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COVER SHEET

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE
OF TACTICAL INFRASTRUCTURE
U.S. BORDER PATROL SAN DIEGO SECTOR, CALIFORNIA**

Responsible Agencies: U.S. Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP).

Affected Location: U.S./Mexico international border in San Diego County, California.

Proposed Action: The Proposed Action includes the construction, operation, and maintenance of tactical infrastructure, to include a primary pedestrian fence, supporting patrol roads, and other infrastructure in two distinct sections along the U.S./Mexico international border within USBP's San Diego Sector. The fence sections would be approximately 0.8 miles and 3.6 miles in length. Proposed constructed access and patrol roads to support each fence section would be 0.8 miles and 5.2 miles, respectively.

Report Designation: Draft Environmental Impact Statement (EIS).

Abstract: CBP proposes to construct, operate, and maintain approximately 4.4 miles of tactical infrastructure. Proposed tactical infrastructure would consist of primary pedestrian fence, patrol roads, and access roads in two sections along the U.S./Mexico international border in San Diego County, California. The first section designated as A-1 would consist of 3.6 miles of primary pedestrian fence, supported by an access and patrol road that would be approximately 5.2 miles in length and would start at the Puebla Tree and end at Boundary Monument 250. The proposed section would be south of the Otay Mountain Wilderness (OMW) and would not connect to any existing fence. Approximately half of the 5.2 miles of access and patrol road and 1,300 feet of fence would be on the OMW. The OMW is on public lands administered by the Bureau of Land Management (BLM). The second section designated as A-2 would be approximately 0.8 miles in length and would connect with existing border fence west of Tecate, California. This fence section is an extension of existing fence near Tecate Peak and would pass through a riparian area. Some portions of the fence sections would be on privately owned land parcels. Lights would not be constructed as part of the Proposed Action.

The EIS process will serve as a planning tool to assist agencies with decisionmaking authority associated with the Proposed Action and ensure that the required public involvement under the National Environmental Policy Act (NEPA) is accomplished. This Draft EIS presents potential environmental impacts associated with the Proposed Action and alternatives and provides information to assist in the decisionmaking process about whether and how to implement the Proposed Action.

1 Throughout the NEPA process, the public may obtain information concerning the
2 status and progress of the Proposed Action and the EIS via the project Web site at
3 *www.BorderFenceNEPA.com*; by emailing *information@BorderFenceNEPA.com*; or
4 by written request to Mr. Charles McGregor, Environmental Manager, U.S. Army
5 Corps of Engineers (USACE), Fort Worth District, Engineering Construction Support
6 Office (ECSO), 814 Taylor Street, Room 3B10, Fort Worth, TX 76102, and
7 Fax: (757) 257-7643.

8 Interested parties may submit comments to CBP. To avoid duplication, please
9 use only one of the following methods:

- 10 (a) Electronically through the Web site at: www.BorderFenceNEPA.com
- 11 (b) By email to: SDcomments@BorderFenceNEPA.com
- 12 (c) By mail to: San Diego Sector Tactical Infrastructure EIS, c/o e²M, 2751
13 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031
- 14 (d) By fax to: (757) 257-7643.

15 **PRIVACY NOTICE**

16 Public comments on this document are requested. Comments will normally be
17 addressed in the EIS and made available to the public. Any personal information
18 included in comments will therefore be publicly available.

DRAFT

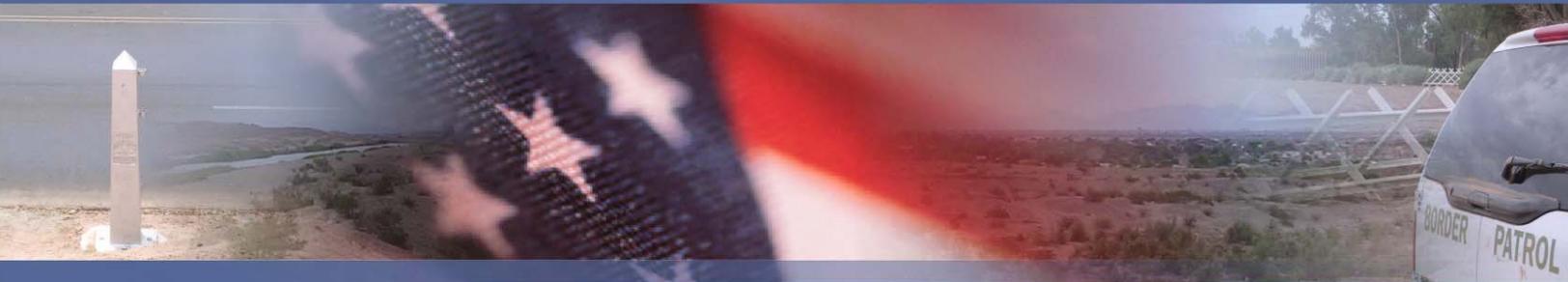
**ENVIRONMENTAL IMPACT STATEMENT
FOR THE
PROPOSED CONSTRUCTION, OPERATION, AND
MAINTENANCE OF TACTICAL INFRASTRUCTURE
U.S. BORDER PATROL SAN DIEGO SECTOR,
CALIFORNIA**

**U.S. Department of Homeland Security
U.S. Customs and Border Protection
U.S. Border Patrol**

DECEMBER 2007



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EXECUTIVE SUMMARY



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EXECUTIVE SUMMARY

2 INTRODUCTION

3 U.S. Department of Homeland Security (DHS), U.S. Customs and Border
4 Protection (CBP), U.S. Border Patrol (USBP) proposes to construct, operate, and
5 maintain approximately 4.4 miles of tactical infrastructure including primary
6 pedestrian fence, patrol roads, and access roads along the U.S./Mexico
7 international border in the USBP San Diego Sector, California.

8 The mission of CBP is to prevent terrorists and terrorist weapons from entering
9 the United States, while also facilitating the flow of legitimate trade and travel. In
10 supporting CBP's mission, USBP is charged with establishing and maintaining
11 effective control of the border of the United States. USBP's mission strategy
12 consists of the following five main objectives:

- 13 • Establish substantial probability of apprehending terrorists and their
14 weapons as they attempt to enter illegally between the Ports of Entry
15 (POEs)
- 16 • Deter illegal entries through improved enforcement
- 17 • Detect, apprehend, and deter smugglers of humans, drugs, and other
18 contraband
- 19 • Leverage "smart border" technology to multiply the effect of enforcement
20 personnel
- 21 • Reduce crime in border communities and consequently improve quality of
22 life and economic vitality of targeted areas.

23 This Draft Environmental Impact Statement (EIS) has been prepared through
24 coordination with Federal and state agencies to identify and assess the potential
25 impacts associated with the proposed construction, operation, and maintenance
26 of tactical infrastructure. This Draft EIS is also being prepared to fulfill the
27 requirements of the National Environmental Policy Act (NEPA) of 1969 and the
28 California Environmental Quality Act (CEQA).

29 PURPOSE AND NEED

30 The purpose of the Proposed Action is to increase security capabilities within the
31 USBP San Diego Sector through the construction, operation, and maintenance of
32 tactical infrastructure in the form of fences, roads, and supporting technological
33 and tactical assets. The USBP San Diego Sector has identified several areas
34 along the U.S./Mexico international border that experience high levels of illegal
35 cross-border activity. This activity occurs in areas that are remote and not easily
36 accessed by USBP agents, are near POEs where concentrated populations
37 might live on either side of the border, contain thick vegetation that can provide
38 concealment, or have quick access to U.S. transportation routes.

1 The Proposed Action is needed because of high levels of illegal cross-border
2 activity in these two sections of the USBP San Diego Sector and the associated
3 environmental damage. The Proposed Action would provide USBP agents with
4 the tools necessary to strengthen their control of the U.S. borders between POEs
5 in the USBP San Diego Sector. The Proposed Action would help to deter illegal
6 cross-border activities within the USBP San Diego Sector by improving
7 enforcement, preventing terrorists and terrorist weapons from entering the United
8 States, reducing the flow of illegal drugs and other contraband, and enhancing
9 response time, while providing a safer work environment for USBP agents.

10 **PUBLIC INVOLVEMENT**

11 CBP initiated the public scoping process for this Draft EIS on September 24,
12 2007, with the publication in the *Federal Register* of a Notice of Intent (NOI) to
13 prepare an EIS. The NOI requested public comments on the scope of the EIS
14 and provided information on how the public could submit comments by mail,
15 facsimile, electronic mail, or through the project-specific Web site. Public
16 comments submitted as part of the public scoping process were considered
17 during the EIS development process.

18 **DESCRIPTION OF PROPOSED ACTION**

19 CBP proposes to construct, operate, and maintain tactical infrastructure
20 consisting of primary pedestrian fence, patrol roads, and access roads along the
21 U.S./Mexico international border in the USBP San Diego Sector, California.
22 Proposed tactical infrastructure includes installation of fence sections in areas of
23 the border that are not currently fenced. The proposed locations of tactical
24 infrastructure are based on a USBP San Diego Sector assessment of local
25 operational requirements where tactical infrastructure would assist USBP agents
26 in reducing illegal cross-border activities. The Fiscal Year (FY) 2007 DHS
27 Appropriations Act (Public Law [P.L.] 109-295) provided \$1,187,565,000 under
28 the Border Security Fencing, Infrastructure, and Technology appropriation for the
29 installation of fencing, infrastructure, and technology along the border.

30 CBP has identified the Proposed Action as its Preferred Alternative.
31 Implementation of the Proposed Action would meet USBP's purpose and need.

32 **ALTERNATIVES ANALYSIS**

33 **No Action Alternative**

34 Under the No Action Alternative, proposed tactical infrastructure would not be
35 built and there would be no change in fencing, access roads, or other facilities
36 along the U.S./Mexico international border in the proposed project locations
37 within the USBP San Diego Sector. The USBP San Diego Sector would continue
38 to use agents and technology to identify illegal cross-border activity, and deploy
39 agents to make apprehensions. Although USBP agents would continue to patrol

1 the Pack Trail and make apprehensions, their response time and success rate in
2 apprehensions would continue to be impeded. The No Action Alternative is no
3 longer an efficient use of USBP resources and would not meet future USBP
4 mission or operational needs. However, inclusion of the No Action Alternative is
5 prescribed by the CEQ regulations and will be carried forward for analysis in the
6 EIS. The No Action Alternative also serves as a baseline against which to
7 evaluate the impacts of the Proposed Action.

8 **Proposed Action**

9 The proposed tactical infrastructure would be constructed in two sections
10 (designated as A-1 and A-2) along the U.S./Mexico international border within the
11 USBP San Diego Sector, in San Diego County, California. Section A-1 is
12 approximately 3.6 miles in length and would start at Puebla Tree and end at
13 Boundary Monument 250. The proposed section of fence would be adjacent to
14 and on the Otay Mountain Wilderness (OMW), and would follow the U.S./Mexico
15 international border where topography allows, deviating from the border to follow
16 the proposed construction access road where topography does not allow, such
17 as descent to canyon bottoms. The length of access road and patrol road to
18 support the operation and maintenance of the fence would be approximately 5.2
19 miles. In areas where the patrol road is not adjacent to the fence, trails suitable
20 for light-tracked vehicles would be constructed for the purposes of fence
21 installation and maintenance. These trails would require clearing of brush and
22 boulders and minor grading. Rock outcrops might require leveling for safe travel
23 and fence construction.

24 The OMW is on public lands administered by Bureau of Land Management
25 (BLM). The wilderness boundary is at least 100 feet from the U.S./Mexico
26 international border. The corridor between the OMW and the U.S./Mexico
27 international border is public land administered by the BLM. Approximately one
28 half of the proposed patrol and access road would occur in this corridor between
29 the U.S./Mexico international border and the wilderness boundary. Due to steep
30 topography, approximately one half of the length of patrol and access road and
31 approximately 1,300 feet of the primary pedestrian fence would extend into the
32 OMW.

33 Section A-2 would be approximately 0.8 miles in length and would connect with
34 existing border fence west of Tecate. This fence section would be constructed
35 along the southeastern border of Tecate Peak, and would pass through a riparian
36 area. This proposed fence section would encroach on a mix of privately owned
37 land parcels and public land administered by the BLM. Construction of this fence
38 section would include an upgrade to an access road west of Tecate.

1 **SUMMARY OF ENVIRONMENTAL IMPACTS**

2 **Table ES-1** provides an overview of potential impacts anticipated under each
 3 alternative considered, broken down by resource area. **Section 4** of this EIS
 4 evaluates these impacts.

5 **Table ES-1. Summary of Anticipated Environmental Impacts by Alternative**

Resource Area	No Action Alternative	Proposed Action
Air Quality	No impacts would be expected.	Short- and long-term minor adverse impacts would be expected.
Noise	No impacts would be expected.	Short-term moderate and long-term negligible to minor adverse impacts would be expected.
Land Use and Recreation	Long-term minor adverse impacts would continue to occur.	Long-term minor adverse impacts would be expected.
Geology and Soils	Long-term minor adverse impacts would continue to occur.	Short- and long-term major adverse impacts would be expected.
Hydrology and Groundwater	Long-term minor adverse impacts would continue to occur.	Short- and long-term minor direct adverse impacts would be expected
Surface Water and Waters of the United States	Long-term minor adverse impacts would continue to occur.	Long-term minor direct and short-term negligible adverse impacts would be expected.
Floodplains	Long-term minor adverse impacts would continue to occur.	Short- and long-term negligible to minor adverse impacts would be expected.
Vegetation	Short- and long-term moderate adverse impacts would continue to occur.	Short- and long-term, minor to moderate, adverse impacts would be expected.
Wildlife and Aquatic Resources	Long-term minor adverse impacts would continue to occur.	Short- and long-term negligible to major adverse impacts would be expected.

Resource Area	No Action Alternative	Proposed Action
Special Status Species	Long-term minor adverse impacts would continue to occur.	Short- and long-term minor to major adverse, and minor beneficial impacts would be expected.
Cultural Resources	Long-term minor adverse impacts would continue to occur.	Long-term minor adverse impacts would be expected.
Visual Resources	No impacts would be expected.	Short- and long-term minor to major adverse impacts would be expected.
Socioeconomic Resources, Environmental Justice, and Protection of Children	No impacts would be expected.	Short- and long-term minor direct and indirect beneficial impacts would be expected.

1 CBP followed design criteria to reduce adverse environmental impacts and would
2 implement mitigation measures to further reduce or offset adverse environmental
3 impacts. Design criteria to reduce adverse environmental impacts include
4 selecting a location for tactical infrastructure that would avoid or minimize
5 impacts on environmental and cultural resources, consulting with Federal and
6 state agencies and other stakeholders to avoid or minimize adverse
7 environmental impacts and develop appropriate Best Management Practices
8 (BMPs), and avoiding physical disturbance and construction of solid barriers in
9 wetlands/riparian areas and streambeds. BMPs would include implementation of
10 a Construction Mitigation and Restoration (CM&R) Plan, Spill Prevention Control
11 and Countermeasure (SPCC) Plan, Storm Water Pollution Prevention Plan
12 (SWPPP), Dust Control Plan, Fire Prevention and Suppression Plan, and
13 Unanticipated Discovery Plan.

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TACTICAL INFRASTRUCTURE
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SECTION 1

Introduction



1. INTRODUCTION

U.S. Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP) proposes to construct, operate, and maintain approximately 4.4 miles of tactical infrastructure including primary pedestrian fence, patrol roads, and access roads along the U.S./Mexico international border in the USBP San Diego Sector, California.

The proposed tactical infrastructure would be constructed in two discrete sections (designated A-1 and A-2). The first section designated as A-1 would consist of 3.6 miles of primary pedestrian fence, supported by access and patrol roads that would be approximately 5.2 miles in length and would start at the Puebla Tree and end at Boundary Monument 250. The second section would be approximately 0.8 miles in length and would connect with existing border fence west of Tecate, California (see **Figure 1-1**). Construction of this fence section would include an upgrade to an access road west of Tecate. The proposed tactical infrastructure could encroach on both public lands managed by the Bureau of Land Management (BLM)—including the Otay Mountain Wilderness (OMW)—and multiple privately owned land parcels.

This Draft Environmental Impact Statement (EIS) is divided into nine sections and appendices. **Section 1** provides background information on USBP missions, identifies the purpose of and need for the Proposed Action, describes the area in which the Proposed Action would occur, and explains the public involvement process. **Section 2** provides a detailed description of the Proposed Action, alternatives considered, and the No Action Alternative. **Section 3** describes existing environmental conditions in the areas where the Proposed Action would occur. **Section 4** identifies potential environmental impacts that could occur within each resource area under the alternatives evaluated in detail. **Section 5** presents proposed mitigation measures and the California Environmental Quality Act (CEQA). **Section 6** discusses potential cumulative and other impacts that might result from implementation of the Proposed Action, combined with foreseeable future actions. **Sections 7 and 8** provide references and acronyms, respectively. **Section 9** identifies the preparers of the Draft EIS.

Appendix A provides potential fence designs and a description of the proposed tactical infrastructure. **Appendix B** contains a listing of those laws, regulations, and Executive Orders (EOs) potentially applicable to the Proposed Action. **Appendix C** presents the Scoping Summary Report which includes the *Federal Register*, Notice of Intent (NOI), newspaper ads posted in local papers, and agency coordination letters. **Appendix D** will present materials related to the Draft EIS comment process and public involvement. **Appendix E** contains detailed maps of the proposed tactical infrastructure sections. **Appendix F** presents air quality information for the Proposed Action. **Appendix G** contains detailed soil maps of each of the two proposed tactical infrastructure sections.

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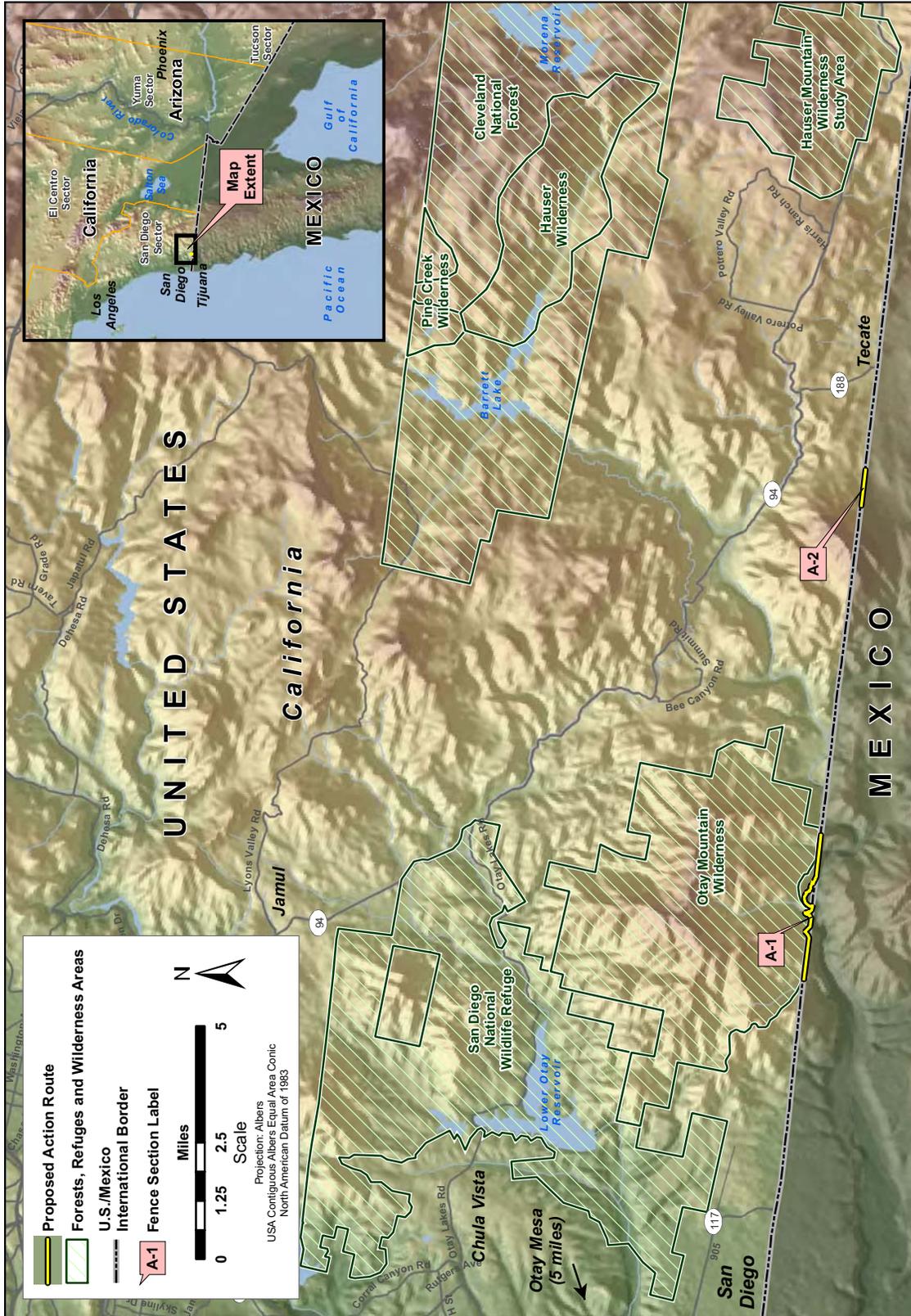


Figure 1-1. Locations of the Proposed Tactical Infrastructure

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1 **Appendix H** contains the Draft Biological Survey Report for the Proposed Action.
2 **Appendix I** contains the Draft Cultural Resources Survey Report for the
3 Proposed Action.

4 **1.1 USBP BACKGROUND**

5 The mission of CBP is to prevent terrorists and terrorist weapons from entering
6 the United States, while also facilitating the flow of legitimate trade and travel. In
7 supporting CBP's mission, USBP is charged with establishing and maintaining
8 effective control of the border of the United States. USBP's mission strategy
9 consists of the following five main objectives:

- 10 • Establish substantial probability of apprehending terrorists and their
11 weapons as they attempt to enter illegally between the Ports of Entry
12 (POEs)
- 13 • Deter illegal entries through improved enforcement
- 14 • Detect, apprehend, and deter smugglers of humans, drugs, and other
15 contraband
- 16 • Leverage "smart border" technology to multiply the effect of enforcement
17 personnel
- 18 • Reduce crime in border communities and consequently improve quality of
19 life and economic vitality of targeted areas.

20 USBP has nine administrative sectors along the U.S./Mexico international border.
21 The USBP San Diego Sector is responsible for 7,000 square miles of southern
22 California and 66 miles of the U.S./Mexico international border. The USBP San
23 Diego Sector is responsible for all of San Diego County, California (CBP 2007a).

24 Within the USBP San Diego Sector, areas for tactical infrastructure
25 improvements have been identified that would help the Brown Field and Chula
26 Vista Stations gain more effective control of the border and significantly
27 contribute to USBP's priority mission of homeland security. The Brown Field
28 Station has responsibility for approximately 11.5 miles of the border within the
29 USBP San Diego Sector. During the 2006 calendar year, the Brown Field
30 Station was responsible for 46,213 apprehensions, or 34 percent of all
31 apprehensions within the USBP San Diego Sector. As such, the Brown Field
32 Station is the fifth busiest station (in terms of apprehensions) of USBP (CBP
33 2007a).

34 Approximately half of the Brown Field Station area of responsibility has tactical
35 infrastructure in place. The region without infrastructure is rugged mountainous
36 terrain that is difficult for USBP to access and patrol. This unsecured mountain
37 region encompasses Otay Mountain which consists of lands administered by
38 BLM. The majority of this unsecured mountain region is under special Federal

1 designation as the OMW. The entire mountain area is a focal point of illegal
2 immigrant traffic, where traffickers are well-funded and organized.

3 **1.2 PURPOSE AND NEED**

4 The purpose of the Proposed Action is to increase border security within the
5 USBP San Diego Sector through the construction, operation, and maintenance of
6 tactical infrastructure in the form of fences, roads, and supporting infrastructure.
7 The USBP San Diego Sector has identified two discrete areas along the border
8 that experience high levels of illegal cross-border activity. This activity occurs in
9 areas that are remote and not easily accessed by USBP agents, are near POEs
10 where concentrated populations might live on either side of the border, or have
11 quick access to U.S. transportation routes.

12 The Proposed Action is needed because of high levels of illegal cross-border
13 activity in these two sections of the USBP San Diego Sector, the associated
14 environmental damage, and the steep terrain of the OMW (see **Figure 1-2**). The
15 Proposed Action would provide USBP agents with the tools necessary to
16 strengthen their control of the U.S. borders between POEs in the USBP San
17 Diego Sector. The Proposed Action would help to deter illegal cross-border
18 activities within the USBP San Diego Sector by improving enforcement,
19 preventing terrorists and terrorist weapons from entering the United States,
20 reducing the flow of illegal drugs and other contraband, and enhancing response
21 time, while providing a safer work environment for USBP agents.

22 **1.3 PROPOSED ACTION**

23 CBP proposes to construct, operate, and maintain tactical infrastructure
24 consisting of primary pedestrian fence and associated patrol roads, and access
25 roads along two discrete areas of the U.S./Mexico international border in the
26 USBP San Diego Sector, California (examples of primary pedestrian fence are
27 included in **Appendix A**). Proposed tactical infrastructure includes installation of
28 fence sections in areas of the border that are not currently fenced. The proposed
29 locations of tactical infrastructure are based on a USBP San Diego Sector
30 assessment of local operational requirements where such infrastructure would
31 assist USBP agents in reducing illegal cross-border activities. The Fiscal Year
32 (FY) 2007 DHS Appropriations Act (Public Law [P.L.] 109-295) provided
33 \$1,187,565,000 under the Border Security Fencing, Infrastructure, and
34 Technology appropriation for the installation of fencing, infrastructure, and
35 technology along the border (CRS 2006). **Figure 1-1** illustrates the location of
36 the proposed tactical infrastructure within the USBP San Diego Sector. Details of
37 the Proposed Action are included in **Section 2.2.8**. CBP has identified the
38 Proposed Action as its Preferred Alternative.



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Figure 1-2. Photographs Depicting Illegal Grazing and Extensive Erosion Caused by Illegal Cross-Border Activity within the OMW

1 1.4 FRAMEWORK FOR ANALYSIS

2 The process for implementing the National Environmental Policy Act (NEPA) is
3 codified in Code of Federal Regulations (CFR) 40 Parts 1500–1508, *Regulations*
4 *for Implementing the Procedural Provisions of the National Environmental Policy*
5 *Act*, and DHS’s related Management Directive (MD) 5100.1, *Environmental*
6 *Planning Program*. The Council on Environmental Quality (CEQ) was
7 established under NEPA to implement and oversee Federal policy in this
8 process.

9 An EIS is prepared when a proposed action is anticipated to have potentially
10 “significant” environmental impacts, or a proposed action is environmentally
11 controversial. An EIS generally presents separate chapters specifically tailored
12 to address the following:

- 13 • The purpose and need for the Proposed Action
- 14 • Reasonable alternatives to the Proposed Action
- 15 • A characterization of the affected environment
- 16 • The nature and extent of potential environmental impacts associated with
17 the Proposed Action and alternatives (including the No Action Alternative)
- 18 • A listing of agencies and persons contacted during the EIS preparation
19 process and public involvement efforts.

20 To comply with NEPA, the planning and decisionmaking process for actions
21 proposed by Federal agencies involves a study of other relevant environmental
22 statutes and regulations. The NEPA process, however, does not replace
23 procedural or substantive requirements of other environmental statutes and
24 regulations. It addresses them collectively in the form of an Environmental
25 Assessment (EA) or EIS, which enables the decisionmaker to have a
26 comprehensive view of major environmental issues and requirements associated
27 with the Proposed Action. According to CEQ regulations, the requirements of
28 NEPA must be integrated “with other planning and environmental review
29 procedures required by law or by agency so that all such procedures run
30 concurrently rather than consecutively.”

