parcel D and part of Parcel B among the ROW parcels.) This grazing allotment can be utilized for year-round cow-calf operations. The grazing lessee has a water well in the eastern portion of the existing withdrawal, which is the western half of Section 25, Township 17 South, Range 5 East.

All mining claims and patents on the areas proposed for withdrawal are listed as forfeited or closed according to BLM and USGS records, with the exception of one series of claims that were subjected to a forfeiture appeal within the last 2 years. No mining is currently occurring in association with these claims.



Source: USGS, Cameron Corners Quad; BLM



Figure 3-15
Grazing Allotments

In addition to grazing leases and mining claims, the following are existing authorized uses on lands proposed for withdrawal:

- An apiary permit issued annually to Gibbs Apiaries in the east ½ of Section 25, Township 17 South, Range 5 East (Parcel E).
- An ROW for a powerline, serial number CARI 2477, issued to San Diego Gas and Electric in Lot 22 of Section 24 and the east ½ of the northwest ¼ of Section 25, Township 17 South, Range 5 East (existing withdrawal).
- An ROW for a powerline, serial number CARI 6545, issued to Mountain Empire Electric in Lot 20 and the southwest ¼ of the southwest ¼ of Section 24, Township 17 South, Range 5 East (existing withdrawal).

The following are authorized uses on lands proposed for ROW:

- An ROW for an access road, serial number CACA 6804, issued to Carl Buchheim in the southeast ¼ of the southeast ¼ of Section 21, Township 17 South, Range 5 East (Parcel B).
- An ROW for an access road, serial number CACA 20294, issued to Dale Schutte in the northwest ¼ of Section 8, Township 17 South, Range 6 East (Parcel H).
- An ROW for a powerline, serial number CACA 42361, issued to San Diego Gas and Electric Co. in the southwest ¼ of Section 8, Township 17 South, Range 6 East (Parcel H).
- An ROW for a telephone line, serial number CACA 44408, issued to SBC Pacific Bell in the southwest ¼ of Section 8, Township 17 South, Range 6 East (Parcel H).
- An ROW for a site testing and monitoring wind energy project, serial number CACA 45248, issued to Pacific Wind Development LLC for the public lands in Section 7, Township 17 South, Range 6 East (Parcel H).

The following applications are pending with the BLM on lands proposed for withdrawal and ROW:

- An ROW application, CACA 28407, filed by San Diego County in Sections 24 and 25, Township 17 South, Range 5 East (Parcel E and the existing withdrawal).
- An ROW application, CACA 46885, filed by San Diego Gas and Electric Co. in Section 18, Township 17 South, Range 6 East (Parcel D).

-
- An ROW application, CACA 44173, filed by Pacific Bell in Section 8, Township 17 South, Range 6 East, which is where Parcel H is located.

The BLM does not have any record of an authorization for the existing La Posta Road, maintained by San Diego County, running from Interstate 8 (I-8), south, through the existing withdrawal and through Parcel E, and continuing south to State Route (SR) 94. It is possible this road qualifies as a statutory ROW under Reserved Statute 2477.

Public recreational activities, such as horseback riding, camping, hiking, and hunting, are currently allowed in the proposed withdrawal and ROW parcels. Although a BLM-maintained trail system does not exist, a social trail system has developed over the course of time that is reflective of the use of the area by the public.

An interagency agreement between the DON and the U.S. Forest Service allows military personnel to maneuver through the Cleveland National Forest to a training objective on Mount Laguna. The entire Proposed Action area provides NSW operators with the opportunity to train in a tactical manner for extended periods of time. Small units and teams can be inserted tactically and move over long distances. This training provides units with the ability to operate and support themselves in extreme conditions over long periods of time.

3.5.3 Surrounding Land Use

The land surrounding the Proposed Action area consists primarily of public lands administered by the BLM and the U.S. Forest Service, private lands with a variety of owners, and portions of the Campo and La Posta Indian Reservations. A portion of the Descanso Ranger District of the Cleveland National Forest is north of the main portion of the Proposed Action area.

A purchase of 124.4 hectares (220 acres) of land contiguous to the existing withdrawal was recently made (2006) by the Nature Conservancy (TNC) from a private landowner using a combination of funding from the DOD, the State of California, and TNC in accordance with the "Buffer Lands Initiative Memorandum of Understanding." These parcels were purchased to act as a buffer from incompatible land use around the MWTF. The intent of these parcels is that they not be used by the public or the military. The Buffer Lands Initiative MOU precludes the use of this acquisition land as compensation for military impacts within the boundaries of the installation. The surface danger zone from the MWTF small arms range does not pass over the purchased property. However, it does encumber most of Parcel G and some privately held property. The privately held portion where the surface danger zone passes over is to be used

under easement provisions that would be purchased by TNC using the same encroachment partnering vehicle (Penwell 2006).

Predominant land uses in the general area are rural residential, agriculture, and recreation (e.g., horseback riding, hiking, and camping). The public land that is part of the Proposed Action area is designated Public/Semi Public lands. The community located nearest to the Proposed Action area is Campo (San Diego 2003b) (see Figure 1-1).

3.6 PUBLIC FACILITIES ACCESS

The existing withdrawal was designated in a 1964 Public Land Order, which stated the lands were "...withdrawn from all forms of appropriation under the public lands law..." and "...reserved for use of the Department of the Navy for a Microwave Space Relay Station." Approximately 16.2 hectares (40 acres) of land around the microwave space relay station structures have been fenced for security purposes and are not open to public use. Although the DON's current use of the existing withdrawal is not entirely compatible with use by the general public, the lands are generally not fenced and are available for some use by the local public. There are no existing recreation and community support facilities within or near the Proposed Action area although some areas have social trails that are used for recreational purposes. The remainder of the Proposed Action area is currently not withdrawn and can be used by the general public.

3.7 SOCIOECONOMICS

This section discusses existing conditions for population, housing, employment, minority population trends, income, and environmental justice for children. Other resource areas that could affect the public are addressed in Section 3.5 (Land Use), Section 3.6 (Public Access/Coastal Zone Management), Section 3.9 (Air Quality), Section 3.10 (Noise), and Section 3.13 (Utilities and Public Services).

3.7.1 Population

The Proposed Action area is located within the SANDAG East County Major Statistical Area (MSA) 6 and Mountain Empire Subregional Area (SRA) 62 (Figure 3-16). Table 3-14 presents population characteristics, including populations in 2000, as well as projected populations for 2010, 2020, and 2030 and the percent change for these statistical areas. As shown in Table 3-14, the total county population is projected to increase 38 percent from 2000 to 2030. MSA 6 is expected to experience a much greater increase (112 percent) as is SRA 62 (118 percent).

Table 3-14
Population and Estimated Growth for San Diego County
and Areas near the Proposed Action Area

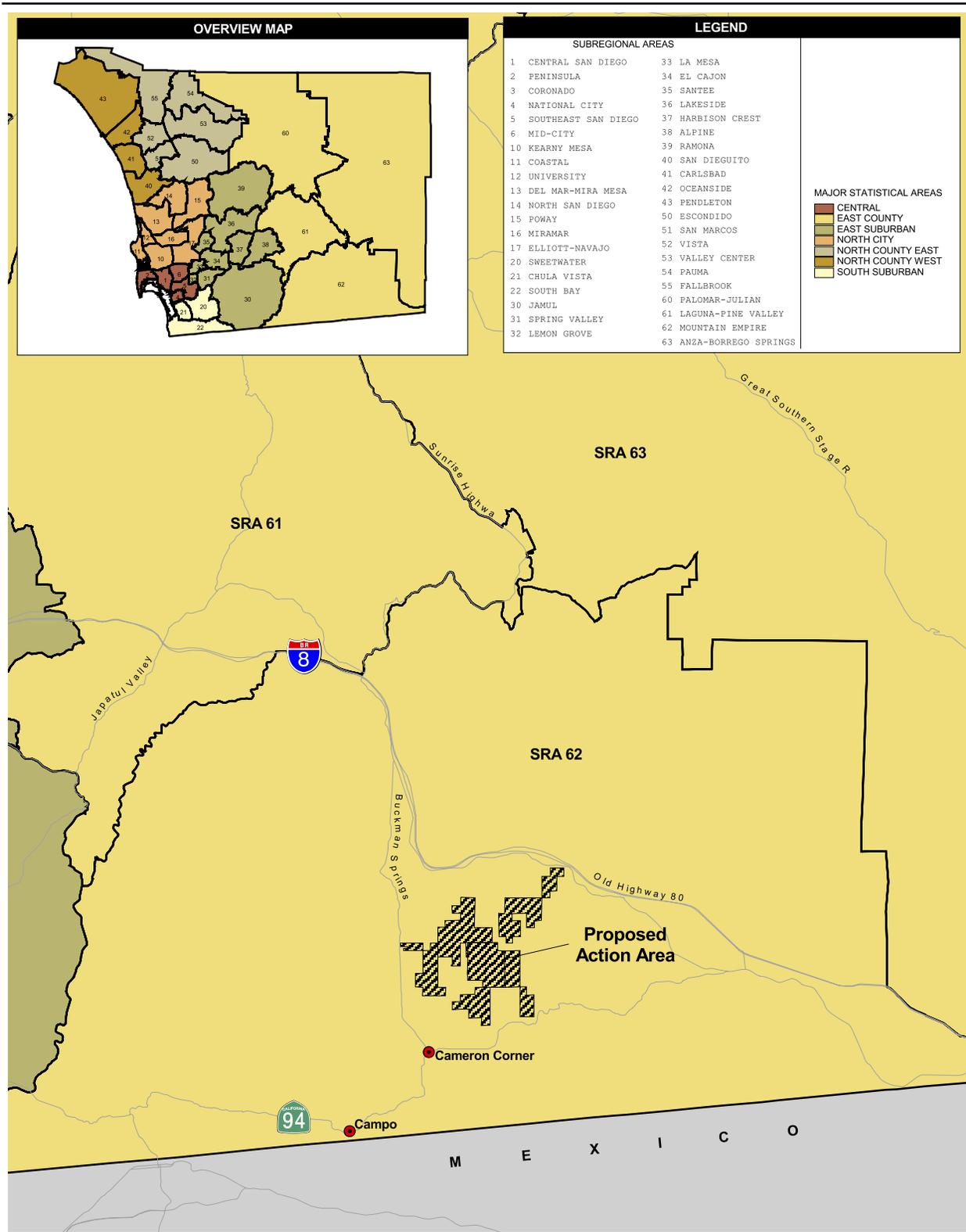
	2000 ¹	2010	2020	2030	Percent Change
San Diego County	2,813,833	3,235,675	3,598,871	3,889,604	38%
MSA 6	21,104	24,726	27,597	44,755	112%
SRA 62	6,485	7,450	8,198	14,165	118%

¹From 2000 Census.

Source: SANDAG 2002a, b, c; 2003a, b.

3.7.2 Housing

According to the 2000 census, the housing stock in San Diego County was 1,040,149 units. The largest portion of the housing stock in 2000 was composed of single-family units (60 percent). Multi-family units accounted for 35 percent of the remaining housing stock in the county. As shown in Table 3-15, the number of housing units for the county is expected to increase 33 percent from 2000 to 2030. A much greater increase (85 percent) is projected for MSA 6 over the same period. SRA 62 is expected to experience an even larger increase (116 percent).



Source: SANDAG 2000

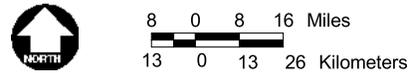


Figure 3-16
Major Statistical Areas
and Subregional Areas

Table 3-15
Total Housing Units and Estimated Growth for San Diego County
and Areas near the Proposed Action Area

	2000 ¹	2010	2020	2030	Percent Change
San Diego County	1,040,149	1,161,259	1,267,943	1,379,644	33%
MSA 6	11,688	12,280	13,357	21,568	85%
SRA 62	2,673	2,987	3,269	5,774	116%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c; 2003a, b.

3.7.3 Employment

The economy of the San Diego region is based primarily on the service, retail trade, government, and manufacturing sectors. As of October 2003, the county average unemployment rate was 4.2 percent, well below the state rate of 6.9 percent (EDD 2003).

The estimated total employment for San Diego County, MSA 6, and SRA 62 is shown in Table 3-16. The estimated total employment for the county is expected to increase 36 percent from 2000 to 2030. MSA 6, which includes the Proposed Action area, has a much greater anticipated increase of 88 percent. SRA 62 is projected to have a much greater increase of 103 percent.

Table 3-16
Total Employment and Estimated Growth for San Diego County
and Areas near the Proposed Action Area

	2000 ¹	2010	2020	2030	Percent Change
San Diego County	1,384,673	1,590,206	1,777,652	1,883,395	36%
MSA 6	6,837	8,213	10,056	12,882	88%
SRA 62	2,030	2,740	3,257	4,129	103%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c; 2003a, b.

3.7.4 Environmental Justice

Executive Order 12898, 59 Federal Register 7629, Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations, signed in February 1994, directs federal agencies "...to make achieving environmental justice part of its mission by identifying

and addressing...disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority population and low-income population in the [U.S.].” The aim of the Executive Order is to prevent low-income and minority populations from being subjected to disproportionately adverse environmental effects.

The following provides information on the race and ethnicity of populations near the Proposed Action area, as well as economic status. The goal is to identify whether there are minority or low-income populations in the vicinity of the Proposed Action area. To provide a context for considering these data, it is appropriate to compare the same categories for the local jurisdiction and larger region. Therefore, these data provide information on ethnicity and median income for the Proposed Action area compared to the local jurisdiction and San Diego County. For this EA, the environmental justice-affected environment is described in terms of minority and low-income population in the East County MSA and SRA 62.

3.7.4.1 Minority Population Trends

Table 3-17 presents the information on minority populations for San Diego County and the areas near the Proposed Action area. As can be seen by this table, most of the individuals in the surrounding area are nonminority. MSA 6 has a lower minority population percentage than the county as a whole. SRA 62 also has a lower minority population percentage than the county as a whole.

**Table 3-17
Population and Ethnicity for San Diego County
and Areas near the Proposed Action Area**

Race/Ethnicity¹	MSA 6	SRA 62	San Diego County
White	15,239	3,939	1,548,833
Black	377	152	154,487
Other	1,575	669	359,548
Hispanic ²	3,913	1,725	750,965
Total	21,104	6,485	2,813,833
Total Minority	5,865	2,546	1,265,000
Percent Minority	28%	39%	45.0%

¹ From 2000 Census.

² The Hispanic category is an ethnic, rather than a racial distinction. These tables therefore include only non-Hispanic individuals in the black, white, and other categories to avoid overcounting.

Source: SANDAG 2001, 2003c, d.

3.7.4.2 Median Household Income

Table 3-18 presents the information on low-income populations for San Diego County and areas near the Proposed Action area. As can be seen by this table, most of the individuals in the surrounding area have an income less than the county median. Both MSA 6 (\$40,809) and SRA 62 (\$36,235) have a median estimated income lower than the county as a whole (\$47,538). Additionally, in 1999 (the last year for which data are available) 8.9 percent of all individuals in San Diego County were considered below poverty level.

Table 3-18
Median Household Income for San Diego County
and Areas near the Proposed Action Area

Area	Median Income ¹	Median Income by County	Percent of County Median
MSA 6	\$40,809	\$47,538	86%
SRA 62	\$36,235	\$47,538	76%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c

Census Tract 211, which geographically corresponds very closely to SRA 62, has a population of 14.4 percent below poverty level (U.S. Census Bureau 2000).

3.7.4.3 Environmental Health and Safety Risks to Children

Executive Order 13045, Environmental Health and Safety Risks to Children (62 Fed. Regs. 1988 [1997]), was signed in 1997. The policy of the Executive Order states that:

A growing body of scientific knowledge demonstrates that children may suffer disproportionately more environmental health risks and safety risks. These risks arise because: children's neurological, immunological, digestive, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults; children's size and weight may diminish their protection from standard safety features; and children's behavior patterns may make them more susceptible to accidents because they are less able to protect themselves. Therefore, to the extent permitted by law and appropriate, and consistent with the agency's mission, each Federal agency:

(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and

(b) ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

Under the definitions provided in Executive Order 13045, covered regulatory actions include those that may be “economically significant” (under Executive Order 12866) and “concern an environmental health risk or safety risk that an agency has reason to believe may disproportionately affect children.” Further, Executive Order 13045 defines “environmental health risks and safety risks” [to] “mean risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breath, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to).” To comply with the executive order, this section of the EA discusses child-specific environmental health risk and safety risk issues associated with the Proposed Action.

At the time of preparation of this document, there were no published strategies or guidelines on the implementation of the Executive Order. It is possible, however, to summarize likely sources of environmental health and safety risks to children resulting from the project alternatives, and to characterize the potentially impacted populations.

Census 2000 demographic profiles were obtained from SANDAG for the Proposed Action area. Demographic census data are broken down by age into 5-year increments up through age 19 (Table 3-19). Because of this presentation of data, in this analysis children are considered to be from the age of birth to 19 years old.

The Proposed Action area is located within the Mountain Empire Unified School District. The closest schools to the Proposed Action area are Campo Elementary School, Clover Flat Elementary School, and Campo High Continuation School. All of these schools are located at least 1.6 kilometers (1 mile) from the Proposed Action area. There are no day care centers or other youth facilities within 1.6 kilometers (1 mile) of the Proposed Action area.

Table 3-19
Age Breakdown for San Diego County
and Areas near the Proposed Action Area

Age¹	MSA 6	Percent of total in MSA 6	SRA 62	Percent of total in SRA 62	San Diego County	Percentage of Total in San Diego County
Under 5	1,050	5%	382	6%	198,621	7%
5 to 9	1,348	6%	484	8%	212,829	8%
10 to 14	1,588	8%	543	8%	199,669	7%
15 to 19	1,609	8%	654	10%	198,993	7%
20 and older	15,509	73%	4,422	68%	2,002,795	71%
Total	21,104	100%	6,485	100%	2,812,907	100%

¹ From 2000 Census.

Source: SANDAG 2002a, b, c.

3.8 TRAFFIC AND CIRCULATION

3.8.1 Regional Roadways and Circulation

3.8.1.1 Primary Roadways

The principal east-west routes in the vicinity of the Proposed Action area are I-8, the primary highway between San Diego and Yuma, Arizona, that passes north of the area, and SR 94, the primary road between San Diego and Tecate, California, which passes south of the area. La Posta Road, a two-lane rural collector road, connects I-8 to SR 94 and runs through the Proposed Action area (Figure 3-17). La Posta Road had an average weekday traffic volume of 851 in 2000. This number is expected to increase to 1,051 by 2020 (SANDAG 2003e).

3.8.1.2 Circulation Patterns

La Posta Road provides access to the Proposed Action area from either I-8 to the north or SR 94 to the south. From La Posta Road, the existing withdrawal area can be accessed through a locked gate. Additional access to the existing withdrawal is via dirt roads and trails. The majority of the dirt roads and trails leading onto the existing withdrawal are gated.

3.8.2 Proposed Action Area Roadways and Circulation

The primary access within the existing withdrawal is via a one-lane paved road approximately 2.4 kilometers (1.6 miles) in length. The road extends from La Posta Road to the nonoperational microwave dish where the majority of the facilities are located. There is approximately 1 hectare (2.5 acres) of paved area that provides parking and controls drainage around the existing buildings. This road also provides access to the range complex and the CQC facility. In addition to this, there are approximately 13 kilometers (8 miles) of unpaved roads and truck trails that provide access to the more remote areas of the facility. These roads are subject to severe erosion and washout during heavy rains. The traffic volume is extremely light and averages less than 10 vehicles per day (U.S. DON 1998). Access to the withdrawal parcels and ROW parcels is via dirt roads or trails off of Buckman Springs or La Posta Road.



Source: Thomas Bros. 2002



No Scale

Figure 3-17
Traffic/Circulation

3.9 AIR QUALITY

3.9.1 Applicable Regulations, Plans, and Policies

The Federal Clean Air Act (CAA) (42 USC § 7401) requires the adoption of National Ambient Air Quality Standards (NAAQS) to protect the public health, safety, and welfare from known or anticipated effects of air pollution. Current standards are set for sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter equal to or less than 10 microns in size (PM₁₀), fine particulate matter equal to or less than 2.5 microns in size (PM_{2.5}), and lead (Pb). These pollutants are collectively referred to as criteria pollutants. The State of California Air Resources Board (CARB) has established additional standards, which are generally more restrictive than the NAAQS. Federal and state standards are shown in Table 3-20.

The 1990 Amendments to CAA Section 176 require the USEPA to promulgate rules to ensure that federal actions conform to the appropriate State Implementation Plan (SIP). These rules, known together as the General Conformity Rule (40 CFR §§ 51.850-860 and 40 CFR §§ 93.150-160), require any federal agency responsible for an action in a nonattainment area to determine that the action conforms to the applicable SIP or that the action is exempt from the General Conformity Rule requirements. This means that federally supported or funded activities will not (1) cause or contribute to any new air quality standard violation, (2) increase the frequency or severity of any existing standard violation, or (3) delay the timely attainment of any standard, interim emission reduction, or other milestone. Actions would conform to an SIP and be exempt from a conformity determination if an applicability analysis showed that the total direct and indirect emissions from the project construction and operation activities would be less than specified emission rate thresholds, known as *de minimis* limits, and that the emissions would be less than 10 percent of the area emission budget. DON policy and procedures for compliance with the General Conformity Rule are provided in CNO OPNAVINST 5090.1B Change-3, Appendix G, Clean Air Act General Conformity Guidance (DON 2002c).

The Proposed Action area is located in the San Diego Air Basin (SDAB), which covers the same area as San Diego County. In San Diego County, the San Diego Air Pollution Control District (SDAPCD) is the agency responsible for protecting the public health and welfare through the administration of federal and state air quality laws and policies. Included in the SDAPCD's tasks are the monitoring of air pollution, the preparation of the San Diego County portion of the

**Table 3-20
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	NAAQS ¹		CAAQS ²
		Primary ³	Secondary ⁴	Concentration ⁵
Ozone (O ₃) ⁶	1-Hour	-	-	0.09 ppm (180 µg/m ³)
	8-Hour	0.08 ppm (157 µg/m ³)	Same as Primary Standard	0.070 ppm (137 µg/m ³) ⁹
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	None	9.0 ppm (10 mg/m ³)
	1-Hour	35 ppm (40 mg/m ³)		20 ppm (23 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual Average	0.053 ppm (100 µg/m ³)	Same as Primary Standard	-
	1-Hour	-		0.25 ppm (470 µg/m ³)
Sulfur Dioxide (SO ₂)	Annual Average	0.03 ppm (80 µg/m ³)	-	-
	24-Hour	0.14 ppm (365 µg/m ³)	-	0.04 ppm (105 µg/m ³)
	3-Hour	-	0.5 ppm (1300 µg/m ³)	-
	1-Hour	-	-	0.25 ppm (655 µg/m ³)
Suspended Particulate Matter (PM ₁₀)	24-Hour	150 µg/m ³	-	50 µg/m ³
	Annual Arithmetic Mean	50 µg/m ³	Same as Primary Standard	20 µg/m ³ note 7
Fine Particulate Matter (PM _{2.5}) ⁶	24-Hour	65 µg/m ³	-	-
	Annual Arithmetic Mean	15 µg/m ³	Same as Primary Standard	12 µg/m ³ note 7
Lead (Pb) ⁸	30-Day Average	-	-	1.5 µg/m ³
	Calendar Quarter	1.5 µg/m ³	Same as Primary Standard	-
Hydrogen Sulfide (HS)	1-Hour	No Federal Standards		0.03 ppm (42 µg/m ³)
Sulfates (SO ₄)	24-Hour			25 µg/m ³
Visibility Reducing Particles	8-Hour (10 am to 6 pm, Pacific Standard Time)			In sufficient amount to produce an extinction coefficient of 0.23 per km due to particles when the relative humidity is less than 70 percent.
Vinyl chloride ⁸	24-Hour			0.01 ppm (26 µg/m ³)

¹ NAAQS (other than O₃, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is not to be exceeded more than once per year. The annual standard is attained when the 3-year average of the weighted annual mean at each monitor within an area does not exceed 50 µg/m³. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, do not exceed 65 µg/m³. The annual standard is attained when the 3-year average of the weighted annual mean at single or multiple community-oriented monitors does not exceed 15 µg/m³.

² California Ambient Air Quality Standards for O₃, CO (except Lake Tahoe), SO₂ (1- and 24-hour), NO₂, PM₁₀, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.

³ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

⁴ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; km = kilometer
Source: CARB 2006a; USEPA 2006a.

⁵ Concentration expressed first in units in which it was promulgated. Ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.

⁶ The federal 1-hour O₃ standard was revoked for most areas of the United States, including all of California on 15 June 2005.

⁷ On 5 June 2003, the Office of Administrative Law approved the amendments to the regulations for the state ambient air quality standards for particulate matter and sulfates. Those amendments established a new annual average standard for PM_{2.5} of 12 µg/m³ and reduced the level of the annual average standard for PM₁₀ to 20 µg/m³. The approved amendments were filed with the Secretary of State on 5 June 2003. The regulations became effective on 5 July 2003.

⁸ The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

⁹ The Air Resources Board approved this concentration on 28 April 2005 and it is expected to become effective in early 2006.

SIP, and the promulgation of Rules and Regulations. The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the county; this list of strategies is called the Regional Air Quality Strategy. The Rules and Regulations include procedures and requirements to control the emission of pollutants and prevent significant adverse impacts.

3.9.2 Climate and Meteorology

Southern California is classified as having a semiarid climate, although it contains three distinct zones of rainfall with coinciding floristic patterns. The climatic zones may be roughly defined as being coincident with the broad geographic regions composed of coast, mountains, and desert. Subregions exist within these regions and consist of coastal valleys lying below the mountains, separated from the ocean shore by plateaus and low hills immediately behind the coastline. The main features that characterize the Proposed Action area are inland mountains.

The Proposed Action area is best characterized by climatological data taken at Campo, California, which is located less than 5 kilometers (3 miles) from the Proposed Action area. These data indicate a temperature range of 1 to 34°C (33 to 94°F). Annual average rainfall in this area is 38 centimeters (15 inches), with the greatest rainfall occurring between the months of November and April where average monthly rainfall exceeds 2.5 centimeters (1 inch) (WRCC 2003).

3.9.3 Compliance with Air Quality Standards/Regional and Local Air Quality

Specific geographic areas are classified as either “attainment” or “nonattainment” for each pollutant based upon the comparison of measured data with NAAQS and state standards. The SDAB currently meets the federal standards for all criteria pollutants except O₃, for the 8-hour standard, and meets state standards for all criteria pollutants except O₃, PM_{2.5}, and PM₁₀. On 15 April 2004, the USEPA issued the initial designations for the 8-hour O₃ standard, and the majority of the SDAB is classified as “basic” nonattainment (USEPA 2006b; SDAPCD 2004). Basic is the least severe of the six degrees of O₃ nonattainment. The SDAPCD must submit an air quality plan to the USEPA in 2007; the plan must demonstrate how the 8-hour O₃ standard will be attained by 2009 (SDAPCD 2004). Small portions of the eastern portion of San Diego County associated with the Campo Cuyapaipe, La Posta, and the Manzanita Indian Reservations are designated as attainment (USEPA 2006b). The SDAB is a federal “maintenance area” for CO, following a 1998 redesignation as a CO attainment area.

The SDAB is currently classified as a state “serious” O₃ nonattainment area and a state nonattainment area for PM₁₀. For PM_{2.5}, the SDAB is currently classified as a state nonattainment area.

The closest SDAPCD air quality monitoring station in the SDAB is the Alpine monitoring station, located at 2300 Victoria Drive, Alpine, approximately 37 kilometers (23 miles) northwest of the Proposed Action area. The station monitors O₃ and NO₂. No other monitoring stations are located near enough to the Proposed Action area to be used to characterize other criteria pollutants. Table 3-21 summarizes the excesses of standards and the highest pollutant levels recorded at this station for the years 2000 to 2005.

3.9.4 Local Sources of Pollutants

Regional Sources

The most significant regional sources of O₃, NO₂, and CO are automobiles and other on-road vehicles. O₃ is formed by the atmospheric reaction, in sunlight, of volatile organic compounds (VOC) and oxides of nitrogen (NO_x), which are combustion products from gas and diesel engines.

Other important sources of VOC are paints, coatings, and process solvents. Combustion sources like vehicles, diesel engines, and industrial facilities also emit the fine particulate matter.

The major sources of PM₁₀ are construction, demolition, and dust from paved and unpaved roads. Coarser particles are directly emitted from activities that disturb the soil including travel on roads and construction, mining, or agricultural operations. Other sources include wind-blown dust, pollen, salts, brake dust and tire-wear. Although PM_{2.5} is a subset of PM₁₀, it differs from the rest of PM₁₀. While the majority of ambient PM₁₀ results from direct emissions of the pollutant, a significant amount of the ambient PM_{2.5} results not only from direct emissions but also from transformation of precursors and condensing of gaseous pollutants in the atmosphere. Other than direct PM_{2.5} emissions, the key pollutants contributing to PM_{2.5} concentrations in the atmosphere are SO₂, NO_x, VOC, and ammonia (USEPA 2006c).

Odors

During visits on 3 March 2004 and 16 March 2004, weapons firing generated small amounts of sulfurous smells. These odors were not detectable beyond 61 meters (200 feet) from the weapons. No other offensive odors were detected in the project area or at nearby properties.

**Table 3-21
Ambient Air Quality Summary, Alpine-Victoria Drive Monitoring Station**

Pollutant	Averaging Time	California Air Quality Standards	Federal Primary Standards	Maximum Concentrations ⁽¹⁾					Number of Days Exceeding Federal Standard ⁽²⁾					Number of Days Exceeding State Standard ⁽²⁾				
				2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Ozone	1 hour	0.09 ppm	0.12 ppm	0.135	0.121	0.125	0.106	0.113	1	0	1	0	0	22	13	18	5	8
	8 hour	none	0.08 ppm	0.116	0.100	0.103	0.90	0.88	15	12	6	2	1	–	–	–	–	–
Nitrogen	1 hour	0.25 ppm	none	0.067	0.068	0.071	0.063	0.061	–	–	–	–	–	0	0	0	0	0
Dioxide	Annual	none	0.053 ppm	0.014	0.013	0.014	0.011	0.011	0	0	0	0	0	–	–	–	–	–

“–” = data not available or applicable.

⁽¹⁾ Concentration units for ozone and nitrogen dioxide are in parts per million (ppm). ⁽²⁾ For annual standards, a value of 1 indicates that the standard has been exceeded.

Source: CARB 2006b.

Sensitive Air Quality Receptors

Sensitive receptors are those populations that are more susceptible to the effects of air pollution than the population at large. Sensitive receptors in proximity to localized sources of toxics and CO are of particular concern. Sensitive receptors include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. For air quality analysis, sensitive receptors within 400 meters (0.25 mile) of a site are typically identified.

The nearest sensitive receptors to the project area are the single-family homes adjacent and west of La Posta Road, approximately 122 meters (400 feet) south of the existing property boundaries and approximately 183 meters (600 feet) east of the boundary of Parcel C.

3.10 NOISE

Noise is generally defined as unwanted or annoying sound that is typically associated with human activity and that interferes with or disrupts normal activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day and the type of activity during which the noise occurs, and the sensitivity of the individual. Therefore, the “A-weighted” noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are sometimes written dB(A) or dBA.

In the United States, several noise metrics have been developed to describe noise levels depending on the character of the noise. Average noise levels over a period of minutes or hours are usually expressed as dB L_{eq} , the equivalent noise level. The period of time average may be specified; $L_{eq(3)}$ would be a 3-hour average. For continuous noise sources, such as roadways, noise levels are often averaged over a period of 24 hours and are normally weighted to account for greater human sensitivity to noise in the evening and nighttime hours. These 24-hour noise metrics are the Community Noise Equivalent Level (CNEL) and the Day-Night level (DNL or L_{dn}). However, as the firing ranges at the existing withdrawal do not operate during the nighttime hours, the L_{eq} is the most appropriate method for describing noise impacts due to the Proposed Action.

3.10.1 Applicable Plans, Policies, and Regulations

Planning in the Noise Environment, Naval Facilities Engineering Command (NAVFAC) P-970, published by the U.S. Departments of the Air Force, Army, and Navy (U.S. DON 1978), provides compatibility criteria for various land uses. Exterior sound levels up to 65 dBA CNEL are compatible with land uses such as residences, transient lodging, classrooms, and medical facilities. Appropriate noise mitigation is required for development in areas where the CNEL would exceed 65 dBA. Sound levels exceeding 75 dBA CNEL are incompatible with these types of land uses. Currently, there are no DON regulations that restrict noise emissions from stationary noise sources either at the property line or within a DON facility.

NAVFAC P-970 also indicates that impulse sounds should be considered separately when the peak noise level exceeds 110 dBA, and that when peak sound levels exceed 140 dBA, evaluation of effects such as hearing loss and structural damage should be undertaken.

3.10.2 Noise Sources

The dominant noise sources in the Proposed Action area are the various training operations at the existing weapons ranges. Other noise sources include ongoing facilities maintenance and construction, off-road vehicular traffic, vehicular traffic to and from the microwave area, aircraft flyovers, agricultural activities, and vehicles on La Posta Road. The Proposed Action area is not located near an airport or rail operations.

3.10.3 Sensitive Receptors

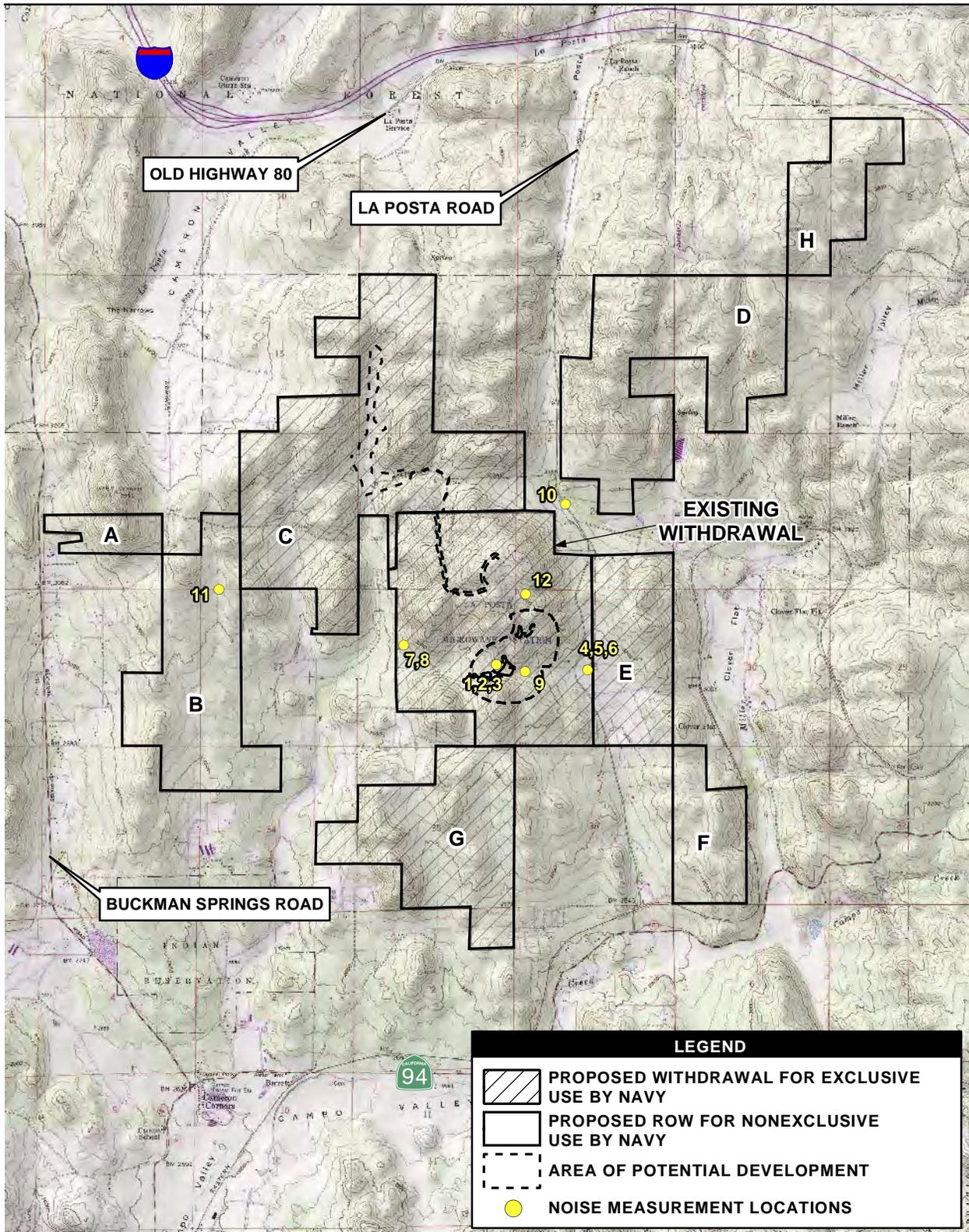
Human noise-sensitive receptors are generally considered to be persons who occupy areas where noise is an important attribute of the environment. These areas often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, education facilities, and libraries. Noise-sensitive receptors may also include wildlife, including certain songbirds.

3.10.3.1 Proposed Action Area

The Proposed Action area is located in an area with primarily rural residential and agricultural land uses. The nearest noise-sensitive receptors to the Proposed Action area are located north and west of the existing withdrawal approximately 152 meters (500 feet) and 304 meters (1,000 feet), respectively, and consist of single-family residential land uses. They are both approximately 1,524 meters (5,000 feet) from the existing small arms ranges. There are no sensitive noise receptors within the boundaries of the Proposed Action area.

3.10.4 Existing Noise Levels

Noise level measurements were conducted at various locations on 3, 16, and 19 March 2004 (Figure 3-18). Ambient noise measurements included the range (approximately 15 meters [50 feet] behind the firing line), existing property boundaries, and residential properties in the surrounding community. Noise meters used included two Larson-Davis Laboratories Model 712 Type 2 sound level meters and a Larson-Davis Laboratories Model 720 Type 2 sound level meter. The meters were calibrated before and after use according to the manufacturer's recommendations.



Source: NSWG-1, 2004; BLM; USGS, Cameron Corners Quad



Figure 3-18
Noise Measurement Locations

The following parameters were used with all the meters:

Filter: A-weighted
Response: Fast
Time History Period: 1 second

Noise measurements 1, 4, 10, 11, and 12 were taken on 3 March 2004. The temperature ranged from 9°C (49°F) in the morning to 14°C (57°F) in the afternoon, with a westerly wind constant throughout the day. Average wind speeds were 3 kilometers per hour (kph) (2 miles per hour [mph]) with gusts of up to 19 kph (12 mph). During the measurement period on 3 March, approximately 15 personnel were at the range complex firing a combination of 9-mm (M9) pistols, and 5.56-mm (M4) rifles. Measurement Site (MS) 1 was located approximately 15 meters (50 feet) east of the firing line in a range area adjacent to the active range, with an intervening 3.3-meter-high (10-foot-high) earthen berm. Noise measurements at MS 1 represent noise levels in the range area with attenuation due to the existing berms. MS 4 was located approximately 15 meters (50 feet) west of La Posta Road inside the fenced area of the existing withdrawal and represents ambient noise levels at the western edge of the existing withdrawal. MS 10 was located 15 meters (50 feet) north of La Posta Road across from 2460 La Posta Road and is representative of ambient daytime noise levels in that area at the nearest residential land uses. MS 11 was located at the northern terminus of Campo Truck Trail near the entrance to Wandering Springs Ranch and is representative of ambient daytime noise levels in that area. MS 12 was located just south of the parking lot area for the existing withdrawal and is representative of ambient noise levels at the on-site offices and facilities.

Noise measurements 2, 5, and 7 were taken on 16 March 2004 with approximately 30 personnel firing 9-mm pistols. The temperature ranged from 24°C (75°F) in the morning to 27°C (80°F) in the afternoon, with westerly winds constant throughout the measurement period. Average wind speeds were 5 kph (3 mph) with gusts of up to 29 kph (18 mph). MS 2 was located directly behind the firing line approximately 15 meters (50 feet) and represents noise levels at the range during M9 firing. MS 5 was located in the same location as MS 4 and represents noise levels at the eastern property boundary, along La Posta Road, during M9 firing. MS 7 was taken at the western property boundary approximately 1.6 kilometer (1 mile) south of the northern boundary of the existing withdrawal and represents noise levels at the western property boundary with an active range.

Noise measurements 3, 6, 8, and 9 were taken on 19 March 2004 with approximately 30 personnel firing 5.56-mm rifles, the most commonly used round. The temperature was 23°C (73°F) with no measurable wind. MS 3 was located behind the firing line approximately 15

meters (50 feet) and represents the noise levels at the range during M4 firing. MS 6 was at the same location as MS 4 and MS 5 and represents noise levels along the eastern property boundary during M4 firing. MS 8 was positioned in the same location as MS 7 and represents the ambient noise level along the western property line. MS 9 was located approximately 305 meters (1,000 feet) west of MS 6 and is used to calculate the noise attenuation over distance at the existing withdrawal. Existing noise level measurements are summarized in Table 3-22.