31 Within the framework of environmental impact analysis under NEPA, additional
32 authorities that might be applicable include the Clean Air Act (CAA), Federal
33 Water Pollution Control Act (also known as the Clean Water Act [CWA])
34 (including a National Pollutant Discharge Elimination System [NPDES] storm
35 water discharge permit and Section 404 permit), Noise Control Act, Endangered
36 Species Act (ESA), Migratory Bird Treaty Act (MBTA), National Historic
37 Preservation Act (NHPA), Archaeological Resources Protection Act, and various
38 Executive Orders (EOs). A summary of laws, regulations, and EOs that might be
39 applicable to the Proposed Action are shown in **Appendix B. Table 1-1** lists
40

1 **Table 1-1. Major Permits, Approvals, and Interagency Coordination**

Agency	Permit/Approval/Coordination
U.S. Department of the Interior, Bureau of Land Management (BLM)	- Otay Mountain Wilderness Act
U.S. Department of the Interior, U.S. Fish and Wildlife Service (USFWS)	- Section 7 ESA consultation - MBTA coordination
U.S. Environmental Protection Agency (USEPA)	- CWA NPDES permit
U.S. Army Corps of Engineers (USACE)	- CWA Section 404 permit
San Diego Regional Water Quality Control Board	- CWA Section 401 State Water Quality Certification
San Diego Air Pollution Control District	- CAA permit consultation
California Coastal Commission San Diego District Office	- Coastal Zone Management Act (CZMA) Consistency Determination
California Department of Fish and Game (CDFG)	- California Endangered Species Act (CESA) coordination
California State Historic Preservation Office (SHPO)	- NHPA Section 106 consultation
Federally recognized American Indian Tribes	- Consultation regarding potential effects on cultural resources
Advisory Council on Historic Preservation (ACHP)	- NHPA Section 106 consultation

2

3 major Federal and state permits, approvals, and interagency coordination
4 required to construct, operate, and maintain the proposed tactical infrastructure.

5 CEQA as promulgated in the California Public Resources Code 21000-21177,
6 was adopted in 1970 by the State of California to inform governmental
7 decisionmakers and the public about the potential environmental effect of a
8 project, identify ways to reduce adverse impacts, offer alternatives to the project,
9 and disclose to the public why a project was approved. CEQA applies to projects
10 undertaken, funded, or requiring an issuance of a permit by a public agency. For
11 this project, CEQA is applicable because under Section 401 of the CWA (33
12 United States Code [U.S.C.] 1341), states and tribes are delegated authority to
13 approve, condition, or deny all Federal permits or licenses that might result in a
14 discharge to state or tribal waters, including wetlands. Projects that have a
15 potential for resulting in physical change to the environment, or that might be
16 subject to several discretionary approvals by governmental agencies, including
17 construction activities, clearing or grading of land, improvements to existing
18 structures, and activities or equipment involving the issuance of a permit, are
19 required to go through the CEQA process.

1 The California Code of Regulations (CCR), Title 14, Section 15063, allows the
2 use of a NEPA document to meet the requirements for an Initial Study under
3 CEQA. A CEQA Initial Study Environmental Checklist would also be prepared to
4 support the CWA Section 401 Application.

5 **1.5 PUBLIC INVOLVEMENT**

6 Agency and public involvement in the NEPA process promotes open
7 communication between the public and the government and enhances the
8 decisionmaking process. All persons or organizations having a potential interest
9 in the Proposed Action are encouraged to participate in the decisionmaking
10 process.

11 NEPA and CEQ implementing regulations direct agencies to make their EISs
12 available to the public during the decisionmaking process and prior to actions
13 being taken. The premise of NEPA is that the quality of Federal decisions will be
14 enhanced if proponents provide information to the public and involve the public in
15 the planning process.

16 Public scoping activities for this EIS were initiated on September 24, 2007, when
17 an NOI to prepare this EIS was published in the *Federal Register* (72 FR 184, pp.
18 54277–78, see **Appendix C**). Besides providing a brief description of the
19 Proposed Action and announcing CBP's intent to prepare this EIS, the NOI also
20 established a 20-day public scoping period. The purpose of the scoping process
21 was to solicit public comments regarding the range of issues, including potential
22 impacts and alternatives that should be addressed in the EIS. Public comments
23 received during the public scoping period were taken into consideration in the
24 preparation of this Draft EIS. A summary of the scoping comments received are
25 included in **Appendix C**.

26 In addition to the NOI published in the *Federal Register*, newspaper notices
27 coinciding with the NOI were published in *San Diego Union-Tribune* and the *San*
28 *Diego Daily Transcript* on September 24 and 30, 2007. The notice was also
29 published in Spanish in *La Prensa* and *Hispanos Unidos* on September 28, 2007.
30 Copies of the newspaper notices are included in **Appendix C**.

31 The U.S. Environmental Protection Agency (USEPA) will publish the Notice of
32 Availability (NOA) for this Draft EIS in the *Federal Register*. The purpose of the
33 USEPA NOA is to announce to the public the availability of this Draft EIS, and to
34 begin a 45-day public comment period. In addition to the USEPA NOA, CBP will
35 publish a separate NOA in the *Federal Register* announcing the dates, times,
36 and places for public informational meetings and to request comments on the
37 Draft EIS. All comments received will be taken into consideration in the
38 development of the Final EIS and subsequent to this draft will also be included in
39 **Appendix C**. Upon completion, CBP will make the Final EIS available to the
40 public for 30 days. At the conclusion of the 30-day period, a Record of Decision

1 (ROD) regarding the Proposed Action can be signed and published in the
2 *Federal Register*.

3 Through the public involvement process, CBP also notified relevant Federal,
4 state, and local agencies of the Proposed Action and requested input regarding
5 environmental concerns they might have regarding the Proposed Action. The
6 public involvement process provides CBP with the opportunity to cooperate with
7 and consider Federal, state, and local views in its decision regarding
8 implementation of this Federal proposal. As part of the EIS process, CBP has
9 coordinated with agencies such as the USEPA; U.S. Fish and Wildlife Service
10 (USFWS); California State Historic Preservation Office (SHPO); and other
11 Federal, state, and local agencies (see **Appendix C**). Input from agency
12 responses has been incorporated into the analysis of potential environmental
13 impacts.

14 Anyone wishing to provide comments, suggestions, or relevant information
15 regarding the Proposed Action and this EIS may do so by submitting comments
16 to CBP. To avoid duplication, please use only one of the following methods:

- 17 a. Electronically through the Web site at: www.BorderFenceNEPA.com
- 18 b. By email to: SDcomments@BorderFenceNEPA.com
- 19 c. By mail to: San Diego Sector Tactical Infrastructure EIS, c/o e²M, 2751
20 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031
- 21 d. By fax to: (757) 257-7643.

22 Throughout the NEPA and CEQA processes, the public may obtain information
23 concerning the status and progress of the EIS via the project Web site at
24 www.BorderFenceNEPA.com; by emailing information@BorderFenceNEPA.com;
25 or by written request to Mr. Charles McGregor, Environmental Manager, U.S.
26 Army Corps of Engineers (USACE), Fort Worth District, Engineering and
27 Construction Support Office, 814 Taylor Street, Room 3B10, Fort Worth, TX
28 76102, and Fax (757) 257-7643.

29 **1.6 COOPERATING AND COORDINATING AGENCIES**

30 The CEQ regulations implementing NEPA instruct agencies to combine
31 environmental documents to reduce duplication and paperwork (40 CFR 1506.4).
32 As such, the USACE-Los Angeles District, the United States Section,
33 International Boundary and Water Commission (USIBWC), and the Palm Springs
34 South Coast Field Office of the BLM as cooperating agencies and the USFWS as
35 a coordinating agency also have decisionmaking authority for components of the
36 Proposed Action and intend for this EIS to fulfill their requirements for compliance
37 with NEPA.

38 The USACE-Los Angeles District Engineer has the authority to authorize actions
39 under Section 404 of the CWA. Applications for work involving the discharge of

1 fill material into waters of the United States and work in, or affecting, a navigable
2 water of the United States will be submitted to the USACE-Los Angeles District
3 Regulatory Program Branch for review, and a decision on issuance of a permit
4 will be reached.

5 The Palm Springs South Coast Field Office of the BLM has jurisdiction over most
6 of the land traversed by the Proposed Action. BLM also has oversight for OMW,
7 which is directly north of Section A-1. Any activity occurring within the BLM-
8 owned portions of the Proposed Action or the adjacent OMW would require
9 approval and oversight by the Palm Springs South Coast Field Office of the BLM.

10 Section 7 of the ESA requires federal agencies to consult with the USFWS when
11 actions may affect federally listed species or designated critical habitat. Pre-
12 consultation coordination with USFWS is underway for this project. The USFWS
13 has provided critical feedback on the location and design of fence sections to
14 avoid, minimize or mitigate potential impacts to listed species or designated
15 critical habitat. CBP is developing the Biological Assessment in coordination with
16 the USFWS. Potential effects of fence construction, maintenance, and operation
17 will be analyzed in both the Biological Assessment and Biological Opinion to
18 accompany the Final Environmental Impact Statement.

19 The USIBWC is an international body composed of a U.S. Section and a
20 Mexican Section, each headed by an Engineer-Commissioner appointed by
21 his/her respective president. Each of these sections is administered
22 independently of the other. The USIBWC is a Federal government agency
23 headquartered in El Paso, Texas, and operates under the foreign policy guidance
24 of the Department of State (USIBWC 2007). The USIBWC will provide access
25 and rights-of-way (ROWs), if necessary, to construct proposed tactical
26 infrastructure in areas of the Tijuana River floodplain. The USIBWC will also
27 ensure that design and placement of the proposed tactical infrastructure does not
28 impact flood control and does not violate treaty obligations between the United
29 States and Mexico.



SECTION 2

Proposed Action and Alternatives



1 **2.2 ALTERNATIVES ANALYSIS**

2 CBP evaluated a range of possible alternatives to be considered for the
3 Proposed Action. During the public scoping process described in **Section 1.5**
4 and **Appendix C**, the following potential alternatives were proposed: (1) stronger
5 enforcement and harsher penalties for employers that hire illegal immigrants,
6 (2) additional USBP agents in lieu of tactical infrastructure, (3) technology in lieu
7 of tactical infrastructure, and (4) vehicle fences in lieu of tactical infrastructure.
8 Alternative fence designs were also proposed to make the fence taller, wider, or
9 more impenetrable. In addition, CBP considered several route alternatives for
10 the construction of tactical infrastructure. This section addresses alternatives
11 that were reviewed but not carried forward for detailed analysis.

12 The following sections describe the alternative analysis for this Proposed Action.
13 **Section 2.2.1** through **2.2.7** describes alternatives considered but eliminated
14 from further detailed analysis. **Section 2.2.8** provides specific details of the
15 Proposed Action, and **Section 2.2.9** presents the No Action Alternative.
16 **Section 2.3** is the identification of the preferred alternative.

17 **2.2.1 Stronger Enforcement and Harsher Penalties for Employers That Hire Illegal**
18 **Immigrants**

19 During the public scoping process several comments were received encouraging
20 CBP to consider stronger enforcement of current immigration laws and harsher
21 penalties for employers that hire illegal immigrants. This alternative was not
22 studied in detail primarily because it would not meet the USBP San Diego
23 Sector's Purpose and Need and the screening criteria established for viable
24 alternatives. The Proposed Action is needed to provide USBP agents with the
25 tools necessary to strengthen their control of the U.S. borders between POEs in
26 the USBP San Diego Sector. USBP enforces current laws to the maximum
27 extent practical. Although harsher penalties for employers might have some
28 deterrent effect, it is an aspect of enforcement that is not within the purview of the
29 USBP. Further, it does not immediately address the purpose and need of the
30 Proposed Action, which is to strengthen control of the border, in part, by
31 hindering or delaying individuals who attempt to cross the border illegally. It is
32 also not clear that harsher penalties on employers would help in preventing
33 terrorists and terrorist weapons from entering the United States, reducing the
34 flow of illegal drugs, or providing a safer work environment for USBP agents. For
35 these reasons, this alternative is not a practical alternative to the construction of
36 tactical infrastructure in the USBP San Diego Sector and will not be carried
37 forward for detailed analysis.

38 **2.2.2 Additional USBP Agents in Lieu of Tactical Infrastructure**

39 CBP considered the alternative of increasing the number of USBP agents
40 assigned to the U.S./Mexico international border as a means of gaining more
41 effective control of the U.S./Mexico international border in the San Diego Sector.

1 Under this alternative, USBP would hire and deploy a significantly larger number
2 of agents than are currently deployed along the U.S./Mexico international border
3 and increase patrols to apprehend cross-border violators. USBP would deploy
4 additional agents as determined by operational needs, but patrols might include
5 the use of 4-wheel drive vehicles, all-terrain vehicles, helicopters, or fixed-wing
6 aircraft. Currently, USBP maintains an aggressive hiring program and a cadre of
7 well-trained agents.

8 This alternative was determined not to meet the screening criteria of USBP
9 operational requirements. The physical presence of an increased number of
10 agents could provide an enhanced level of deterrence against illegal entry into
11 the United States, but the use of additional agents alone, without the addition of
12 proposed tactical infrastructure, would not provide a practical solution to
13 achieving the level of effective control of the border necessary in the USBP San
14 Diego Sector. The use of physical barriers has been demonstrated to slow
15 cross-border violators and provide USBP agents with additional time to make
16 apprehensions (USACE 2000). Additionally, as tactical infrastructure is built,
17 agents could be more effectively redeployed to secure other areas.

18 A Congressional Research Service (CRS) report (CRS 2006) concluded that
19 USBP border security initiatives within the USBP San Diego Sector such as the
20 1994 “Operation Gatekeeper” required a 150 percent increase in USBP
21 manpower, lighting, and other equipment. The report states that “It soon became
22 apparent to immigration officials and lawmakers that USBP needed, among other
23 things, a ‘rigid’ enforcement system that could integrate infrastructure (i.e., multi-
24 tiered fence and roads), manpower, and new technologies to further control the
25 border region” (CRS 2006).

26 Increased patrol agents would aid in interdiction activities, but not to the extent
27 anticipated by the construction of primary pedestrian fence and other tactical
28 infrastructure along Sections A-1 and A-2. As such, this alternative is not
29 practical in the USBP San Diego Sector and will not be carried forward for further
30 detailed analysis.

31 **2.2.3 Technology in Lieu of Tactical Infrastructure**

32 CBP does and would continue to use various forms of technology to identify
33 cross-border violators. The use of technology in certain sparsely populated
34 areas is a critical component of the Secure Border Initiative (SBI) and an
35 effective force multiplier that allows USBP to monitor large areas and deploy
36 agents to where they would be most effective in apprehending cross-border
37 violators. However, due to the large urban areas in Mexico along the
38 U.S./Mexico international border, combined with the remoteness and steep
39 terrain that hinders tracking and apprehension of cross-border violators, physical
40 barriers represent the most effective means to control illegal entry into the United
41 States, as noted above. The use of technology alone would not provide a
42 practical solution to achieving the level of effective control of the U.S./Mexico

1 international border necessary in the USBP San Diego Sector. Current USBP
2 San Diego Sector operations include the use of technology to identify cross-
3 border violations and deploying agents to make apprehensions. As such, this
4 alternative is very similar to the No Action Alternative discussed in **Section 2.2.9**.
5 Therefore, this alternative would not meet the purpose and need as described in
6 **Section 1.2** and will not be carried forward for further detailed analysis.

7 **2.2.4 Vehicle Fences in Lieu of Primary Pedestrian Fence**

8 During the public scoping process, the alternative of constructing vehicle fences
9 in lieu of primary pedestrian fence was suggested. The USBP deploys both
10 permanent and temporary vehicle fences on the U.S./Mexico international border
11 as necessary. Temporary vehicle fences are typically chained together and can
12 be moved to different locations at the USBP's discretion. Permanent vehicle
13 fences are embedded in the ground and are meant to remain in one location.
14 Vehicle fences are designed to impede the entry of vehicles while allowing
15 individuals and animals to cross the border freely. Therefore, vehicle fences
16 would be effective in stopping illegal vehicle traffic but would not be effective in
17 impeding illegal foot traffic. In Section A-1, because of the steep terrain, illegal
18 cross-border activity is typically pedestrian and not vehicle traffic, therefore
19 vehicle fence would not provide an effective means of impeding pedestrians. In
20 Section A-2, illegal cross-border activity is both pedestrian and vehicle, but
21 vehicle fence would not impede pedestrians. This alternative was not studied in
22 detail primarily because it would not meet the USBP operational screening
23 criteria of hindering or delaying individuals crossing the border illegally. This
24 alternative is not a practical alternative to primary pedestrian fence in the USBP
25 San Diego Sector and will not be carried forward for detailed analysis.

26 **2.2.5 Tactical Infrastructure 3 Feet from the U.S./Mexico International Border** 27 **Alternative**

28 The route initially identified by USBP San Diego Sector as best meeting its
29 operational needs would be tactical infrastructure including primary pedestrian
30 fence and patrol road approximately 3 feet north of the U.S./Mexico international
31 border within the Roosevelt Reservation.¹ Under this alternative, Section A-1
32 primary pedestrian fence and construction access road would be approximately
33 3.4 miles long and Section A-2 primary pedestrian fence and construction access
34 road would be approximately 0.8 miles long. The construction access road

¹ In 1907, President Roosevelt reserved from entry and set apart as a public reservation all public lands within 60 feet of the international boundary between the United States and Mexico within the State of California and the Territories of Arizona and New Mexico. Known as the "Roosevelt Reservation," this land withdrawal was found "necessary for the public welfare ... as a protection against the smuggling of goods." The proclamation excepted from the reservation all lands, which, as of its date, were (1) embraced in any legal entry; (2) covered by any lawful filing, selection, or rights of way duly recorded in the proper U.S. Land Office; (3) validly settled pursuant to law; or (4) within any withdrawal or reservation for any use or purpose inconsistent with its purposes (CRS 2006).

1 would subsequently become the patrol road. Due to very steep topography
2 along Section A-1, this alternative would require significant amounts of blasting
3 activity and cut-and-fill operations. To build the construction access road
4 adjacent to the border, preliminary engineering design estimated that
5 approximately 2,131,000 cubic yards of cut-and-fill would be necessary. This
6 alternative would result in some road grades between 33 and 46 percent which
7 would be far greater than the acceptable maximum standard of 15 percent
8 suitable for use in the USBP San Diego Sector (USACE 2007). The resulting
9 steep grades were determined to be unsafe for rubber tired vehicles and would
10 place USBP agents in an unsafe environment. This alternative would not meet
11 the purpose and need of providing a safer work environment for USBP agents,
12 have much higher environmental impacts, and have much higher construction
13 costs. For these reasons this alternative was deemed unfeasible and eliminated
14 from further analysis, and other route alternatives were evaluated.

15 **2.2.6 Secure Fence Act Alignment Alternative**

16 Numerous comments received during the public scoping process encouraged
17 CBP to build primary pedestrian fence that would be taller, wider, or more
18 impenetrable. An alternative of two layers of fence, known as primary and
19 secondary fence, was also considered for analysis in this EIS. Under this
20 alternative, the two layers of fence would be constructed approximately 130 feet
21 apart along Sections A-1 and A-2, and would be most closely aligned with the
22 fence description in the Secure Fence Act of 2006, P.L. 109-367, 120 Stat. 2638,
23 codified at 8 U.S.C. 1701. This alternative would also include construction and
24 maintenance of construction access and patrol roads. The patrol road would be
25 between the primary and secondary fences.

26 Construction of the proposed tactical infrastructure would impact an
27 approximately 150-foot-wide corridor for 4.4 miles along Sections A-1 and A-2.
28 The proposed project corridor would accommodate primary and secondary
29 fencing, construction access and patrol roads. Since the patrol road would be
30 placed between the primary and secondary fence alignments, the road in many
31 instances would be required to follow a much steeper incline closer to the border
32 compared to a single fence alignment where road and fence deviate from each
33 other to avoid such grades. Consequently, the level of disturbance would be
34 approximately double that of single-fence alternatives, would be environmentally
35 unacceptable, prohibitively expensive, and would result in unsafe operating
36 conditions for USBP, in direct conflict with the intended purpose and need of the
37 Proposed Action. Therefore, this alternative was eliminated from further
38 analysis.

39 **2.2.7 Tactical Infrastructure Following Natural Topography Alternative**

40 To maintain safer grades for the construction access and patrol road, a route
41 alternative for Section A-1 was identified that would have a maximum of 15
42 percent slope and would follow, instead of modify, the natural topography. Under

1 this alternative, the Section A-1 primary pedestrian fence and construction
 2 access and patrol roads would not be directly adjacent to the U.S./Mexico
 3 international border. The length of primary pedestrian fence and roads would be
 4 approximately 5.2 miles. Under this alternative, approximately 1,300 feet of the
 5 primary pedestrian fence would extend into the OMW. There would be 143 acres
 6 of land between the road/fence and the U.S./Mexico international border.
 7 Although the Section A-1 route alternative would have fewer adverse
 8 environmental impacts compared to the Tactical Infrastructure 3 Feet from the
 9 U.S./Mexico International Border Alternative, since the fence would be too far
 10 from the U.S./Mexico international border (more than 1,000 feet) this alternative
 11 would not fully meet the USBP San Diego Sector’s screening criteria to hinder or
 12 delay individuals illegally crossing the border. For this reason, other route
 13 alternatives for Section A-1 were considered and this alternative was eliminated
 14 from further analysis. In Section A-2, the fence and road would be constructed
 15 approximately 3 feet from the U.S./Mexico international border. This alternative
 16 meets the purpose and need and screening criteria, and therefore was carried
 17 forward as the Proposed Action for Section A-2.

18 **2.2.8 Proposed Action**

19 Under this alternative, CBP would construct, operate, and maintain tactical
 20 infrastructure consisting of primary pedestrian fence, construction access and
 21 patrol roads, and other infrastructure along the U.S./Mexico international border
 22 in the USBP San Diego Sector, California. The Section A-1 construction access
 23 and patrol road would follow the natural topography along the route identified in
 24 the Tactical Infrastructure Following Natural Topography Alternative (**Section**
 25 **2.2.7**), while the primary pedestrian fence would follow the U.S./Mexico
 26 international border but deviate where topography does not allow, such as
 27 descent to canyon bottoms. Sections A-1 and A-2 are shown on **Figures 2-1**
 28 and **2-2**, in **Appendix E**, and are listed in **Table 2-1**.

29 **Table 2-1. Proposed Tactical Infrastructure Sections**

Fence Section Number	Border Patrol Station	General Location	Land Ownership	Length of Fence Section
A-1	Brown Field/Chula Vista	Pack Trail	Public: BLM-managed	3.6
A-2	Brown Field	West of Tecate	Private Public: BLM-managed	0.8
Total				4.4

30

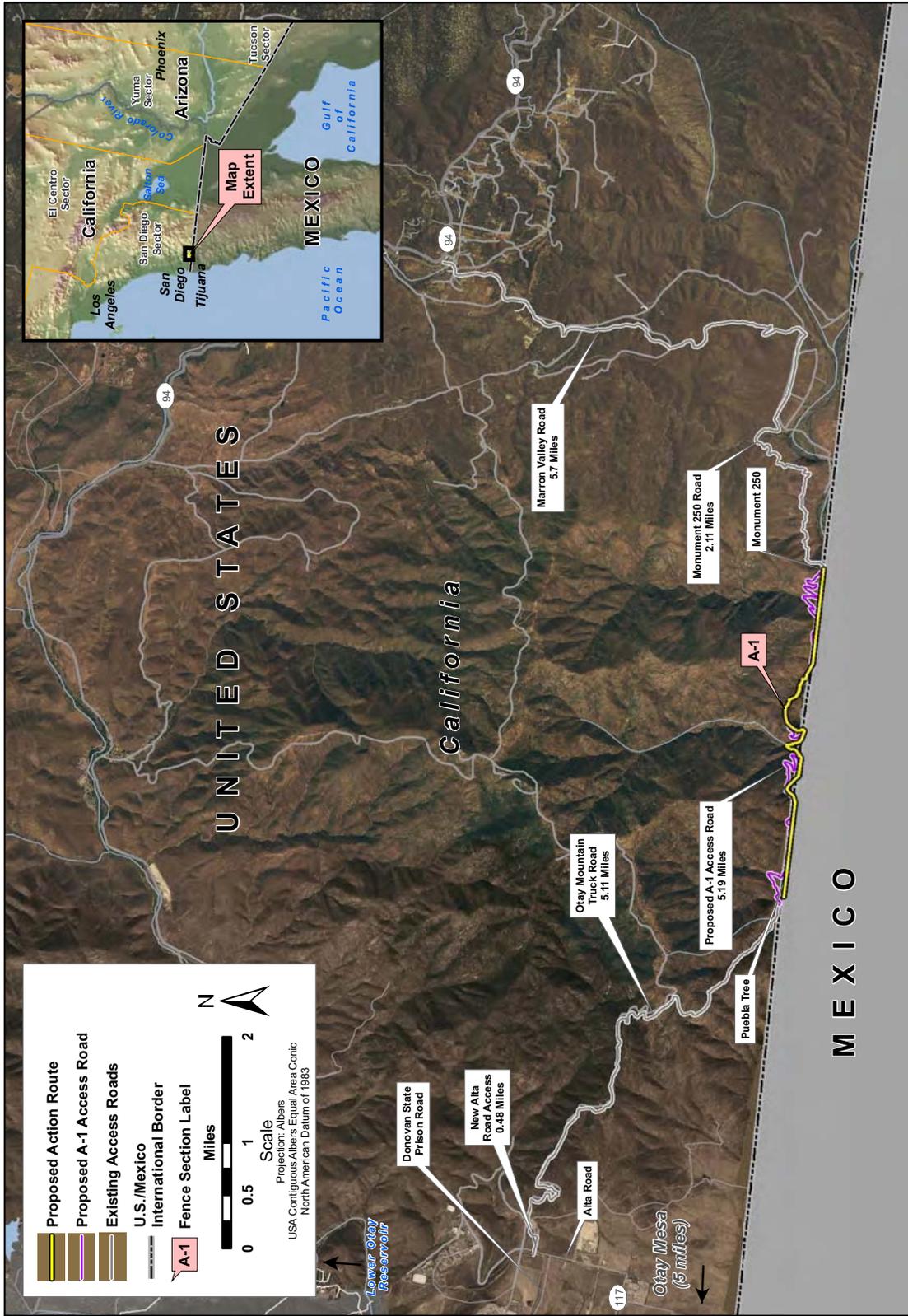


Figure 2-1. Proposed Tactical Infrastructure Section A-1

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1

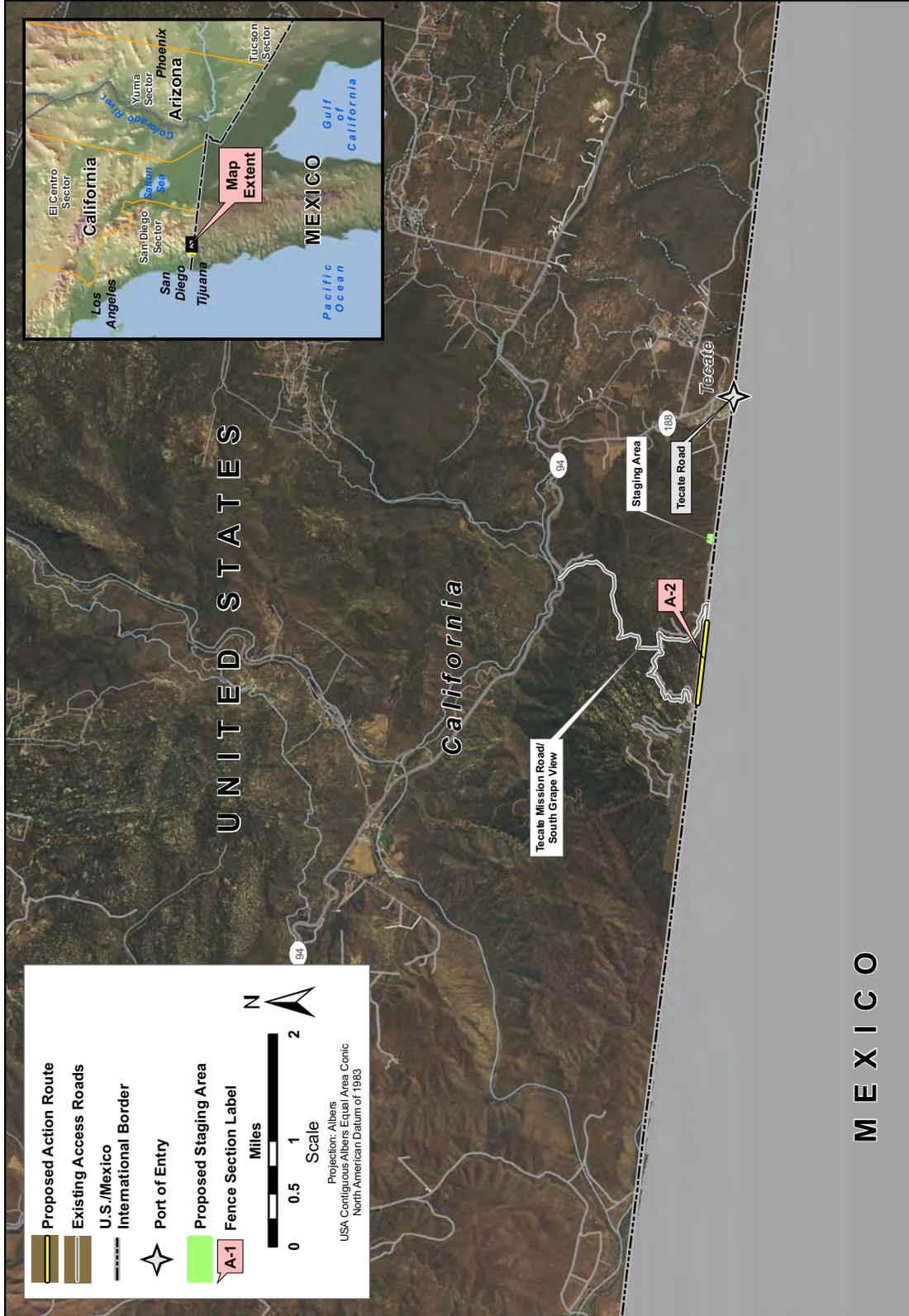


Figure 2-2. Proposed Tactical Infrastructure Section A-2

Source: ESRI StreetMap USA 2005

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1 Section A-1 would be approximately 3.6 miles in length and would start at Puebla
2 Tree and end at Boundary Monument 250. The Section A-1 primary pedestrian
3 fence would be adjacent to the U.S./Mexico international border where
4 topography allows. The proposed fence would deviate from the border to follow
5 a new construction access road where conditions warrant, such as descent to
6 canyon bottoms.