**Table 3-22
Existing Noise Level Measurements**

ID No.	Location	Date	Time	Noise Level, dBA		
				L _{eq}	L _{max}	L _{min}
1	Firing range, 15 meters (50 feet) north of firing line	3 March 2004 ¹	10:30 – 11:29	80	96	36
2	Firing range, 15 meters (50 feet) behind firing line	16 March 2004 ²	9:16 – 11:31	90	112	36
3	Firing range, 15 meters (50 feet) behind firing line	19 March 2004 ³	7:49 – 9:00	87	112	36
4	Eastern property boundary (46 meters [150 feet] south of entrance gate)	3 March 2004	12:19 – 12:35	49	64	34
5	Eastern property boundary (46 meters [150 feet] south of entrance gate)	16 March 2004	9:22 – 10:17	54	76	34
6	Eastern property boundary (46 meters [150 feet] south of entrance gate)	19 March 2004	7:53 – 8:38	45	64	33
7	Western property boundary	16 March 2004	10:34 – 11:19	54	78	33
8	Western property boundary	19 March 2004	8:43 – 8:53	38	53	33
9	30 meters (100 feet) south of access road, approximately 1,000 feet east of range	19 March 2004	7:56 – 9:04	51	93	37
10	Residential area along La Posta Road north of existing site	3 March 2004	15:29 – 15:41	57	77	33
11	Residential properties along Campo Truck Trail east of existing site	3 March 2004	13:47 – 14:13	48	65	36
12	Microwave Space Relay Station parking lot	3 March 2004	16:14 – 16:19	41	54	34

¹ Temperatures ranged from 9°C (49°F) in the morning to 14°C (57°F) in the afternoon. Winds from the west at 3 kph (2 mph) gusting up to 19 kph (12 mph).

² Temperatures ranged from 24°C (75°F) in the morning to 27°C (80°F) in the afternoon. Winds from the west at 5 kph (3 mph) gusting up to 29 kph (18 mph).

³ Temperature was 23°C (72°F) with no measurable wind.

As shown in Table 3-22, average noise levels at the range area during firing exercises exceeds 80 dBA L_{eq} and can vary by approximately 10 dBA L_{eq} depending on location. Noise levels along the eastern property boundary are generally unaffected by weapons fire due to traffic noise generated by vehicles on La Posta Road. Noise levels along the western boundary show an

increase of approximately 16 dBA L_{eq} over ambient noise levels with the range active; however, during range activities, the observed L_{max} increased by less than 2 dBA over ambient when weapons were fired. Measurements taken on 16 March may have been influenced by wind gusts as noise levels along the eastern and western property boundaries are similar for that day. Due to the similarity of noise levels recorded at MS 5 and MS 7, it can be assumed that noise levels at the eastern and western property boundaries from weapons firing at the existing ranges are of similar magnitude. As winds were calm during the 19 March measurements, it has been determined that the noise level readings taken at MS 6 are most representative of the actual influence of weapons fire at the property boundaries.

3.11 AESTHETICS

The Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to protect the quality of scenic values on public lands (43 USC 1701). BLM has developed the Visual Resource Management (VRM) system. When a specific project is proposed, the degree of contrast between the proposed activity and the existing landscape is measured (Contrast Rating). The Contrast Rating process compares the proposed activity with existing conditions element-by-element (form, line, color, texture) and feature-by-feature (land/water, surface, vegetation, structures). The Contrast Rating is compared to the appropriate Management Class to determine if contrasts are acceptable. If the proposed project exceeds the allowable contrast, a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts. The VRM Management Class Objectives are defined as follows (BLM 2002):

- Class 1: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to wilderness areas, wild and scenic rivers, and other similar situations.
- Class 2: Changes in any of the basic elements caused by management activity should not be evident in the characteristic landscape. Contrasts are visible but must not attract attention.
- Class 3: Changes to the basic elements caused by management activity may be evident, but should remain subordinate to existing landscape.
- Class 4: Any contrast may attract attention and be a dominant feature of the landscape in terms of scale, but it should repeat the form, line, color, and texture of the characteristic landscape.
- Class 5: This classification is applied to areas where natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications.

The Proposed Action area lies within the mountainous region of eastern San Diego County. It is characterized by a series of mountain ranges and hills and it is almost completely undeveloped aside from rural residential and some agricultural use. Development within the existing withdrawal consists of a 16-hectare (40-acre) fenced area containing eight buildings (including the nonoperational microwave dish) used for office, classroom, and berthing space; a helicopter pad; a general purpose storage area; a paved access road with a metal gate; and a small arms

range complex (three small arms ranges) including a CQC facility and three water wells. The open space in the Proposed Action area affords a view and a sense of the southern California mountain region as it essentially was before the explosive population growth in the nearby coastal urban areas. The existing withdrawal and surrounding public lands are BLM Class 3.

3.11.1 Viewscape

The general viewscape of the Proposed Action area is that of rugged, mountainous terrain with steep slopes, sheer rock cliffs, and frequent rock outcroppings. The satellite dish is a highly prominent landmark and portions are visible for many miles from outside the Proposed Action area. Access to the existing withdrawal is provided from La Posta Road up a paved, single-lane road, and other limited portions of the Proposed Action area are crossed by unimproved dirt roads. Development in the existing withdrawal area is devoted entirely to operations and training activities.

3.11.2 Visibility from Areas Surrounding the Proposed Action Area

Land uses surrounding the Proposed Action area are devoted almost entirely to rural residential or agricultural pursuits with some additional recreational use, primarily by adjacent residents. Due to its location in the unincorporated part of eastern San Diego County and the distance from any developed areas such as the communities of Cameron Corners or Campo, much of the Proposed Action area cannot be viewed by the general public from off-site. Exceptions are the Microwave Space Relay Station, including the satellite dish and lights from the 16.2-hectare (40-acre) fenced compound; portions of the existing withdrawal area, including the gate, access road, pumphouse for well, and portions of the range complex; and portions of Parcel E visible from La Posta Road. The exterior portions of all the parcels proposed for withdrawal or ROW are visible from public roads in the area. However, the area proposed for development within Parcel C is not visible from off-site. The Proposed Action area is also viewable by military personnel engaged in normal training activities at the Proposed Action area; however, they are not considered sensitive viewers.

3.11.3 Light and Glare

Light sources in the Proposed Action area include building (administrative) lighting for safety and security. The lighting is concentrated around the eight buildings used for office, classroom, and berthing space. Security lights may be on at night for security or training purposes.

Glare is reflective light that can be visually unpleasant or possibly unsafe due to the potential for temporary “blindness.” Glare is created by light (usually from the sun) bouncing off of smooth surfaces such as glass, metal, water, or polished stone. Development within the existing withdrawal consists of buildings and structures that were primarily designed and constructed for utility rather than aesthetics. There is a lack of decorative surfaces, including those that could cause glare, with the exception being the microwave dish. The majority of buildings and structures have nonreflective surfaces. The metal sidings of some of the larger maintenance and storage buildings, however, do have some potential for glare.

3.11.4 Designated Scenic Areas

There are two scenic corridors identified on the “Scenic Highway System Plan Map” that are in proximity to the Proposed Action area. These third priority scenic routes are:

- I-8, from SR 79 east to Imperial County Line, and
- Buckman Springs Road, from Lake Morena Drive to SR 94

3.12 ENVIRONMENTAL HEALTH AND SAFETY

3.12.1 Hazardous Materials and Wastes

The ammunition and explosives safety policies of the DON are directed at providing high-quality ammunition in sufficient quantity to satisfy fleet requirements in a safe manner. These policies emphasize safe and efficient operating requirements while maximizing the protection of valuable resources and personnel. If unexploded ordnance was encountered, military explosive ordnance disposal teams would be mobilized to the area to effect disposal (U.S. DON 1998). All lead-based paint has been encapsulated. Weapons cleaning solvents and residue are properly stored and disposed of. Solvent tanks are self-contained and solvent is filtered to extend useful life. Lead from range maintenance activities is stored and disposed of properly (Penwell 2004). Universal wastes, a subset of hazardous wastes that includes even household types of items such as alkaline batteries, all lamps except incandescent lamps, mercury-containing devices such as thermostats, cathode ray tubes, consumer electronic devices, and aerosol containers, are also present on the site and are currently being segregated, stored, managed, and properly disposed of in accordance with the current (2006) CNRSW Environmental Waste Management Plan.

3.12.2 Range Safety

The existing range complex is bermed and configured to fire into a hillside. A surface danger zone extending out to 1,840 meters (2,102 yards) from the firing position has been established. The current MWTF has a variety of range safety procedures in place to ensure human health and safety. All military personnel and visitors are required to check in with the Officer in Charge prior to entering the facility. The firing ranges and surface danger zones are controlled actively during any firing exercises. Fire prevention is a concern at the facility. Due to the abundance of vegetation, a fire that occurred during high wind conditions could quickly exceed immediate suppression capabilities. There are currently no formal firebreaks on-site other than existing roads and trails. To minimize range-related fire risks, tracer rounds, which are a common ignition source, are not allowed on the facility at any time. No explosive projectiles are used, therefore, there is no explosive residue (Penwell 2004).

3.12.3 Ammunition Storage

Temporary storage of pyrotechnics, flash-bang devices, and breaching charges occurs within the existing withdrawal (Penwell 2004). The DON has site approval to store Hazard/Division 1.3/1.4 munitions with a total Net Explosive Weight of 136 kilograms (300 pounds). The

explosive quantity distance arc is 30.5 meters (100 feet) which does not encumber the helo pad. There are no Hazards of Electromagnetic Radiation to Ordnance susceptible or unsafe munitions used at the MWTF (Bacon 2004).

3.12.4 Installation Restoration

There are no active installation restoration sites on the MWTF (Penwell 2004).

3.13 UTILITIES AND PUBLIC SERVICES

3.13.1 Water System

Potable water is trucked into the facility in bottles and is used for drinking. Two water wells supply the Proposed Action area with water for sewage and bathing (U.S. DON 1998). The primary well is located near the main gate at a depth of approximately 168 meters (550 feet). This well produces about 23 liters per minute (6 gallons per minute) of flow. The well was metered in March 2003 and since that time has produced about 719,228 liters (190,000 gallons) (Hucker 2004).

3.13.2 Sewer System

The sewage system at the facility consists of four installed septic systems with leach fields that are cleared every 2 years. Portable chemical toilets are used as needed (Hucker 2004).

3.13.3 Electricity

Power for the Proposed Action area is provided by the Mountain Empire Electric Cooperative. The existing electrical power supply is a 12/470y circuit system, which is adequate for current use. Average monthly usage is approximately 5,000 kilowatts (Hucker 2004). One emergency generator is on-site.

3.13.4 Solid Waste

Solid waste is currently taken off-site and disposed of in a solid waste landfill.

3.13.5 Police and Fire

Police services to the area are provided by the San Diego County Sheriff's Department, which maintains a substation in the community of Campo. Additional police services are provided by the California Highway Patrol, which maintains a station in El Cajon, California, and the U.S. Border Patrol, which maintains a station in Campo.

Fire services are provided by the California Department of Forestry, which maintains stations in Campo, Dulzura, and Boulevard. The U.S. Forest Service maintains a fire station at Cameron Corners. The Campo Fire and Rescue Service serves San Diego County Service Area 112, which includes the Proposed Action area.

This page intentionally left blank.

CHAPTER 4.0

ENVIRONMENTAL CONSEQUENCES

This chapter provides an analysis of the environmental impacts of the Proposed Action, Alternative 1, and the No Action Alternative. The term “impact,” as used within this document, refers to impacts that are adverse in nature and addresses both direct and indirect impacts.

For purposes of discussing environmental consequences, the term “Proposed Action area” refers to the existing withdrawal; Parcels C, E, and G, which are proposed for withdrawal for exclusive use by the DON; as well as Parcels A, B, D, F, and H, which are the subject of an ROW authorization for nonexclusive use by the DON.

4.1 TOPOGRAPHY, GEOLOGY, SOILS, SEISMICITY, AND MINERAL POTENTIAL

4.1.1 Proposed Action

Impacts

Topography, Geology, and Soils

Implementation of the Proposed Action would involve minor landform alterations related to site preparation for the expansion of the current CQC facility and adjacent range complex on the existing withdrawal; construction of the MTC on Parcel C; and additional improvements, including a well; an 18,930-liter (5,000-gallon) water storage tank; septic tank and leach field; 6.1 by 6.1-meter (20 by 20-foot) restroom; portable electric generator storage building; and improvement of access roads on Parcel C. Site preparations would include clearing and grading of up to as much as 24.0 hectares (59.5 acres) of land (exclusive of adjacent roadway improvements). Portions of this area are already developed or disturbed and no adverse impacts to topography would occur. There are no unique or invaluable geologic features that would be adversely impacted by implementation of the Proposed Action.

The proposed water supply wells, if serving more than 25 people at least 60 days per year (or having at least 15 service connections) would be required to have an operating permit. Installation of new wells is regulated by the County of San Diego and will require well installation permits. Proposed leach fields (on-site waste water systems) are permitted by the

County of San Diego and would follow specified design parameters. Once constructed, follow-on regulation of the on-site waste water systems would be under the auspices of the SWRCB. Construction of these facilities would be subject to storm water measures contained in a storm water pollution prevention plan (SWPPP) and would include other BMPs as required by the general construction activity storm water permit issued by the SWRCB. The SWPPP would be subject to the review and approval of the RWQCB (refer to Section 4.2, Hydrology/Water Quality, for additional information on SWPPP requirements). The current soil erosion and sediment control measures required by NBC would be implemented during all phases of construction. Because this alternative would include implementation of erosion control measures, erosion impacts (i.e., soil impacts) would not be adverse.

Construction Design Measures

Prior to development, a complete subsurface geotechnical investigation of the project site to analyze the soil and geologic conditions would be conducted. The investigation would evaluate and identify potential geologic hazards and would provide remedial grading recommendations, foundation and slab design criteria, and soil parameters for the design of the proposed range. The following standard construction measures would be implemented as part of the Proposed Action:

- Standard soil and geotechnical engineering investigations would be conducted to ensure foundation stability.
- Before on-site grading, an erosion control plan would be prepared by an erosion control specialist certified by the International Erosion Control Society to adequately control erosion during construction.
- Proposed fill slopes would be no steeper than 2:1 (horizontal to vertical). Proposed cut slopes would be determined by soil characteristics.
- Safe allowable slope heights would generally be limited by the shear strength characteristics of the particular soil or rock conditions present.
- Grading would be performed such that all identified compressible materials would be removed and re-compacted and fill soils placed and compacted to at least 90 percent relative compaction.
- All graded pads would have drainage swales that direct storm water runoff or irrigation runoff away from the structures or the top of the slopes to control drainage facilities. No storm water would be allowed to discharge over the top of cut or fill slopes.

-
- If perched groundwater were identified as a potential concern during the subsurface investigation, then canyon sub-drains would be installed after alluvial removal and before the placement of fill.

The Proposed Action would be designed to tolerate anticipated ground shaking from future earthquakes. At a minimum, construction would comply with the seismic design criteria of the Uniform Building Code or in accordance with the latest seismic design criteria of the Structural Engineers Association of California.

Faulting and Seismicity

The Proposed Action would be located in an active seismic region. The fault zones most likely to affect the project are the Earthquake Valley and Elsinore faults, which are located approximately 25 kilometers (15.5 miles) to the northeast. However, in the event of a major earthquake in southern California and northern Baja California, Mexico areas, the project site could be subject to moderate to severe ground shaking. As stated previously, building design and construction would be in accordance with seismic design criteria of the Structural Engineers Association of California and the Uniform Building Code. Detailed design of the expanded CQC facilities and MTC would include a geotechnical study to further evaluate the site's liquefaction potential. This study would include deep borings, laboratory testing, and engineering analysis to evaluate the site's liquefaction and consolidation potential, and the study would also identify specific measures to reduce liquefaction potential. These measures would minimize potential structural damage during an earthquake and reduce potential impacts associated with faulting and seismicity to below a level of significance.

Mineral Potential

All mining claiming and patents on the MWTF withdrawal are listed as forfeited or closed according to BLM and USGS records, with the exception of one series of claims that were subjected to a forfeiture appeal within the last 2 years. Additional appeals may be possible with the Arkiebar Mine claims within withdrawal parcel "G." With the potential exception of the Arkiebar mine claims, there should be no surface interference with a prospective leasable mineral operation at the site (see Appendix B for additional detail). In the absence of a reversal of existing conditions through appeals, impacts to activities related to the mineral potential of the site would not be adverse.

Mitigation Measures

No mitigation measures would be proposed.

4.1.2 Alternative 1

Impacts

Topography, Geology, and Soils

Implementation of Alternative 1 would result in the same impacts as the Proposed Action. Thus, there would be no adverse impacts from this alternative.

Faulting and Seismicity

Impacts from faulting and seismicity would be the same for Alternative 1 as they are for the Proposed Action since they are located in the same seismic region.

Mineral Potential

Impacts related to minerals potential of the site would be the same for Alternative 1 as they are for the Proposed Action.

Mitigation Measures

No mitigation measures would be proposed.

4.1.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented and existing topographic, geologic, soils, seismic conditions, and mineral potential would remain unchanged.

Mitigation Measures

No mitigation measures would be proposed.

4.2 HYDROLOGY/WATER QUALITY

4.2.1 Proposed Action

Impacts

Construction

The construction activities associated with site preparation for the Proposed Action have the potential for adverse impacts to surface water quality, especially through erosion of disturbed soil from storm water. However, the Proposed Action would comply with the CWA as implemented by the SWRCB's NPDES General Permit No. CAS000002, a general permit for construction activities, and the associated Order No. 92-08-DWQ, "Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity." Projects of 0.4 hectare (1 acre) or more are subject to this general construction permit process.

To comply with the CWA, the contractor would file a Notice of Intent with the SWRCB in Sacramento prior to proposed site development. The contractor would be required to eliminate or reduce nonstorm water discharges to storm water systems, develop a SWPPP prior to beginning of construction, inspect all storm water control structures, and implement other pollution prevention measures such as applicable BMPs and conservation measures during construction. The SWPPP would include the specific measures and techniques to be implemented to protect the project site and adjacent areas from erosion and deposition during site grading and construction. The contractor would provide a copy of the SWPPP for the various crews performing work on the construction site, and a copy would be kept on-site during the project to satisfy the requirements of the NPDES permit. A draft of this SWPPP would be forwarded to the Resident Officer in Charge of Construction and NBC for review prior to finalization of the SWPPP. Because construction crews would comply with the SWPPP contained in the NPDES permit process, the project impact of increased erosion potential would not be adverse.

The specific measures for construction would include minimization of erosion and siltation of off-site areas during construction. It would also include preparation of an erosion control plan by an erosion control specialist certified by the International Erosion Control Society, which would include the use of hay bales, silt fences, siltation basins, or other devices necessary to stabilize the soil in denuded or graded areas during the construction and revegetation phases of the project.

Operation

The expansion of the existing CQC facility and range complex on the existing withdrawal would take place in an area that is already partially developed. The existing withdrawal has three USGS blue-line streams within it and five USGS blue-line streams occur on Parcel C; however, none of these USGS blue-line streams or their lateral tributaries are connected to the larger regionally important Campo Creek to the south. According to the USGS map, these blue-line streams terminate in the broad valleys prior to flowing into the Campo Creek. Since these streams lack surface flow connection to other streams that are navigable waters of the U.S. or tributaries to such waters, they are considered isolated waters of the U.S. and they do not drain to any surface waters.

The new impervious surface that would result from implementation of the Proposed Action would be a relatively minor source of increased surface runoff that could increase streambed erosion immediately downstream of the outlet for the runoff. New drainage control devices would be installed to properly collect and carry off-site surface runoff. Based on continued implementation of the existing plans, policies, and BMPs, and implementation of water quality controls during construction and operations, no adverse impacts would occur.

Groundwater

Groundwater on-site is not designated for beneficial use, and the Proposed Action would not require groundwater use. The groundwater level is below the graded surface. Any groundwater that would potentially be removed as part of the construction activities would be subject to NPDES permitting. Dewatering activities would comply with the SWRCB's Order No. 96-41. Under this order, a Waste Discharge Permit must be obtained if discharge is in excess of 378,500 liters per day (100,000 gallons per day), less than 378,500 liters per day (100,000 gallons per day) but contains contamination, or can potentially pollute downstream waters. The groundwater would need to be either treated before discharge to the creek or diverted to a sanitary sewer for treatment. These processes would reduce dewatering impacts to less than adverse levels.