7 The proposed fence would be constructed around IBWC monuments and locked
8 gates would be installed at each monument to allow for access to the
9 monuments. The length of construction access and patrol road to support the
10 operation and maintenance of the fence would be approximately 5.2 miles.
11 Aggregate and soil stabilizing or binding agents (such as RoadOyl or
12 Pennzsuppress) would be added to the surface of the construction access road
13 to reduce erosion and maintenance activities. An additional layer of the soil
14 stabilizing agent would be applied to the road surface on an annual basis. When
15 applied according to label directions, the soil stabilizers would be non-toxic to
16 terrestrial and aquatic organisms. Maps of the proposed route are shown in
17 **Figures 2-3** through **2-8**. In areas where the patrol road would not be adjacent
18 to the fence, trails suitable for light-tracked vehicles would be constructed for the
19 purposes of fence installation and maintenance. These trails would require
20 clearing of brush and boulders and minor grading. Rock outcrops might require
21 leveling for safe travel and fence construction.

22 Approximately one half of the proposed construction and patrol road would occur
23 on the Roosevelt Reservation between the U.S./Mexico international border and
24 the OMW boundary. Due to steep topography, approximately one half of the
25 length of the construction and patrol road and approximately 1,300 feet of the
26 primary pedestrian fence would extend into the OMW.

27 Section A-2 would be approximately 0.8 miles in length and would connect with
28 existing border fence west of Tecate. Section A-2 would be an extension of an
29 existing fence near Tecate Peak, would be constructed along the southeastern
30 border of Tecate Peak, and would pass through a riparian area. This proposed
31 fence section would encroach on a mix of privately owned land parcels and
32 public land administered by the BLM. Construction of this fence section would
33 necessitate an upgrade to an access road west of Tecate (see **Figure 2-2** and
34 **Appendix E**).

35 The proposed tactical infrastructure for Section A-2 would potentially impact an
36 approximate 60-foot-wide corridor. Steep topography at Section A-1 would
37 necessitate a wider impact corridor where more extensive cutting and filling
38 would be required. This corridor would include primary pedestrian fence,
39 construction and patrol roads, and construction staging areas. In areas of
40 Section A-1 where the fence separates from the road, a disturbance corridor no
41 greater than 60 feet is anticipated. The area permanently impacted within the
42 two sections (including new road construction and staging areas) would be
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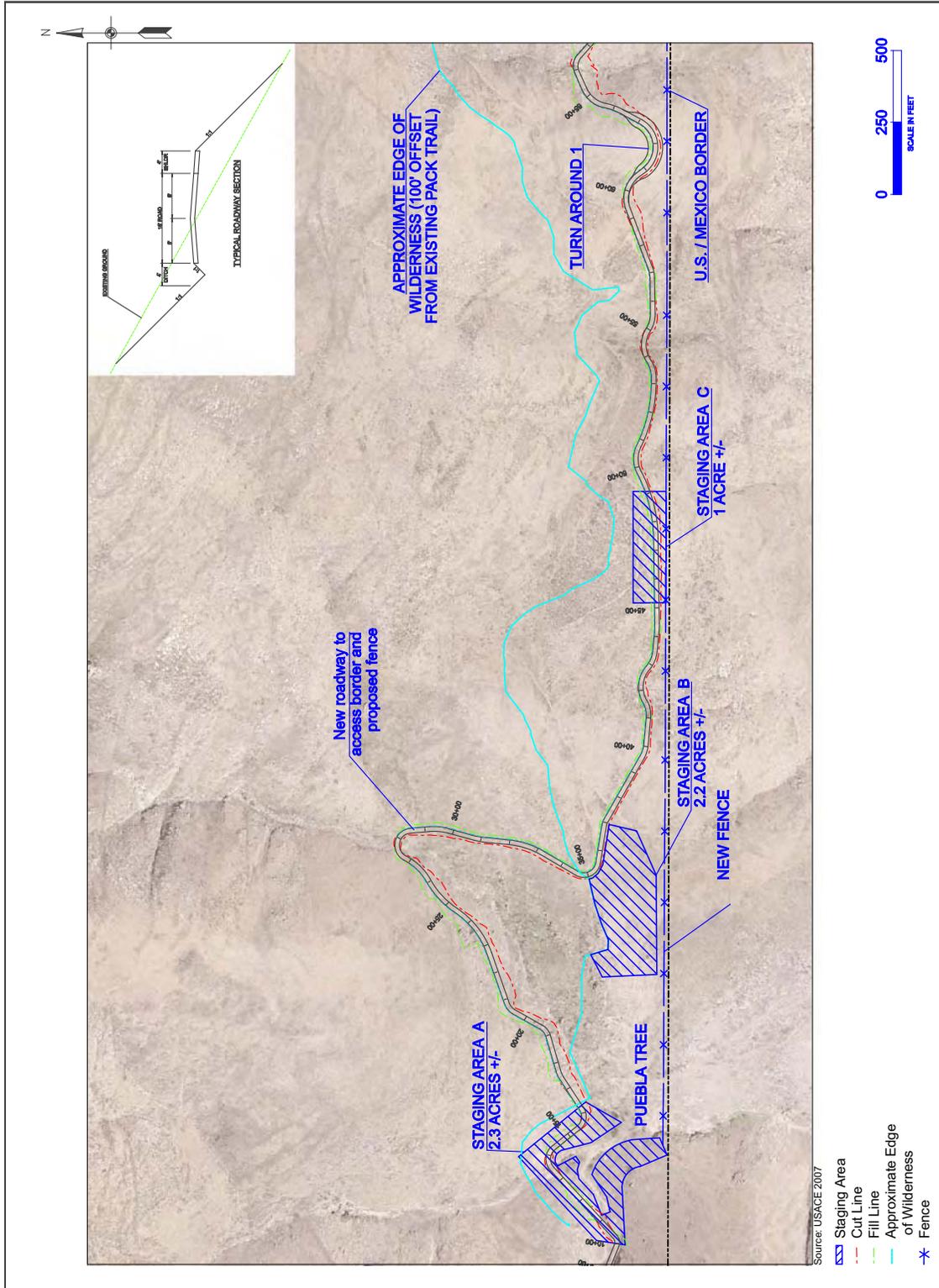


Figure 2-3. Detailed Map of Section A-1 (1 of 6)

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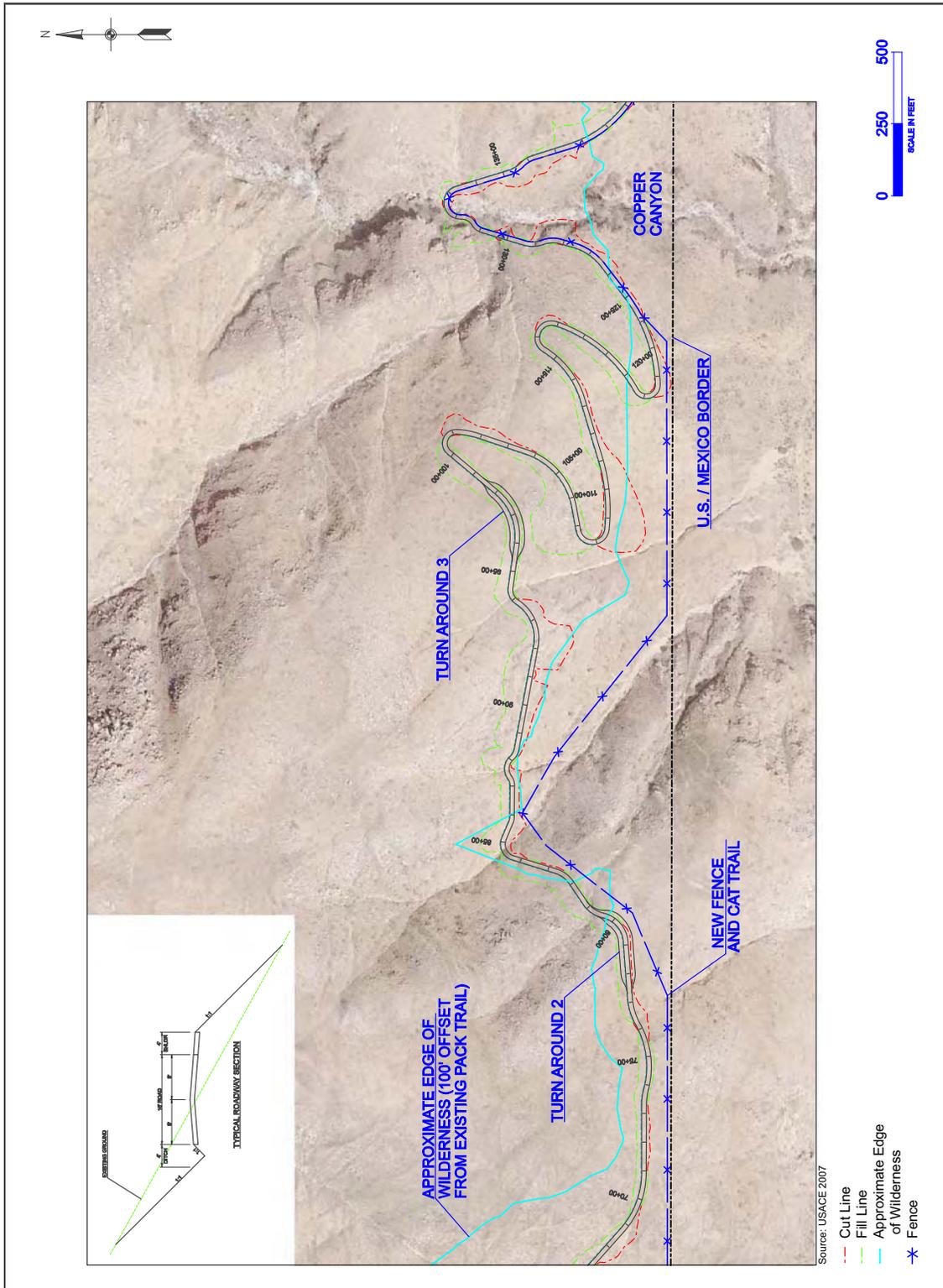


Figure 2-4. Detailed Map of Section A-1 (2 of 6)

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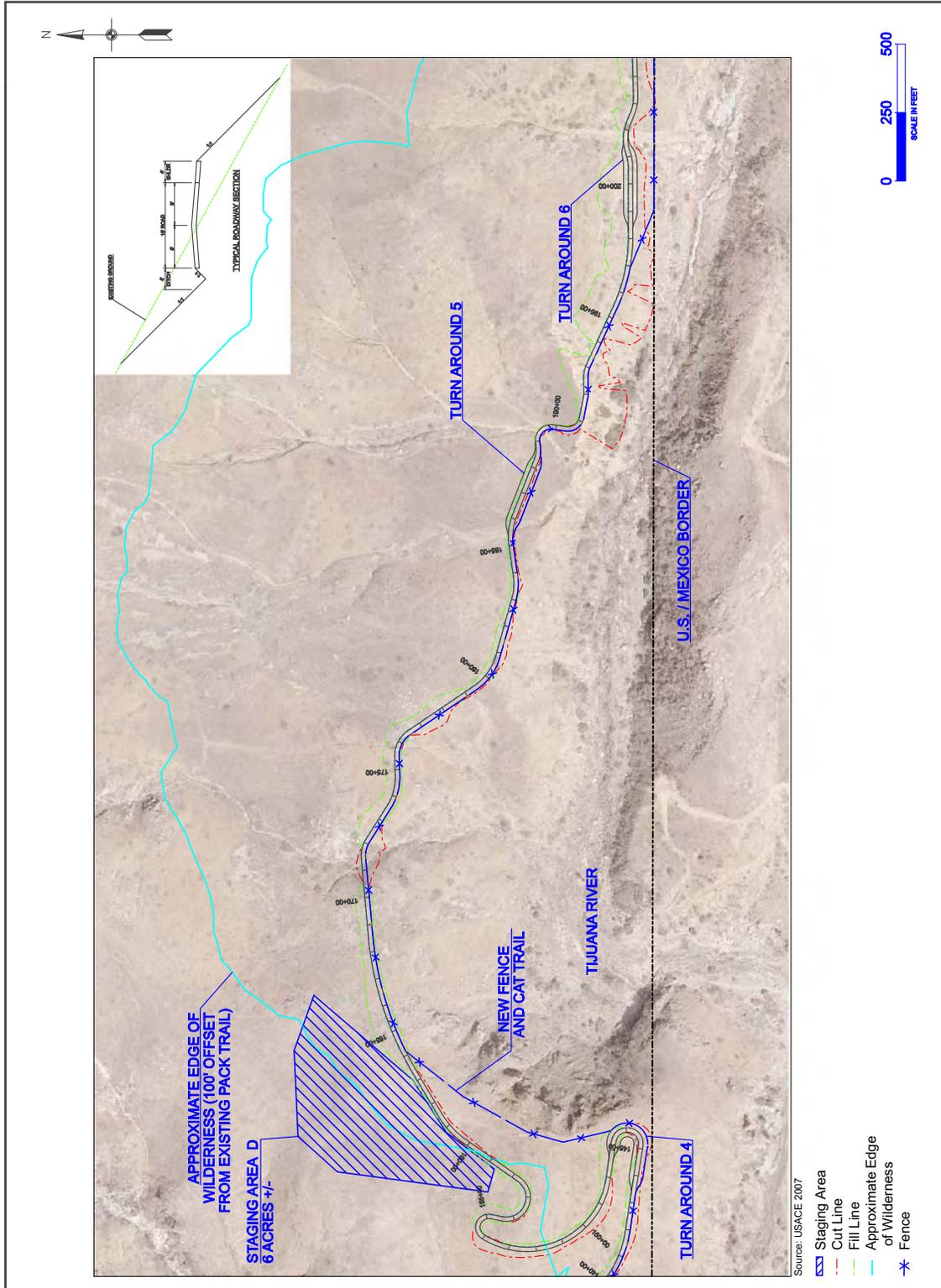


Figure 2-5. Detailed Map of Section A-1 (3 of 6)

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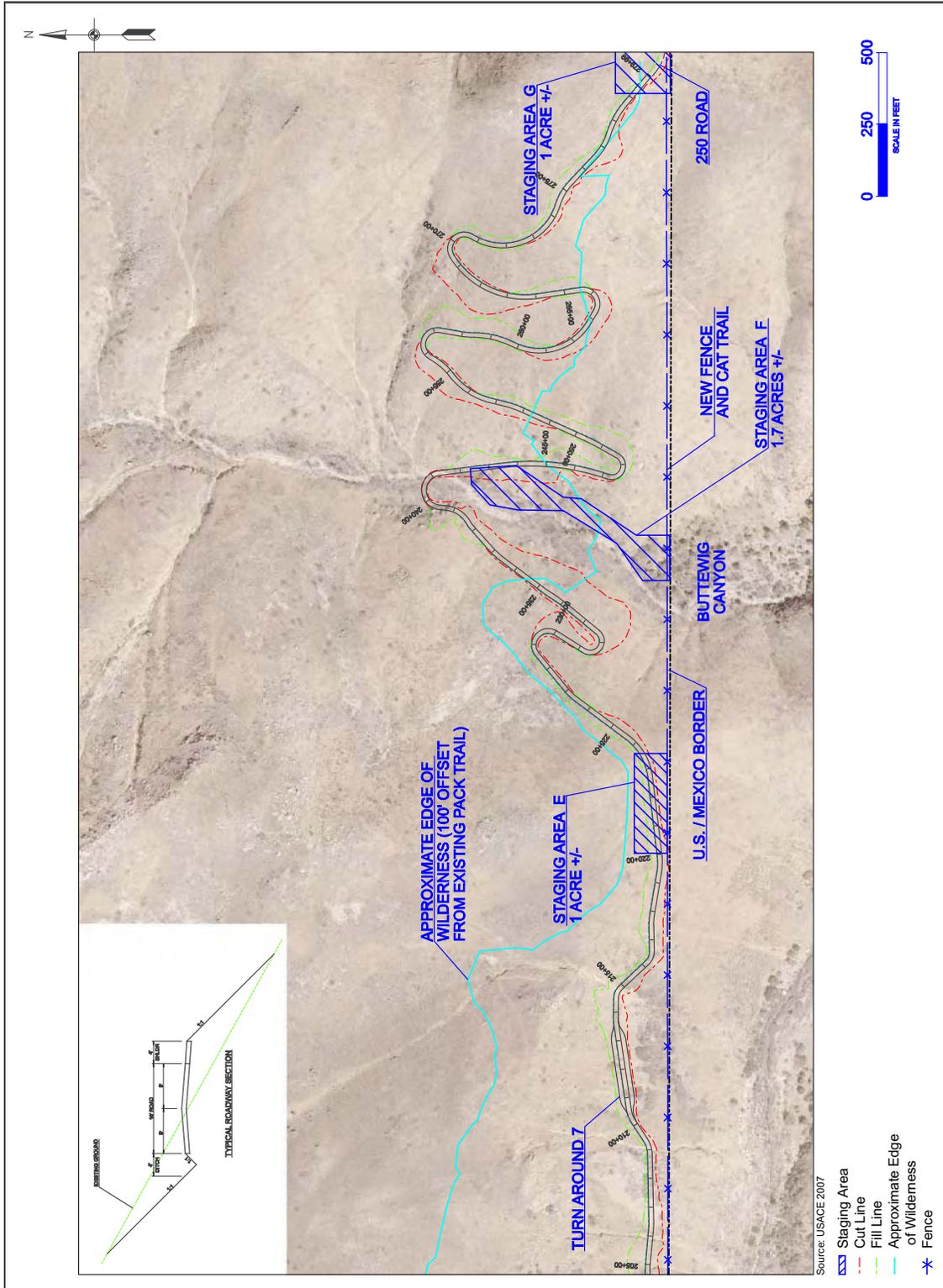


Figure 2-6. Detailed Map of Section A-1 (4 of 6)

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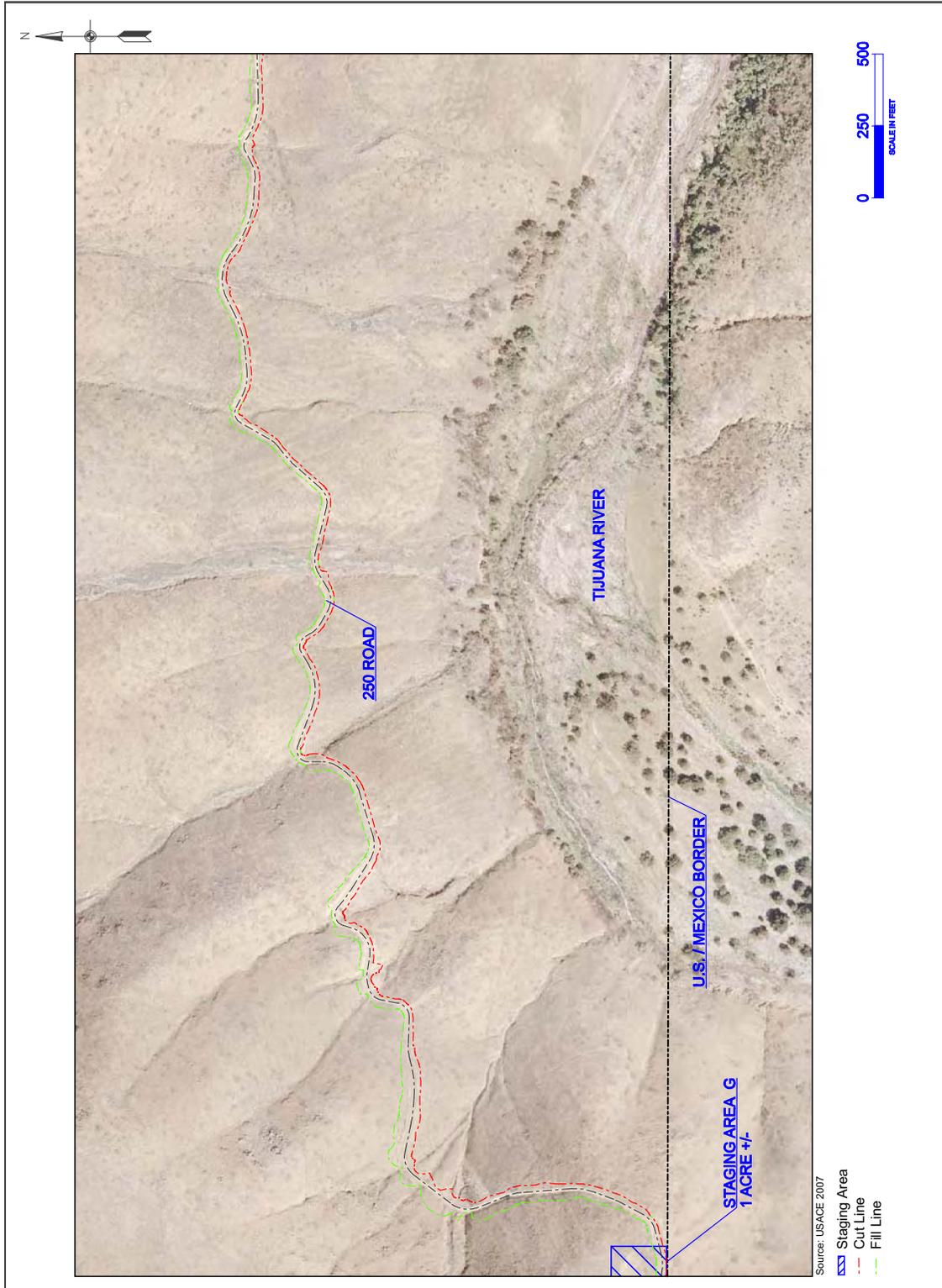


Figure 2-7. Detailed Map of Section A-1 (5 of 6)

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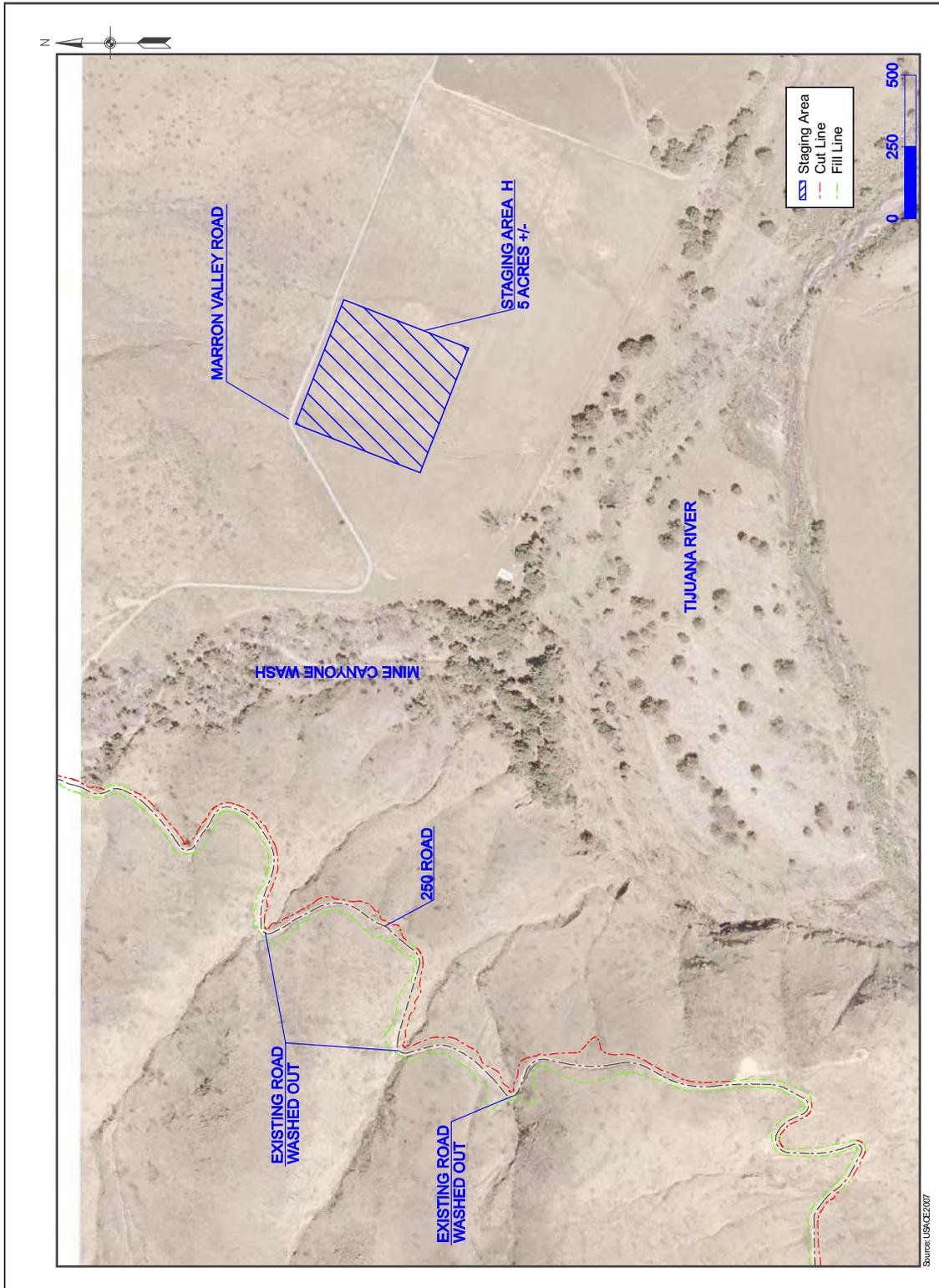


Figure 2-8. Detailed Map of Section A-1 (6 of 6)

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1 approximately 82.4 acres for Section A-1 and approximately 10 acres for Section
2 A-2. It is estimated that approximately 270,000 cubic yards (cy) of cut-and-fill
3 disturbance would be required to construct Section A-1 and an estimated 30,000
4 cy of cut-and-fill disturbance would be required for Section A-2. **Figure 2-9**
5 shows a schematic drawing of the proposed project corridor.