Floodplains

Although Federal Insurance Rate Maps for the area were not available, due to the elevation and topography it can be assumed that there are no 100-year floodplains within the Proposed Action area and thus they would not be affected.

Mitigation Measures

No mitigation measures would be proposed.

4.2.2 Alternative 1

Impacts

The impacts from Alternative 1 would be the same as the impacts from the Proposed Action. Thus, there would be no adverse impacts.

Mitigation Measures

No mitigation measures would be proposed.

4.2.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be constructed, and existing hydrology/water quality conditions would remain unchanged.

Mitigation Measures

No mitigation measures would be proposed.

4.3 BIOLOGICAL RESOURCES

Under NEPA, biological resources may be either directly or indirectly affected by a project. Furthermore, direct and indirect impacts may be either permanent or temporary in nature. These impacts are defined below.

Direct: According to the CEQ NEPA Regulations, direct effects or impacts are caused by the action and occur at the same time and place as the action. Any alteration, disturbance, or destruction of biological resources that would result from project-related activities would be considered a direct impact. Examples include clearing vegetation and loss of individual species and/or their habitats.

Indirect: According to the CEQ NEPA Regulations, indirect effects or impacts occur later in time or are farther removed in distance but are still reasonably foreseeable and attributable to project-related activities. Examples include elevated noise and dust levels, increased human activity, increased runoff and erosion, and the introduction of invasive wildlife and plant species.

Permanent: All impacts that result in the irreversible removal of biological resources are considered permanent. Examples include constructing a building or road that permanently replaces existing biological resources.

Temporary: Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include the generation of fugitive dust during construction or removal of vegetation for construction staging areas where, after construction is complete, the natural vegetation is allowed to re-colonize the impacted area.

Permanent and temporary, direct and indirect effects to sensitive plant and wildlife species and their habitats within the Proposed Action area were analyzed. Results of these analyses are provided in the following sections.

4.3.1 Proposed Action

Impacts

Vegetation

Direct Impacts

All vegetation within the total area of disturbance would be permanently impacted from project development and either replaced with project features or disturbed at such a frequency by future use that the existing biological resources should be considered permanently removed. The area of each vegetation series that would be permanently and temporarily impacted within the proposed total area of disturbance is summarized above in Table 3-3.

Based on the total area of disturbance, construction would impact approximately 25.19 hectares (62.25 acres) of vegetation within the 1,370-hectare (3,385-acre) Proposed Action area (Figures 3-4 and 3-5). On the existing withdrawal, 0.55 hectare (0.91 acre) would be directly impacted. On Parcel C, 24.64 hectares (60.89 acres) would be directly impacted. Of the vegetation to be impacted, 3.65 hectares (9.04 acres) consist of vegetation communities considered sensitive habitats. On the existing withdrawal parcel, 0.07 hectare (0.17 acre) of sensitive native grassland (i.e., needlegrass series) and 0.02 hectare (0.06 acre) of sensitive California buckwheat series would be directly impacted. On Parcel C, 3.56 hectares (8.81 acres) of sensitive California buckwheat-white sage series, would be directly impacted (Table 4-1). Construction of the Proposed Action would result in the permanent loss of these areas of habitat.

Table 4-1
Sensitive Vegetation Communities Affected within the Total Area of Disturbance
(Hectares [Acres])

Vegetation	Existing Withdrawal	Parcel C	Total Area of Disturbance
California buckwheat-white sage series	0.00 (0.00)	3.56 (8.81)	3.56 (8.81)
California buckwheat series	0.02 (0.06)	0.00 (0.00)	0.02 (0.06)
Needlegrass series	0.07 (0.17)	0.00 (0.00)	0.07 (0.17)
TOTALS	0.09 (0.23)	3.56 (8.81)	3.65 (9.04)

Direct impacts, both permanent and temporary, to the upland communities would be significant only if these communities supported federally listed species. Further discussion of significant impacts to upland communities occupied by a federally listed species is provided below.

Indirect Impacts

Potential temporary indirect impacts to vegetation communities adjacent to the total area of disturbance may arise from construction-generated fugitive dust; unauthorized trespass by construction workers; and construction-related erosion, runoff, and sedimentation into the isolated waters of the U.S. Construction-generated fugitive dust can adversely affect plants by reducing the rates of metabolic processes such as photosynthesis and respiration. Unauthorized trespass by construction workers and their vehicles can trample and destroy plant communities and species. Indirect impacts from these construction-related activities would be temporary, as these impacts would end with cessation of project construction.

Permanent, indirect impacts could arise from the increase in exotic species invasion or from inadvertent trespass by military personnel during operations of the facility. Though exotic weeds occur within the upland communities within and adjacent to the Proposed Action area, construction activities could further promote their spread by creating disturbed areas that could result in the spread of these exotics into adjacent undisturbed areas.

It is anticipated that erosion and water quality management in accordance with BMPs approved by the State of California under the Nonpoint Source Pollution Control Plan and Phase II Municipal Storm Water Permit, as stated in Chapter 4.2 of the INRMP (U.S. DON 2002a), would be implemented as part of the Proposed Action. Air quality BMPs that reduce fugitive dust are also anticipated to be implemented as part of the project description. As such, indirect impacts from runoff, sedimentation, and fugitive dust would not be significant.

Avoidance and minimization measures such as worker environmental protection briefings, signs, markers, protective fencing, exclusion fencing, and biological monitoring are typical measures that are components of any proposed action. Incorporation of these measures would avoid significant impacts to the isolated waters of the U.S. from unauthorized trespass by construction workers.

General Wildlife and Wildlife Corridors

Wildlife species that currently occupy the Proposed Action area would suffer from direct permanent impacts resulting from the permanent loss of 16.78 hectares (41.47 acres) of native vegetation. Reptiles, migratory and resident birds, and mammals (particularly fossorial mammals) would be locally displaced and could potentially be killed as a result of the vegetation clearing activities. However, the amount of native vegetation surrounding the development footprint will minimize this impact. The amount of permanent acreage loss associated with the Proposed Action would not be considered significant in the larger context of the La Posta linkage/migration corridor that currently functions on a regional scale. The loss of habitat availability in the area would likely not significantly reduce the population of known wildlife species in the region. Therefore, no significant impacts to functioning wildlife corridors are expected to occur from the Proposed Action.

Wetlands and Waters of the U.S.

The isolated waters of the U.S. occurring within the southern portion of Parcel C have the potential to be affected by the proposed development; however, layout of the new facilities will be designed to avoid direct placement on these drainages. Coincident with the proposed segment of roadway improvement, however, the lateral tributary A crosses under the existing dirt roadway via a mortared culvert/bridge abutment/retaining wall complex that includes a 0.6-meter (24-inch) corrugated, galvanized steel culvert. Additionally, blue-line stream 1 is located very near the edge of the roadway (see Figure 3-13). Temporary, direct impacts to an approximately 7.3-meter (24-foot) segment of the approximately 0.8-meter-wide (2.5-foot-wide) tributary A at the road crossing would be unavoidable. Possible temporary, indirect impacts to a segment of blue-line stream 1 could occur; however, roadway improvements can be conducted in a manner to avoid all indirect affects to these drainages. As isolated waterbodies, these drainage features would not be regulated by the ACOE. The determination that the waterbodies are isolated will need to be made formally by the ACOE and EPA before impacts can occur.

Federally Listed Plant Species

No federally listed plant species were observed or are known to occur within the vicinity of the Proposed Action area. Since the Proposed Action would have no effect on federally listed plant species, no further discussion of special status plants will be presented.

Nonfederally Listed Plant Species

Five species considered sensitive by the CNPS were observed within the Proposed Action area during the spring surveys: southern jewel-flower, sticky geraea, Payson's jewelflower, Ramona spineflower, and Campo pea. Potential direct and indirect effects are analyzed in the following discussions for each species. The Proposed Action would have no permanent effect on southern jewel-flower, Payson's jewelflower, Ramona spineflower, and Campo pea as none of these species were detected in the development footprint of the Proposed Action. The Proposed Action would adversely affect populations of sticky geraea within Parcel C. No sensitive plant populations would be impacted within the existing withdrawal parcel.

Permanent Direct Impacts

Impacts from Construction. As a result of construction of the Proposed Action, permanent direct effects would occur through loss of a population of approximately 79 individuals of sticky geraea on Parcel C. The sticky geraea is a state-sensitive species. It is not federally listed threatened or endangered.

Temporary Direct Impacts

Impacts from Training Activities. Sticky geraea was surveyed extensively in the Proposed Action area, covering areas of 0.04 hectare (0.09 acre) within Parcel C and 0.31 hectare (0.78 acre) within the existing withdrawal parcel. This species was the most widespread sensitive plant species observed; a total of 141 localities of approximately 1,300 individuals were observed in the Proposed Action area. Most populations varied in size from 1 to 20 individuals. A single population of 75 individuals was found within the existing withdrawal parcel.

Temporary direct effects would occur as a result of carrying out the Proposed Action with an increased number of personnel annually using the existing withdrawal and Parcel C. Increases in off-road, off-range activities, and foot traffic on and off trails may result in temporary direct effects through trampling of individual plants or degradation of habitat through soil compaction and/or erosion.

Impacts from Construction. The direct effects of construction of the Proposed Action are expected to be permanent, rather than temporary, since the aforementioned populations of sticky geraea will be eliminated and the habitat where they occur made unavailable as a result of development.

Impacts from Change of Administrative Jurisdiction. The change to exclusive military use would result in an increase of 36 person days in off-road or off-range strategic recon activities (Table 2-5), which may have adverse effects on sensitive plant populations if they are not located, mapped, and purposely avoided. The change of administrative jurisdiction would also result in a decrease of nonmilitary use of the land (e.g., hiking, horseback riding, etc.) and lessen the negative impacts to sensitive plant species associated with recreational activities.

Temporary Indirect Impacts

Impacts from Training Activities. There is potential for temporary indirect effects to nonfederally listed sensitive plant species as a result of training activities proposed in areas of habitat outside of developed training facilities such as patrolling and strategic reconnaissance. Foot traffic may degrade sensitive plant habitat by increasing recruitment and establishment of exotic weedy plant species that may outcompete and displace sensitive plant species. These indirect effects may be considered minimal but would be long term and difficult to quantify.

Federally Listed Wildlife Species

Two federally listed species, the QCB and the arroyo toad, are known to occur within the Proposed Action area and/or within the vicinity of the Proposed Action area. Potential direct and indirect effects are analyzed in the following discussions for each species. There is no critical habitat designated at the La Posta MWTF. The Proposed Action would have no significant impact on the federally endangered arroyo toad. The project is likely to adversely affect, but not significantly impact, the federally endangered QCB species following implementation of conservation measures that were recommended in the BO, and those that are agreed upon by the USFWS and the DON.

Quino Checkerspot Butterfly

Permanent Direct Impacts

Impacts from Construction. It is assumed that the QCB occurs in all occupied habitat within and adjacent to the Proposed Action area. As a result of construction of the Proposed Action, permanent direct impacts would occur through loss of approximately 23.63 hectares (58.40 acres) of QCB habitat (Table 4-2; Figures 4-1 and 4-2).

Table 4-2
Quino Checkerspot Butterfly Occupied Habitat (Hectares [Acres])
with Permanent Direct Effects from Construction Activities

Parcel	QCB Habitat
Existing Withdrawal	0.54 (1.34)
Parcel C	23.09 (57.06)
Total	23.63 (58.40)

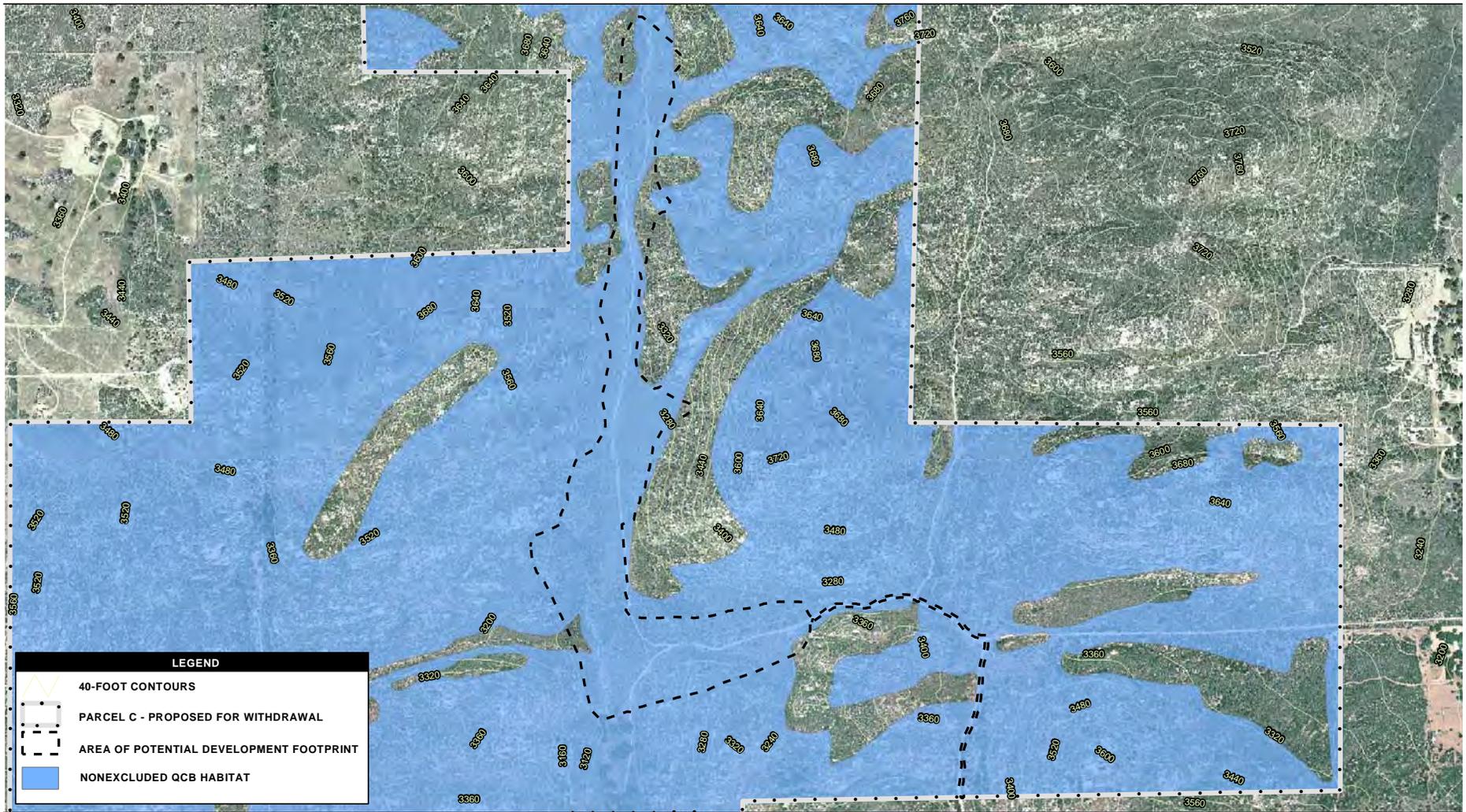
Of these 23.63 hectares (58.40 acres), 8.04 hectares (19.87 acres) of the total area of disturbance within Parcel C are composed of mostly dense nonnative grassland with a few patches of sparse vegetation; they are thus considered “lesser quality QCB habitat.” While these areas were not excluded from protocol QCB surveys and are to be considered QCB-occupied habitat, they are considered to be lower quality habitat for the species.

The new CQC range complexes proposed to be constructed on Parcel C would include an off-limits area behind each range complex that would not affect the QCB. Areas behind ranges are designated as off-limits to personnel due to safety constraints associated with surface danger zones. The absence of regular foot traffic in the area behind the proposed new CQC range complexes on Parcel C would prevent negative effects on the QCB and its habitat within these areas.

Temporary Direct Impacts

Impacts from Change of Administrative Jurisdiction and Training Activities. Temporary direct impacts would occur as a result of changing land use to exclusive military use by the DON in the parcels proposed for withdrawal. Changing land use to exclusive military use by the DON would eliminate all other legal uses of the land and would likely result in a decrease in illegal trespass by migrant traffic as major entry points would be fenced and/or signed and security

This page intentionally left blank.



Source: AirPhotoUSA 2005; BLM.
 700 350 0 700 Feet
 Scale: 1:8,400; 1 inch = 700 feet

Figure 4-2
Effects on Nonexcluded QCB Habitat for Parcel C

This page intentionally left blank.

would be increased. The change to exclusive military use would result in an increase in off-road or off-range military activities (36 person-days per year out of a total of 4,850 person-days per year potentially off-road and/or off-range for all exclusive use parcels combined) such as strategic reconnaissance. The net level of human activity at La Posta MWTF, taking into account increased training activity and some potential decrease in other human uses, is expected to increase. These activities involve foot traffic on and off trails and in shrubs within known or potentially occupied QCB habitat. Current levels of foot traffic may degrade QCB habitat by crushing larval host plants/or nectar plants. Increased foot traffic has the potential to result in an increase in potential to crushing larval host plants and/or nectar plants. These activities would be considered to have temporary direct, although long-term, potential effects on the QCB with take of the species through direct contact. Adults, larvae, and/or egg masses have the potential to be crushed by current levels of foot traffic. Increased foot traffic, although minimal, has an increased potential to crush adults, larvae, and/or egg masses. Take from trampling by foot traffic is most likely to occur to larvae and egg masses since they are frequently close to the soil surface and not as mobile as adults.

There is also a potential for collision of adults with vehicles and machinery associated with all training activities. Training activities that do not involve foot traffic off-road, or off-range, such as photo image capture, live fire, and CQC, have a potential to result in take of the QCB. These activities present the potential for take of adults from collision with vehicles/machinery at current levels. An increase in the number of personnel performing these activities, although minimal, would increase the potential for take of the QCB from collision with vehicles/machinery.

QCB adults or larvae may be temporarily directly impacted if hit by rounds that fall within the safety arcs behind existing or proposed ranges. QCBs have been found in the vicinity of the existing CQC house (Range 113), existing Small Arms Complex (Range 115), and within the area proposed for similar exercises. Paradoxically, the safety arcs behind existing and proposed ranges also offer a degree of protection from foot traffic, as these areas are off-limits to foot traffic for safety reasons. Live-fire exercises are expected to increase from 6,050 per year to approximately 9,662 per year (including future exercises conducted at MOUT) as part of the proposed action, which increases the possibility of butterflies being hit.

Impacts from Construction. There would also be temporary direct effects as a result of fugitive dust associated with construction of the Proposed Action; however, the extent of the effect is unquantifiable at this time. Nighttime construction is not anticipated, although it is an option that could be used. Construction-related fugitive dust and nighttime lighting would be

considered a direct effect, as defined under the ESA, since they are immediate effects of the Proposed Action.

Impacts from Right of Way Authorization on Parcels A, B, D, F, and H. ROW Authorization on Parcels A, B, D, F, and H would likely increase the level of human foot traffic on approximately 933 hectares (2,169 acres), as no reduction in other human uses would occur, but increased uses by trainees would occur. ROW authorization would, however, retain the recognition of the natural resource goals set forth in the South Coast Resources Management Plan (BLM 2005) over this area. Increases in human foot traffic would increase the potential for harm to QCB larvae and adults; however, the distribution of butterflies throughout the site has not been studied, so the level of impact remains unknown.

Temporary Indirect Impacts

Impacts from Training Activities. There is potential for temporary indirect impacts to QCB habitat as a result of training activities proposed in areas of habitat outside of developed training facilities such as patrolling and strategic reconnaissance. Foot traffic may degrade QCB habitat by increasing recruitment and establishment of exotic weedy plant species that will lead to further degradation of the habitat. For example, foot traffic that disturbs the soil can encourage the recruitment of species such as filaree or black mustard that tend to choke out native larval host plants including white snapdragon. Habitat degradation from current foot traffic use levels does not appear to be an adverse effect within the QCB survey area. Increased foot traffic levels have the potential to cause more degradation to QCB habitat. However, due to the low density of personnel, the schedule of person-days, the low frequency of training within areas of habitat, and the nature of activities that require minimal disturbance to the habitat, these indirect effects would be considered minimal to QCB habitat. These temporary indirect impacts are considered long term and unquantifiable.