6 Wherever possible, existing roads would be used to access the Section A-1 and
7 A-2 areas. These access roads would require some improvements in places to
8 allow for the passage of commercial construction equipment. To the west of
9 Section A-1, approximately 5.1 miles of existing access road would be utilized. A
10 new access road would be constructed starting at the intersection of Alta and
11 Donovan Prison Roads for a distance of approximately 0.5 miles.

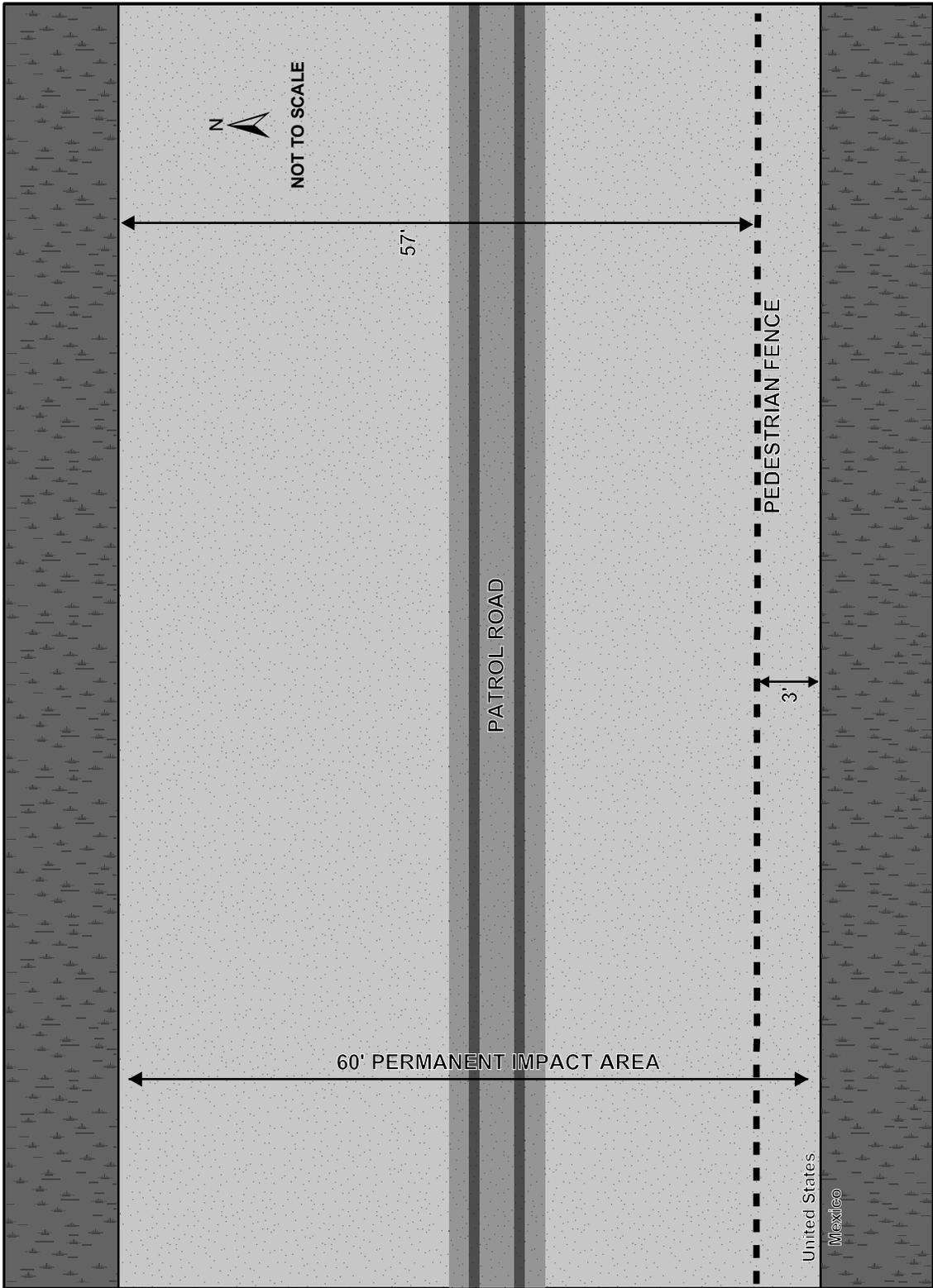
12 To the east of Section A-1, approximately 7.8 miles of existing road would be
13 utilized. Part of this road is designated as the Monument 250 Road. Certain
14 upgrades to this portion were recently addressed in an EA (*Monument 250 Road*
15 *Improvement Project, Office of Border Patrol, San Diego Sector, Brown Field*
16 *Station, San Diego County, California*). Relevant information discussed in this
17 EA will be incorporated by reference. Additional widening and drainage
18 upgrades not evaluated in the *Monument 250 Road Improvement Project EA*
19 would be necessary. It is estimated that an additional 75,000 cy of cut-and-fill
20 disturbance would occur in association with access road upgrades and new road
21 construction. To the west of Section A-1, certain points along Otay Mountain
22 Truck Road and the spur to Puebla Tree construction access roads might require
23 widening at various locations to allow for the safe travel of large construction
24 vehicles. To the east of Section A-1, similar improvement might be required to
25 Marron Valley Road (see **Figure 2-1**). It is anticipated that Mission Road would
26 serve as the access road to Section A-2.

27 Design criteria that have been established based on USBP operational needs
28 require that, at a minimum, any fencing must meet the following requirements:

- 29 • Built 15 to 18 feet high and extend below ground
- 30 • Capable of withstanding a crash of a 10,000-pound (gross weight) vehicle
31 traveling at 40 miles per hour
- 32 • Capable of withstanding vandalism, cutting, or various types of penetration
- 33 • Semi-transparent, as dictated by operational need
- 34 • Designed to survive extreme climate changes
- 35 • Designed to reduce or minimize impacts on small animal movements
- 36 • Engineered not to impede the natural flow of surface water
- 37 • Aesthetically pleasing to the extent practical.

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Figure 2-9. Schematic Drawing of Proposed Project Corridor

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1 Typical primary pedestrian fence designs that could be used are included in
2 **Appendix A**. Congress has appropriated funds for the construction of the
3 proposed tactical infrastructure. The preliminary estimate to construct the
4 proposed tactical infrastructure sections is approximately \$50 million.

5 There would be no overall change in USBP San Diego Sector operations. The
6 USBP San Diego Sector activities routinely adapt to operational requirements,
7 and would continue to do so under this alternative. Overall, the USBP San Diego
8 Sector operations would retain the same flexibility to most effectively provide a
9 law enforcement resolution to illegal cross-border activity. Fence maintenance
10 would initially be performed by USBP Sector personnel, but would eventually
11 become a contractor performed activity.

12 If approved, construction of the proposed tactical infrastructure would begin in
13 Spring 2008 and continue through December 31, 2008.

14 Construction of other tactical infrastructure might be required in the future as
15 mission and operational requirements are continually reassessed. To the extent
16 that additional actions are known, they are discussed in this EIS in **Section 5**,
17 Cumulative Impacts.

18 **2.2.9 No Action Alternative**

19 Under the No Action Alternative, proposed tactical infrastructure would not be
20 built and there would be no change in fencing, access roads, or other facilities
21 along the U.S./Mexico international border in the proposed project locations
22 within the USBP San Diego Sector. The USBP San Diego Sector would continue
23 to use agents and technology to identify illegal cross-border activity, and deploy
24 agents to make apprehensions. Although USBP agents would continue to patrol
25 the Pack Trail and make apprehensions, their response time and success rate in
26 apprehensions would continue to be impeded. The No Action Alternative is no
27 longer an efficient use of USBP resources and would not meet future USBP
28 mission or operational needs. However, inclusion of the No Action Alternative is
29 prescribed by the CEQ regulations and will be carried forward for analysis in the
30 EIS. The No Action Alternative also serves as a baseline against which to
31 evaluate the impacts of the Proposed Action.

32 **2.3 IDENTIFICATION OF THE ENVIRONMENTALLY PREFERRED** 33 **ALTERNATIVE**

34 CEQ's implementing regulation 40 CFR 1502.14(c) instructs EIS preparers to
35 "Identify the agency's preferred alternative or alternatives, if one or more exists,
36 in the draft statement and identify such alternative in the final statement unless
37 another law prohibits the expression of such a preference." CBP has identified
38 the Proposed Action to be the most environmentally preferred, least-damaging,
39 and most practical alternative considered.

1 Implementation of the Proposed Action would meet USBP's purpose and need
2 described in **Section 1.2**. The No Action Alternative would not meet USBP's
3 purpose and need.

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SECTION 3

Affected Environment



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3. AFFECTED ENVIRONMENT

2

3.1 INTRODUCTION

3 In compliance with NEPA, the CEQ guidelines, and DHS MD 5100.1, the
4 following evaluation of potential environmental impacts focuses on those
5 resource areas and conditions subject to impacts and on potentially significant
6 environmental issues deserving of study, and deemphasizes insignificant issues.
7 All potentially relevant resource areas were initially considered in this EIS. Some
8 environmental resource areas and conditions that are often selected for analysis
9 in an EIS have been omitted from detailed analysis here because of their
10 inapplicability to this proposal. General descriptions of the eliminated resources
11 and the bases for elimination are described below.

12 **Climate.** The Proposed Action would neither affect nor be affected by the
13 climate. However, air emissions and their impact on air quality are discussed in
14 **Section 3.2.**

15 **Utilities and Infrastructure.** The Proposed Action would not be located in any
16 utility corridors, and would not impact utilities or similar infrastructure. Operation
17 and maintenance of the proposed tactical infrastructure would not be connected
18 to any utilities.

19 **Roadways and Traffic.** The Proposed Action would be located in remote areas
20 not accessible from public roadways. Construction traffic would have negligible
21 impacts on other traffic in local areas. As a result, the Proposed Action would
22 have negligible impacts on transportation and transportation corridors.

23 **Hazardous Materials and Solid Waste.** Long-term, minor, adverse effects
24 would be expected as a result of the Proposed Action. Products containing
25 hazardous materials (such as fuels, oils, lubricants, pesticides, and herbicides)
26 would be procured and used during the proposed construction. It is anticipated
27 that the quantity of products containing hazardous materials used would be
28 minimal and their use would be of short duration. Minimal quantities of herbicide
29 would be used for vegetative growth in the immediate vicinity of the fence. In
30 addition, the quantity of hazardous and petroleum wastes generated from
31 proposed construction would be negligible. Construction contractors would be
32 responsible for the management of hazardous materials and wastes. The
33 management of hazardous materials and wastes would include the use of best
34 management practices (BMPs), a pollution prevention plan, and a storm water
35 pollution prevention plan (SWPPP). All hazardous materials and wastes would
36 be handled in accordance with applicable Federal, state, and local regulations.

37 **Sustainability and Greening.** EO 13423, *Strengthening Federal Environmental,*
38 *Energy, and Transportation Management* (January 24, 2007), promotes
39 environmental practices, including acquisition of biobased, environmentally

1 preferable, energy-efficient, water-efficient, and recycled-content products; and
2 maintaining cost-effective, waste prevention and recycling programs in their
3 facilities. The Proposed Action would use minimal amounts of resources during
4 construction and maintenance. Therefore, the Proposed Action would have
5 negligible impacts on sustainability and greening.

6 **3.2 AIR QUALITY**

7 In accordance with Federal CAA requirements, the air quality in a given region or
8 area is measured by the concentration of various pollutants in the atmosphere.
9 The CAA directed USEPA to develop National Ambient Air Quality Standards
10 (NAAQS) for pollutants that have been determined to affect human health and
11 the environment. USEPA established both primary and secondary NAAQS
12 under the provisions of the CAA. NAAQS are currently established for six criteria
13 air pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur
14 dioxide (SO₂), respirable particulate matter (including particulates equal to or less
15 than 10 microns in diameter [PM₁₀] and particulates equal to or less than 2.5
16 microns in diameter [PM_{2.5}]), and lead (Pb). The primary NAAQS are ambient air
17 quality standards of which maintenance is required to protect the public health,
18 with an adequate margin of safety. Secondary NAAQS specify levels of air
19 quality of which maintenance is required to protect vegetation, crops, and other
20 public resources along with maintaining visibility standards.

21 The CAA requires states to designate any area that does not meet (or that
22 contributes to ambient air quality in a nearby area that does not meet) the
23 national primary or secondary ambient air quality standard for a criteria pollutant
24 as a nonattainment area. For O₃, the CAA requires that each designated
25 nonattainment area be classified as marginal, moderate, serious, severe, or
26 extreme, based on ambient O₃ concentrations. The California Environmental
27 Protection Agency (Cal/EPA), California Air Resources Board (CARB) has
28 delegated responsibility for implementation of the Federal CAA and California
29 CAA to local air pollution control agencies. The Proposed Action is subject to
30 rules and regulations developed by the San Diego County Air Pollution Control
31 District (SDAPCD).

32 The State of California adopted the NAAQS and promulgated additional State
33 Ambient Air Quality Standards (SAAQS) for criteria pollutants. The California
34 standards are more stringent than the Federal primary standards. **Table 3.2-1**
35 presents the primary and secondary USEPA NAAQS and SAAQS.

36 USEPA classifies the air quality in an air quality control region (AQCR), or in
37 subareas of an AQCR, according to whether the concentrations of criteria
38 pollutants in ambient air exceed the primary or secondary NAAQS. All areas
39 within each AQCR are therefore designated as either “attainment,”
40 “nonattainment,” “maintenance,” or “unclassified” for each of the six criteria
41 pollutants. Attainment means that the air quality within an AQCR is better than
42

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Table 3.2-1. National and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	National Standard	
		Concentration	Primary	Secondary
O ₃	1 Hour ^c	0.09 ppm (180 µg/m ³)	----	Same as Primary Standard
	8 Hour ^b	0.070 ppm (137 µg/m ³)	0.08 ppm (157 µg/m ³)	
PM ₁₀	24 Hour ^a	50 µg/m ³	150 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean ^d	20 µg/m ³	----	
PM _{2.5}	24 Hour ^f	No separate State Standard	35 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean ^e	12 µg/m ³	15 µg/m ³	
CO	8 Hour ^a	9.0 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)	None
	1 Hour ^a	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
NO ₂	Annual Arithmetic Mean	0.030 ppm (56 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary Standard
	1 Hour	0.18 ppm (338 µg/m ³)	----	
SO ₂	Annual Arithmetic Mean	----	0.030 ppm (80 µg/m ³)	----
	24 Hour ^a	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	----
	3 hour ^a	----	----	0.5 ppm (1300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	----	
Pb	30 Day Average	1.5 µg/m ³	----	----
	Calendar Year	----	1.5 µg/m ³	Same as Primary Standard

Pollutant	Averaging Time	California Standard	National Standard	
		Concentration	Primary	Secondary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer visibility of 10 miles or more due to particles when relative humidity is less than 70 percent	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		

Sources: USEPA 2007a and CARB 2007a

Notes: Parenthetical values are approximate equivalent concentrations.

^a Not to be exceeded more than once per year.

^b To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

^c (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1. (b) As of June 15, 2005, USEPA revoked the 1-hour ozone standard in all areas except the 14 8-hour ozone nonattainment Early Action Compact Areas.

^d To attain this standard, the expected annual arithmetic mean PM₁₀ concentration at each monitor within an area must not exceed 50 µg/m³.

^e To attain this standard, the 3-year average of the annual arithmetic mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.

^f To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³.

ppm = parts per million

µg/m³ = micrograms per cubic meter

mg/m³ = milligrams per cubic meter

1 the NAAQS, nonattainment indicates that criteria pollutant levels exceed NAAQS,
 2 maintenance indicates that an area was previously designated in nonattainment
 3 but is now in attainment, and unclassifiable means that there is not enough
 4 information to appropriately classify an AQCR, so the area is considered in
 5 attainment.

6 Many chemical compounds found in the Earth’s atmosphere act as “greenhouse
 7 gases.” These gases allow sunlight to enter the atmosphere freely. When
 8 sunlight strikes the Earth’s surface, some of it is reflected back towards space as
 9 infrared radiation (heat). Greenhouse gases absorb this infrared radiation and

1 trap the heat in the atmosphere. Over time, the trapped heat results in the
2 phenomenon of global warming.

3 In April 2007, the U.S. Supreme Court declared that carbon dioxide (CO₂) and
4 other greenhouse gases are air pollutants under the CAA. The Court declared
5 that the USEPA has the authority to regulate emissions from new cars and trucks
6 under the landmark environment law.

7 Many gases exhibit these “greenhouse” properties. The majority of greenhouse
8 gases comes from natural sources but is also contributed to by human activity.
9 Additional information on sources of greenhouse gases is included in
10 **Appendix F**.

11 **Sections A-1 and A-2**

12 The Proposed Action is located within San Diego County, California, within the
13 San Diego Interstate Air Quality Control Region (SDIAQCR). The SDIAQCR is
14 composed of San Diego County, California. San Diego County is within a
15 Federal Subpart 1 (Basic) and State nonattainment area for 8-hour O₃, Federal
16 moderate maintenance area for CO, and State nonattainment area for PM₁₀ and
17 PM_{2.5}. San Diego County is in attainment/unclassified for all other criteria
18 pollutants.

19 **3.3 NOISE**

20 Sound is defined as a particular auditory effect produced by a given source, for
21 example the sound of rain on a rooftop. Sound is measured in decibels.
22 “A-weighted” decibels (dBA) denote the frequency range for what the average
23 human ear can sense. “A-weighted” denotes the adjustment of the frequency
24 content of a sound-producing event to represent the way in which the average
25 human ear responds to the audible event. Noise levels associated with
26 construction equipment, vehicle operations, and aircraft operations are analyzed
27 using dBA. C-weighted sound level measurement correlates well with physical
28 vibration response of buildings and other structures to airborne sound. Impulsive
29 noise resulting from demolition activities and the discharge of weapons are
30 assessed in terms of C-weighted decibels (dBC).

31 Noise and sound share the same physical aspects, but noise is considered a
32 disturbance while sound is defined as an auditory effect. Noise is defined as any
33 sound that is undesirable because it interferes with communication, is intense
34 enough to damage hearing, or is otherwise annoying. Noise can be intermittent
35 or continuous, steady or impulsive, and can involve any number of sources and
36 frequencies. Human response to increased sound levels varies according to the
37 source type, characteristics of the sound source, distance between source and
38 receptor, receptor sensitivity, and time of day. Affected receptors are specific
39 (i.e., schools, churches, or hospitals) or broad (e.g., nature preserves or

1 designated districts) areas in which occasional or persistent sensitivity to noise
2 above ambient levels exists.

3 Most people are exposed to sound levels of 50 to 55 dBA or higher on a daily
4 basis. Studies specifically conducted to determine noise impacts on various
5 human activities show that about 90 percent of the population is not significantly
6 bothered by outdoor sound levels below 65 dBA (USEPA 1974). Studies of
7 community annoyance in response to numerous types of environmental noise
8 show that an A-weighted day-night average sound level (ADNL) correlates well
9 with impact assessments and that there is a consistent relationship between
10 ADNL and the level of annoyance.

11 **Ambient Sound Levels.** Noise levels in residential areas vary depending on the
12 housing density and location. As shown in **Figure 3.3-1**, a suburban residential
13 area is about 55 dBA, which increases to 60 dBA for an urban residential area,
14 and 80 dBA in the downtown section of a city.

15 **Construction Sound Levels.** Building construction, modification, and
16 demolition work can cause an increase in sound that is well above the ambient
17 level. A variety of sounds come from graders, pavers, trucks, welders, and other
18 work processes. **Table 3.3-1** lists noise levels associated with common types of
19 construction equipment that are likely to be used under the Proposed Action.
20 Construction equipment usually exceeds the ambient sound levels by 20 to 25
21 dBA in an urban environment and up to 30 to 35 dBA in a quiet suburban area.

22 **Sections A-1 and A-2**

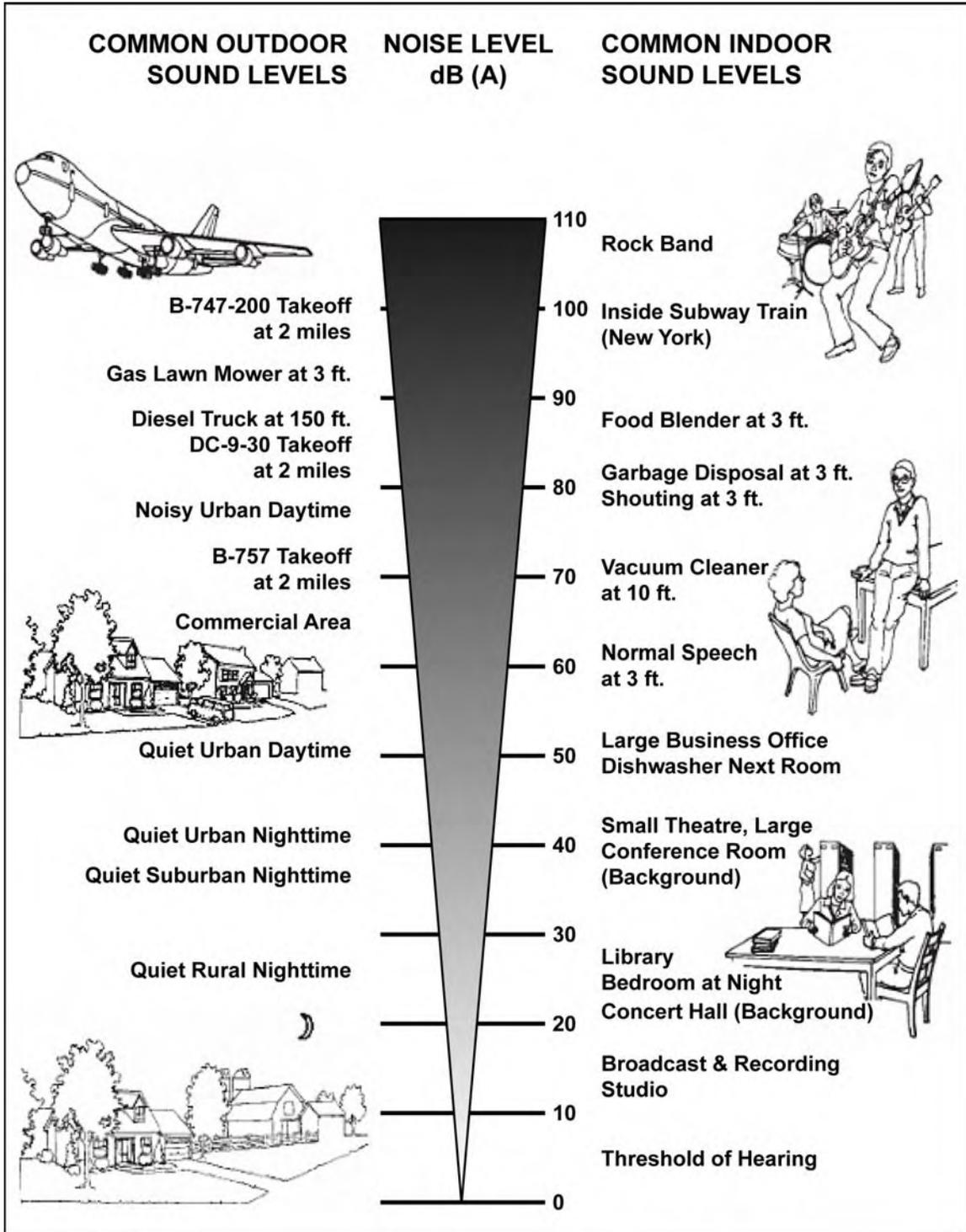
23 Section A-1 of the proposed border fence is in a remote area along the
24 U.S./Mexico international border between Puebla Tree and Boundary Monument
25 250. As such, the ambient acoustical environment in the proposed project
26 corridor is likely to be equivalent to the noise levels in a rural area. Aircraft and
27 vehicle traffic are likely the largest noise contributors in the vicinity of the
28 proposed Section A-1.

29 The closest major transportation route in the vicinity of the proposed Section A-1
30 is State Route (SR) 94. SR 94 runs in a northwest-southeast direction and lies
31 about 3.5 miles north of the U.S./Mexico international border. Direct access to
32 the border is obtained by several small dirt roads. SR 94 passes by several
33 residential areas.

34 Section A-2 is west of the city of Tecate, California. Tecate, Mexico, is heavily
35 populated; however, an existing fence reduces the noise from Tecate, Mexico,
36 from impacting U.S. residents in the vicinity of the proposed site. There is one
37 residential home in the United States that is approximately 250 feet from the
38 proposed project corridor. The ambient acoustical environment in this area is
39 likely to be equivalent to the noise levels in a rural or suburban area.

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Source: Landrum & Brown 2002

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Figure 3.3-1. Common Noise Levels

1 **Table 3.3-1. Predicted Noise Levels for Construction Equipment**

Construction Category and Equipment	Predicted Noise Level at 50 feet (dBA)
Clearing and Grading	
Bulldozer	80
Grader	80–93
Truck	83–94
Roller	73–75
Excavation	
Backhoe	72–93
Jackhammer	81–98
Building Construction	
Concrete mixer	74–88
Welding generator	71–82
Pile driver	91–105
Crane	75–87
Paver	86–88

Source: COL 2001

2 Major transportation routes in the vicinity of proposed Section A-2 include SR 94
 3 and SR 188. SR 94 is approximately 1.5 miles north and SR 188 is
 4 approximately 2 miles east of the proposed Section A-2. Direct access to the
 5 proposed project corridor can be obtained from Tecate Mission Road, which
 6 abuts the current sections of border fence and the city of Tecate, California.
 7 Residential buildings are approximately 0.1 mile from the current border fence.

8 **3.4 LAND USE AND RECREATION**

9 The term land use refers to real property classifications that indicate either
 10 natural conditions or the types of human activity occurring on a parcel. In many
 11 cases, land use descriptions are codified in local zoning laws. There is, however,
 12 no nationally recognized convention or uniform terminology for describing land
 13 use categories. As a result, the meanings of various land use descriptions,
 14 “labels,” and definitions vary among jurisdictions.

15 Two main objectives of land use planning are to ensure orderly growth and
 16 compatible uses among adjacent property parcels or areas. Compatibility among
 17 land uses fosters the societal interest of obtaining the highest and best uses of
 18 real property. Tools supporting land use planning include written master
 19 plans/management plans and zoning regulations. In appropriate cases, the
 20 location and extent of a proposed action needs to be evaluated for its potential
 21 effects on a project site and adjacent land uses. The foremost factor affecting a

1 proposed action in terms of land use is its compliance with any applicable land
 2 use or zoning regulations. Other relevant factors include matters such as
 3 existing land use at the project site, the types of land uses on adjacent properties
 4 and their proximity to a proposed action, the duration of a proposed activity, and
 5 its “permanence.”

6 Recreational resources are both natural and man-made lands designated by
 7 Federal, state, and local planning entities to offer visitors and residents diverse
 8 opportunities to enjoy leisure activities. Recreational resources are those places
 9 or amenities set aside as parklands, trails (e.g., hiking, bicycling, equestrian),
 10 recreational fields, sport or recreational venues, open spaces, aesthetically
 11 pleasing landscapes, and a variety of other locales. National, state, and local
 12 jurisdictions typically have designated land areas with defined boundaries for
 13 recreation. Other less-structured activities, like hunting, are performed in broad,
 14 less-defined locales. A recreational setting might consist of natural or man-made
 15 landscapes and can vary in size from a roadside monument to a multimillion-acre
 16 wilderness area.

17 **Sections A-1 and A-2**

18 The proposed primary pedestrian fence would traverse approximately 4.4 miles
 19 of public and private lands within southern San Diego County (see **Table 3.4-1**).
 20 Approximately 3.5 miles of publicly owned land consisting of 3.6 miles (17,600
 21 feet) in Section A-1 and 0.2 miles (approximately 1,000 feet) in Section A-2, and
 22 0.6 miles (approximately 3,100 feet) of privately owned land in Section A-2 would
 23 be traversed by the primary pedestrian fence.

24 **Table 3.4-1. Land Ownership Along the Proposed**
 25 **Primary Pedestrian Fence**

Fence Section	Land Ownership	Length of Fence Section (feet)	Length of Fence Section (miles)
A-1	Public	17,600	3.6
A-2	Public	820	0.2
	Privately Owned	2,900	0.6
Total		21,320	4.4

26 Approximately 58 percent of the proposed project corridor within Section A-1
 27 would be within the Federal government’s 60-foot Roosevelt Reservation along
 28 the U.S./Mexico international border, and the remainder would be on land
 29 managed by the BLM, which includes the OMW. However, the entire length of
 30 fence within Section A-2 would be within the Federal government’s 60-foot
 31 Roosevelt Reservation.

1 Land uses identified in the analysis include those uses that are traversed by or
 2 located immediately adjacent to the proposed project corridor and could be
 3 affected by construction, operation, or maintenance of the Proposed Action. The
 4 land use data presented in this EIS utilize land use designations that are
 5 compiled and maintained by the San Diego Association of Governments
 6 (SANDAG) for use in its programs and projects within San Diego County
 7 (SANDAG 2007a). The land use information is continuously updated using aerial
 8 photography, the San Diego County Assessor Master Property Records file, and
 9 other ancillary information. In addition, the land use data are reviewed by each
 10 of the local jurisdictions and the County of San Diego to ensure their accuracy.
 11 The current SANDAG land use inventory identifies more than 90 land use
 12 categories, however these categories were generalized into the following nine
 13 land use categories: Residential, Industrial, Transportation, Commercial, Office,
 14 Public Facilities, Recreation and Open Space, Agriculture, and Vacant and
 15 Undeveloped Land (see **Table 3.4-2**).

16 **Table 3.4-2. General Land Use Categories**

General Land Use Category	SANDAG General Land Use Designations	Example Land Uses
Residential	Spaced Rural Residential, Single-Family Residential, Multi-Family Residential, Mobile Home Park, Group Quarters, Hotel/Motel/Resort	Single family houses; multi-family residences such as duplexes, townhouses, condominiums; mobile home parks; group quarters such as jails/prisons, dormitories, military barracks; hotels, motels, resorts
Public Facilities	Public Services, Hospitals, Military Use, Schools	Cemeteries, religious facilities; libraries; post offices; fire or police stations; cultural facilities; social service agencies; hospitals; health care facilities; military facilities; educational institutions
Recreation and Open Space	Commercial Recreation, Parks	Tourist attractions; stadiums/arenas; racetracks; golf courses; convention centers; marinas; fitness clubs/swim clubs; campgrounds; theaters; regional and local parks; recreation areas/centers; wildlife and nature preserves; open space lands; beaches; neighborhood landscaped open spaces
Agriculture	Agriculture	Orchards or vineyards; nurseries, greenhouses, dairies, ranches; row crops; pasture or fallow field crops
Vacant and Undeveloped Land	Vacant	Historical and existing vacant and undeveloped land not placed in another land use category

17 Source: SANDAG 2007a

1 The proposed tactical infrastructure, including access roads and staging areas,
 2 and proposed project corridor would be located on land designated as Public
 3 Facilities (Jail/Prison), Agriculture (Field Crops), Recreation and Open Space
 4 (Open Space Park or Preserve), Residential (Spaced Rural Residential), and
 5 Vacant and Undeveloped Land (see **Table 3.4-2**).

6 Specific land use data were gathered from various regional and local planning
 7 and environmental documents, aerial photography, and other research. **Table**
 8 **3.4-3** identifies the specific land uses that occur in the vicinity of the Proposed
 9 Action. The figures displayed in **Appendix E** show the location of the proposed
 10 tactical infrastructure and the proximity of adjacent and intersecting land uses.

11 **Table 3.4-3. Land Uses in the Vicinity of the Proposed Action**

Fence Section	Jurisdiction	General Land Use Category	Specific Land Uses
A-1	Unincorporated San Diego County	Public Facilities	George F. Bailey Detention Facility, East Mesa Detention Facility, San Diego Correctional Facility
	State of California	Public Facilities	Richard J. Donovan Correctional Facility
	Unincorporated San Diego County	Agriculture/ Vacant and Undeveloped Land	Kuebler Ranch Site
	BLM	Recreation and Open Space	OMW
	USIBWC	Recreation and Open Space	Roosevelt Reservation
	City of San Diego	Recreation and Open Space	Marron Valley Preserve
A-2	USIBWC	Recreation and Open Space	Roosevelt Reservation
	BLM	Recreation and Open Space	Kuchamaa Area of Critical Environmental Concern (ACEC)
	Unincorporated San Diego County	Residential/ Vacant and Undeveloped Land	Private residence

12

1 The following is a description of the specific land uses that occur in the vicinity of
2 the Proposed Action.

3 **George F. Bailey Detention Facility.** This is a maximum-security correctional
4 facility operated by the San Diego County Sheriff's Department. This facility is
5 sited within a complex that also houses the East Mesa Detention Facility and the
6 San Diego Correctional Facility. It is the largest of all the facilities operated
7 under the San Diego County Sheriff's jurisdiction with a rated capacity of
8 between 1,330 and 1,670 inmates (SDCSD 2002). The facility is approximately
9 0.5 miles northwest of the proposed new access road at the intersection of Alta
10 and Donovan Prison Roads.

11 **East Mesa Detention Facility.** This is a medium-security facility built in
12 conjunction with the George F. Bailey Detention Facility for use by the San Diego
13 County Sheriff's Department. It houses 490 inmates, but is rated for
14 approximately 340 to 510 inmates. The facility includes a central laundry and
15 food production for this and other facilities, and is operated with the use of inmate
16 workers at the site (SDCSD 2007).

17 **San Diego Correctional Facility.** This is a minimum- to medium-security facility
18 that is privately managed by Corrections Corporation of America (CCA). It
19 includes 1,232 beds and houses male and female inmates for Immigrations and
20 Customs Enforcement (ICE) and the U.S. Marshals Service (CCA 2007).

21 **Richard J. Donovan Correctional Facility.** This is a state correctional facility
22 operated by the California Department of Corrections and Rehabilitation (CDCR)
23 that houses medium- to high-security inmates (CDCR 2007). The facility is
24 located approximately 0.8 miles west of the proposed new access road at the
25 intersection of Alta and Donovan Prison Roads.

26 **Kuebler Ranch Site.** Kuebler Ranch is the site of an old ranch, but also
27 includes an important archaeological site on which artifacts such as stone
28 artifacts, drilled scallop shells, and shell beads have been found (SDAC 2007).
29 This site is immediately north of the proposed location of the new access road at
30 the intersection of Alta and Donovan Prison Roads.

31 **Pack Trail.** The Pack Trail is a foot-path/pack-trail along the U.S./Mexico
32 international border within BLM land. The Pack Trail traverses the San Ysidro
33 Mountains beginning on the west end at Puebla Tree and ends at Border
34 Monument 250. The Pack Trail is primarily used for hiking, with limited use by
35 all-terrain vehicles (ATVs). The proposed Pack Trail access road would
36 generally follow the general path of the Pack Trail unless severe topography
37 makes it unfeasible.

38 **Otay Mountain Wilderness.** This 18,500-acre wilderness area was designated
39 by Congress in 1999 through the Otay Mountain Wilderness Act, and is managed
40 by the BLM, Palm Springs-South Coast Field Offices. Management direction for

1 the area has focused on conservation of the area's flora, fauna, ecologic,
2 geologic, cultural, and scenic values as well as the protection of its wilderness
3 values. As part of the Border Mountains Special Recreation Management Area
4 (SRMA), OMW provides opportunities for low-impact recreation, including hiking,
5 backpacking, equestrian use, camping, picnicking, nature study, hunting, and
6 motorized vehicle use including ATV use on two existing routes (BLM 1994).
7 The OMW includes stands of rare Tecate Cypress and 15 to 20 other sensitive
8 vegetative species. The northern end of the OMW also contains the Cedar
9 Canyon Area of Critical Environmental Concern (ACEC) and a grazing allotment
10 (BLM 1999). Approximately 50 percent of the primary pedestrian fence, Pack
11 Trail access road, and staging areas would be on the OMW.

12 **Roosevelt Reservation.** This is an area of land President Theodore Roosevelt
13 reserved from entry and set apart as a public reservation in 1907 consisting of all
14 public lands within 60 feet of the international boundary between the United
15 States and Mexico within the State of California and the Territories of Arizona
16 and New Mexico. Known as the "Roosevelt Reservation," this land withdrawal
17 was found "necessary for the public welfare ... as a protection against the
18 smuggling of goods." The proclamation excepted from the reservation all lands,
19 which, as of its date, were (1) embraced in any legal entry; (2) covered by any
20 lawful filing, selection, or rights of way duly recorded in the proper U.S. Land
21 Office; (3) validly settled pursuant to law; or (4) within any withdrawal or
22 reservation for any use or purpose inconsistent with its purposes (CRS 2006).
23 The portions of the proposed tactical infrastructure, including the primary
24 pedestrian fence, Pack Trail access road, and staging areas, would be located
25 within the Roosevelt Reservation.

26 **Marron Valley Preserve.** The Marron Valley Preserve consists of approximately
27 2,600 acres owned and maintained by the City of San Diego Water Department.
28 This area has been designated "Cornerstone Lands" under the City of San Diego
29 Multiple Species Conservation Program (MSCP) Subarea Plan because it is
30 considered an essential building block for creating a viable habitat preserve
31 system. Much of the area is currently leased by the city for cattle grazing,
32 however as part of its designation as Cornerstone Lands, the city would place
33 conservation easements on portions of the preserve, which then can be used as
34 a Conservation Land Bank and sold as mitigation credits to public entities, public
35 utility/service providers, and private property owners doing projects in San Diego
36 County and needing mitigation (City of San Diego 1997). A small portion of the
37 proposed primary pedestrian fence, Pack Trail access road, and one staging
38 area would be within the Marron Valley Preserve near Boundary Monument 250.
39 An additional staging area to be used during upgrades of Monument 250 Road
40 would also be located within the Preserve, east of Mine Canyon Wash.

1 **Kuchamaa ACEC**². The Kuchamaa ACEC was established for the protection of
2 Native American religious heritage values, including lands at Tecate Peak and
3 Little Tecate Peak (BLM 1994). The boundary of the Kuchamaa ACEC that
4 encompasses Tecate Peak is approximately 500 feet west of the end of Section
5 A-2.

6 **3.5 GEOLOGY AND SOILS**

7 Geology and soils resources include the surface and subsurface materials of the
8 earth. Within a given physiographic province, these resources typically are
9 described in terms of topography, soils, geology, minerals, and paleontology,
10 where applicable.

11 Topography is defined as the relative positions and elevations of the natural or
12 human-made features of an area that describe the configuration of its surface.
13 Regional topography is influenced by many factors, including human activity,
14 seismic activity of the underlying geological material, climatic conditions, and
15 erosion. Information describing topography typically encompasses surface
16 elevations, slope, and physiographic features (i.e., mountains, ravines, or
17 depressions).

18 Site-specific geological resources typically consist of surface and subsurface
19 materials and their inherent properties. Principal factors influencing the ability of
20 geological resources to support structural development are seismic properties
21 (i.e., potential for subsurface shifting, faulting, or crustal disturbance),
22 topography, and soil stability.

23 Soils are the unconsolidated materials overlying bedrock or other parent material.
24 They develop from weathering processes on mineral and organic materials and
25 are typically described in terms of their landscape position, slope, and physical
26 and chemical characteristics. Soil types differ in structure, elasticity, strength,
27 shrink-swell potential, drainage characteristics, and erosion potential, which can
28 affect their ability to support certain applications or uses. In appropriate cases,
29 soil properties must be examined for compatibility with particular construction
30 activities or types of land use.

31 Prime and unique farmland is protected under the Farmland Protection Policy Act
32 (FPPA) of 1981. The implementing procedures of the FPPA and Natural
33 Resources Conservation Service (NRCS) require Federal agencies to evaluate
34 the adverse effects (direct and indirect) of their activities on prime and unique
35 farmland, as well as farmland of statewide and local importance, and to consider

² Areas of Critical Environmental Concern (ACECs) were authorized in Section 202(c)(3) of the Federal Land Policy and Management Act of 1976. ACECs are areas where special management attention is needed to protect and prevent irreparable damage to important historic, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes; or to protect human life and safety from natural hazards. The ACEC designation indicates that the BLM recognizes that an area has significant values, and establishes special management measures to protect those values (BLM 1994).

1 alternative actions that could avoid adverse effects. The Visalia sandy loam (5–9
2 percent slopes) is designated as a prime farmland soil. However, none of the
3 area within the proposed project corridor is being used for agricultural purposes.

4 **Sections A-1 and A-2**

5 **Physiography and Topography.** USBP San Diego Sector occupies
6 southeastern San Diego County, California, along the U.S./Mexico international
7 border. The sector is in the Peninsular Range Physiographic Province of
8 California, which is characterized by the northwest-trending Peninsular Range.
9 Specifically, USBP San Diego Sector is in the San Ysidro Mountains, a sub-
10 section of the Laguna Mountains section of the Peninsular Range. The
11 topographic profile of USBP San Diego Sector is characterized by steep slopes.
12 Elevations in USBP San Diego Sector range from about 500 to 1,350 feet above
13 mean sea level (MSL) along Section A-1 and about 1,850 to 2,300 feet above
14 MSL along Section A-2 (TopoZone.com 2007).

15 **Geology.** USBP San Diego Sector is within the Peninsular Range geomorphic
16 region which consists predominantly of Mesozoic Era metavolcanic,
17 metasedimentary, and plutonic rocks. The Peninsular Range region is underlain
18 primarily by plutonic (e.g., granitic) rocks that formed from the cooling of molten
19 magmas generated during subduction of an oceanic crustal plate that was
20 converging on the North American Plate between 140 and 90 million years ago.
21 During this time period, large amounts of granitic rocks accumulated at depth to
22 form the Southern California Batholith. The intense heat of these plutonic
23 magmas metamorphosed the ancient sedimentary rocks which were intruded by
24 the plutons. These metasediments became marbles, slates, schist, quartzites,
25 and gneiss currently found in the Peninsular Range region (Demere 2007).

26 **Soils.** Nine soil map units occur in USBP San Diego Sector. Generally, the soils
27 of USBP San Diego Sector are well-drained to excessively drained, have varying
28 permeability, and occur on moderately steep to very steep slopes with the
29 exception of the Riverwash map unit (0–4 percent slopes) and the Visalia sandy
30 loam soil map unit (5–9 percent slopes). The Visalia sandy loam (5–9 percent
31 slopes) was the only soil map unit listed as prime farmland. The soil map units
32 within the proposed corridor are classified as nonhydric soils (NRCS 2007).
33 Hydric soils are soils that are saturated, flooded, or ponded for long enough
34 during the growing season to develop anaerobic (oxygen-deficient) conditions in
35 their upper part. The presence of hydric soil is one of the three criteria (hydric
36 soils, hydrophytic vegetation, and wetland hydrology) used to determine that an
37 area is a wetland based on the USACE *Wetlands Delineation Manual*, Technical
38 Report Y-87-1 (USACE 1987).

39 The properties of soils identified in USBP San Diego Sector are described in
40 **Table 3.5-1**. See **Appendix G** for a map of soil units within Section A-1 and
41 Section A-2.

Table 3.5-1. Properties of the Soil Types Found Throughout the Areas of the Proposed Action

Name	Map Unit Symbol	Type	Slope	Drainage	Hydric*	Farmland Importance	Properties
Acid igneous rock land	AcG	NA	15–75 percent	NA	NA	NA	Found on mountain slopes and mountains and parent material consists of acid igneous rock.
Andersen	AuF	Very gravelly sandy loam	9–45 percent	Somewhat excessively drained	No	None	Found on alluvial fans. Permeability is moderately rapid.
Cieneba	CmE2	Rocky coarse sandy loam	9–30 percent	Somewhat excessively drained	No	None	Found on foothills and hills. Permeability is moderately rapid in soil, slower in weathered granite.
Cieneba-Fallbrook	CnE2	Rocky sandy loam	9–30 percent	Somewhat excessively to well-drained	No	None	Found on foothills and hills. Permeability of the Cieneba component is moderately rapid in soil, slower in weathered granite. Permeability of the Fallbrook component is moderately slow.
Cieneba-Fallbrook	CnG2	Rocky sandy loam	30–65 percent	Somewhat excessively to well-drained	No	None	Found on foothills and hills. Permeability of the Cieneba component is moderately rapid in soil, slower in weathered granite. Permeability of the Fallbrook component is moderately slow.
Metamorphic rock land	MrG	NA	30–75 percent	Excessively drained	NA	NA	Found on mountain slopes and mountains and parent material consists of metasedimentary or metavolcanic rocks.

Name	Map Unit Symbol	Type	Slope	Drainage	Hydric*	Farmland Importance	Properties
Riverwash	Rm	NA	0-4 percent	Excessively drained	NA	NA	Found on drainageways and parent material consists of sandy, gravelly, or cobbly alluvium derived from mixed sources.
San Miguel-Exchequer	SnG	Rocky silt loam	9-70 percent	Well-drained	No	None	Found on mountain slopes and mountains. Permeability is moderately to very low.
Visalia	VaC	Sandy loam	5-9 percent	Well-drained	No	Prime	Found on alluvial fans. Permeability is moderately rapid.

Source: NRCS 2007

Notes:

* No = Not listed as a hydric soil for San Diego County, California
 NA = Not available

1 3.6 HYDROLOGY AND GROUNDWATER

2 Hydrology and groundwater relates to the quantity and quality of the water
3 resource and its demand for various human purposes. Hydrology consists of the
4 redistribution of water through the processes of evapotranspiration, surface
5 runoff, and subsurface flow. Hydrology results primarily from temperature and
6 total precipitation which determine evapotranspiration rates, topography which
7 determine rate and direction of surface flow, and soil properties which determines
8 rate of subsurface flow and recharge to the groundwater reservoir. Groundwater
9 consists of subsurface hydrologic resources. It is an essential resource that
10 functions to recharge surface water and is used for drinking, irrigation, and
11 industrial processes. Groundwater typically can be described in terms of depth
12 from the surface, aquifer or well capacity, water quality, recharge rate, and
13 surrounding geologic formations.

14 The Safe Drinking Water Act (SDWA) of 1974 (42 U.S.C. 2011-300) establishes
15 a Federal program to monitor and increase the safety of all commercially and
16 publicly supplied drinking water. The Proposed Action has no potential to affect
17 public drinking water supplies.

18 **Sections A-1 and A-2**

19 **Hydrology and Groundwater.** USBP San Diego Sector is in the South Coast
20 hydrologic region of California. This area is characterized by a semi-arid climate
21 due to low annual precipitation (15 to 20 inches [38 to 51 centimeters]).
22 Temperatures range from as low as 43 degrees Fahrenheit (°F) in the winter to
23 almost 90 °F in the summer. Due to the semi-arid climate, vegetation consists of
24 shrublands which can be sparse. Reduced groundcover along with steep slopes
25 due to local topography can lead to heavy runoff and high erosion potential
26 during precipitation events. Section A-1 surface runoff flows towards three north-
27 to-south flowing intermittent tributaries of the Tijuana River, which runs east to
28 west parallel to but outside the proposed project corridor and predominantly on
29 the Mexican side of the border. These three tributaries intersect the project
30 corridor and drain Copper, Buttewig, and Mine canyons. In Section A-2, surface
31 runoff flows into a single north-to-south-oriented intermittent tributary of the
32 Tijuana River. This intermittent tributary also intersects the project corridor.

33 USBP San Diego Sector is not in the immediate vicinity of any confined
34 groundwater basins in the United States (CADWR 2003). Groundwater is
35 generally present under unconfined, or water-table, conditions as is evidenced by
36 the properties of the proposed project corridor soils. The depth to water table is
37 greater than 80 inches on all soil map units except for the Riverwash map unit,
38 associated with the Tijuana River Valley, which is at a depth of 60 to 72 inches.
39 The water-yielding materials in this area consist primarily of unconsolidated
40 alluvial fan deposits. The consolidated volcanic and carbonate rocks that
41 underlie the unconsolidated alluvium are a source of water if the consolidated
42 rocks are sufficiently fractured or have solution openings (NRCS 2007).

3.7 SURFACE WATER AND WATERS OF THE UNITED STATES

Surface Water. Surface water resources generally consist of lakes, rivers, and streams. Surface water is important for its contributions to the economic, ecological, recreational, and human health of a community or locale.

The CWA (33 U.S.C. 1251 et seq.) sets the basic structure for regulating discharges of pollutants to U.S. waters. Section 404 of the CWA (33 U.S.C. 1344) establishes a Federal program to regulate the discharge of dredged and fill material into waters of the United States. The USACE administers the permitting program for the CWA. Section 401 of the CWA (33 U.S.C. 1341) requires that proposed dredge and fill activities permitted under Section 404 be reviewed and certified by the designated state agency that the proposed project would meet state water quality standards. The Federal permit is deemed to be invalid unless it has been certified by the state. Section 303(d) of the CWA requires states and USEPA to identify waters not meeting state water-quality standards and to develop Total Maximum Daily Loads (TMDLs) and an implementation plan to reduce contributing sources of pollution.

Waters of the United States. Waters of the United States are defined within the CWA of 1972, as amended and jurisdiction is addressed by the USEPA and the USACE. Both agencies assert jurisdiction over (1) traditional navigable waters, (2) wetlands adjacent to navigable waters, (3) nonnavigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-around or have continuous flow at least seasonally (e.g., typically 3 months), and (4) wetlands that directly abut such tributaries.

The CWA (as amended in 1977) established the basic structure for regulating discharges of pollutants into the waters of the United States. The CWA objective is restoration and maintenance of chemical, physical, and biological integrity of United States waters. To achieve this objective several goals were enacted, including (1) discharge of pollutants into navigable waters be eliminated by 1985; (2) water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by 1983; (3) the discharge of toxic pollutants in toxic amounts be prohibited; (4) Federal financial assistance be provided to construct publicly owned waste treatment works; (5) the national policy that areawide waste treatment management planning processes be developed and implemented to ensure adequate control of sources of pollutants in each state; (6) the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into navigable waters, waters of the contiguous zone, and the oceans; and (7) the national policy that programs be developed and implemented in an expeditious manner so as to enable the goals to be met through the control of both point and nonpoint sources of pollution. The USACE regulates the discharge of dredge and fill material (e.g., sand, gravel, concrete, riprap, soil, cement block) into waters of the United States including adjacent wetlands under Section 404 of the CWA and work

1 on/or structures in or affecting navigable waters of the United States under
2 Section 10 of the Rivers and Harbors Act of 1899.

3 Wetlands are an important natural system and habitat, performing diverse
4 biologic and hydrologic functions. These functions include water quality
5 improvement, groundwater recharge and discharge, pollution mitigation, nutrient
6 cycling, wildlife habitat provision, unique flora and fauna niche provision, storm
7 water attenuation and storage, sediment detention, and erosion protection.
8 Wetlands are protected as a subset of the waters of the United States under
9 Section 404 of the CWA. The term “waters of the United States.” has a broad
10 meaning under the CWA and incorporates deepwater aquatic habitats and
11 special aquatic habitats (including wetlands). The USACE defines wetlands as
12 “those areas that are inundated or saturated with ground or surface water at a
13 frequency and duration sufficient to support, and that under normal
14 circumstances do support, a prevalence of vegetation typically adapted to life in
15 saturated soil conditions. Wetlands generally include swamps, marshes, bogs,
16 and similar areas” (33 CFR 328).

17 Section 404 of the CWA authorizes the Secretary of the Army, acting through the
18 Chief of Engineers, to issue permits for the discharge of dredge and fill materials
19 into the waters of the United States, including wetlands. Therefore, even an
20 inadvertent encroachment into wetlands or other “waters of the United States”
21 resulting in displacement or movement of soil or fill materials has the potential to
22 be viewed as a violation of the CWA if an appropriate permit has not been issued
23 by the USACE. In California, the USACE has primary jurisdictional authority to
24 regulate wetlands and waters of the United States. However, the California
25 Porter-Cologne Water Quality Control (Porter-Cologne) Act (California Water
26 Code §13000) established the State Water Resources Control Board and nine
27 Regional Water Quality Control Boards as the principal state agencies for having
28 primary responsibility in coordinating and controlling water quality in California.
29 The state boards and the regional boards promulgate and enforce water quality
30 standards in order to protect water quality. The Porter-Cologne Act applies to
31 surface waters (including wetlands), groundwater, and point and nonpoint
32 sources of pollution. Section 401 of the CWA gives the state board and regional
33 boards the authority to regulate, through water quality certification, any proposed
34 federally permitted activity that could result in a discharge to water bodies,
35 including wetlands. The state may issue, with or without conditions, or deny
36 certification for activities that could result in a discharge to water bodies. USBP
37 San Diego Sector is within the jurisdiction of the San Diego Regional Water
38 Quality Control Board (Region 9). A Section 401 water quality certification
39 application would be submitted to the San Diego Regional Water Quality Control
40 Board.

41 Furthermore, wetlands are protected under EO 11990, *Protection of Wetlands*
42 (43 *Federal Register* 6030), the purpose of which is to reduce adverse impacts
43 associated with the destruction or modification of wetlands.

1 Sections A-1 and A-2

2 **Surface Waters and Waters of the United States.** Section A-1 lies parallel to
3 and north of the Tijuana River. The Tijuana River is a 120-mile-long intermittent
4 river that flows along the U.S./Mexico international border from east to west
5 before terminating in the Tijuana Estuary of the Pacific Ocean. This estuary
6 occurs on the southern edge of San Diego and is the last undeveloped wetland
7 system in San Diego County (SDSU 2007). The Tijuana River watershed covers
8 approximately 1,750 square miles from the Laguna Mountains in the United
9 States to the Sierra de Juarez in Mexico (SDSU 2007). Surface waters in the
10 proposed project corridor consist of two riparian corridors that flow intermittently
11 north to south and intersect this section prior to discharging to the Tijuana River.
12 These riparian corridors are, from west to east, Copper and Buttewig canyons.
13 In addition, the Monument 250 Road crosses Mine Canyon. This crossing was
14 recently addressed in the *Monument 250 Road Improvement Project* (CBP
15 2007b) and is not part of the Proposed Action. During the 2007 site survey (see
16 **Appendix H**), biologists observed that these riparian corridors were
17 approximately 25 to 30 feet deep and up to 60 feet wide and of an intermittent
18 nature. The areas were dry at the time of the survey but large boulders and
19 rocks strewn across the canyon bottoms were evidence that there is heavy flow
20 during precipitation events. Tumbling boulders, cobble, and gravel that move
21 with heavy storm water events are largely responsible for the sparse riparian
22 vegetation that consists of primarily 25 to 30 foot tall trees of oak (*Quercus* sp.),
23 western sycamore (*Platanus racemosa*), laurel sumac (*Malosma laurina*),
24 western poison-oak (*Toxicodendron diversilobum*), and mulefat (*Baccharis* sp.).
25 An estimated 23 washes would be crossed by the Section A-1 patrol road. An
26 estimated 17 washes, including 2 low water crossings, would be crossed by the
27 *Monument 250 Road improvements*. The Monument 250 Road culverts and low
28 water crossings were recently addressed in the *Monument 250 Road*
29 *Improvement Project* (CBP 2007b) and are not part of the Proposed Action.