Impacts from Change of Administrative Jurisdiction. The proposed change in administrative status would also modify the natural resource goals that are currently in place under the South Coast Resources Management Plan and may indirectly result in increased impacts to the QCB. Under the South Coast Resources Management Plan, resource goals for the area include emphasis on the protection and enhancement of sensitive species and open space values; and enhancement of habitats for all wildlife species. Withdrawal of these lands for exclusive use by the DON would likely change the goals for the area, as the primary goal would be to support the DON training mission. Incremental changes in habitat quality associated with the change in administration have the potential to occur.

Arroyo Toad

No habitat suitable for breeding arroyo toads was detected within or adjacent to the Proposed Action area. Based on the lack of potential for the species to occur on-site, it has been determined that no permanent or temporary direct loss of suitable or occupied breeding habitat for the arroyo toad would occur through implementation of the Proposed Action. Given this lack of suitable habitat for the arroyo toad, no indirect temporary or permanent impacts are expected through implementation of the Proposed Action.

Nonfederally Listed Wildlife Species

No nonfederally listed wildlife species were observed or are known to occur within the vicinity of the Proposed Action area. Since the Proposed Action will have no effect on federally listed wildlife species, no further discussion of special status animals will be presented.

Mitigation Measures

Measures to avoid and minimize effects to biological resources for the proposed MWTF project area would be implemented as conservation measures and would constitute part of the Proposed Action. These measures are discussed in detail in Section 2.5 of this EA.

Federally Listed Animal Species

With the effective implementation of compensatory measures in Section 2.5 of this EA, no additional adverse effects are anticipated to the species that would require additional mitigation measures.

4.3.2 Alternative 1

Impacts

Parcel E would not be withdrawn from public use for exclusive use by the DON under Alternative 1, however, it would be used by the DON under an ROW. The same construction activities that would take place under the Proposed Action would take place under Alternative 1. There would be minor changes in the way Parcel E is used under an ROW; however, there would be no significant difference in impacts to biological resources.

Mitigation Measures

No mitigation measures would be proposed.

4.3.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented and existing biological resource conditions would not be affected.

Mitigation Measures

No mitigation measures would be proposed.

4.4 CULTURAL RESOURCES

4.4.1 Proposed Action

Impacts

Based on investigations to date, four archaeological sites within the area of potential effect (APE), CA-SDI-15,923, LP-CS-2H, LP-CS-10, and LP-JU-2/H, are eligible for the NRHP. None of these resources are located in Parcel C where the construction of the MTC and access road improvements are planned. Expansion of the existing range complex and other enhancements in the existing withdrawal would avoid the resources. New training operations in the proposed withdrawal and ROW areas would not significantly impact the sites since they would be primarily conducted on foot and would be similar to the current civilian activities in the area.

Mitigation Measures

No mitigation measures would be proposed.

4.4.2 Alternative 1

Impacts

Parcel E would not be withdrawn from public use for exclusive use by the DON under Alternative 1; however, it would be used by the DON under an ROW. The same construction activities that would take place under the Proposed Action would take place under Alternative 1. No eligible resources are present in Parcel G. There would be minor changes in the way Parcel E is used under an ROW; however there would be no significant difference in impacts.

Mitigation Measures

No mitigation measures would be proposed.

4.4.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented and existing cultural resource conditions would remain unchanged.

Mitigation Measures

No mitigation measures would be proposed.

4.4.4 Summary

Cultural resources are present within the limits of the La Posta MWTF; however, no eligible resources are located within the APE. The La Posta Astrophysical Observatory facility has been evaluated and did not qualify for the NRHP (US DON 1996). Of another 24 cultural resources present, four sites identified by 2004 investigations have been assessed as preliminarily qualifying for the NRHP (Underwood and Gregory 2004). Although the entire facility including lands proposed for transfer from BLM was surveyed for cultural resources, development of infrastructure is limited. Proposed training activities should not affect the four known eligible sites.

In conformance Stipulation 8B of the Metro Area PA, CNRSW has therefore determined that the La Posta MWTF undertaking will not adversely affect listed, contributing, or eligible properties. Consistent with 36 CFR 800.5(d)(1), CNRSW has accordingly made a determination of *no adverse effect* for the La Posta MWTF. Also in accordance with Stipulation 8B of the Metro Area PA, no further review or conformance with Section 106 or 36 CFR 800 is required.

4.5 LAND USE

4.5.1 Proposed Action

Impacts

General Land Use Compatibility

Implementation of the Proposed Action would result in beneficial impacts to land use at the La Posta MWTF because the Proposed Action has been sited to facilitate functionality and to correct operational inconsistencies. An interagency agreement between the DON and the U.S. Forest Service currently allows military personnel to maneuver through the Cleveland National Forest to a training objective on Mount Laguna. This agreement would remain unchanged. The entire Proposed Action area provides NSW operators with the opportunity to train in a tactical manner for extended periods of time. Small units and teams can be inserted tactically and move over long distances for an extended period of time. This training provides units with the ability to operate and support themselves in extreme conditions over long periods of time. Consequently, implementation of the Proposed Action is inherently consistent with NBC planning policies and guidelines and has been designed and sited to be compatible with existing land use.

There would be a potential for noise impacts if any threatened or endangered noise-sensitive wildlife species were identified near the Proposed Action (refer to Sections 3.3 and 4.3 of this EA). Since none of these species were identified in this area, there would not be any adverse noise impacts.

Existing and Surrounding Land Uses

Implementation of the Proposed Action would result in expansion of the current CQC facility and adjacent range complex; construction of the MTC, along with a well and an 18,930-liter (5,000-gallon) water storage tank; septic tank and leach field; 6.1 by 6.1-meter (20 by 20-foot) restroom; a portable electric generator storage building; and improvement of access roads. Implementation of the Proposed Action would give SEALs the ability to conduct live fire and movement training through multiple buildings at the same time and would also allow for offensive and defensive live fire and movement training. The Proposed Action would be compatible with the current training on the existing withdrawal as well as the training that currently occurs throughout the Proposed Action area under an ROW authorization.

As stated in Chapter 3.0, among the proposed withdrawal parcels, the existing withdrawal parcel and portions of Parcels C and E are part of the Clover Flat grazing allotment (Figure 3-15). There are 934.0 hectares (2,308 acres) of this grazing allotment within these parcels. (The Clover Flat grazing allotment also includes Parcel D and part of Parcel B among the ROW parcels.). This grazing lease was renewed in February of 2004 for an additional 10-year period. Renewing the grazing lease for a 10-year period would not preclude the federal government from modifying the grazing allotment boundary during the lease period. The grazing regulations provide the BLM the authority to modify grazing leases when the public lands are to be devoted to a public purpose that precludes grazing use. Prior to reducing the acreage of public lands available for grazing, the BLM is required to consult, coordinate, and cooperate with the affected grazing lessee. The lessee must be provided 2 years notification if a grazing lease is cancelled in whole or in part. Implementation of the Proposed Action would require that the grazing allotment be modified so that grazing would not take place on any of the property proposed for withdrawal for exclusive use by the DON since this type of use is not compatible with military training. This would result in 934.0 hectares (2,308 acres) being removed from the allotment and no longer available for grazing use. The existing grazing improvements (water wells, fencing) constructed in the existing withdrawal would remain or would be removed by the DON; however, they would not be available to the existing user. This would result in an adverse impact to the existing user. Since this would follow lease terms including those for notification, and modification and would only affect one entity, this would not be considered an overall significant adverse impact.

All mining claims and patents on the areas proposed for withdrawal are listed as forfeited or closed according to BLM and USGS records, with the exception of one series of claims that were subjected to a forfeiture appeal within the last 2 years. Implementation of the Proposed Action would require that these mining claims not be renewed once they have expired as this type of use is not compatible with military training. Since no mining is currently occurring, however, this would not result in a significant adverse impact.

Of the other existing authorized uses on lands proposed for withdrawal, only one, the apiary permit issued to Gibbs Apiaries, would not be renewed since this use is not compatible with the military training. This change in land use would result in an adverse impact to the existing user; however, since this would affect only one entity, this would not be considered an overall significant adverse impact.

The existing ROW, for access roads, powerlines, telephone lines, and the wind energy project, would not be affected by implementation of the Proposed Action.

The applications that are pending with the BLM on lands proposed for withdrawal and ROW would not be affected by the Proposed Action.

Adopted Plans, Ordinances, and Policies

The Proposed Action area is located within land set aside for public use and is owned by the federal government. Because it is outside the jurisdiction of the County of San Diego, the County does not have specific zoning or General Plan designations for this property. The La Posta MWTF is currently designated in the County General Plan as Public/Semi-Public Lands. The Proposed County General Plan designates this area as Open Space/Conservation (San Diego 2005). However, the Proposed Action area would continue to be federally owned property and would not be subject to the policies and restrictions of the County of San Diego, therefore, there would be no impact to adopted plans, ordinances, and policies.

Mitigation Measures

No adverse impacts have been identified; therefore, no mitigation measures would be proposed.

4.5.2 Alternative 1

Impacts

Impacts from the implementation of Alternative 1 would be the same as impacts from the Proposed Action, although one of the parcels (Parcel E) would not be withdrawn for use as an MWTF; it would be an ROW.

Mitigation Measures

No adverse impacts have been identified; therefore, no mitigation measures would be proposed.

4.5.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented. Without this facility, mountain warfare training would occur in areas that are not currently set aside for this use.

Mitigation Measures

No mitigation measures would be proposed.

4.6 PUBLIC FACILITIES ACCESS

4.6.1 Proposed Action

Impacts

Implementation of the Proposed Action would result in expansion of the current CQC facility and range complex; construction of MTC along with a well and an 18,930-liter (5,000-gallon) water storage tank; septic tank and leach field; 6.1 by 6.1-meter (20 by 20-foot) restroom; a portable electric generator storage building; and improvement of access roads at the La Posta MWTF. The existing withdrawal is land withdrawn from public use for use as a Microwave Space Relay Station for nonexclusive use. The DON uses the existing withdrawal for mountain warfare training purposes under an ROW reservation issued by the BLM. The DON uses other public lands surrounding the existing withdrawal under a separate MOU signed in 1998 between BLM and the DON. Public access is not normally granted to the existing withdrawal property. The use of the existing withdrawal would continue to be military in nature. The use of the proposed facilities would also be military in nature and would be sited to consolidate similar land uses and facilities functionality, and to correct current operational inefficiencies. Construction activities associated with the Proposed Action would not have any impact on existing recreational facilities. There are no existing recreational or community support facilities within or near the Proposed Action area.

Public recreational activities, such as horseback riding, camping, hiking, and hunting, which are currently allowed in the proposed withdrawal and ROW parcels, would no longer be allowed on the withdrawal parcels. Since the level of use of these parcels by these activities is relatively minor, this impact would not be considered significant. These activities would be allowed on the ROW parcels as long as they were coordinated through the BLM.

Mitigation Measures

No impacts to public facilities access/coastal zone management are anticipated, and no mitigation measures would be proposed.

4.6.2 Alternative 1

Impacts

Implementation of Alternative 1 would result in the same impacts as the Proposed Action.

Mitigation Measures

No impacts to public facilities access/coastal zone management are anticipated, and no mitigation measures would be proposed.

4.6.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented. The area and use of the area would remain unchanged, and no impacts to public facilities access/coastal zone resources would occur.

Mitigation Measures

No mitigation measures would be proposed.

4.7 SOCIOECONOMICS

This section addresses impacts related to population, housing, employment, minority population trends, income, and environmental justice for children. Other impacts to resource areas that could affect the public are addressed in Section 4.5 (Land Use), Section 4.6 (Public Access), Section 4.9 (Air Quality), Section 4.10 (Noise), and Section 4.13 (Utilities and Public Services).

4.7.1 Proposed Action

Impacts

Population, Employment, and Housing

No net changes in the number of permanent military and civilian personnel involved in training at the La Posta MWTF would occur with implementation of the Proposed Action. However, an increase in the number of transient personnel involved in training at the La Posta MWTF would occur with implementation of the Proposed Action. The Proposed Action would not impact the job market in the Campo area as there would not be an influx of military families into the area. The Proposed Action would result in limited beneficial socioeconomic impacts to the local project area from the increase in usage, which would result in an increase in the purchase of locally available supplies. A construction mechanism has not been defined and the schedule is not yet determined; thus, the impact from construction cannot be analyzed. However, any impacts would likely be a short-term, positive impact due to use of area facilities and purchase of local goods and services. As many as two business ventures may potentially be affected by the Proposed Action: Gibbs Apiaries, which currently has an annual permit to operate on the existing withdrawal and Parcel E; and the lessee of the Clover Flat grazing allotment. Both of these entities may potentially find their permits canceled, modified, or simply not renewed. However, since this represents only a small portion of the economy of the area, these impacts would not be considered significant.

Environmental Justice

The population surrounding the Proposed Action site is not considered minority. The population in SRA 62 is primarily non-Hispanic white (61 percent). This area has a lower median income than San Diego County as a whole (\$36,235 for SRA 62 versus \$47,538 for the county). Implementation of the Proposed Action would be conducted entirely within the boundaries of SRA 62. The percentage of minority population at SRA 62 is slightly lower than the county as a

whole and SRA 62 has a majority white (non-Hispanic) population (SANDAG 2001, 2002c). While the median income for SRA 62 is lower than San Diego County as a whole and the area does have a higher (5 percent) population living below the poverty level than the county as a whole, the location of the Proposed Action would be within areas designated for military training use and would not be in proximity to any housing areas. Thus, there would not be significant impacts associated with the Proposed Action that would affect populations within the nearby area. No significant impacts would occur.

Environmental Justice for Children

In SRA 62, 32 percent of the population is considered to be children (i.e., age 19 or younger). This is slightly greater than the county average of 29 percent children. There are no schools or other child care-type facilities within 1.6 kilometers (1 mile) of the Proposed Action area. Thus, there would not be any disproportionate impacts to children.

Mitigation Measures

No mitigation measures would be proposed.

4.7.2 Alternative 1

Impacts

The impacts from Alternative 1 would be the same as impacts from the Proposed Action.

Mitigation Measures

No mitigation measures would be proposed.

4.7.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented. Existing conditions would remain the same, and no significant impacts would occur.

Mitigation Measures

No mitigation measures would be proposed.

4.8 TRAFFIC AND CIRCULATION

4.8.1 Proposed Action

Impacts

Construction

Access to the Proposed Action area would be from La Posta Road; this roadway currently operates within acceptable limits. Construction traffic would comprise only a small portion of the total existing traffic and would include the daily commuting of the construction crew and trucks bringing equipment and materials to the sites. Many of the vehicles would be kept on-site for the duration of construction resulting in very few actual increased trips. Delivery of materials to the construction sites could occasionally result in minor delays at intersections. Further, increases in traffic volumes associated with construction activity would be temporary; once construction has been completed, there would be no long-term impacts to the regional transportation network or on-base transportation.

Operations

The Proposed Action would involve no net change in permanent military and civilian personnel on La Posta MWTF. However, it would result in additional transient personnel going to and from the site for training. The Proposed Action would result in an additional 3,657 person days of training per year (Table 2-5). This would equate to about 12 additional persons per training day (excluding weekends and holidays). This number of additional personnel at the site would result in additional traffic (approximately eight new trips daily) going to and from the facility. This increase in traffic would not be substantial, and adverse impacts to the regional transportation network would not occur.

Mitigation Measures

No mitigation measures would be proposed.

4.8.2 Alternative 1

Impacts

The impacts from Alternative 1 would be the same as the impacts from the Proposed Action.

Mitigation Measures

No mitigation measures would be proposed.

4.8.3 No Action Alternative

Impacts

Under the No Action Alternative, the area would not be developed, no new traffic would be generated, and there would be no adverse impacts.

Mitigation Measures

No mitigation measures would be proposed.

4.9 AIR QUALITY

Clean Air Act Conformity

The following subsections address the application of the General Conformity Rule.

Location in a Nonattainment Area

Specific geographic areas are classified under the federal CAA as either “attainment” or “nonattainment” for each pollutant, based on conformance with or violation of the NAAQS. The General Conformity Rule applies to actions that generate emissions in nonattainment or maintenance areas. The project site is located within the SDAB, which has been classified as a federal nonattainment area for O₃ and a maintenance area for CO (USEPA 2006d). Therefore, the General Conformity Rule is applicable at the Proposed Action location.

Emission of Criteria Pollutants

The General Conformity Rule requires analysis of emissions of criteria pollutants and their precursors for which an area is designated nonattainment or that are covered by a maintenance plan. The Proposed Action would include construction equipment and mobile sources that would emit CO, VOC, and NO_x. VOC and NO_x are the precursors of O₃. Therefore, the General Conformity Rule is applicable to the Proposed Action emissions of CO, VOC, and NO_x.

De Minimis Exemption

Per 40 CFR § 51.853(c)(1), § 91.153(c)(1), § 51.853(i), and § 91.153(j) of the General Conformity Rule, conformity requirements shall not apply to actions where the total of all reasonably foreseeable direct and indirect emissions (1) does not equal or exceed prescribed threshold levels, called “de minimis levels,” that trigger a formal conformity determination and (2) would be less than 10 percent of the area’s annual emission budget. The de minimis thresholds applicable to the SDAB are shown in Table 4-3.

NEPA Air Quality Analysis

A NEPA analysis of potential air quality impacts may be broader than a General Conformity analysis in that the NEPA analysis should evaluate the potential impacts of attainment pollutants, as well as nonattainment pollutants, and whether emissions of such attainment pollutants might significantly impact the human environment. The attainment pollutants for the SDAB are PM_{2.5},

Table 4-3
***De minimis* Emissions for Nonattainment and Attainment/Maintenance**
Criteria Pollutants in the San Diego Air Basin

Criteria Pollutant – Precursor	<i>de minimis</i> emissions tons/year ¹
Carbon Monoxide (CO)	100
Ozone (O ₃) – Volatile Organic Compounds (VOC)	100
Ozone (O ₃) – Oxides of Nitrogen (NO _x)	100

¹ Source: 40 CFR 93. The affected air basin is classified “Basic” nonattainment for O₃ (8-hour). The basin is attainment/maintenance CO.

PM₁₀, SO₂, NO₂, and Pb. PM_{2.5} and PM₁₀ are nonattainment pollutants by state standards. For the NEPA analysis, the General Conformity *de minimis* threshold is used to evaluate PM_{2.5}, PM_{2.5} precursors (SO₂, NO_x, and VOC), and PM₁₀ impacts. This air quality analysis does not directly evaluate SO₂ and Pb because little to no quantifiable and foreseeable emissions of these substances would be generated by the activities of the Proposed Action. The typical stationary sources of SO₂ and Pb emissions, such as fossil fuel-burning electrical utilities, industrial processes, and municipal solid waste incinerators, are not involved in this action. For the mobile sources associated with the Proposed Action, emissions of Pb are virtually nonexistent due to regulations that banned Pb as a gasoline additive in the 1980s. NO₂ emissions are analyzed within a broader category. NO_x emissions indirectly include NO₂, as the subscript “x” represents the sum of the NO_x (NO, NO₂, NO₃, etc.). For the federal maintenance area pollutants, conclusions based on the evaluation of pollutants for General Conformity are applicable for the analysis of NEPA impacts.

4.9.1 Proposed Action

Impacts

The transfer of land from BLM control to the DON would not result in the generation of air emissions. Air quality impacts associated with the Proposed Action are related to emissions that would occur during construction and subsequent operation of the proposed facilities. The principal sources of pollutants during construction would be the construction equipment, construction crew commuting vehicles, and earth-moving activities. The sources of pollutants during operations would be the additional vehicles that would use the range, as compared to the present use.

Construction Activities

As a reasonable worst case, construction is assumed to take 12 months, beginning in January 2008 and ending December 2008. This is considered worst case from an air quality standpoint as all activities would occur within a single year, which would have the greatest chance of exceeding the de minimis limits. Construction and improvement of the existing and proposed facilities would require grading and site preparation at previously disturbed areas as well as undisturbed areas for target sites, firing positions, and facility locations. For purposes of emissions calculations, it is assumed that a maximum area of 25.2 hectares (62.3 acres) would be disturbed and potentially graded during the construction of the Proposed Action. Grading activities would result in the generation of fugitive dust, PM_{2.5}, and PM₁₀ from ground disturbance. The grading, erection of targets, construction of the simulated city block, construction of operations facilities, replacement of the bridge, and installation of utilities would result in exhaust emissions from construction equipment and the vehicles used for commuting by the construction crews.

Emissions have been estimated by use of an air emission modeling software package, URBEMIS 2002. The model contains data specific for each California air basin. For mobile source emissions, URBEMIS 2002 uses EMFAC 2002, which is the most recently approved motor vehicle emission factor model of the CARB. For construction source emissions, the program uses emission factors based upon USEPA's AP-42, Compilation of Air Pollution Emission Factors, and typical southern California construction.