30 Section A-2 contains an unnamed intermittent tributary which intersects the
31 proposed project corridor on its way to the Tijuana River. During the site survey,
32 botanists observed that this riparian corridor supports mature oak (*Quercus* sp.)
33 trees and an understory of willow (*Salix* sp.), sedges (*Carex* spp.), mulefat
34 (*Baccharis salicifolia*), and bulrush (*Scirpus* sp.), which are commonly associated
35 with wetlands.

36 Delineations for wetlands and waters of the United States have not yet been
37 conducted. The most current information available to identify wetlands is the
38 National Wetlands Initiative (NWI) (USFWS 2007). There are no NWI wetlands
39 in Sections A-1 or A-2. Approximately 2.4 acres of riverine wetlands are
40 estimated by aerial photography review.

41 **Surface Water Quality.** The Tijuana River Watershed has been used as a
42 wastewater conduit for several decades and recurring problems due to raw
43 sewage overflows from Mexico continue to occur and are being addressed using

1 cross-border efforts. The *FY 2005-2006 Tijuana River Watershed Urban Runoff*
 2 *Management Program* prepared by San Diego County and the cities of San
 3 Diego and Imperial Beach indicated that several high priority constituents of
 4 concern (COCs) such as bacterial indicators (total/fecal coliform and
 5 enterococcus), the pesticide Diazinon, and total suspended solids (TSS)/turbidity
 6 have consistently had the highest occurrence in the Tijuana River Watershed
 7 since 2002. They occur in the upper and lower reaches of the watershed. The
 8 nutrients ammonia and phosphorus have a medium frequency of occurrence and
 9 methylene blue active substances and copper have a low frequency of
 10 occurrence in the watershed (SeaWorld Inc. 2007). **Table 3.7-1** identifies the
 11 potential sources of COCs.

12 **Table 3.7-1. Potential Sources of COCs**

COC	Frequency of Occurrence in Watershed	Potential Sources of Contamination
Bacterial Indicators (total/fecal coliform and enterococcus)	High	Domestic animals, Sewage overflow, Septic systems, Wildlife
Pesticides (Diazinon)	High	Agriculture, Commercial and residential landscaping, Industrial waste
TSS/Turbidity	High	Agriculture, Grading/construction, Slope erosion
Nutrients (ammonia and phosphorus)	Medium	Agriculture, Sewage overflow, Septic systems
Organic Compounds	Low	Agriculture, Commercial and residential landscaping, Sewage overflow, Septic systems
Trace Metals (copper)	Low	Automobiles, Industrial waste

Source: SeaWorld Inc. 2007

13 **3.8 FLOODPLAINS**

14 Floodplains are areas of low-level ground and alluvium adjacent to rivers, stream
 15 channels, or coastal waters. The living and nonliving parts of natural floodplains
 16 interact with each other to create dynamic systems in which each component
 17 helps to maintain the characteristics of the environment that supports it.
 18 Floodplain ecosystem functions include natural moderation of floods, flood
 19 storage and conveyance, groundwater recharge, nutrient cycling, water quality
 20 maintenance, and a diversity of plants and animals. Floodplains provide a broad
 21 area to spread out and temporarily store floodwaters. This reduces flood peaks
 22 and velocities and the potential for erosion. In their natural vegetated state,

1 floodplains slow the rate at which the incoming overland flow reaches the main
2 water body.

3 Floodplains are subject to periodic or infrequent inundation due to runoff of rain
4 or melting snow. Risk of flooding typically hinges on local topography, the
5 frequency of precipitation events, and the size of the watershed upstream from
6 the floodplain. Flood potential is evaluated by the Federal Emergency
7 Management Agency (FEMA), which defines the 100-year floodplain. The 100-
8 year floodplain is the area that has a 1 percent chance of inundation by a flood
9 event in a given year. Certain facilities inherently pose too great a risk to be
10 constructed in either the 100- or 500-year floodplain, including hospitals, schools,
11 or storage buildings for irreplaceable records. Federal, state, and local
12 regulations often limit floodplain development to passive uses, such as
13 recreational and preservation activities, to reduce the risks to human health and
14 safety.

15 EO 11988, *Floodplain Management*, requires Federal agencies to determine
16 whether a proposed action would occur within a floodplain. This determination
17 typically involves consultation of appropriate FEMA Flood Insurance Rate Maps
18 (FIRMs), which contain enough general information to determine the relationship
19 of the proposed project corridor to nearby floodplains. EO 11988 directs Federal
20 agencies to avoid floodplains unless the agency determines that there is no
21 practicable alternative. Where the only practicable alternative is to site in a
22 floodplain, a specific step-by-step process must be followed to comply with EO
23 11988 outlined in the FEMA document *Further Advice on EO 11988 Floodplain*
24 *Management*.

25 **Section A-1**

26 Section A-1 is addressed in the September 29, 2006, FEMA FIRM Panel No.
27 06073C2225F for San Diego County, California. This panel has a Zone D
28 designation and has not been printed. Zone D is used to classify areas where
29 there are possible but undetermined flood hazards. In areas designated as Zone
30 D, no analysis of flood hazards has been conducted (FEMA 2006). During the
31 2007 survey (see **Appendix H**), it was determined that Section A-1 would cross
32 two riparian corridors associated with Copper Canyon and Buttewig Canyon.
33 Though intermittent and incised in the proposed project corridor, these riparian
34 crossings might have associated floodplains.

35 **Section A-2**

36 According to the June 19, 1997, FEMA FIRM Panel No. 06073C2250F for San
37 Diego County, California, Section A-2 is located in Zone X or “areas determined
38 to be outside the 500-year floodplain” (FEMA 1997).

1 3.9 VEGETATION RESOURCES

2 Vegetation resources include native or naturalized plants and serve as habitat for
3 a variety of animal species. Wetlands are discussed in **Section 3.7**. This
4 section describes the affected environment for native and nonnative vegetation to
5 support the discussion of potential impacts on those resources from each
6 alternative in **Section 4.9**. This analysis is based on site surveys conducted in
7 October 2007. More detailed information on vegetation resources, including
8 descriptions of vegetation classifications, species observed, and the survey
9 methodology is contained in the Draft Biological Survey Report prepared to
10 support this EIS (see **Appendix H**).

11 **Section A-1 and A-2**

12 The proposed project corridor and associated access roads are on Otay
13 Mountain (Section A-1) and the southeastern side of Tecate Peak (Section A-2).
14 Both of these mountains are widely considered by botanists to be islands for
15 endemic plants (plants with very restricted ranges). The large numbers of locally
16 endemic species combined with more common species creates both unique
17 vegetation assemblages and an unusually high diversity of plant species.

18 The Jepson Manual (Hickman 1996) describes California vegetation using
19 combined features of the natural landscape including vegetation types, plant
20 communities, geology, topography, and climatic variation. The Jepson Manual
21 places the proposed project areas in the California Floristic Province,
22 Southwestern California Region and the Peninsular Ranges Subdivision. A Flora
23 of San Diego County (Beauchamp 1986) describes plants occurring in the
24 proposed project areas as belonging to the Otay Mountain Floral district. This
25 assemblage consists of very restricted plants occurring on peaks of cretaceous
26 metavolcanic rock in an island-like fashion, with intervening areas covered by
27 grasslands, sage scrub, and chamise chaparral.

28 NatureServe (2007) defines ecological systems as representing recurring groups
29 of biological communities that are found in similar physical environments and are
30 influenced by similar ecological processes such as fire or flooding. Ecological
31 systems represent classification units that are readily identifiable by conservation
32 and resource managers in the field. "Natural Communities Descriptions"
33 (Holland 1986) incorporated a combination of abiotic factors, species
34 composition, and geographic ranges to describe natural communities. The
35 Holland descriptions are the most commonly used descriptions in San Diego
36 County and the basis for vegetation analyses in all of the regional habitat
37 management plans. A Manual of California Vegetation (Sawyer and Keeler-Wolf
38 1995) defines a quantitative approach to the vegetation classification in
39 California. These quantitative descriptions are more commonly used in other
40 parts of the State of California, outside of San Diego County.

1 The following vegetation associations found in the proposed project corridors
2 were prepared with the intent of bridging all three classification systems. **Table**
3 **3.9-1** provides translation between the differing systems, and a framework for the
4 vegetation discussed in this section. The Holland system will be used for the
5 vegetation discussions within this section. **Appendix H** shows the location of the
6 habitats in Section A-1 and Section A-2, and portions of the respective access
7 roads. Access roads discussed within this section are also identified in **Figures**
8 **2-2** and **2-3**.

9 **Southern mixed chaparral** is defined as a tall chaparral without any single
10 species dominating the habitat. The southern mixed chaparral found near
11 Sections A-1 and A-2 is typically dominated by some combination of the following
12 shrubs: chamise (*Adenostema fasciculatum*), lilac (*Ceanothus sp.*), laurel leafed
13 sumac (*Malosma laurina*), mission manzanita (*Xylococcus bicolor*), chaparral pea
14 (*Pickeringia montana*) or scrub oak (*Quercus sp.*). The under story usually
15 consists of common rock rose (*Helianthemum scoparium*) and deerweed (*Lotus*
16 *scoparius*). Southern mixed chaparral is the most abundant habitat within the
17 Section A-1 and Section A-2 areas. In Section A-2 it is primarily found along the
18 access roads. In Section A-1 the southern mixed chaparral is found throughout
19 the proposed corridor and access roads.

20 **Mafic southern mixed chaparral** is similar to southern mixed chaparral, but a
21 significant component of the chaparral consists of species with restricted ranges
22 or soils. The dominant species in the mafic chaparral areas near Section A-1 are
23 southern mountain misery (*Chamaebatia australis*), chaparral pea (*Pickeringia*
24 *montana*), Otay lilac (*Ceanothus otayensis*), Ramona lilac (*Ceanothus*
25 *tomentosus*), and yerba santa (*Eriodictyon trichocalyx*). Additionally Otay
26 manzanita (*Arctostaphylos otayensis*), Cleveland's sage (*Salvia clevelandii*),
27 Cedros island scrub oak (*Quercus cedrosensis*), and wooly blue curls
28 (*Trichostema lanatum*) often are found in abundance within the habitat. Mafic
29 southern mixed chaparral was not observed near Section A-2. This habitat
30 occurs along the proposed access and patrol road in Section A-1. This habitat is
31 one of the vegetation types associated with the rare and unusual vegetation for
32 which the OMW is known.

33 **Diegan coastal sage scrub** was observed throughout the project areas. This
34 was the second most common habitat observed near Sections A-1 and A-2. It is
35 most common at the lower elevations and in areas of past disturbance. Coastal
36 sage scrub is a low-growing chaparral-type habitat that rarely exceeds 4 feet in
37 height. The coastal sage scrub species dominant in the project areas are San
38 Diego sunflower (*Viguiera laciniata*), flat-topped buckwheat (*Eriogonum*
39 *fasciculatum*), deerweed (*Lotus scaprius*), and coastal sage (*Artemisia*
40 *californica*). Large areas of coastal sage scrub occur at the low elevations along
41 Otay Mountain Truck Trail, throughout the east end of Marron Valley Road, and
42 along Section A-2.

1 **Table 3.9-1. Vegetation Communities Observed During Biological Surveys**
 2 **(Equivalencies Between Systems)**

NatureServe	Holland	Sawyer & Keeler-Wolf
Southern California Dry Mesic Chaparral CES206.930	Southern Mixed Chaparral 37120	Chamise-Mission Manzanita-Woollyleaf Ceanothus Series
Southern California Dry Mesic Chaparral CES206.930	Southern Mixed Chaparral 37120	Scrub oak Series
Southern California Dry Mesic Chaparral CES206.930	Mafic southern mixed chaparral 37122	Chamise-Mission Manzanita-Woollyleaf Ceanothus Series
Southern California Coastal Scrub CES206.933	Diegan Coastal Sage Scrub 32500	California Encelia Series
Southern California Coastal Scrub CES206.933	Diegan Coastal Sage Scrub 32500	California sagebrush- California buckwheat series
Southern California Coastal Scrub CES206.933	Diegan Coastal Sage Scrub 32500	California buckwheat- white sage series
<i>Baccharis salicifolia</i> riparian shrubland CEGL003549	Mulefat scrub 63310	Mulefat Series
<i>Quercus agrifolia/Toxicodendron diversilobum</i> woodland CEGL002866	Southern Coast Live Oak Riparian forest 61310	Coast Live Oak Series
California maritime chaparral CES206.929	Whitethorn chaparral 37532	Chaparral whitethorn series
<i>Bromus</i> herbaceous alliance A.1813	Non-Native grassland 42200	California annual grassland Series
<i>Adenostema fasciculatum</i> shrubland CEGL002924	Chamise Chaparral 37200	Chamise series
Mediterranean California Foothill and Lower Montane Riparian Woodland CES206.944	Southern Cottonwood-Willow Riparian Forest 61330	Black willow series
No equivalent	Southern Interior Cypress Forest 83330	Tecate cypress stand
No equivalent	Disturbed 11300	No equivalent
No equivalent	Landscaped 12000	No equivalent
No equivalent	Developed 12000	No equivalent

1 **Mulefat scrub** is found in the bottom of the Puebla Tree drainage. The mulefat
2 scrub found within the proposed project corridor is dominated by a combination
3 of mulefat (*Baccharis salicifolia*) and San Diego marsh elder (*Iva hayesiana*).
4 There are few willows in these areas. Mulefat scrub also occurred in the
5 drainage along Marron Valley Road prior to the recent wildfires.

6 **Southern coast live oak riparian forest** is found along the larger drainages in
7 the project areas and access roads. Southern coast live oak woodlands were
8 observed patchily along every portion of the proposed project corridor except for
9 the Otay Mountain Truck Trail access road. The canopy of this habitat can be
10 either open or closed coast live oaks (*Quercus agrifolia*) intermixed with a diverse
11 riparian understory. Willows, mulefat, and other more mesic plant species are
12 found among the oak trees. The bottoms of Copper, Buttewig, and Mine
13 canyons all supported this habitat. Southern coast live oak riparian forest is
14 common along Marron Valley Road where the road parallels tributaries of
15 Dulzura and Cottonwood creeks. A small unnamed drainage on the eastern
16 edge of the Tecate fence segment supports disturbed southern coast live oak
17 woodlands. Upstream, the same drainage later intersects the impact area of the
18 northern access road with an undisturbed patch of this habitat.

19 **Whitethorn chaparral** is dominated by the whitethorn lilac (*Ceanothus*
20 *leucodermis*). This habitat was observed in the rock outcrops at the west end of
21 Section A-2. This occurrence had burned in 2005 and was recovering. Wild oats
22 had invaded the area after the fire and were a co-dominant species. The Matillija
23 poppy (*Romneya coulteri* var. unk.) is abundant in this habitat.

24 **Nonnative grassland** is a nonnative naturalized habitat that sometimes requires
25 mitigation when impacted. Nonnative grasslands differ from disturbed areas do
26 to being predominantly vegetated with exotic forbs or grasses. Areas of non-
27 native grassland can differ significantly in their appearance and species
28 composition. The nonnative grassland areas within the area are dominated by
29 wild oats (*Avena* sp.) and bromes. A large area of nonnative grassland occurs
30 near the west end of Section A-2. There are also areas of nonnative grasslands
31 along Marron Valley Road.

32 **Chamise chaparral** in the proposed project areas is similar to southern mixed
33 chaparral, but dominated by the shrub species, chamise (*Adenostema*
34 *fasciculatum*). Chamise chaparral typically is less diverse than similar chaparral-
35 type habitat. Common Rock rose (*Helianthemum scoparium*) and ashy spike
36 moss (*Selaginella cinerescens*) are typical understory plants in chamise
37 chaparral. This habitat was observed along Section A-1. None of the chamise
38 chaparral occurred near Section A-2.

39 **Southern cottonwood-willow riparian forest** differs from the coast live oak
40 woodland by having greater diversity in the tree canopy and few or no oaks. It is
41 also a streamside habitat, but usually only along perennial streams or areas with
42 lots of groundwater. There are only two places in the project where this habitat

1 was observed. Southern cottonwood-willow riparian forest parallels the northern
2 part of Tecate Mission Road. It is also found just outside the staging area in
3 Marron Valley Road, east of Mine Canyon.

4 **Southern interior cypress forest** in the form found near Sections A-1 and A-2
5 is a nearly endemic habitat to San Diego County, and the largest Tecate cypress
6 (*Cupressus forbesii*) stands in the county occur here. The habitat is dominated
7 by Tecate cypress, which when fully mature can reach approximately 20 feet in
8 height. The series of recent wildfires (i.e., 1996, 2003, 2005, and 2007) have left
9 no known mature stands of Tecate cypress in San Diego County. A handful of
10 mature trees occur immediately along the Otay Mountain Truck Trail. The
11 understory of Tecate cypress stands are usually very depauperate of species,
12 but what few species occur there are often rare, including the Otay lotus and
13 Gander's pitcher sage. The largest cypress forests are found along the Otay
14 Mountain Truck Trail access road and the Tecate Mission Road access to
15 Section A-2 from SR 94. Small stands of Tecate cypress (not mapped as
16 cypress forest) can be found in the drainages along Section A-1.

17 Disturbed areas lack native vegetation and show evidence of soil disturbance.
18 Disturbed areas were observed on Kuebler Ranch at Alta Road, along the Tecate
19 Mission access road adjacent to SR 94, and along Marron Valley Road including
20 the staging area east of Mine Canyon.

21 Landscaped areas are areas where exotics have been planted near existing
22 residences. Two residential properties within Section A-2 proposed project
23 corridor have landscaping. Several residences along Marron Valley Road also
24 have landscaping (these were mapped as undifferentiated exotic habitat).

25 Developed areas are constructed, paved, or concreted, with no remaining habitat
26 values. While not technically distinct from landscaping it is a useful distinction to
27 make in planning. There is a set of buildings on Kuebler Ranch which qualifies
28 as developed.

29 A recent wildfire (October 2007) burned through the Section A-1 and Section A-2
30 areas during the field survey. Prior to the wildfire, field work had been completed
31 for Section A-2 but not the associated northern access road. Field work had also
32 been completed for all but approximately one-half mile of Section A-1. The
33 surveys also were completed for the part of the Monument 250 Road, and
34 approximately one-quarter mile of the very eastern part of the access along the
35 Puebla Tree Spur to Otay Mountain Truck Trail. After the wildfires the entire
36 Section A-2 area had burned as well as the Marron Valley Road area. The entire
37 Tecate Mission access road, the remainder of the Puebla Tree Spur to Otay
38 Mountain Truck Trail, and the remaining accessible portions of Section A-1 were
39 surveyed.

40 Even before the recent fire the vegetation in all proposed project areas was
41 recovering from prior wildfires (2003, 2005). The vegetation recovery from past

1 wildfires had been slowed by the recent drought conditions in San Diego County.
2 All vegetation types occurring in the proposed project area are impacted by foot
3 traffic from illegal border crossings. The severity of impacts on the vegetation
4 varies considerably. All areas along the fence portion of Section A-1 showed
5 signs of impacts from cattle and horse grazing. Prior burns, drought, border
6 activity, and grazing have degraded much of the vegetation in Section A-1. Most
7 of the upland habitats are heavily grazed and in poor condition. The vegetation
8 along the drainage edges and the canyon bottoms appear to be thriving even
9 with the environmental stress.

10 Two kinds of existing impacts from border activities are physically evident. The
11 first activity is the access roads used by the border patrol, which are bare of
12 vegetation. The second impact is the large number of informal overlapping
13 footpaths stretching north from the border. The areas most heavily impacted by
14 footpaths have more than 10 parallel paths within approximately 100 feet. Other
15 areas have as few as one trail approximately every 100 feet.

16 The vegetation near Section A-2 is not impacted by grazing. This area shows
17 signs of recovering from recent wildfires and impacts from illegal cross-border
18 activities. There are existing dirt access roads and numerous foot paths running
19 south to north. Near the western end of the existing fence there is a disturbed
20 coast live oak riparian forest associated with an unnamed drainage. This riparian
21 area is in poor condition due to a farmhouse creating disturbance and a large
22 number of exotic species amongst the oak trees. Additional information on
23 existing vegetation can be found in **Appendix H**.

24 A total of 149 species of plants were observed in the Section A-1 area during the
25 biological surveys conducted for this EIS, and 107 species were observed in the
26 Section A-2 area (see **Table 3.9-2**). No federally listed threatened or
27 endangered plant species were observed during the biological surveys
28 conducted for this EIS.

29 **3.10 WILDLIFE AND AQUATIC RESOURCES**

30 This section provides a description of the habitat and wildlife and aquatic species
31 observed and anticipated to occur in the area of the proposed project. Species
32 addressed in this section include those which are not listed as threatened or
33 endangered by the Federal or state government. Sensitive species are those
34 classified by California Department of Fish and Game (CDFG) as species of
35 special concern (SC), species included in the San Diego County MSCP, and
36 those identified as sensitive by the BLM.

37 The County of San Diego has a greater number of threatened and endangered
38 species than anywhere in the continental United States. More than 200 plant and
39 animal species occur in the county that are federally or state-listed as
40 endangered, threatened, or rare; proposed or candidate for listing; or otherwise
41

1

Table 3.9-2. Species Observed During Biological Surveys

Scientific Name	Common Name	A-1	A-2	A-1 Access Road *
<i>Achnatherum coronatum</i>	Giant needlegrass	X	X	X
<i>Acourtia microcephala</i>	Sacapellote		X	
<i>Adenostema fasciculatum</i>	Chamise	X	X	X
<i>Ageratina adenophora</i>	Sticky thorough-wort		X	
<i>Ambrosia monogyra</i>	Single-whorl burrow-brush	X		
<i>Ambrosia psilostachya</i>	Naked-spike ambrosia		X	
<i>Antirrhinum nuttallianum</i>	Violet snapdragon		X	
<i>Arctostaphylos glauca</i>	Bigberry manzanita		X	
<i>Arctostaphylos otayensis</i>	Otay manzanita	X		X
<i>Artemisia californica</i>	California sagebrush	X	X	X
<i>Arundo donax</i>	Giant reed		X	
<i>Asclepias fascicularis</i>	Narrowleaf milkweed	X		
<i>Atriplex semibaccata</i>	Australian saltbush	X	X	X
<i>Avena sp.</i>	Wild oat	X	X	X
<i>Baccharis salicifolia</i>	Willow-leaf false willow	X	X	X
<i>Baccharis sarothroides</i>	Desert broom false willow		X	
<i>Bebbia juncea</i>	Sweetbush	X		
<i>Bothriochloa barbinodis</i>	Cane bluestem	X		
<i>Brickellia californica</i>	California brickellbush	X	X	
<i>Brodiaea pulchellum</i>	Brodiaea		X	
<i>Brodiaea sp.</i>	Brodiaea		X	
<i>Bromus diandrus</i>	Ripgut brome	X	X	
<i>Bromus madritensis</i>	Compact brome		X	
<i>Bromus mollis</i>	Soft brome	X	X	
<i>Bromus rubens</i>	Red brome		X	
<i>Bromus sp.</i>	Brome	X		X
<i>Calochortus sp.</i>	Mariposa lily	X	X	
<i>Calystegia macrostegia</i>	Island false bindweed	X	X	X
<i>Carex spissa</i>	San Diego sedge	X	X	
<i>Castilleja sp.</i>	Indian paint brush		X	
<i>Caulanthus sp.</i>	Wild cabbage	X		
<i>Ceanothus leucodermis</i>	Chaparral whitethorn		X	
<i>Ceanothus otayensis</i>	Otay Mountain ceanothus	X		X
<i>Ceanothus tomentosus</i>	Woolyleaf ceanothus	X		X
<i>Centaurea melitensis</i>	Maltese star thistle	X	X	X
<i>Cercocarpus minutiflorus</i>	Smooth mountain mahogany			X
<i>Chamaebatia australis</i>	Southern mountain misery			X

Scientific Name	Common Name	A-1	A-2	A-1 Access Road *
<i>Cheilanthes</i> sp.	Cloak fern	X		
<i>Cirsium occidentale</i>	Cobweb thistle	X	X	
<i>Cirsium vulgare</i>	Bull thistle	X	X	
<i>Clematis pauciflora</i>	Ropevine clematis		X	
<i>Cneoridium dumosum</i>	Bush rue		X	
<i>Cordylanthus rigidus</i>	Stiffbranch bird's beak		X	
<i>Cryptantha</i> sp.	Cryptantha	X	X	
<i>Cupressus forbesii</i>	Tecate cypress	X		X
<i>Cuscuta</i> sp.	Dodder	X	X	
<i>Daucus pusillus</i>	American wild carrot	X	X	
<i>Delphinium</i> sp.	Larkspur		X	
<i>Dendromecon rigida</i>	Tree poppy	X		
<i>Dicentra chrysantha</i>	Golden eardrops	X	X	
<i>Dudleya edulis</i>	Fingertips	X		
<i>Dudleya pulverulenta</i>	Chalk dudleya	X	X	
<i>Croton setigerus</i>	Dove weed		X	
<i>Epilobium canum</i>	Hummingbird trumpet	X		
<i>Erigeron foliosus</i>	Leafy daisy		X	
<i>Eriodictyon trichocalyx</i>	Smoothleaf Yerba Santa	X	X	X
<i>Eriogonum fasciculatum</i>	Flat-top buckwheat		X	
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Eastern Mojave buckwheat		X	
<i>Eriophyllum confertiflorum</i>	Golden yarrow		X	
<i>Erodium botrys</i>	Long-beaked storkbill		X	
<i>Erodium</i> sp.	None	X		
<i>Eucalyptus</i> sp.	Eucalyptus		X	
<i>Ferocactus viridescens</i>	San Diego barrel cactus	X		
<i>Filago</i> sp.	Cudweed	X	X	
<i>Foeniculum vulgare</i>	Fennel	X	X	
<i>Gallium</i> sp.	Bedstraw		X	X
<i>Gastridium ventricosum</i>	Nit grass	X		
<i>Gnaphalium stramineum</i>	Cotton batting	X	X	X
<i>Gnaphalium bicolor</i>	Two-tone everlasting	X	X	
<i>Gnaphalium californicum</i>	California everlasting	X		X
<i>Gnaphalium luteo-album</i>	Weedy cudweed	X		
<i>Gutierrezia californicum</i>	California snakeweed	X		
<i>Gutierrezia sarothrae</i>	Broom snakeweed	X	X	
<i>Hazardia squarrosa</i>	Sawtooth goldenbush	X	X	X
<i>Hedypnois cretica</i>	Crete weed	X		
<i>Helianthemum scoparium</i>	Common sun rose	X	X	X

Scientific Name	Common Name	A-1	A-2	A-1 Access Road *
<i>Helianthus</i> sp.	Sunflower		X	
<i>Hemizonia</i> sp.	Tarweed	X		
<i>Heteromeles arbutifolia</i>	Christmas berry	X		X
<i>Hirschfeldia incana</i>	Mediterranean mustard	X	X	X
<i>Hypochoeris</i> sp.	None		X	
<i>Isocoma menziesii</i>	Coast goldenbush	X		
<i>Isomeris arborea</i>	Bladderpod			X
<i>Iva havesiana</i>	San Diego marsh elder	X		X
<i>Juncus acutus</i>	Spiny rush	X		X
<i>Keckiella antirrhinoides</i>	Yellow bush snapdragon		X	
<i>Keckiella cordifolia</i>	Climbing penstemon			X
<i>Keckiella ternata</i>	Summer bush penstemon			X
<i>Lamarckia aurea</i>	Goldentop grass	X		
<i>Lathyrus</i> sp.	None			X
<i>Lepidium</i> sp.	Pepperweed	X	X	
<i>Lessingia filaginifolia</i>	Common California aster	X	X	X
<i>Lonicera subspicata</i>	Honeysuckle	X	X	
<i>Lotus argophyllus</i>	Silver bird's foot trefoil		X	
<i>Lotus scoparius</i>	Deerweed	X	X	X
<i>Lythrum californica</i>	None	X		
<i>Malacothamnus fasciculatus</i>	Bush mallow	X	X	X
<i>Malacothamnus</i> sp.	Bush mallow	X		
<i>Malosma laurina</i>	Laurel sumac	X	X	X
<i>Marah macrocarpus</i>	Wild cucumber		X	
<i>Marrubium vulgare</i>	Horehound		X	
<i>Melilotus</i> sp.	Sweetclover		X	
<i>Melica frutescens</i>	Woody melicgrass	X		
<i>Mellica imperfecta</i>	Coast range melic		X	
<i>Mimulus aurantiacus</i>	Bush monkeyflower	X	X	X
<i>Mimulus brevipes</i>	Yellow monkeyflower		X	
<i>Mimulus guttatus</i>	Seep monkeyflower		X	
<i>Mirabilis californica</i>	Wishbone bush	X		
<i>Nassella</i> sp.	Purple needlegrass		X	
<i>Navarretia</i> sp.	Pincushionplant	X	X	
<i>Nicotiana glauca</i>	Tree tobacco		X	
<i>Opuntia littoralis</i>	Coast prickly pear	X		
<i>Osmondenia tenella</i>	None	X	X	
<i>Paeonia californica</i>	California peony		X	
<i>Pellaea</i> sp.	None	X	X	

Scientific Name	Common Name	A-1	A-2	A-1 Access Road *
<i>Penstemon spectabilis</i>	Showy penstemon	X		
<i>Penstemon</i> sp.	Penstemon		X	
<i>Phacelia cicutaria</i>	Caterpillar phaecelia		X	
<i>Phacelia</i> sp.	None		X	
<i>Pickeringia montana</i>	Chaparral pea	X	X	X
<i>Pityrogramma</i> sp.	None	X	X	X
<i>Plantago erecta</i>	Plantain	X	X	
<i>Platanus racemosa</i>	Western sycamore	X		
<i>Polypogon monspeliensis</i>	Annual beardgrass	X		
<i>Populus fremontii</i>	Western cottonwood		X	
<i>Porophyllum gracile</i>	Slender poreleaf	X		
<i>Prunus ilicifolia</i>	Hollyleaf cherry			X
<i>Quercus agrifolia</i>	Coast live oak		X	
<i>Quercus berberidifolia</i>	Scrub oak		X	
<i>Quercus cedrosensis</i>	Cedros oak	X		X
<i>Rhamnus crocea</i>	Redberry		X	X
<i>Rhus ilicifolia</i>	Lemonadeberry	X		
<i>Rhus ovata</i>	Sugarbush		X	
<i>Ribes</i> sp.	Gooseberry	X		X
<i>Romneya coulteri</i>	Matillija poppy	X	X	X
<i>Rumex crispus</i>	Curly dock	X		
<i>Rumex</i> sp.	None		X	
<i>Salix gooddingii</i>	Goodding's willow		X	
<i>Salix lasiolepis</i>	Arroyo willow		X	
<i>Salsola tragus</i>	Russian thistle	X		X
<i>Salvia apiana</i>	White sage	X	X	
<i>Salvia clevelandii</i>	Cleveland's sage			
<i>Salvia columbariae</i>	Chia		X	
<i>Salvia munzii</i>	Munz's sage	X		
<i>Sambucus mexicana</i>	Mexican elderberry		X	
<i>Schinus molle</i>	Peruvian peppertree		X	
<i>Schismus barbatus</i>	Common Mediterranean grass		X	
<i>Scirpus</i> sp.	None		X	
<i>Scrophularia californica</i>	Figwort	X	X	
<i>Selaginella bigelovii</i>	Spike moss	X	X	
<i>Selaginella cinerescens</i>	Ashy spike moss	X	X	X
<i>Silene gallica</i>	Small-flower catchfly			
<i>Simmondsia chinensis</i>	Jojoba	X		
<i>Solanum</i> sp.	Nightshade	X		

Scientific Name	Common Name	A-1	A-2	A-1 Access Road *
<i>Solidago occidentalis</i>	Goldenrod		X	X
<i>Stachys rigida</i>	Rough hedge-nettle		X	
<i>Stephanomeria virgata</i>	Virgate wire-lettuce	X		
<i>Stylocline gnaphalioides</i>	New-straw cotton-weed		X	
<i>Tamarix ramosissima</i>	salt-cedar		X	
<i>Thysanocarpus</i> sp.	Fringepod		X	
<i>Toxicodendron diversilobum</i>	Western poison-oak		X	
<i>Trichostema</i> sp.	Bluecurls	X		
<i>Urtica dioica</i>	Stinging nettle		X	
<i>Viguiera laciniata</i>	San Diego County viguiera	X		
<i>Vinca major</i>	Large-leaf periwinkle		X	
<i>Xanthium</i> sp.	Cocklebur		X	
<i>Xylococcus bicolor</i>	Mission manzanita	X	X	X
<i>Cupressus forbesii</i>	Tecate cypress	X		
<i>Ornithostaphylos oppositifolia</i>	Baja bird bush		X	
<i>Dudleya blachmaniae</i> ssp. <i>brevifolia</i>	Short leaved dudleya		X	
<i>Rosa minutifolia</i>	Small leaved rose			
<i>Yucca whipplei</i>	Our-lord's-candle	X	X	X
Total Number of species per section or access road:		100	113	47

Note: * The biological survey for the Section A-1 access road is underway but not completed. Complete results of the survey will be included in the Final EIS, BA, and BO.

1 considered sensitive. The MSCP was developed to provide natural resources
2 guidance for where future development should and should not occur, to
3 streamline and coordinate procedures for review and permitting, and to better
4 assess impacts on biological resources (MSCP 1998).

5 The MSCP is a comprehensive habitat conservation planning program in San
6 Diego which provides for a regional process to authorize incidental take of
7 protected species for urban development and for the conservation of multiple
8 species and their habitat within a 582,243-acre planning area in southwestern
9 San Diego County. The MSCP planning area includes 12 local jurisdictions in
10 southern coastal San Diego County. Local jurisdictions implement their
11 respective portions of the MSCP Plan through subarea plans that describe
12 specific implementing mechanisms for the MSCP Plan. This includes the City of
13 San Diego and the County of San Diego subarea plans. Both the County and
14 City of San Diego have finalized their respective subarea plans and have
15 received take authorizations under the MSCP.

1 The MSCP Plan, and each subarea plan prepared pursuant to the MSCP Plan, is
2 intended to serve as a multiple species habitat conservation plan (HCP) pursuant
3 to Section 10(a)(2)(A) of the ESA. An HCP is required for issuance of a permit
4 for incidental take of listed species pursuant to Section 10(a)(1)(B) of the Act. An
5 HCP can also serve as a Natural Communities Conservation Plan (NCCP)
6 pursuant to the State of California's NCCP Act of 1991, provided findings are
7 made that the plan is consistent with the NCCP Act.

8 The MSCP Plan proposes the authorization of incidental take of 85 species,
9 including 20 listed animal and plant species, 8 species currently proposed for
10 Federal listing as endangered or threatened, and 1 candidate for Federal listing.
11 All 85 species will hereafter be referred to as Covered Species. This proposed
12 list of species for which take is authorized is based upon full implementation of
13 the MSCP Plan (MSCP 1998).

14 The BLM Manual 6840 provides policy and guidance, consistent with appropriate
15 laws, for the conservation of special status species of plants and animals, and
16 the ecosystems upon which they depend. The sensitive species designation is
17 normally used for species that occur on BLM-administered lands for which BLM
18 has the capability to significantly affect the conservation status of the species
19 through management.

20 **General Affected Environment**

21 The proposed fence alignment lies within the Peninsular Ranges Province and is
22 part of the warm-temperate scrublands biotic community. These scrublands are
23 dominated by the California chaparral and coastal scrub communities which
24 provide suitable habitats for a number of species (i.e., bats, rodents,
25 salamanders, snakes, and lizards, plus a variety of waterfowl, shorebirds, and
26 rangeland/forest birds) adapted to this environment. The warm temperate
27 scrublands biotic community of the Peninsular Ranges has a diversity of faunal
28 elements to coincide with the varied coastal habitats ranging from coniferous
29 forests to chaparral, oak woodlands, grasslands, marshes, sandy beaches,
30 vernal pools, and the Tijuana River Estuary (USACE 1999).

31 The San Ysidro area, including the Otay Mountain, Cerro San Isidro, San Miguel
32 Mountain, and Tecate Peak, supports some of the largest remaining intact
33 patches of Diegan coastal sage scrub (including coastal sage scrub with
34 abundant cactus patches) in the border region, supporting core populations of
35 California gnatcatchers and coastal cactus wrens (*Campylorhynchus*
36 *brunneicapillus couesi*). This area also supports mafic chaparral communities,
37 important riparian habitat along the Tijuana and Tecate rivers, and vernal pools
38 on the mesa tops. The Thorne's hairstreak butterfly (*Mitoura thornei*) is an
39 endemic species here, whose larvae are obligate to Tecate cypress (CBI 2004).
40 The chaparral along the border between Otay Mountain and Jacumba likely
41 serves as an important dispersal corridor for some bird species including the gray
42 vireo (*Vireo vicinior*) and sage sparrow (*Amphispiza belli*).

1 The native faunal components of the Peninsular Range support more than 400
2 species of birds, which are dominated by wood warblers, swans, geese, and
3 ducks, sandpipers and phalaropes, gulls and terns, sparrows and towhees, and
4 tyrant flycatchers. The majority of these species are present in the spring and
5 fall, when neotropical migrants (e.g., flycatchers and warblers) pass through on
6 their way to either summer breeding or wintering grounds, and during winter
7 when summer resident birds (i.e., robins, kinglets, and sparrows) from the north
8 arrive to spend the winter. The majority of the mammalian species found in the
9 Peninsular Range are evening bats and rodents, with rodents being the most
10 common. Frogs are considered the most abundant and common of the
11 amphibian species. Iguanid lizards and colubrid snakes are the most dominant
12 reptiles inhabiting the Peninsular Range (CBP 2007b).

13 **Section A-1**

14 The fence alignment would start at the Puebla Tree, a well-known border patrol
15 landmark, and end at Boundary Monument 250. Topographically, the terrain is
16 steep along most of the trail. The trail skirts the mid-span of the mountain, so
17 that steep upslopes lead out of canyons, and steep downslopes lead into another
18 canyon. There are three canyons that the Pack Trail crosses; from west to east,
19 these are Copper, Buttewig, and Mine canyons. In addition, Wild Bill's Canyon is
20 a drainage located at the west end of the Pack Trail, near the Puebla Tree.

21 Much of Section A-1 is grazed illegally by cows, and numerous cows were
22 observed during natural resources surveys. Numerous north-south trending
23 footpaths have been created over much of the mountain from cows and cross-
24 border violators. Portions of the mountain burned during the 2003 Cedar fire and
25 show signs of recovering. Much of the area where coastal sage scrub
26 communities are dominant (a large area of the Pack Trail) are considered
27 disturbed and of poor quality. Areas of chaparral are of moderate quality, and
28 riparian areas dominated by coast live oak in the canyon bottoms are considered
29 high-quality habitat.

30 **Section A-2**

31 High-quality coastal sage scrub habitat exists in some areas of the section that
32 are dominated by California sagebrush (*Artemisia californica*) and laurel sumac
33 (*Malosma laurina*). An occupied house with a fenced yard is within the section
34 where the area is dominated by coast live oak riparian habitat. The understory of
35 this habitat is mainly nonnative species. Much of the section is a non-native
36 grassland, with dominant species being brome grass (*Bromus* sp.) and wild oat
37 (*Avena* sp).

38 In late October 2007, most of the alignment and associated access roads were
39 burned in the Harris fire. The alignment for Section A-2 was surveyed prior to the
40 fire, and the access roads and staging area were surveyed after the fire.

1 Species Potentially Present and Observed

2 The California Natural Diversity Database (CNDDDB) is a CDFG-maintained
3 inventory of data on the location and status of sensitive species in California.
4 Non-listed wildlife species (i.e., those that are not threatened or endangered)
5 included in the CNDDDB records for the Otay Mountain and Tecate quadrangles,
6 and therefore having the potential to occur within or near the proposed project
7 corridor, are listed in **Table 3.10-1**.

8 Common wildlife species observed during the October and December 2007
9 surveys are listed in **Appendix H**. Forty-one species of vertebrates were
10 recorded during the October and December 2007 surveys, including 2 reptiles,
11 33 birds, and 6 mammals. In addition, 32 insects were observed and identified
12 during the surveys (see **Appendix H**). Section A-1 was the most species-rich
13 with 29 wildlife species recorded.

14 The following eight state species of concern were observed. Species below that
15 are preceded by an asterisk are also covered under the Regional MSCP.

- 16 • Harbison dun skipper (larva) (*Euphyes vestris harbisoni*)
- 17 • Coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- 18 • *Orange-throated whiptail lizard (*Cnemidophorus hyperythrus beldingi*)
- 19 • *Copper's hawk (*Accipiter cooperii*)
- 20 • *Golden eagle (*Aquila chrysaetos*)
- 21 • *Northern harrier (*Circus cyaneus*)
- 22 • *Rufous-crowned sparrow (*Aimophila ruficeps*)
- 23 • San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

24 Although the following species are not in the CNDDDB database for the proposed
25 project corridor and no individuals of these species were observed, potential
26 habitat for them does occur within or near the project corridor:

- 27 • Hermes copper butterfly (*Lycaena hermes*) (SC)
- 28 • Thorne's hairstreak (*Callophrys thornei*) (SC, MSCP, BLM)
- 29 • Quino checkerspot butterfly (see **Section 3.11**).

30 Aquatic and riparian systems and the associated woodlands (i.e., oaks, willows
31 and cottonwoods) which are important to fish, amphibian, and wildlife resources
32 occur throughout the study area. These types of systems would occur in riparian
33 vegetation along most of the coastal streams (i.e., San Luis Rey, San Diego,
34 Sweetwater, Otay, and Tijuana rivers; Jamul and Campo creeks) and valley
35 foothill and montane (areas in the mountains) regions. Vernal pools occur as
36 small depressions in flat-topped marine terraces and occur in areas north and
37

1 **Table 3.10-1. Non-Listed Sensitive Wildlife Species in the CNDDDB Records**
 2 **near the Proposed Project Corridor**

Common Name	Scientific Name	SD County Quad ¹	State Status	CDFG Status
Crustaceans				
Little mousetail	<i>Myosurus minimus ssp. apus</i>	OM	None	None
Invertebrates				
Thorne's hairstreak	<i>Callophrys thornei</i>	OM	None	None
Amphibians				
Western spadefoot	<i>Spea hammondii</i>	OM	None	SC
Reptiles				
Coast (San Diego) horned lizard	<i>Phrynosoma coronatum (blainvillii population)</i>	OM, T	None	SC
Coast patch-nosed snake*	<i>Salvadora hexalepis virgultea</i>	OM	None	SC
Coastal western whiptail	<i>Aspidoscelis tigris stejnegeri</i>	OM	None	None
Orange-throated whiptail*	<i>Aspidoscelis hyperythra</i>	OM, T	None	SC
Two-striped garter snake	<i>Thamnophis hammondii</i>	OM	None	SC
Birds				
Burrowing owl	<i>Athene cunicularia</i>	OM	None	SC
California horned lark	<i>Eremophila alpestris actia</i>	OM	None	SC
Coastal cactus wren	<i>Campylorhynchus brunneicapillus sandiegensis</i>	OM	None	SC
Golden eagle*	<i>Aquila chrysaetos</i>	T	None	SC
Yellow-breasted chat	<i>Icteria virens</i>	OM	None	SC
Mammals				
American badger	<i>Taxidea taxus</i>	OM	None	SC
Northwestern San Diego pocket mouse	<i>Chaetodipus fallax fallax</i>	OM	None	SC
San Diego black-tailed jackrabbit*	<i>Lepus californicus bennettii</i>	OM	None	SC
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	OM	None	SC
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	OM	None	SC

Common Name	Scientific Name	SD County Quad ¹	State Status	CDFG Status
Mammals (continued)				
Western mastiff bat	<i>Eumops perotis californicus</i>	T	None	SC

Source: CDFG 2007

Notes:

¹ OM = Otay Mountain Quadrangle Map; T = Tecate Quadrangle Map

* Denotes species also covered under the Regional MSCP

SC = Species of special concern designation (CDFG Designation)

Harbison's dun skipper is a CA DFG species of concern, but not listed on the CNDDDB.

1 south of San Diego with more sites along the border (e.g., Otay Mesa). Being an
 2 amphibious ecosystem, the alternation of very wet and very dry contributions
 3 creates a unique ecological situation that supports a variety of fauna. Because of
 4 unique species diversity or hydrological regime, riparian systems and vernal
 5 pools are vital for maintenance of some fish and wildlife species at sustainable
 6 populations (USACE 1999).

7 There are no state-listed species of fish within the two quads (Otay Mountain and
 8 Tecate) along Sections A-1 and A-2. There are several riparian habitats located
 9 in canyon bottoms on Section A-1 (Copper, Buttewig, and Mine canyons), as well
 10 as an unnamed riparian area on Section A-2. These areas are important to fish
 11 resources, however, due to the seasonality of flow, most were not considered of
 12 high quality due to lack of structure or lack of pooling sites.

13 **3.11 SPECIAL STATUS SPECIES**

14 Special status species addressed in this EIS are Federal threatened and
 15 endangered species, state threatened and endangered species, and migratory
 16 birds. Each group has its own definitions, and legislative and regulatory drivers
 17 for consideration during the NEPA process; these are briefly described below.

18 The ESA provides broad protection for species of fish, wildlife, and plants that
 19 are listed as threatened or endangered in the United States or elsewhere.
 20 Provisions are made for listing species, as well as for recovery plans and the
 21 designation of critical habitat for listed species. Section 7 of the ESA outlines
 22 procedures for Federal agencies to follow when taking actions that might
 23 jeopardize listed species, and contains exceptions and exemptions. Criminal and
 24 civil penalties are provided for violations of the ESA.

25 Section 7 of the ESA directs all Federal agencies to use their existing authorities
 26 to conserve threatened and endangered species and, in consultation with the
 27 USFWS, to ensure that their actions do not jeopardize listed species or destroy
 28 or adversely modify critical habitat. Section 7 applies to management of Federal
 29 lands as well as other Federal actions that might affect listed species, such as

1 Federal approval of private activities through the issuance of Federal permits,
2 licenses, or other actions.

3 Under the ESA, a Federal endangered species is defined as any species which
4 is in danger of extinction throughout all or a significant portion of its range. The
5 ESA defines a Federal threatened species as any species which is likely to
6 become an endangered species within the foreseeable future throughout all or a
7 significant portion of its range.

8 The State of California has enacted the California Endangered Species Act
9 (CESA) to protect from “take” any species that the commission determines to be
10 endangered or threatened (Fish and Game Code; Section 2050–2085). Take is
11 defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch,
12 capture or kill” (Fish and Game Code; Section 86) (CBI 2004).

13 The State of California administers 103,855 acres in the border region. The
14 CDFG manages Ecological Reserves and Wildlife Management Areas, while the
15 Department of Parks and Recreation manages Anza-Borrego Desert State Park,
16 Cuyamaca Rancho State Park, and Border Field State Park. The Department of
17 Forestry and Fire Protection administers a single property on the border, Tecate
18 Peak (CBI 2004).

19 The MBTA (16 U.S.C. 703–712), as amended, implements various treaties for
20 the protection of migratory birds. Under the Act, taking, killing, or possessing
21 migratory birds is unlawful without a valid permit. Under EO 13186,
22 Responsibilities of Federal Agencies to Protect Migratory Birds, the USFWS has
23 the responsibility to administer, oversee, and enforce the conservation provisions
24 of the MBTA, which include responsibility for population management (e.g.,
25 monitoring), habitat protection (e.g., acquisition, enhancement, and modification),
26 international coordination, and regulations development and enforcement. The
27 MBTA defines a migratory bird as any bird listed in 50 CFR 10.13, which includes
28 nearly every native bird in North America.

29 The MBTA and EO 13186 require Federal agencies to minimize or avoid impacts
30 on migratory birds listed in 50 CFR 10.13. If design and implementation of a
31 Federal action cannot avoid measurable negative impact on migratory birds, EO
32 13186 requires the responsible agency to consult with the USFWS and obtain a
33 Migratory Bird Depredation Permit.

34 **Sections A-1 and A-2**

35 There are 15 federally listed taxa that have the potential to occur within or near
36 the proposed fence corridors in southern San Diego County: 2 crustaceans, 1
37 butterfly, 1 amphibian, 3 birds, and 8 plants. Of these, 2 birds and 5 plants are
38 also state-listed (see **Table 3.11-1**). A description of the biology of each federally
39 listed species potentially occurring within the fence corridor is provided in the
40 *Draft Biological Survey Report: USBP San Diego Sector, Brown Field Station*
41 (see **Appendix H**). Federal- and state-listed species potentially occurring in the
42 proposed project corridor and their potential habitats are briefly described below.

1 **Table 3.11-1. Federal and State Threatened and Endangered Species**
 2 **Potentially Occurring Within the Project Corridor**

Scientific Name	Common Name	Federal Status	State Status
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	E	
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	E	
<i>Euphydryas editha quino</i>	quino checkerspot butterfly	E	
<i>Bufo californicus</i>	arroyo toad	E	
<i>Polioptila californica californica</i>	coastal California gnatcatcher	T	
<i>Vireo bellii pusillus</i>	least Bell's vireo	E	E
<i>Empidonax trailii extimus</i>	Southwestern willow flycatcher	E	E
<i>Ambrosia pumila</i>	San Diego ambrosia	E	
<i>Eryngium aristulatum var. parishii</i>	San Diego button-celery	E	E
<i>Deinandra conjugens</i>	Otay tarplant	T	E
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	E	E
<i>Navarretia fossalis</i>	spreading navarretia	T	
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	E	
<i>Orcuttia californica</i>	California Orcutt grass	E	E
<i>Baccharis vanessae</i>	Encinitas baccharis	T	E

Note: T – Threatened, E – Endangered

3 The native faunal components of the Peninsular Range, in which the Proposed
 4 Action would occur, support more than 400 species of birds, which are
 5 dominated by wood warblers, swans, geese, ducks, sandpipers and phalaropes,
 6 gulls and terns, sparrows and towhees, and tyrant flycatchers. The majority of
 7 these species are present in the spring and fall, when neotropical migrants (e.g.,
 8 flycatchers and warblers) pass through on their way to either summer breeding or
 9 wintering grounds, and during winter when summer resident birds (i.e., robins,
 10 kinglets, and sparrows) from the north arrive to spend the winter. A number of
 11 migratory birds are known to pass through or otherwise use the border region
 12 between California and Baja California. Some of these species fly through this
 13 general area to avoid having to cross the Gulf of California (CBI 2004).
 14 Examples of such species include olive-sided flycatcher (*Contopus cooperi*),
 15 dusky flycatcher (*Empidonax oberholseri*), yellow-rumped warbler (*Dendroica
 16 coronata*), green-tailed towhee (*Pipilo chlorurus*), and fox sparrow (*Passerella
 17 iliaca*). However, no records of these species are known from the vicinity of the
 18 potential fence corridors.

19 On-site inspection of habitat within the potential fence alignment was conducted
 20 by USFWS-approved species specialists in October and December 2007. Due
 21 to the timing of the surveys, and the wildfires that burned portions of the
 22 proposed project corridor in November 2007, there were no observations of state

1 or Federal threatened or endangered animal species. Species observed in each
 2 of the two proposed project corridors are provided in **Appendix H**. Potential
 3 habitat was evaluated to the extent possible given the wildfires and the time of
 4 year.

5 In addition, element occurrence data were acquired from NatureServe for
 6 inclusion in the environmental consequences analyses. These data indicate
 7 documented occurrences of several listed taxa or their habitats within the
 8 proposed project corridor (see **Table 3.11-2**).

9 **Table 3.11-2. Listed Species for which Individuals or Habitat are**
 10 **Documented In or Near^a the Proposed Project Corridor by NatureServe**

Scientific Name	Common Name	Federal Status	State Status	Fence Section ^b
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	E		A-1
<i>Euphydryas editha quino</i>	quino checkerspot butterfly	E		A-1
<i>Bufo californicus</i>	arroyo toad	E		A-1
<i>Polioptila californica californica</i>	coastal California gnatcatcher	T		A-1
<i>Baccharis vanessae</i>	Encinitas baccharis	T	E	A-1

Notes:

^a Within one mile of the project corridor, including fence alignments and access roads.

^b A-1 = fence section south of Otay Mountain.

Note: T – Threatened, E – Endangered

11 Section A-2 of the Proposed Action did not present suitable habitat for any listed
 12 species during the October 2007 surveys which were completed before the area
 13 burned in November 2003. No records from the NatureServe data are in or near
 14 Section A-2. Therefore, the affected environment for Section A-2 is not
 15 described further in this section.

16 The remainder of this section focuses on the proposed project corridor for
 17 Section A-1. A brief description of which species are anticipated to be found
 18 within the Section A-1 proposed project corridor, based on potential habitat and
 19 historic data, is provided below. More detailed descriptions of the federally listed
 20 species can be found in **Appendix H**.

21 **San Diego Fairy Shrimp (SDFS)**. This species is listed as endangered under
 22 the ESA and is covered by the Regional MSCP. The SDFS is a vernal pool
 23 specialist that is found in small, shallow vernal pools. Unlike other species
 24 associated with vernal pools, this fairy shrimp is also occasionally found in
 25 ditches and road ruts with similar conditions to those of vernal pools.

26 NatureServe data indicate a record for SDFS near the connection of the Otay
 27 Mountain Truck Trail to Alta Road. The record appears to have been from a road

1 ditch or rut as the area indicated by the record is currently an existing and active
2 road. The only other occurrence of SDFS near the proposed project corridor is
3 approximately 0.8 miles south of Monument 250 Road. Surveys of the proposed
4 access roads have not been completed. If surveys indicate the presence of
5 vernal pools within the access road corridors, this species will be considered in
6 detail. This species is currently assumed to be absent from the project corridor
7 and no impacts on this species would be expected; therefore, this species is not
8 carried forward for discussion in **Section 4.11**.

9 **Quino Checkerspot Butterfly (Quino)**. This species is listed as endangered
10 under the ESA. It is considered a species of concern by CDFG, but currently
11 does not have coverage under the Regional MSCP. Host plants are dwarf
12 plantain (*Plantago erecta*), Purple owl's clover (*Castilleja exserta*), White
13 snapdragon (*Antirrhinum coulterianum*), woolly plantain (*Plantago patagonica*),
14 and bird's beak (*Cordylanthus rigidus*). The plants are annuals which thrive in
15 clay soils but can also occur in other soil types.