For purposes of analysis, it has been assumed that grading and site preparation would require 6 months and construction of the MTC would require 6 months. Grading of the various sites would require four crawler dozers, two front end loaders, four back hoes, one water truck, and two additional miscellaneous pieces of heavy equipment, such as a generator or ground tamper. Grading would disturb an area of approximately 2.4 hectares (6 acres) per day with a worst-case dust generation factor of 17.3 kilograms (38.2 pounds) per acre/day. Construction of the MTC would require four rough-terrain forklifts; four small pieces of earthmoving equipment, such as a "bobcat;" and 8 miscellaneous pieces of diesel engine-driven equipment, such as concrete mixers, air compressors, and generators. Paving would be limited to paving of existing roadways and the proposed parking lot north of the proposed sniper tower. Paving activities would require less than a month to complete with one asphalt/paving truck and one roller. Grading would not occur simultaneously with construction of the facilities and therefore is analyzed separately from building and facilities construction. Table 4-4 compares the estimated

annual construction emissions with the General Conformity thresholds. Emission calculations are included in Appendix G.

As shown in Table 4-4, the total estimated construction emissions subject to General Conformity applicability would be less than the applicable *de minimis* thresholds for CO, VOC, and NO_x, and less than 10 percent of the regional emission budget for those pollutants.

**Table 4-4
Estimated Construction Emissions**

	Pollutant – tons per year					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5} ¹
2008						
<i>Grading – 6 Months</i>						
Heavy Equipment	1.24	8.47	9.88	0.00	0.33	0.14
Fugitive Dust	0.00	0.00	0.00	0.00	15.13	6.20
Construction Worker trips	0.01	0.03	0.33	0.00	0.00	0.00
Total Grading Emissions	1.25	8.50	10.21	0.00	15.46	6.34
<i>Building Construction – 6 Months</i>						
Heavy Equipment	1.47	10.40	11.48	0.00	0.43	0.18
Paving Equipment	0.07	0.43	0.56	0.00	0.02	0.01
Asphalt Off-gas	0.00	0.00	0.00	0.00	0.00	0.00
Construction Worker trips	0.16	0.09	2.00	0.00	0.03	0.00
Total Building Construction Emissions	1.70	10.92	14.04	0.00	0.48	0.19
Total 2008 Emissions	2.95	19.42	24.25	0.00	15.94	6.53
General Conformity <i>de minimis</i> Thresholds ⁽²⁾	100	100	100	100	100	100
Exceed threshold?	No	No	No	No	No	No
SDAB forecast emissions for 2010 ⁽³⁾	91,725	53,473	341,421	1,424	50,735	20,988
Exceed 10 percent of SDAB emissions?	No	No	No	N/A	N/A	N/A

⁽¹⁾ PM_{2.5} emissions are assumed to be 41% of PM₁₀ emissions based on relationship shown in 2010 emissions inventory.

⁽²⁾ *De minimis* thresholds for San Diego Air Basin: Basic nonattainment O₃ (8-hour) precursors VOC and NO_x and attainment/maintenance for CO. The basin is in federal attainment for PM_{2.5} and PM₁₀; *de minimis* threshold for PM_{2.5}, PM_{2.5} precursors, and PM₁₀ nonattainment is used for NEPA significance determinations.

⁽³⁾ Forecast emissions from CARB 2006c.

As previously indicated, for the NEPA analysis, the General Conformity *de minimis* thresholds are used to evaluate air quality impacts. As shown in Table 4-4, estimated construction emissions for the Proposed Action would be less than the applicable *de minimis* thresholds for CO, VOC, NO_x, SO₂, PM_{2.5}, and PM₁₀ and thus would not result in an adverse impact to air quality under NEPA.

Operational Activities

Although operational schedules have not been defined for the proposed range facilities, the increase in emissions associated with the Proposed Action has been estimated using the following assumptions, which are considered to be conservative:

- Increased operations at the MTC would generate a maximum of eight new vehicle trips daily;
- Each support vehicle would travel an average of 48.3 kilometers (30 miles) per day at an average speed of 56.3 kilometers (35 miles) per hour;
- The majority (98 percent) of travel would be conducted on paved roadways; and
- Operations of all the above vehicles would occur 250 days per year.

Operations emissions were calculated using a vehicle mix of 25 percent Humvees, 50 percent 5-ton trucks, and 25 percent personal vehicles. Emission calculations are included in Appendix G. The results of the calculations are shown in Table 4-5; the total estimated operations emissions subject to General Conformity applicability would be less than the applicable *de minimis* thresholds for CO, VOC, and NO_x and less than 10 percent of the regional emission budget for those pollutants.

**Table 4-5
Estimated Operations Emissions**

	Pollutant – tons per year					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5} ¹
Total Operations Emissions	0.27	0.96	2.50	0.00	0.38	0.16
General Conformity <i>de minimis</i> thresholds ²	100	100	100	100	100	100
Exceed threshold?	No	No	No	No	No	No
SDAB forecast emissions for 2010 ³	91,725	53,473	341,421	1,424	50,735	20,988
Exceed 10 percent of SDAB emissions?	No	No	No	N/A	NA	N/A

⁽¹⁾ PM_{2.5} emissions are assumed to be 41% of PM₁₀ emissions based on relationship shown in 2010 emissions inventory.

⁽²⁾ *De minimis* thresholds for San Diego Air Basin: Basic nonattainment O₃ (8-hour) precursors VOC and NO_x and attainment/maintenance for CO. The basin is in federal attainment for PM_{2.5} and PM₁₀; *de minimis* threshold for PM_{2.5}, PM_{2.5} precursors, and PM₁₀ nonattainment is used for NEPA significance determinations.

⁽³⁾ Forecast emissions from CARB 2006c.

With forecast construction and operations emissions less than the General Conformity *de minimis* levels and less than 10 percent of the forecast area emissions, the Proposed Action is presumed to conform to the SIP, and a formal conformity determination is not required. A Record of Nonapplicability (RONA), a memorandum required by the DON policy that sets out the facts and

circumstances establishing that an action is exempt from a formal conformity determination, shall be prepared for the Proposed Action. The draft RONA is included in Appendix H.

As previously indicated, for the NEPA analysis, the General Conformity *de minimis* thresholds are used to evaluate air quality impacts. As shown in Table 4-5, estimated operational emissions for the Proposed Action would be less than the applicable *de minimis* thresholds for CO, VOC, NO_x, and PM₁₀ and thus would not result in adverse impacts to air quality under NEPA.

Mitigation Measures

There would be no adverse impacts, and no mitigation measures are proposed. However, to minimize dust emissions, the following measure would be implemented as necessary and feasible:

- Water active grading areas, including unpaved roads used for site access, at least twice daily.

4.9.2 Alternative 1

Impacts

Alternative 1 would be similar to the Proposed Action, with the exception of jurisdiction of Parcel E. As previously indicated, the transfer of control or ownership of land would not result in the generation of air emissions. Alternative 1 would construct the same improvements and facilities in the same location and configuration; as such, air emissions associated with Alternative 1 would be the same as under the Proposed Action and no adverse impacts to air quality would occur.

Mitigation Measures

The mitigation measures identified under the Proposed Action would be applicable for Alternative 1, and no additional measures would be necessary.

4.9.3 No Action Alternative

Impacts

The No Action Alternative would result in no new emissions or impacts.

Mitigation Measures

No mitigation measures would be proposed.

4.10 NOISE

4.10.1 Proposed Action

Impacts

The transfer of land from BLM control to the DON would not result in the generation of noise or expose noise sensitive land uses to new noise sources. Noise impacts associated with the Proposed Action are related to noise that would be generated during construction and subsequent operation of the proposed facilities. The principal sources of noise during construction would be the construction equipment. New noise sources during operations would be the additional vehicles that would access the proposed range facilities and weapons firing activities during use of the proposed ranges. Activities at the existing range facilities would not substantially change from existing operations.

Construction Activities

Construction equipment noise levels vary widely as a function of the equipment used and the activity level, or duty cycle. In a typical construction project, the loudest short-term noise levels – for a few minutes during each cycle – occur during site preparation and grading, and are those of earth-moving equipment under full load, which are on the order of 90 dBA at a distance of 15 meters (50 feet) from the source. Construction equipment noise is usually considered as a point source, with attenuation within short distances at a rate of 6 dBA per doubling of distance (e.g., a noise level of 90 dBA at 15 meters [50 feet] will be 84 dBA at 30 meters [100 feet], 78 dBA at 60 meters [200 feet], and 72 dBA at 120 meters [400 feet]). The nature of construction projects, with equipment moving from one point to another, work breaks, and idle time, is such that long-term noise averages are less than short-term noise levels. For purposes of analysis on this Proposed Action, a maximum 1-hour average noise level of 80 dBA at a distance of 15 meters (50 feet) from the construction area may be assumed for the site preparation phase.

After site preparation, noise would be generated by other diesel engine-driven and gas engine-driven equipment and by normal construction activities such as the use of power saws, drills, and hammers. Based on the projected construction activities, noise levels would average 60 to 70 dBA L_{eq} at a distance of 15 meters (50 feet).

Construction of the proposed facilities would require heavy equipment operations for grading, filling, compacting, and paving. The nearest sensitive human receptors to the proposed range

construction sites are residences approximately 1,400 meters (4,600 feet) to the east and 1,000 meters (3,300 feet) east of the nearest point of roadway construction. At these distances, construction noise would be reduced by approximately 46 to 49 dBA. The resultant noise levels at these residences would be below the daytime ambient noise level. In addition, the line of sight between the receptors and the proposed construction site for the new CQC facilities is blocked by hills. With the distance and terrain, construction noise would not be an adverse impact.

Operational Activities

Ongoing and proposed training activities, as described in Section 2.2 of this EA, would generate noise on the site. The principal noise sources would be weapons firing, with additional noise coming from vehicles going to and from the existing and proposed facilities. Future weapon firing noise levels have been assessed using the Small Arms Noise Assessment Model (SARNAM) developed by the ACOE Construction Engineering Research Laboratory. Inputs to SARNAM include range location, design, and orientation; number of active firing lanes; type of weapons fired; type of round fired; number of rounds fired over a 24-hour period; and the percentage of total rounds fired in rapid fire mode. As assumptions regarding range placement were necessary to permit a noise analysis, a conceptual layout of how the range could be configured is shown in Figure 4-3. This configuration is hypothesized for the purposes of noise analysis only and actual construction could take place anywhere within the designated development footprint of Parcel C (Figure 2-2). (Further noise analysis may be advisable if the actual construction pattern varies significantly from the hypothesized arrangement.) The model does not include topography and projects noise over flat terrain.

Activities at the existing ranges would not substantially change from current conditions, as the proposed improvements to the existing facilities would provide enhanced training opportunities but would not increase operating capacity. In fact, as shown in Tables 2-3 and 2-5, training activities at the existing facilities are expected to decrease with the development of the MTC, with the exception of the existing CQC facility, which would experience an increase in use. The increase in use of the existing CQC facility is not expected to generate a substantial increase in noise levels over current conditions. Training operations within a CQC facility are intended to teach SEALs how to enter potentially occupied structures and clear them. These operations generally include firing two short bursts from an M-4 sporadically every few minutes as rooms are entered and targets are engaged. The expansion of the existing CQC would not result in an increase in the number of weapons firing simultaneously. Thus, future noise generated from the improved existing facilities would be expected to remain essentially the same or to diminish slightly over time.

Of the proposed new facilities, it is estimated that the open air firing ranges would generate the greatest noise levels due to limited shielding within the range. The CQC structures within the MTC would be partially enclosed and would not provide a direct line of sight from a shooter to an exterior location. Table 4-6 presents the anticipated amount of rounds that would be fired by various weapons. The data presented in Table 4-6 were used as input to SARNAM. The information presented in Table 4-6 represents a 24-hour period. It was assumed that 20 percent of the range activity would occur during nighttime hours; that is, 20 percent of the rounds would be fired at night.

**Table 4-6
Proposed CQC Complex Weapons and Ammunition**

Weapon	Ammunition	Rounds per Person	Maximum Personnel per CQC Complex	Maximum Rounds per 24-hour Period	Percent Rapid Fire Mode
M-4	5.56-mm (.223 caliber)	150	50	7500	50
12 ga.	12 gauge Magnum	100	50	5000	0
9-mm	9-mm	50	50	2500	0
SASR sniper rifle	.50 caliber	10	5	50	0

When simultaneous training would occur at the proposed facilities, the overall noise levels in the local area would be greater than the noise levels occurring during existing training activities. Due to topography, noise generated at the existing ranges would not combine with noise generated at the proposed ranges in Parcel C. These ranges are considered independent sources. It has been assumed that each CQC facility would accommodate a maximum of 50 personnel for training plus 5 to 10 instructors and a maximum of two facilities in Parcel C would be in operation at any given time. As a worst-case scenario, the two CQC complexes closest to residences along La Posta Road (MS 10) were modeled at full activity, that is, 50 personnel firing at once on each range with 50 firing M-4s, 25 firing shotguns and 25 firing 9-mm pistols.

Noise levels calculated by the SARNAM model for the operation of the two nearest proposed CQC complexes indicate hourly average noise levels of approximately 50 dBA L_{eq} at the nearest residence. Weapons included in the assessment are the M-4 rifle, shotgun, and Ruger 9-mm pistol. Sniper weapons produce louder single events but, due to the low number of weapon discharges, have almost no effect on the hourly average noise level.

The modeled noise prediction of 50 dBA L_{eq} at the nearest residence, above, does not take into account the presence of topographic features such as intervening hills. The proposed MTC would

be located in a valley and surrounded by hills (Figure 4-3). The proposed MTC is located at an average elevation of 975 meters (3,200 feet) above mean sea level. The nearest residence is located approximately 984 meters (3,230 feet) above mean sea level. The residences along La Posta Road and the MTC complex are separated by hills that have a minimum elevation of 1,025.7 meters (3,365 feet) above mean sea level, which effectively provides a barrier over 30.5 meters (100 feet) high. This barrier would provide at least 20 dBA noise reduction from range activities in Parcel C. Thus, the actual noise levels at the nearest residence from weapons firing activities would be approximately 30 dBA L_{eq} , which would not substantially increase nighttime or daytime ambient noise levels. While these noise levels would not adversely increase the ambient noise level at nearby residences, it should be noted that, due to the distinct characteristic of weapons firing, these sounds would still be heard and may be considered disturbing to local residents.

The proposed improvements are estimated to increase use of the La Posta MWTF by approximately 3,657 personnel days per year. Assuming all personnel arrive at La Posta MWTF via military vehicles, they would arrive in groups of 20 to a truck on average. This represents an increase of approximately 183 trips annually. It can be assumed that each training group would arrive in seven to eight vehicles. This number of vehicles would increase noise levels along La Posta Road by less than 1 dBA L_{eq} and would not represent an adverse increase in traffic noise in the project area.

Based on the preceding analysis, development of the proposed ranges and proposed improvements to existing facilities would not have an adverse impact on the existing noise environment.

Mitigation Measures

No significant noise impacts have been identified, and no mitigation measures are proposed.

4.10.2 Alternative 1

Impacts

Noise impacts associated with development and operation of Alternative 1 would be the same as the impacts analyzed under the Proposed Action.

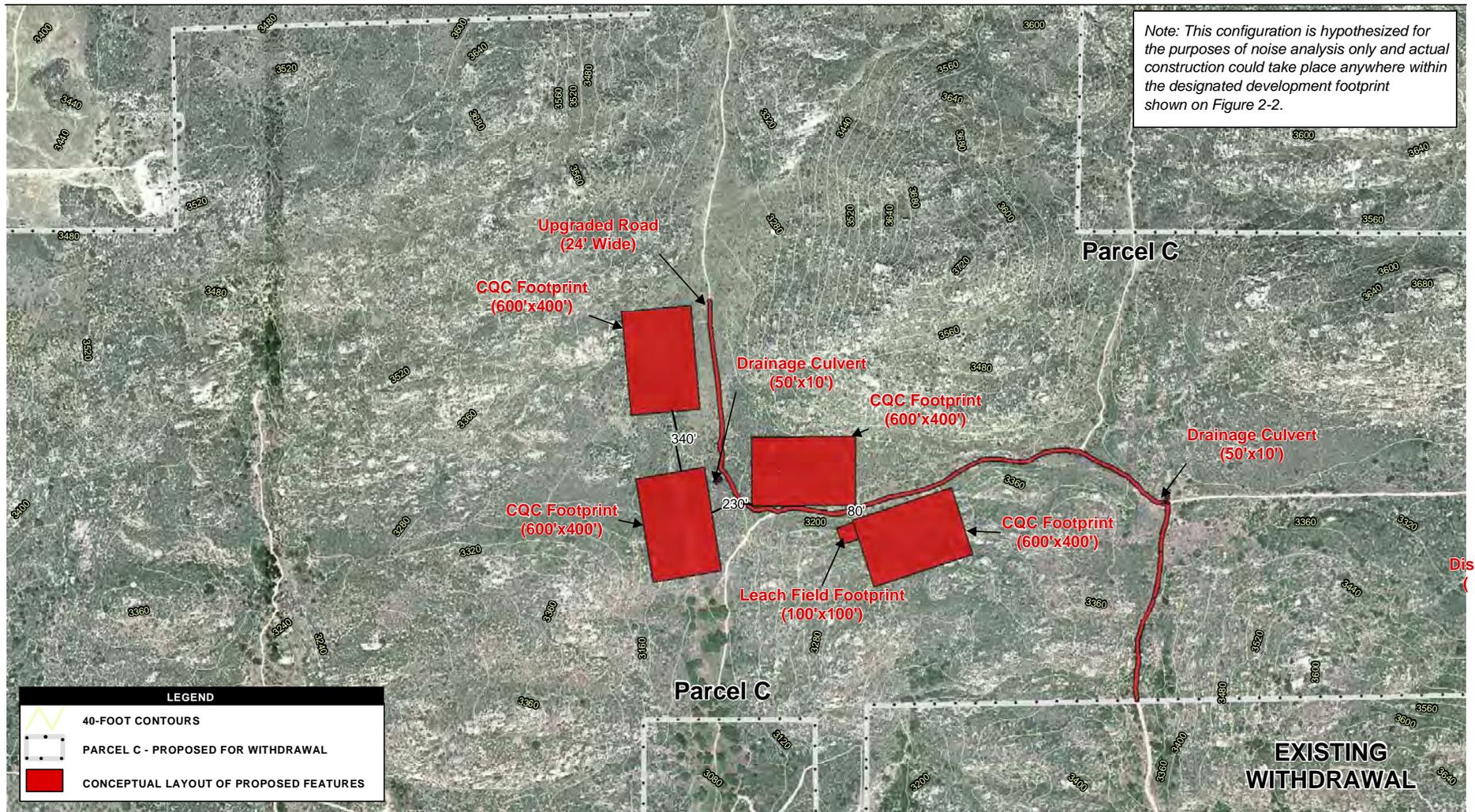


Figure 4-3
 Conceptual Development Layout of New Facilities
 on Parcel C as Utilized for Noise Analysis

This page intentionally left blank.

Mitigation Measures

No significant noise impacts have been identified, and no mitigation measures would be proposed.

4.10.3 No Action Alternative

Impacts

The No Action Alternative would result in no significant changes to the existing environment. There would be no adverse noise impacts.

Mitigation Measures

No mitigation measures would be proposed.

4.11 AESTHETICS

4.11.1 Proposed Action

Impacts

Short-term impacts to the viewshed in the Proposed Action area would result from the presence of large trucks, bulldozers, and other equipment during construction activities that would be visible to military users of the MWTF. However, since military viewers are not sensitive viewers, adverse visual impacts would not occur.

There are no designated scenic areas visible to the general public in the Proposed Action area because the site is restricted to military. Once the Proposed Action has been developed and the landscaping has been allowed to mature, views from the site would not be significantly changed and would continue to be limited to military personnel. Under the Proposed Action, the amount of open area would be reduced from the existing setting due to the facilities that would be constructed. However, due to the lack of sensitive viewers, no adverse long-term change in the visual environment would occur.

Mitigation Measures

Under the Proposed Action, there would be no adverse impacts to aesthetics and no mitigation measures would be proposed.

4.11.2 Alternative 1

Impacts

Impacts from Alternative 1 would be the same as impacts from the Proposed Action.

Mitigation Measures

Under Alternative 1, there would be no adverse impacts to aesthetics and no mitigation measures would be proposed.

4.11.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented. Existing conditions would remain the same, and no adverse impacts would occur.

Mitigation Measures

No mitigation measures would be proposed.

4.12 ENVIRONMENTAL HEALTH AND SAFETY

Because of the location of the Proposed Action area, there would be no potential impacts related to explosive safety quantity distance (ESQD) arcs, electromagnetic radiation, munitions transport, lead-based paint, or accident potential zone. The Proposed Action would be on land withdrawn for military purposes. It would not be open to the general public, and this would minimize the potential for any members of the public to encounter health and safety hazards that would exist during construction and demolition activities. Nonetheless, operational safety procedures and precautions would be implemented to prevent potential injury, such as exposure to hazardous materials or operations by workers and the public. Security fencing would be erected around the construction areas, and appropriate signage would be posted to prevent unauthorized personnel from accessing the site. Operations would be contained within the restricted construction zone and would not conflict with safe public use or military use of the surrounding areas.

The proposed construction activities for the Proposed Action may require refueling activities of construction equipment and temporary generation of small amounts of hazardous waste from the construction equipment. This waste would be stored and disposed of in accordance with NBC, Resource Conservation and Recovery Act (RCRA), and state regulations. Construction activities that use, handle, or store hazardous materials in quantities greater than or equal to 208 liters (55 gallons), 227 kilograms (500 pounds), 5.7 cubic meters (200 cubic feet) or any amount of hazardous waste generated will be required to obtain a hazardous materials permit from the San Diego County Department of Environmental Health. An Emergency Contingency Plan per 22 CCR and/or Business Plan per 19 CCR will be required for the construction activities.

Routine operations of the La Posta MWTF would be conducted in accordance with standard health and safety procedures and would not be expected to cause adverse health effects. Although no hazardous waste is expected to be generated (other than common universal wastes, as noted below), any that is generated would be stored in aboveground storage containers and disposed of in accordance with NBC, RCRA, and state regulations. With the implementation of standard safety practices and procedures, and due to the secure and isolated nature of the Proposed Action area, no significant impacts to public health and safety would occur.

4.12.1 Proposed Action

Impacts

Hazardous Materials and Waste

Installation Restoration Program

There are no leaking underground storage tank sites or installation restoration sites within the Proposed Action area. Because safety procedures and precautions compliant with all applicable federal, state, and local regulations would be implemented throughout construction activities, public health and safety impacts would not be adverse under this alternative.

Ordnance

Per NBC guidelines and the USEPA's *Best Management Practices for Lead at Outdoor Shooting Ranges* all disturbed soils should remain on-site and any lead and metals found should be recycled (USEPA 2001). Any excavated soil removed from the site would require hazardous waste characterization prior to removal. This characterization would ensure that materials removed from the site are not hazardous. It is recognized, however, that lead has unique hazardous waste requirements and that the California Department of Toxic Substances Control is currently proposing to change the regulatory threshold for lead compounds. At present, 350 milligrams per kilogram (mg/kg) (300 parts per million [ppm]) of lead in a waste is not hazardous but is required to be disposed of in a Class I (hazardous waste) landfill. With respect to proposed changes, the current total threshold limits concentration for lead is 1,000 mg/kg (1,000 ppm) but under new thresholds being considered that threshold may be reduced to either 500 mg/kg (500 ppm), or other values based on the Lead Spread or Integrated Exposure Uptake Biokinetic models. Future excavation, removal, and disposal operations involving lead or other metal-containing soils would conform with then-current guidelines to ensure that no adverse environmental health and safety impacts would occur.

Implementation of the Proposed Action would involve live fire operations at the CQC facility and small arms ranges involving the use of a variety of small arms. Range management practices would continue to be implemented to ensure the ranges are properly maintained. Based on the continued implementation of established range management practices, no adverse environmental health and safety impacts would occur.

Universal Wastes

Universal wastes, a subset of hazardous wastes that includes even household types of items such as alkaline batteries, all lamps except incandescent lamps, mercury-containing devices such as thermostats, cathode ray tubes, consumer electronic devices, and aerosol containers, will continue to be present on the site under the Proposed Action and will continue to derive from materials and equipment that are in everyday use. As is the case under existing conditions, these wastes will be segregated, stored, managed, and properly disposed of in accordance with the current (2006) CNRSW Environmental Waste Management Plan, such that no adverse environmental health and safety impacts would occur as a result of the presence, handling, storage, and disposal of these wastes under the Proposed Action.

Mitigation Measures

Under the Proposed Action, there would be no adverse impacts to health and safety and no mitigation measures would be proposed.

4.12.2 Alternative 1

Impacts

Impacts from Alternative 1 would be the same as impacts from the Proposed Action.

Mitigation Measures

Under Alternative 1 there would be no adverse impacts to health and safety, and no mitigation measures would be proposed.

4.12.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented. Existing conditions would remain the same, and no adverse impacts would occur.

Mitigation Measures

No mitigation measures would be proposed.

4.13 UTILITIES AND PUBLIC SERVICES

4.13.1 Proposed Action

Impacts

Potable Water System

Implementation of the Proposed Action would result in the expansion of the current Range 113 CQC facility and range complex; construction of the MTC along with a well and an 18,930-liter (5,000-gallon) water storage tank; septic tank and leach field; 6.1 by 6.1-meter (20 by 20-foot) restroom; a portable electric generator storage building; and improvement of access roads. Construction activities would require some potable water use; however, it would not significantly increase the amount of potable water use on the La Posta MWTF, and the increase would only be short term. Implementation of the Proposed Action would result in the construction of a new well, water storage tanks, and septic system to support water supply and restroom facility needs. Therefore, there would be minimal potable water use related to implementation of the Proposed Action and adverse impacts to the potable water system would not occur. The proposed water supply wells, if serving more than 25 people at least 60 days per year (or having at least 15 service connections) would be required to have an operating permit. Installation of new wells is regulated by the County of San Diego and will require well installation permits.

Sewer System

Implementation of the Proposed Action would result in construction of a leach field for the proposed septic system to be constructed adjacent to the southern CQC range training complex. Therefore, implementation of the Proposed Action would not have any impact to the sewer system. Proposed leach fields (on-site waste water systems) are permitted by the County of San Diego and would follow specified design parameters. Once constructed, follow-on regulation of the on-site waste water systems would be under the auspices of the SWRCB.

Electricity

The La Posta MWTF would have an adequate supply of electricity to meet the needs of the expanded Range 113 CQC facility, small arms ranges, and the new facilities in Parcel C. Solar

power would be used to provide a reliable power source. The required electrical use would be a minor increase over the current level of use and would not be an adverse impact.

Solid Waste

Implementation of the Proposed Action would result in minimal generation of solid waste and would not have an adverse impact.

Police and Fire Services

Implementation of the Proposed Action would not result in adverse impacts to police services. The number of personnel using the MWTF would increase; however, this would not result in an increase in calls as this is a federal installation and any crimes would be investigated by federal authorities. The Proposed Action would result in an increase in live fire activities; however, they would take place in areas cleared of vegetation where fires could not be started. Thus, there would be no adverse impacts.

Mitigation Measures

No mitigation measures would be proposed.

4.13.2 Alternative 1

Impacts

Impacts from Alternative 1 would be the same as impacts from the Proposed Action.

Mitigation Measures

No mitigation measures would be proposed.

4.13.3 No Action Alternative

Impacts

Under the No Action Alternative, the Proposed Action would not be implemented. Existing conditions would remain the same, and no adverse impacts would occur.

Mitigation Measures

No mitigation measures would be proposed.

CHAPTER 5.0

CUMULATIVE IMPACTS

The CEQ regulations for implementing procedural provisions of NEPA (40 CFR Part 1500-1508) define “cumulative impact” as the impact on the environment that results from the incremental impacts of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such actions. Cumulative impacts can result from “individually minor but collectively significant actions taking place over a period of time” (Section 1508.7).

The regulations require that an EA address cumulative impacts when they are significant. The discussion of cumulative impacts should reflect the severity of the impacts and their likelihood of occurrence, but it need not provide the same level of detail as the discussion of the environmental effects attributable to the project alone. Cumulative impacts should be addressed using standards of practicality and reasonableness.

Generally, the lands managed by the BLM show that habitat quality and natural and cultural resources integrity are significantly enhanced. The DON has a Regional Management Plan that increases the protection afforded to nearby natural resources. While public lands are accessible to the general public, this location is so remote that access is not common. In addition, the lands managed by the DON at the existing La Posta MWTF show that habitat quality and natural and cultural resources integrity are significantly enhanced. The DON has prepared an INRMP (DON 2002a) that increases the protection afforded to nearby natural resources. Implementation of the Proposed Action will result in the withdrawal parcels not being accessible to the general public.

The BLM regulates activities such as mining, grazing, and off-road vehicle use on its lands. It does not allow uncontrolled activities such as rock/artifact collecting on its lands. These types of activities are not allowed on DON lands and would not be allowed on the lands within the Proposed Action area. These factors, combined with the generally nonintrusive nature of DON training programs, have resulted in a generally controlled environment. In many respects, the overall impact of DON use of the La Posta MWTF property has been, and will continue to be, positive since its use as a major training area has protected resources against development.

Section 5.1 lists relevant projects with respect to potential cumulative impacts. Section 5.2 discusses any cumulative environmental effects associated with the Proposed Action and the projects discussed in Section 5.1.

5.1 ONGOING AND REASONABLY FORESEEABLE ACTIONS

Coordination with Naval Facilities Engineering Command, Southwest, Naval Special Operations Command, and BLM staff assisted in identifying past, present, and reasonably foreseeable actions on the La Posta MWTF. Projects within or in proximity to the Proposed Action area that could directly or indirectly interact with the Proposed Action are presented in Table 5-1 and define the cumulative impacts area of the Proposed Action. These actions, which are on the La Posta MWTF or in proximity to it, are neither dependent on the Proposed Action addressed in this EA nor part of it. Where applicable, environmental analyses of the other actions addressed in this section have been, or would be, conducted separately, with the results of those analyses incorporated into documents prepared specifically for those actions.

**Table 5-1
Projects Evaluated**

Project Name/ Applicant	Project Name/ Description	Location	Action
BLM	South Coast Programmatic Fuels Reduction Permits	San Diego County	EA completed April 2005
BLM	South Coast Resource Management Plan Amendment for the San Diego County Border Mountains	San Diego County	In Progress

5.2 ENVIRONMENTAL ANALYSIS OF CUMULATIVE EFFECTS

NEPA requires only a discussion of those cumulative impacts with the potential for significance. Implementation of these projects would not conflict with the implementation of the Proposed Action in terms of construction and operation. Potential impacts associated with these projects would be, or have been, addressed on a project-specific basis via the preparation of NEPA documentation.

Effects of the Proposed Action on topography/geology/soils/seismicity, hydrology/water quality, cultural resources, public facilities access, socioeconomics, transportation/circulation, aesthetics, utilities, and environmental health and safety risks to children would not be significant. These effects would not contribute to cumulative impacts associated with other planned projects in the vicinity of the Proposed Action. Cumulative effects of the Proposed Action and these other projects could occur to biological resources, land use, air quality, and noise. Each of these resources is addressed in this section.

5.2.1 Land Use

Implementation of the Proposed Action has the potential to result in significant cumulative impacts to land use at the La Posta MWTF. Among the proposed withdrawal parcels, the existing withdrawal parcel and portions of Parcels C and E are part of the Clover Flat grazing allotment. This grazing lease was renewed in February of 2004 for an additional 10-year period. Renewing the grazing lease for a 10-year period would not preclude the federal government from modifying the grazing allotment boundary during the lease period. The grazing regulations provide the BLM the authority to modify grazing leases when the public lands are to be devoted to a public purpose that precludes grazing use. Prior to reducing the acreage of public lands available for grazing, the BLM is required to consult, coordinate, and cooperate with the affected grazing lessee. The lessee must be provided 2 years, notification if a grazing lease is cancelled in whole or in part. Implementation of the Proposed Action would require that the grazing allotment be modified so that grazing would not take place on any of the property proposed for withdrawal for exclusive use by the DON since this type of use is not compatible with military training. This would result in 934.0 hectares (2,308 acres) being removed from the allotment and would no longer be available for grazing use. The existing grazing improvements (water wells, fencing) constructed in the existing withdrawal would remain or would be removed by the DON; however, they would not be available to the existing user. This would result in an adverse impact to the existing user. Since this would only affect one entity, however, and lease terms including those for notification would be followed, this would not be considered an overall significant adverse impact. All mining claims and patents on the areas proposed for withdrawal are listed as forfeited or closed according to BLM and USGS records, with the exception of one series of claims that were subjected to a forfeiture appeal within the last 2 years. Implementation of the Proposed Action would require that these mining claims not be renewed once they have expired as this type of use is not compatible with military training; however, since no mining is currently occurring this would not result in an overall significant adverse impact. Of the other existing authorized uses on lands proposed for withdrawal, only one, the apiary permit issued to Gibbs Apiaries, would not be renewed since this use is not compatible with the military training. This change in land use would result in an adverse impact to the existing user. Since this would affect only one entity, however, and permit terms would be followed, this would not result in an overall significant impact.

The other cumulative projects in the vicinity of the proposed La Posta MWTF would not impact land use, although the South Coast Resource Management Plan Amendment for the San Diego County Border Mountains has not been analyzed and could result in changes to land use surrounding the Proposed Action area. However, it is unlikely these changes would directly

impact the MWTF. Therefore the Proposed Action, in conjunction with other projects on and in the vicinity would not result in significant cumulative impacts to land use.

5.2.2 Biological Resources

Implementation of the Proposed Action would result in the overall loss of biological resources in the form of vegetation, habitat, and species. The Proposed Action would impact approximately 25.2 hectares (62.3 acres) of vegetation within the 1,370-hectare (3,385-acre) Proposed Action area. Of the 25.2 hectares (62.3 acres) of vegetation to be impacted, 3.65 hectares (9.04 acres) consist of vegetation communities considered sensitive habitats. No permanent losses to the unvegetated, potentially isolated tributaries within the parcels would occur. On the existing withdrawal parcel, 0.07 hectare (0.17 acre) of native grassland (i.e., needlegrass series) and 0.02 hectare (0.06 acre) of California buckwheat series would be directly impacted. On Parcel C, 3.56 hectares (8.81 acres) of California buckwheat-white sage series would be directly impacted. Construction of the Proposed Action would result in the permanent loss of these areas of habitat. Also on Parcel C, direct, temporary impacts to an approximately 7.3-meter (24-foot) segment of the approximately 0.8-meter-wide (2.5-foot-wide) tributary A where it crosses under the existing dirt road would be unavoidable when roadway improvements are conducted. The other cumulative projects in the area would result in a total of 12 acres of vegetation (mostly chaparral) being removed within three counties. There would be no impacts to federally listed or other types of threatened and endangered species from the other cumulative projects in the area; thus, there would be no cumulative impacts to federally listed or other types of threatened and endangered species.

5.2.3 Air Quality

Air quality impacts from other cumulative projects in the area would likely be related to removal of vegetation, which would release a marginal amount of dirt and debris into the air. The dirt and debris would settle back onto the Proposed Action area except on windy days. Small amounts of dirt and debris released on windy days would most likely dissipate very quickly, traveling no further than onto lands in close proximity to the Proposed Action area. The dirt and debris would not be released in large enough amounts to reduce visibility or air quality on BLM or adjacent lands. Since the Proposed Action would include fugitive dust control measures, any dust emissions in combination with any of the other cumulative projects, and any reasonably foreseeable future emission source, would produce less than significant cumulative effects.

5.2.4 Noise

Noise generated as part of the Proposed Action would not result in significant impacts to sensitive human receptors. No significant cumulative impacts are expected due to implementation of the Proposed Action. The Proposed Action, in conjunction with other projects in the area, would not result in significant cumulative noise impacts.

This page intentionally left blank.

CHAPTER 6.0 OTHER NEPA CONSIDERATIONS

6.1 POSSIBLE CONFLICTS WITH FEDERAL, REGIONAL, STATE, AND LOCAL LAND USE PLANS, POLICIES, AND CONTROLS

There are several local land use plans, policies, and controls that address and guide land use for the Proposed Action site and surrounding areas. These documents include the *Naval Base Coronado Integrated Natural Resources Management Plan* (DON 2002a), *San Diego County General Plan 2020* (San Diego 2003a), and the *South Coast Regional Management Plan and Record of Decision* (BLM 1994).

No potential conflicts are anticipated between the Proposed Action and any of the NBC land use plans, policies, and controls that address and guide uses within the Proposed Action area. Since the site will continue to remain under federal ownership, it is not subject to the County of San Diego plan mentioned above. No off-Base land uses would be affected by implementation of the Proposed Action.

As discussed in Chapter 1.0, the Proposed Action would fulfill the need for better training facilities for the NSW. The commitment of the site for long-term military use does not pose any conflict between the Proposed Action and federal, state, regional, or local land uses.

6.2 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires an analysis of significant irreversible effects. Resources that are irreversibly or irretrievably committed to a proposed action are those that are utilized on a long-term or permanent basis. This includes the use of nonrenewable resources such as metal, wood, fuel, paper, and other natural or cultural resources. These resources are considered nonretrievable in that they would be used for a proposed action when they could have been conserved or used for other purposes. Another impact that falls under the category of irreversible and irretrievable commitment of resources is the unavoidable destruction of natural resources that could limit the range of potential uses of that particular environment.

The construction of the Proposed Action would result in an irretrievable commitment of up to 25.2 hectares (62.3 acres) of vegetation, building materials, and fuel for construction vehicles

and equipment. In addition, the Proposed Action would commit workforce time for construction, engineering, environmental review, and compliance.

6.3 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

NEPA requires an EA to address the relationship between short-term uses of the environment and the impact that such uses may have on the maintenance and enhancement of the long-term productivity of the environment. Of particular concern are impacts that would narrow the range of beneficial uses of the environment. This refers to the possibility that choosing one development option would reduce future flexibility in pursuing other options or that committing a parcel of land or other resource to a certain use would eliminate the possibility of other uses being performed at that site.

The Proposed Action would be constructed and operated on land withdrawn for exclusive use by the DON for mountain warfare training purposes. The short-term effects of the construction and operation of the proposed MWTF would include impacts to plants and animals. These impacts would not affect the long-term productivity of these resources at a regional level.

CHAPTER 7.0

LIST OF PREPARERS AND CONTRIBUTORS

*Department of the Navy
Naval Facilities Engineering Command, Southwest
1220 Pacific Highway, Code 204
San Diego, CA 92132-5190*

Julie Speer, Project Leader
B.A., Archaeology, Boston University
Years of Experience: 5

Danielle Flynn, Wildlife Biologist
Ph.D., Primate Anthropology, University of Oxford
Years of Experience: 10

Kim O'Connor, Wildlife Biologist
B.A., Botany, University of California, Berkeley
M.S., Natural Resources, Cornell University
Years of Experience: 10

*U.S. Bureau of Land Management
Palm Springs South Coast Field Office
690 W. Garnet Ave,
P.O. Box 581260
North Palm Springs, CA 92258-1260*

Tom Gey, Realty Specialist
B.S., Natural Resources, University of California Berkeley
Years of Experience: 25

Greg Hill, Planning and Environmental Coordinator
M.A., Education, University of California Los Angeles
Years of Experience: 20

Rolla Queen, Archaeologist
M.A., Anthropology, University of Nevada at Reno
Years of Experience: 29

Joyce Schlachter, Wildlife Biologist
B.S., Wildlife Management, Humboldt State University
Years of Experience: 16

*Department of the Navy
Commander, Naval Special Warfare Command
2000 Trident Way
San Diego, CA 92155*

Scott Penwell, Environmental Engineer
B.S., Industrial Engineering, San Diego State University
Years of Experience: 14

Doug Hucker, Range Manager
Years of Experience: 20

*EDAW, Inc.
1420 Kettner Boulevard, Suite 500
San Diego, CA 92101*

Mike Downs, Principal in Charge
Ph.D., Anthropology, University of California San Diego
M.A., Anthropology, University of California San Diego
B.A., Anthropology and Psychology, University of Michigan
Years of Experience: 26

David McIntyre, Project Manager
M.S., Environmental Management, National University
M.A., Geography, San Diego State University
Years of Experience: 6

Rebecca Apple, Archaeologist
M.A., Anthropology, San Diego State University
B.A., Anthropology, San Diego State University
Years of Experience: 25

Jackson Underwood, Archaeologist
Ph.D., Anthropology, University of California Los Angeles
Years of Experience: 30

Carrie Gregory
M.A., Historic Preservation, Goucher College
B.A., Anthropology, San Diego State University
Years of Experience: 9

Paula Jacks, Senior Biologist
M.S., Biology/Vegetation Ecology, San Diego State University
B.A., Biology/Habitat and Plant Studies, University of Colorado
Years of Experience: 19

Lyndon Quon, Wildlife Biologist
B.A., Ecology, University of California, San Diego
Years of Experience: 13

Erin Riley, Biologist
B.S., University of Maryland
Years of Experience: 8

Barbra Calantas
B.A., Biology, University of San Diego
Years of Experience: 5

Bill Maddux, Air and Noise Specialist
B.S., Urban and Regional Planning, California State Polytechnic University, Pomona
Years of Experience: 6

This page intentionally left blank.

CHAPTER 8.0
LIST OF PERSONNEL AND AGENCIES CONTACTED

U.S. Navy, Commander, Navy Region Southwest, Natural Resources Office

This page intentionally left blank.

CHAPTER 9.0 ACRONYMS

ACOE	U.S. Army Corps of Engineers
BLM	Bureau of Land Management
BMP	best management practices
BO	Biological Opinion
B.P.	years before present
CAA	Clean Air Act
CARB	California Air Resources Board
CBI	Conservation Biology Institute
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGS	California Geological Survey
CNDDB	California Native Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRSW	Commander, Navy Region Southwest
CNO	Chief of Naval Operations
CO	carbon monoxide
CQC	Close Quarters Control
CWA	Clean Water Act
°C	degrees Centigrade
dBA	A-weighted measurements
DNL or L _{dn}	Day-Night level
DOD	Department of Defense
DON	Department of the Navy
EA	Environmental Assessment
EDD	Employment Development Department
EOD	Explosive Ordnance Disposal
ESA	Endangered Species Act
ESQD	explosive safety quantity distance

°F	degrees Fahrenheit
GWOT	Global War on Terrorism
I	Interstate
INRMP	Integrated Natural Resources Management Plan
ITEMPO	Individual Personnel Tempo Program
kph	kilometers per hour
L _{eq}	equivalent noise level
MCB	Marine Corps Base
MILCON	Military Construction
mm	millimeter
mph	miles per hour
MS	Measurement Site
MSA	Major Statistical Area
MOU	memorandum of understanding
MOUT	Military Operations in Urban Terrain
MSCP	Multiple Species Conservation Program
MTC	Multi-structure Training Complex
MWTF	Mountain Warfare Training Facility
NAAQS	National Ambient Air Quality Standards
NALF	Naval Auxiliary Landing Field
NAVFAC	Naval Facilities Engineering Command
NAVSPECWARCOM	Naval Special Warfare Command
NBC	Naval Base Coronado
NEPA	National Environmental Policy Act
NO _x	oxides of nitrogen
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSW	Naval Special Warfare
NSWG	Naval Special Warfare Group

O ₃	ozone
OPNAVINST	Operational Navy Instruction
Pb	lead
PM ₁₀	particulate matter equal to or less than 10 microns in size
PM _{2.5}	fine particulate matter equal to or less than 2.5 microns in size
QCB	Quino checkerspot butterfly
RCRA	Resource Conservation and Recovery Act
RONA	Record of Nonapplicability
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARNAM	Small Arms Noise Assessment Model
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SEAL	Sea, Air, and Land
SERE	survival, evasion, resistance, and escape
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SR	State Route
SRA	Subregional Area
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TNC	The Nature Conservancy
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USSOCOM	U.S. Special Operations Command

VOC

volatile organic compounds

VRM

Visual Resource Management

W

west

CHAPTER 10.0

REFERENCES

American Pacific Environmental Consultants, Inc.

- 1979 *Morena Lake Development TPM 15326 EAD Log #78-21-19 San Diego County, California*. American Pacific Environmental Consultants, Inc. Submitted to Morena Lake Development. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Anderson, Alison

- 2001 Personal communication among Alison Anderson, Dale Powell, and Erin Riley.

Bacon, John

- 2004 Personal communication between John Bacon and Scott Penwell. August.

Ballmer, G.R., D.C. Hawks, K.H. Osborne, and G.F. Pratt

- 2001 The Quino Checkerspot Butterfly (*Euphydryas editha quino*). Year 2000 QCB Workshop.

Bates, Jean

- 2004 Interview by Carrie J. Gregory, Campo, California, 8 April 2004.

Berryman, Stanley R.

- 1975 *Archaeological Survey Report; Rattlesnake Acres*. Berryman Archaeological Consultant. Submitted to Rattlesnake Acres Ltd. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

- 1980 *Archaeological Reconnaissance of the Stallings Lot Split in Campo, California*. Archaeological Consulting and Technology, Inc. Submitted to Jack Stallings. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Bordstadt, Richard E.

- 2004 Interview by Carrie J. Gregory, Campo, California, 8 April 2004.

Bowman, R.

- 1973 Soil Survey of the San Diego Area, California. Prepared for the U.S. Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with the University of California Agricultural Experiment Station; the U.S. Department of the Interior; Bureau of Indian Affairs; and the Department of the Navy, U.S. Marine Corps.

Bureau of Land Management (BLM)

- 2002 Proposed California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impacts Statement. Volume 1. Prepared by BLM, California Desert District, Palm Springs-South Coast Field Office.

- 2005 South Coast Resources Management Plan and Record of Decision. 144 pp.

California Air Resources Board CARB

- 2003a *Ambient Air Quality Standards*. July 9. <http://www.arb.ca.gov/aqs/aaqs2.pdf>.

- 2003b *Air Quality Data Statistics*. <http://www.arb.ca.gov/adam/welcome.html>.

- 2006a *Ambient Air Quality Standards*. Available at <http://www.arb.ca.gov/research/aaqs/aaqs.htm>. Accessed, April 4.

- 2006b *Air Quality Data Statistics*. Available at <http://www.arb.ca.gov/adam/welcome.html>. Accessed, April 4.

- 2006c *Almanac Emission Projection Data*, web site accessed, April 18, Available at <http://www.arb.ca.gov/app/emsinv/emssumcat.php>.

California Department of Fish and Game (CDFG)

- 2003 The Vegetation Classification and Mapping Program List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database (CNDDDB). September 2003 edition. 77 pp.

Carrico, Richard L.

- 1987 *Strangers in a Stolen Land: American Indians in San Diego 1850-1880*. Sierra Oaks Publishing, Newcastle, California.

Challberg, Roger W.

2004 Interview by Carrie J. Gregory, Campo, California, 8 April 2004.

Conservation Biology Institute (CBI)

2003 La Posta Linkage Portfolio San Diego County, California. July

County of San Diego (San Diego)

1995 Mountain Empire Subregional Plan.

2003a 2020 General Plan Update.

2003b Part II Regional Land Use Element. San Diego County General Plan. Adopted January 3, 1979, amended December 10, 2003.

2005 General Plan 2020 Draft Land Use Map. June 2005.

Crotteau, Karen

1983 *Negative Archaeological Survey Report 11-SD-94, P.M. 54.7-54.8-Improving Drainage by Raising the Roadbed Out of the Floodplain.* Caltrans. Submitted to Caltrans. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Culbert, Jan and Cari Verplanck

1995 *Morena Grazing Allotment Permit Renewal.* Submitted to USDA Forest Service-Cleveland National Forest. Unpublished report on file at SCIC, San Diego, California.

DeCosta, Joan M.

1981 *An Archaeological Survey Report of Route 94 from 0.5 Mile East to 1.3 Mile East of La Posta Road, 11-SD-94/P.M.56.1-56.8 (11209-194050).* Caltrans. Submitted to Caltrans. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

EDAW, Inc. (EDAW)

2004 *Draft La Posta Mountain Warfare Training Facility Environmental Assessment, San Diego County, California.* Prepared for the U.S. Department of the Navy. July.

2006 *Biological Technical Report for the La Posta Mountain Warfare Training Facility*. February 2006.

Employment Development Department (EDD)

2003 San Diego MSA. San Diego County. Current Labor Force and Industry Employment. January 15.

Fink, Gary R.

1979 *A Cultural Resource Assessment for Three Roads in the Lake Morena Area: Lake Morena Drive, Oak Drive, Buckman Springs Road Project: UJ0171*. County of San Diego Department of Transportation. Submitted to County of San Diego Department of Transportation. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Frickstad, Walter Nettleton

1955 *A Century of California Post Offices, 1848-1954*. Oakland, California: Philatelic Research Society.

Gey, Tom

2004 Personal communication between David McIntyre and Tom Gey. October.

Gifford, Edward W.

1918 Clans and Moieties in Southern California. *University of California Publications in American Archaeology and Ethnology* 14(2):155-219.

Gudde, Erwin G.

1949 *California Place Names*. University of California Press, Berkeley, California.

Hickman, J.C., ed.

1993 *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California. 1,400 pp.

Hucker, Doug

2004 Personal communication between Doug Hucker and Christine Tuttle. July 23.

Johnson, Arvilla E.

2004 Interview by Carrie J. Gregory, Campo, California, 8 April 2004.

Kimball, Russell F.

- 2000 "Campo, California: A Brief History." Electronic document available on the *Railway History* page of the San Diego Railroad Museum website: <http://www.sdrm.org/history/campo.html>.

Klein, Michael

- 2004 Personal communication between Michael Kline and Erin Riley.

Luomala, Katharine

- 1978 Tipai-Ipai. In *California*, edited by Robert F. Heizer, Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., pp. 592-609.

Mattoni, R., G.F. Pratt, T.R. Longcore, J.F. Emmel, and J.N. George

- 1997 The endangered Quino checkerspot, *Euphydryas editha quino* (Lepidoptera: Nymphalidae). *Journal of Research on the Lepidoptera* 34:99-118.

McCain, Ella

- 1955 *Memories of the Early Settlements: Dulzura, Potrero, and Campo*. South Bay Press, National City, California.

Murphy, D.D., and R.R. White

- 1984 Rainfall, resources, and dispersal in southern populations of *Euphydryas editha* (Lepidoptera: Nymphalidae). *Pan-Pac Entomol* 60:350-354.

National Weather Service

- 2006 National Climatic Data Center Website: World's Largest Archive of Climate Data (<http://www.weather.gov/climate/index.php?wfo=sgx>). Page accessed on 19 January 2007.

Osborne, K.H.

- 1998 Microhabitat conditions associated with the distribution of post-diapause larvae of *Euphydryas editha quino* and its host, *Plantago erecta* (Chapter 4). In: A description of arthropod community structure in southern California coastal sage scrub (Chapter 4). Masters thesis, University of California, Riverside, California.

Penwell, Scott

- 2004 Personal communication between Scott Penwell and Christine Tuttle. July.

2006 Personal communication between Scott Penwell and Christine Tuttle. March.

Pettus, Roy E.

1980 *An Archaeological Survey for Proposed Utility Pole Relocation and Minor Roadway Realignment at Six Locations on Highway 94 in South San Diego County, California (11-SD-94 P.M. 20.85 to 54.25)*. Caltrans. Submitted to Caltrans. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Pratt, G.

2004 Personal communication between G. Pratt (U.C. Riverside) and Dale Powell. February.

Regional Water Quality Control Board (RWQCB)

2002 Fact Sheet Order No. R9-2003-0008 NPDES Permit No. CA0109185. Waste Discharge Requirements for U.S. Navy Naval Base Coronado Complex, San Diego County.

Reiser, C.

2001 *Rare Plants of San Diego County*. Aquafir Press. 239 pp. July.

Rosen, Martin

2001 *Historic Property Survey Report for Old Highway 80, San Diego County, CA*. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

SAIC.

2006 Biological Assessment for the Campo Indian Reservation Solid Waste Disposal Facility Project. 52 pp.

San Diego Association of Governments (SANDAG)

1997 Multiple Species Conservation Program Vegetation Communities with Sensitive Species and Vernal Pools Map 24.

2001 Census 2000, Population and Housing Characteristics – San Diego Region. August.

-
- 2002a Preliminary 2030 Cities/County Forecast San Diego Region. October.
- 2002b Preliminary 2030 Cities/County Forecast Major Statistical Area 6 – East County. October.
- 2002c Preliminary 2030 Cities/County Forecast Subregional Area 62 – Mountain Empire. October.
- 2003a Population and Housing Estimates – Major Statistical Area 6 – East County. August.
- 2003b Population and Housing Estimates – Subregional Area 62 – Mountain Empire. August.
- 2003c Census 2000 Profile – Major Statistical Area 6 – East County. June 12.
- 2003d Census 2000 Profile – Subregional Area 62 – Mountain Empire. June 12.
- 2003e SANDAG Traffic Forecast.

San Diego Air Pollution Control District (SDAPCD)

- 2004 San Diego County Air Pollution Control District 8-Hour Ozone Nonattainment Designation. Available at http://www.sdapcd.org/info/notices/8_hour_ozone.pdf. April 14.

Sawyer, J.O., and T. Keeler-Wolf

- 1995 *A Manual of California Vegetation*.

Simpson, M and J. Rebman

- 2001 *Checklist of the Vascular Plants of San Diego County*. 3rd Edition. SDSU Herbarium Press. San Diego, California. 100 pp.

Smith, Brian F.

- 1989 *An Archaeological Survey of the 700-Acre Balian Subdivision, County of San Diego*. Brian F. Smith and Associates. Submitted to Richard G. Balian. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

1991 *An Archaeological Survey of the Stiles Lot Split Project Campo County of San Diego*. Brian F. Smith and Associates. Submitted to A.D. Hinshaw Associates. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

1992a *Results of Archaeological Survey and the Evaluations of Cultural Resources at the Sanger Lot Split Project, Morena Village*. Brian F. Smith and Associates. Submitted to David C. Sanger M.D. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

1992b *Result of an Archaeological Survey of the La Posta Recycling Center Project*. Brian F. Smith and Associates. Submitted to Michael Brandman Associates. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Sproul, F., and V. Coleman

1995 *Plant Communities of the San Diego County Mapping Project*. July 7. 16 pp.

State of California Division of Mines

1962 *Geologic Map of California San Diego-El Centro Sheet*.

Strong, William D.

1929 Aboriginal Society in Southern California. *University of California Publications in American Archaeology and Ethnology* 26(1):1-358. Berkeley. (Reprinted 1972, Malki Museum Press, Banning, California.)

Taylor, Clifford

1982 *Final Report & Campo Indian Preservation-Cultural Resource Inventory*. Westec. Submitted to U.S. Department of the Interior. Unpublished report on file at SCIC, San Diego State University, San Diego, California.

Thompson, D.M.

1988 Systematics of *Antirrhinum* (Scrophulariaceae) in the New World. *Systematic Botany Monographs* 22:1-142.

True, D.L.

1958 An Early Complex in San Diego County, California. *American Antiquity* 23(3):255-263.

1970 *Investigations of a Late Prehistoric Complex in Cuyamaca Rancho State Park, San Diego County, California.* University of California (Los Angeles) Archaeological Survey Monographs 1.

1980 The Pauma Complex in Northern San Diego County: 1978. *The Journal of New World Archaeology* 3(4):1-39.

Underwood, Jackson, and Carrie J. Gregory

2004 *Draft Archaeological Survey for the La Posta Mountain Warfare Training Center, San Diego, California.*

U.S. Army Corps of Engineers (ACOE)

2001 *Final Summary Report: Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest.* Prepared by U.S. Army Corps of Engineers South Pacific Division. June. 12+ pp.

U.S. Bureau of Land Management (BLM)

1994 South Coast Resource Management Plan and Record of Decision. June.

2002 Proposed California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impacts Statement. Volume 1. Prepared by BLM, California Desert District, Palm Springs-South Coast Field Office.

2004a *General Land Office Records.* Electronic document available at <http://www.glorerecords.blm.gov/PatentSearch/Default.asp?>.

2004b Survey Plates and Notes. On file at the United States Bureau of Land Management branch office in Moreno Valley, California.

U.S. Census Bureau

2000 DP-3. Profile of Selected Economic Characteristics: 2000.

U.S. Department of Commerce National Oceanographic and Atmospheric Administration (NOAA)

- 2006 *National Weather Service Forecast Office, San Diego, California. Observations – Rainfall and River Levels.* <http://newweb.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx>.

U.S. Department of the Navy (U.S. DON)

- 1978 *Environmental Protection, Planning in the Noise Environment, P-970 (AFM 19-10; TM 5-803-2),* June 15.

1989 Naval Facilities Engineering Command Design Manual Two.

1996 *A Cultural Resources Inventory Survey of the La Posta Astrophysical Observatory.* Southwest Division, Naval Facilities Engineering Command, San Diego, California. Document on file at the Natural Resources Office, Navy Region Southwest Environmental Department Fleet ASW Training Center, San Diego, California.

1998 *Final Environmental Assessment Training Area and Ranges.* Naval Special Warfare Group ONE Mountain Warfare Training Facility Campo, California.

2002a *Naval Base Coronado Integrated Natural Resources Management Plan.*

2002b *Report of Waste Discharge.* October.

2002c Chief of Naval Operations (CNO). OPNAVINST 5090.1B CH-3, Appendix F. Clean Air Act General Conformity Guidance. October.

U.S. Environmental Protection Agency (USEPA)

2001 Best Management Practices for Lead at Outdoor Shooting Ranges. EPA-902-B-01-001, Chapter III.

2003 *Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; 1-Hour Ozone Standard for San Diego, CA. Final Rule.* Federal Register Vol. 68, No. 123, Pages 37976-37978. June 26. (Note: a minor correction to this Rule was published in the Federal Register Vol. 68, No. 155, Page 47964. August 12, 2003.)

-
- 2005 Identification of Ozone Areas for Which the 1-Hour Standard Has Been Revoked and Technical Correction to Phase I Rule, Published in the Federal Register, Volume 70, Number 148, Pages 44470-44478, August 3.
- 2006a National Ambient Air Quality Standards (NAAQS). Available at <http://www.epa.gov/air/criteria.html>.
- 2006b 8-Hour Ground-level Ozone Designations. Region 9: State Designations. Available at <http://www.epa.gov/ozone/designatins/regions/region9desig.htm>. Last Updated March 22.
- 2006c Federal Register/Vol. 71, No. 65/Rules and Regulations, 703-17009, April 5. Available at http://www.access.gpo.gov/su_docs/fedreg/a060405c.html.
- 2006d Green Book, web site accessed, April 18, Available at <http://www.epa.gov/oar/oaqps/greenbk/index.html>.

U.S. Fish and Wildlife Service (USFWS)

- 1994 Federal Register 59 FR 64866.
- 1997 *Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Laguna Mountains Skipper and Quino Checkerspot Butterfly, Final Rule*. Federal Register 62: 2313-2322.
- 1999 *Arroyo Southwestern Toad (Bufo microscaphus californicus) Recovery Plan*. U.S. Fish and Wildlife Service, Portland, Oregon. vi + 119 pp.
- 2001 *Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad*. Federal Register 66(26):9414-74.
- 2002a *Designation of Critical Habitat for the Quino Checkerspot Butterfly (Euphydryas editha quino)*. April.
- 2002b *Quino Checkerspot Butterfly (Euphydryas editha quino) Survey Protocol Information*. February.
- 2003 *Recovery Plan for the Quino Checkerspot Butterfly (Euphydryas editha quino)*. April.

-
- 2004 *2004 Season Quino Checkerspot Butterfly (Euphydryas editha quino) Monitored Reference Site Information.* http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quino_htms/2004%20Quino%20monitoring%20info.htm.
- 2005 *2005 Season Quino Checkerspot Butterfly (Euphydryas editha quino) Monitored Reference Site Information.* http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quino_htms/2005%20Quino%20monitoring%20info.htm
- 2006 *2006 Season Quino Checkerspot Butterfly (Euphydryas editha quino) Monitored Reference Site Information.* http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quino_htms/2006%20Quino%20monitoring%20info.htm.
- 2007 *Biological Opinion on the Land Withdrawal, Facilities Construction, and Operations at Naval Special Warfare, La Posta Mountain Training Facility, Campo California.* FWS-SDG-4452. April 20.

U.S. Post Office (USPO)

- 1859 *List of Post Offices in the United States.* United States Post Office Department, Washington, D.C.

U.S. Forest Service (USFS)

- 2005 *Final Environmental Impact Statement Volume I Land Management Plans; Angeles National Forest, Cleveland National Forest, Los Padres National Forest, San Bernardino National Forest.* September.

Vissman Sandy

- 2006 Personal communication between Sandy Vissman, USFWS, and Kim O'Connor, DON.

Wade, Sue

- 2000 *Cultural Resource Survey Pacific Cove La Posta Road Property.* Heritage Resources. Submitted to County of San Diego. Unpublished Report on file at South Coastal Information Center, San Diego State University, San Diego, California.

Western Regional Climate Center (WRCC)

2003 Electronic Document available on the RAWS USA Climate Archive page of the Western Regional Climate Center website: <http://www.raws.dri.edu/index.html>.

White, Raymond C.

1963 *Luiseno Social Organization*. University of California Press, Berkeley.

This page intentionally left blank.