16 Adult Quino were observed on the mesa along the Pack Trail in March 2005 just
17 above the Puebla Tree access (Klein 2007). There is a record of adults on the
18 hill just north of the mesa, and adults were found in March 2007 along the
19 Monument 250 Road on the east side of the proposed project corridor (Klein
20 2007). In addition, NatureServe data indicate additional locations for Quino
21 within one mile of the proposed fence corridor and access roads, primarily on the
22 east and west ends of Section A-1's proposed project corridor. The apparent
23 absence of locations along the central portion of the proposed alignment is
24 undoubtedly due to the difficulty of accessing this area and not to true absence of
25 the species in this area. Potential habitat (three of the host plant species) were
26 observed along the 5-mile stretch proposed for Section A-1 during the October
27 and December 2007 surveys and the species is assumed to be present. Host
28 plant(s) occur along most of the Pack Trail, suitable habitat occurs throughout the
29 entire mountain, and adults occur along the Otay Mountain Truck Trail which is
30 the access to get to Puebla Tree. Therefore, the Pack Trail, Puebla Pack Trail,
31 and Monument 250 Truck Trail are considered suitable Quino habitat and
32 considered to be occupied. Quino checkerspot butterfly is addressed in
33 **Section 4.11**.

34 **Arroyo Toad**. The arroyo toad is listed as endangered under the ESA, is
35 considered a species of concern by CDFG, and is covered under the MSCP.
36 The arroyo toad requires shallow, slow-moving stream habitats, and riparian
37 habitats that are disturbed naturally on a regular basis, primarily by flooding.
38 Adjacent stream banks can be sparsely to heavily vegetated with trees and
39 shrubs such as mulefat (*Baccharis* spp.), California sycamore (*Platanus*
40 *racemosa*), cottonwoods (*Populus* spp.), coast live oak (*Quercus agrifolia*), and
41 willows (*Salix* spp.) (USFWS 1999). For breeding, the arroyo toad uses open
42 sites such as overflow pools, old flood channels, and pools with shallow margins,
43 all with gravel bottoms. This species aestivates in sandy terraces adjacent to the
44 stream habitat.

1 No habitat for this species was observed during the field surveys for this project.
2 NatureServe (2007) data indicates a record south of the eastern access road.
3 The existing access road traverses the northern boundary of the aestivation
4 habitat associated with this record. This species is assumed to be present and is
5 addressed in the Environmental Consequences section.

6 **Coastal California Gnatcatcher (CAGN).** This species is listed as threatened
7 under the ESA, is considered a species of concern by CDFG, and is covered by
8 the Regional MSCP. The CAGN occurs almost exclusively in the coastal sage
9 scrub community with occasional populations in the chaparral. Its southern limit
10 coincides with the southern distributional limit of this vegetation community. The
11 coastal sage scrub community is composed of low-growing, summer deciduous,
12 and succulent plants including coastal sagebrush (*Artemisia californica*), various
13 species of sage (*Salvia* spp.), California buckwheat (*Eriogonum fasciculatum*),
14 lemonadeberry (*Rhus integrifolia*), California encelia (*Encelia californico*),
15 pricklypear and cholla cactus (*Opuntia* spp.), and various species of
16 *Haploppus* (NatureServe 2007). CAGN is nonmigratory and its breeding
17 season extends from late February to July.

18 No individuals of this species were observed during the October and December
19 2007 surveys. Due to the 2003 fire which burned through the proposed project
20 corridor of Section A-1, the habitat in and near the proposed project corridor is
21 too sparse for CAGN occupancy in its current condition (Clark 2007). However,
22 with continued regrowth, habitat could become suitable in the future. While no
23 impacts on individuals are anticipated, impacts on potential future habitat for
24 CAGN are addressed in **Section 4.11**.

25 **Least Bell's Vireo (LBV).** This species is listed as endangered under both the
26 ESA and the CESA. It is also covered by the Regional MSCP. LBV is an
27 obligate riparian species during its breeding season and prefers early
28 successional habitat. The woodlands it inhabits are often structurally diverse and
29 lie along watercourses including southern willow scrub, mule fat scrub, sycamore
30 alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, and
31 cottonwood bottomland forest (USFWS 1998). LBV is a migratory species that
32 arrives at its southern California breeding grounds in mid-March to early April and
33 usually departs in September.

34 No records of LBV are known from in or near the project corridor. However, a
35 narrow band of suitable riparian habitat occurs along the Tijuana River just south
36 of the proposed project corridor. Therefore, this species is assumed to be
37 present in that riparian habitat and potential impacts to LBV are discussed in
38 **Section 4.11**.

39 **Southwestern Willow Flycatcher (SWF).** This species is listed as endangered
40 by both the ESA and the CESA. It is also covered by the Regional MSCP. SWF
41 usually breeds in dense or patchy riparian habitats along streams or other
42 wetlands near standing water or saturated soils. Common tree and shrub

1 species composing nesting habitat include willows (*Salix* spp.), seepwillow (aka
2 mulefat (*Baccharis* spp.), boxelder (*Acer negundo*), stinging nettle (*Urtica* spp.),
3 blackberry (*Rubus* spp.), cottonwood (*Populus* spp.), arrowweed (*Tessaria*
4 *sericea*), tamarisk (aka salt-cedar; *Tamarix ramosissima*), and Russian olive
5 (*Elaeagnus angustifolia*). Habitat characteristics vary widely across its range, but
6 some similar characteristics include distribution of open spaces within dense
7 shrub thickets (USFWS 2002). As a neotropical migrant, the southwestern willow
8 flycatcher only spends 3 to 4 months in the breeding grounds arriving in early
9 May to early June and departing between mid-August and early September
10 (USFWS 2002).

11 No records of SWF are known from in or near the project corridor. No suitable
12 habitat for this species was observed in or near the project corridor. However,
13 the riparian woodland habitat along the Tijuana River has the potential to provide
14 suitable habitat in the future, as it reaches taller heights. Therefore, potential
15 impacts on this species are discussed in **Section 4.11**.

16 **San Diego Ambrosia.** This species is listed as endangered under the ESA and
17 is covered under the Regional MSCP. It primarily occupies the upper terraces of
18 rivers and drainages as well as in open grasslands, openings in coastal sage
19 scrub, and occasionally in the areas adjacent to vernal pools. Species found
20 near the ambrosia include saltgrass (*Distichlis spicata*), mulefat (*Baccharis*
21 *salicifolia*), desertbroom (*Baccharis sarathroides*), California buckwheat, and
22 dove weed (*Croton setigerus*). This ambrosia primarily occupies gravelly or
23 sterile clay soils (University of California 2007).

24 No records of San Diego ambrosia are known from in or near the project corridor.
25 The closest known record for this species is miles to the north, on the other side
26 of Otay Mountain and the wilderness area. No individuals of this species were
27 observed during the October and December 2007 surveys. Therefore, this
28 species is dismissed from further analysis in this EIS.

29 **San Diego Button-Celery.** This species is listed as endangered under the ESA
30 and the CESA, and is also covered under the Regional MSCP. It is an endemic
31 species of vernal pools of southern California and northern Mexico. Vernal pools
32 are seasonal depressional wetlands where the proliferation of flora and fauna
33 can be related to the Mediterranean climate that prevails throughout their range.

34 No records of San Diego button-celery are known from in or near the project
35 corridor. The closest known record for this species is over a mile west of the end
36 of the Alta Road access to Otay Mountain Truck Trail; well beyond potential
37 impacts resulting from the Proposed Action. Surveys of the access roads have
38 not been completed. If surveys indicate the presence of vernal pools within the
39 access road corridors, this species will be considered in detail. This species is
40 currently assumed to be absent from the proposed project corridor and no
41 impacts on this species would be expected. Therefore, this species is not carried
42 forward for discussion in **Section 4.11**.

1 **Otay Tarplant.** This species is listed as threatened under the ESA, as
2 endangered under the CESA, and is covered under the Regional MSCP. The
3 Otay tarplant is restricted to clay soils, subsoils, or lenses. Historically, the Otay
4 tarplant occupied areas vegetated with native grassland, open coastal sage
5 scrub, and maritime succulent scrub. Currently, it occupies those communities,
6 but is also found on the margins of disturbed sites and cultivated fields.

7 One record of Otay tarplant is known from south of the west end of the western
8 access road. This record is well outside the project corridor and no impacts on
9 individuals in that area, if they still exist, would be anticipated. Therefore, this
10 species is dismissed from further analysis in this EIS.

11 **Otay Mesa Mint.** This species is listed as endangered under both the ESA and
12 the CESA, and is covered by the Regional MSCP. The Otay Mesa mint is an
13 endemic species of vernal pools of Otay Mesa in southern California.

14 No records of Otay Mesa mint are known from in or near the project corridor.
15 The closest known record for this species is over a mile west of the end of Otay
16 Mountain Truck Trail; well beyond potential impacts resulting from the Proposed
17 Action. Surveys of the access roads have not been completed. If surveys
18 indicate the presence of vernal pools within the access road corridors, this
19 species will be considered in detail. This species is currently assumed to be
20 absent from the proposed project corridor and no impacts on this species would
21 be expected. Therefore, this species is not carried forward for discussion in
22 **Section 4.11.**

23 **Spreading Navarretia.** This species is listed as threatened under the ESA, and
24 is covered by the Regional MSCP. It is a vernal pool specialist that is found in
25 small, shallow vernal pools. Unlike other species associated with vernal pools,
26 this species is also occasionally found in ditches and road ruts with similar
27 conditions to those of degraded vernal pools.

28 No records of spreading navarretia are known from in or near the project corridor.
29 The closest known record for this species is more than 4 miles west of the end of
30 Otay Mountain Truck Trail; well beyond potential impacts resulting from the
31 proposed action. Surveys of the access roads have not been completed. If
32 surveys indicate the presence of vernal pools within the access road corridors,
33 this species will be considered in detail. This species is currently assumed to be
34 absent from the proposed project corridor and no impacts on this species would
35 be expected. Therefore, this species is not carried forward for discussion in
36 **Section 4.11.**

37 **Mexican Flannelbush.** This species is listed as endangered under the ESA. It
38 is not covered by the Regional MSCP. The flannelbush occurs primarily in
39 closed-canopy coniferous forests dominated by Tecate cypress (*Cupressus*
40 *forbesii*) and southern mixed chaparral, often in metavolcanic soils. The
41 chaparral that the flannelbush occupies has dense shrub cover of moderate

1 height characterized by chamise (*Adenostoma fasciculatum*), buckbrush
2 (*Ceanothus* sp.) hollyleaf redberry (*Rhamnus ilicifolia*), manzanita
3 (*Arctostaphylos* sp.), scrub oak (*Quercus berberidifolia*), sugar sumac (*Rhus*
4 *ovate*), laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*),
5 California buckwheat, and black sedge (*Salvia mellifera*).

6 No record of Mexican flannelbush is known from within or near the proposed
7 project corridor. The nearest record is more than 2 miles north, and several
8 ridges away from the closest portion of the project corridor. No impacts on
9 individuals in that area, if they still exist, would be anticipated. Therefore, this
10 species is dismissed from further analysis in this EIS.

11 **California Orcutt Grass.** This species is listed as endangered under both the
12 ESA and the CESA, as well as covered by the Regional MSCP. This species
13 occurs in the beds of dried vernal pools, typically in grassland or chaparral (Smith
14 and Berg 1988).

15 No records of this grass are known from in or near the project corridor. The
16 closest known record for this species is more than 4 miles west of the end of the
17 western access road, well beyond potential impacts resulting from the Proposed
18 Action. Surveys of the access roads have not been completed. If surveys
19 indicate the presence of vernal pools within the access road corridors, this
20 species will be considered in detail. This species is currently assumed to be
21 absent from the proposed project corridor and no impacts on this species would
22 be expected. Therefore, this species is not carried forward for discussion in
23 **Section 4.11.**

24 **Encinitas Baccharis.** This species is listed as threatened under the ESA and
25 endangered under the CESA. It is also covered under the Regional MSCP. This
26 species is restricted to the southern maritime chaparral which is a low, fairly open
27 chaparral community.

28 No records of this species are known from in or near the proposed project
29 corridor. The closest known record is well over a mile north of and up Copper
30 Canyon from the project corridor. The only impacts on individuals at this
31 location, if they still exist, would be beneficial due to reduced cross-border
32 violator traffic through the area. Therefore, this species is dismissed from further
33 analysis in this EIS.

34 **Summary**

35 The following listed species or their habitats have the potential to occur within or
36 near the project corridor and therefore have the potential to be impacted by
37 implementation of the Proposed Action:

- 38 • Quino checkerspot butterfly
- 39 • Arroyo toad

- 1 • Coastal California gnatcatcher
- 2 • Least Bell's vireo
- 3 • Southwestern willow flycatcher.

4 Potential impacts on these species, and to migratory birds as a group, are
5 addressed in **Section 4.11**.

6 **3.12 CULTURAL RESOURCES**

7 Cultural resources is an umbrella term for many heritage-related resources. The
8 NHPA focuses on “historic properties,” specifically, prehistoric or historic district,
9 site, building, or structure included in, or eligible for, the National Register of
10 Historic Places (NRHP), including related artifacts, records, and material
11 remains. Traditional, religious, and cultural properties holding significance for
12 Native American tribes, and Native Alaskan and Native Hawaiian organizations
13 may also be considered NRHP-eligible. Depending on the condition and historic
14 use, such resources might provide insight into living conditions in previous
15 civilizations or might retain cultural and religious significance to modern groups.

16 Several Federal laws and regulations govern protection of cultural resources,
17 including the NHPA (1966), the Archaeological and Historic Preservation Act
18 (1974), the American Indian Religious Freedom Act (1978), the Archaeological
19 Resources Protection Act (1979), and the Native American Graves Protection
20 and Repatriation Act (NAGPRA) (1990).

21 Typically, cultural resources are subdivided into archaeological resources
22 (prehistoric or historic sites where human activity has left physical evidence of
23 that activity but no structures remain standing); architectural resources (buildings
24 or other structures or groups of structures, or designed landscapes that are of
25 historic or aesthetic significance); or resources of traditional, religious, or cultural
26 significance to Native American tribes. Archaeological resources comprise areas
27 where human activity has measurably altered the earth or deposits of physical
28 remains are found (e.g., projectile points and bottles).

29 Architectural resources include standing buildings, bridges, dams, and other
30 structures of historic or aesthetic significance. Generally, architectural resources
31 must be more than 50 years old to be considered for the NRHP. More recent
32 structures, such as Cold War-era resources, might warrant protection if they have
33 the potential to gain significance in the future. Resources of traditional, religious,
34 or cultural significance to Native American tribes can include archaeological
35 resources, structures, neighborhoods, prominent topographic features, habitat,
36 plants, animals, and minerals that Native Americans or other groups consider
37 essential for the preservation of traditional culture.

38 ***Ethnographic Context.*** The Area of Potential Effect (APE) for the Proposed
39 Action lies in the southern portion of San Diego County within the historical

1 territory of the Kumeyaay people. Kumeyaay is a native term referring to all
2 Yuman-speaking peoples living in the region from the San Dieguito River south
3 to the Sierra Juarez in Baja California and roughly west of present day Salton
4 Sea. A detailed description of the ethnographic background can be found in
5 **Appendix I.**

6 **Prehistoric Context.** Southern San Diego County contains archaeological
7 evidence of human use and occupation that spans the known periods of
8 prehistory. Dated to the Holocene, the earliest sites are known as the San
9 Dieguito complex (i.e., 9,000–7,500 years ago), so-named because the culture
10 was first defined at a site along San Dieguito River, about 20 miles north of the
11 APE for the Proposed Action. The archaeological remains from these sites
12 consist of large, stemmed projectile points and finely made scraping and
13 chopping tools, which were used for hunting and processing large game animals
14 (Moratto 1984).

15 The La Jolla complex (i.e., 7,500–2,000 years ago) followed the San Dieguito
16 complex. La Jollan sites are recognized by abundant millingstone assemblages
17 in shell middens often located near lagoons and sloughs. This complex is
18 associated with a shift from hunting to a more generalized subsistence strategy
19 relying on a broader range of resources, including plants, shellfish, and small
20 game. La Jollan sites occur in larger numbers than those of the preceding San
21 Dieguito complex, and are found across a greater range of environmental zones.

22 As elsewhere during late prehistory in southern California, the Yuman complex
23 (i.e., 1,300–200 years ago) was a time of cultural transformation. Beginning
24 about 1,000 years ago, Yuman-speaking groups moved into the San Diego area.
25 These later populations are recognized by distinctive small projectile points,
26 ceramic vessels, and an increase in the use of mortars. The acorn became an
27 increasingly important component of the diet, although subsistence pursuits from
28 earlier periods continued. The number of Yuman-complex sites dramatically
29 outnumbers those from the earlier periods. A detailed description of the
30 prehistoric context can be found in **Appendix I.**

31 **Historic Context.** The historical period includes Spanish expeditions of the Alta
32 California coast. In the 1760s, spurred on by the threat to Spanish holdings in
33 Alta California by southward expansion of the Russian sphere of influence, the
34 Spanish government began planning for the colonization of Alta California (Rolle
35 1978). Mission San Diego de Alcalá was established on July 16, 1769, at the
36 present-day location of the San Diego Presidio. For the next 50 years, mission
37 influence grew in southern California. Mission San Luis Rey de Francia, north of
38 San Diego in present-day Oceanside, was established on June 13, 1798. The
39 mission economy was based on farming and open-range ranching over vast
40 expanses of territory.

41 Mexican independence from Spain in 1821 was followed by secularization of the
42 California missions in 1832. Between 1833 and 1845, the newly formed Mexican

1 government began to divide up the immense church holdings into land grants. By
2 the 1840s, ranches, farms, and dairies were being established throughout the El
3 Cajon Valley, along the Sweetwater River, and in nearby areas.

4 The rancho era in California was short-lived and, in 1848, Mexico ceded
5 California to the United States under the Treaty of Guadalupe Hidalgo. Growth
6 of the region was comparatively rapid after succession. Subsequent gold rushes,
7 land booms, and transportation development all played a part in attracting
8 settlers to the area. San Diego County was created in 1850, the same year that
9 the City of San Diego was incorporated. Over the next 20 years, the county's
10 population increased sixfold and the city population more than tripled. By the late
11 1800s, the county was still growing and a number of outlying communities
12 developed around the old ranchos and land grants, in particular areas in the
13 southern limits of the county (Collett and Cheever 2002).

14 Throughout the early 20th century, most of San Diego County remained primarily
15 rural. Like most of southern California, this region changed rapidly following
16 World War II when the pace of migration and growth quickened. Today, southern
17 San Diego County has transformed into a burgeoning metropolis with
18 unprecedented urban expansion. The remoteness of the proposed project
19 corridor has resulted in a generally undeveloped appearance with the exception
20 of access roads, heavily used footpaths, and the accumulation of modern trash.

21 **Previously Recorded Resources.** An archaeological site record and archival
22 search was conducted at the South Coastal Information Center in accordance
23 with the requirements of NHPA Section 106 (36 CFR 800.4 [2, 3, and 4]). The
24 archaeological site record and archival search were conducted to identify and
25 collect data for cultural resources sites and isolates recorded within a 0.5-mile
26 radius of the proposed project APE. A search of the National Archaeological
27 Data Base also was completed in an effort to identify cultural resources
28 management reports for previously completed cultural resources management
29 activities (archaeological survey or evaluation excavations) in or near the APE.
30 Finally, the NRHP was reviewed for information on historic properties that are or
31 have the potential to be listed.

32 A letter to initiate consultation was sent to 14 tribal groups with cultural links to
33 the proposed project corridor (**Appendix C**). This letter was provided to initiate
34 consultation and solicit comment on traditional cultural properties and areas of
35 concern. No responses have been received to date.

36 A review of the archaeological site records and archival information, including
37 site (CA-SDI) and Primary (P-37) plot USGS maps (Otay Mountain and Tecate,
38 California 7.5-minute quads) and the National Archaeological Data Base
39 indicates that two cultural resources studies have been conducted within the
40 vicinity of the APE (Foster and Jenkins 1984, Cotterman and Espinoza 2002).
41 These studies covered large areas associated with the Otay Mountain Pack Trail
42 (sometimes known as the Pack Trail) and with Heard Ranch.

1 Previously recorded archaeological resources include six prehistoric sites, five
 2 isolates, and an historic trail (see **Table 3.12-1** and **Appendix I**). Five of the
 3 recorded sites are along the Pack Trail and the sixth is near, but not within the
 4 Section A-2 proposed project corridor. The five sites along the trail are all within
 5 the APE based on site mapping information.

6 **Table 3.12-1. Previously Recorded Archaeological Resources**

Site Number	Site Description
P-37-015715	Isolate-Interior dacite flake
P-37-015716	Pack Trail
P-37-024688	Isolate-Dark gray basalt flake
P-37-024689	Isolate- Light brown dacite core and light brown dacite flake
P-37-024690	Isolate-Brown dacite flake
P-37-024691	Isolate-Gray basaltic flake
CA-SDI-16368	Sparse lithic artifact scatter
CA-SDI-16369	Small flaked lithic artifact and prehistoric ceramic scatter
CA-SDI-16370	Seasonal camp with two milling features and a sparse flaked lithic artifact scatter
CA-SDI-16371	Sparse flaked lithic artifact scatter
CA-SDI-16372	Dense flaked lithic artifact scatter
CA-SDI-9968	Extensive bedrock milling features with sparse flaked lithic artifact scatter

7 An intensive pedestrian survey of the entire project alignment was completed in
 8 November 2007. The survey was completed under a Fieldwork Authorization
 9 Permit granted by the BLM Palm Springs/Bakersfield Field Office (Permit No.
 10 CA-08-03). Several weeks prior to the survey a severe wildfire burned all of the
 11 Section A-2 area and affected smaller portions of the Section A-1 area (see
 12 **Appendix I**).

13 **Section A-1**

14 ***Previously Recorded Resources***

15 *The Pack Trail (P-37-015716)*. The Pack Trail winds over chaparral-covered
 16 slopes on the flank of the San Ysidro Mountains. The conditions are rocky and
 17 generally sloped with a series of north-south-trending ridges cut by deep canyons
 18 created by runoff to the Tijuana River from the mountain. The elevation ranges
 19 from 440 to 1,330 feet above MSL. According to Mitchell (1997) the Pack Trail
 20 averaged approximately 20 inches in width and was formed by clearing brush
 21 and pushing “conspicuous” rocks to the side. The trail was difficult to follow in its
 22 entirety as heavy vegetation, topography, and “hundreds” of footpaths from
 23 migrant human groups as well as large livestock activity, obscure the primary
 24 path. Mitchell surveyed the trail in 1996, after a wildfire cleared vegetation from a
 25 large section of the trail. The trail was resurveyed in 2002 by Chambers Group,

1 Inc. (2002) and found to be nearly 1 to 3 meters in width along its full length,
2 brush-free, and easy to follow despite the many intersecting footpaths.
3 Chambers noted the possibility that the trail had been altered through the use of
4 picks and shovels to excavate a more suitable path along the steep ridge slopes
5 and to form a more defined pathway. The trail ranges from a surface
6 manifestation to a path that is excavated as much as 60 centimeters into the
7 hillsides. The trail runs parallel to the international border and within 1 meter of
8 the border in many areas and more than 550 meters from the border in other
9 areas.

10 The research completed by Mitchell (1997) concluded that the trail was
11 constructed in the 1930s or 1940s to bring fencing material up the steep
12 mountain flanks to construct a fence along the border. Mitchell (1997) presented
13 the notion that the barbed wire fence was constructed to maintain a separation of
14 livestock and not as a means of controlling human population movement.
15 Mitchell (1997) and the Chambers Group, Inc. (2002) both concluded that the
16 Pack Trail is not associated with any persons or events of particular importance
17 in regional transportation history and is not the work of a master and in
18 Chambers view the trail has been significantly modified from the original form
19 and, as such, the trail is not eligible for nomination to the NRHP.

20 The pedestrian survey completed in November 2007 confirmed both the
21 configuration and condition of the trail. The inspection and survey followed the
22 existing trail, beginning at the western end. There were no associated historic or
23 prehistoric artifacts identified within the narrow confines of the trail. A more
24 detailed discussion is provided in **Appendix I**.

25 *CA-SDI-16368*. *CA-SDI-16388* was recorded by the Chambers Group in 2002
26 and described as a sparse lithic scatter approximately 18 meters north of the
27 U.S./Mexico international border. *CA-SDI-16368* is described as a single
28 metavolcanic boulder measuring approximately 1.1 by 0.85 meters with several
29 pieces of rock chipped from the surface of this boulder. The Chambers Group
30 described the shatter as representing an opportunistic prehistoric quarry.
31 According to the California Department of Parks and Recreation (CDPR) site
32 record, the site is bisected by the Pack Trail. There was no evidence of flakes or
33 shatter found at the plotted or Universal Transverse Mercator- (UTM-) based
34 location.

35 *CA-SDI-16369*. *CA-SDI-16369* is recorded as a prehistoric ceramic and stone
36 artifact scatter approximately 8 meters north of the Otay Mountain Truck Trail
37 and 50 meters north of the U.S./Mexico international border. As plotted, the site
38 is outside the project alignment. The site is recorded as containing
39 approximately 70 sherds of prehistoric pottery, approximately 10 pieces of stone
40 shatter, and a core. In addition to the artifacts, a single granite outcrop was
41 described as having a possible milling slick. The site record indicates that a
42 subsurface component to this resource was not expected. As plotted, this site is
43 on the Mexico side of the border and is outside the existing project.

1 CA-SDI-16370. CA-SDI-16370 is a sparse lithic scatter with two associated
2 milling slicks. This site is recorded at the convergence of three tributaries of the
3 Tijuana River, with materials found in both the United States and Mexico. The
4 site is reported to be 10 meters south of the Pack Trail. During the initial survey
5 (Chambers Group Inc. 2002), approximately 16 pieces of debitage (shatter) were
6 found scattered over an area 18 meters by 10 meters. Two milling slicks were
7 identified on a boulder in Mexico. As plotted, this site is in Mexico and the stone
8 artifacts were not relocated during the current survey.

9 CA-SDI-16371. CA-SDI-16371 is categorized as a sparse lithic scatter with
10 approximately 8 pieces of chipping waste and a single metavolcanic core
11 scattered over an area 8 by 4 meters. As recorded, the site is plotted on a
12 southeast-facing slope, 30 meters northwest of the bottom of Buttewig Canyon
13 (Chambers Group Inc. 2002). The site form indicated that a subsurface
14 component to the site was not expected. This site was not relocated during the
15 current survey.

16 CA-SDI-16300. CA-SDI-16300 is a moderately dense stone artifact scatter at the
17 intersection of Puebla Tree and White Cross Road. This site is not within the
18 Otay Mountain Truck Trail route, but along an access road to the proposed
19 project. The site is approximately 800 by 600 meters in size and is on the
20 eastern side of a small hill. Artifacts include approximately 300 pieces of
21 chipping waste and several cores. The site was identified during the current
22 survey at the location plotted on the site record. Although the recorded
23 information for this resource suggests that CA-SDI-16300 is potentially eligible
24 for NRHP nomination, eligibility evaluations have not been conducted. This site
25 appears to be one of several opportunistic quarries where available fine-grained
26 metavolcanic stone was tested for suitability for prehistoric tool manufacture.
27 There was no evidence at the site of a buried component or of formal tools such
28 as blades, performs, or hammerstones.

29 **Previously Recorded Isolates.** Four prehistoric isolates (P-37-15715, P-37-
30 024688, P-37-024689, and P-37-024691) were recorded by the Chambers Group
31 in 2002. Each isolate is a single piece of metavolcanic chipping waste (flake or
32 shatter) with no other associated artifacts or features. None of the isolates were
33 relocated during the current survey. As defined, isolates are not eligible for
34 National Register consideration since they do not contain the potential to address
35 regional research questions.

36 **Newly Recorded Resources.** During the course of the pedestrian survey, two
37 newly discovered archaeological sites and two isolated finds were identified and
38 recorded. Both archaeological sites are small, prehistoric quarries with a limited
39 amount of debitage scattered over the ground surface. These quarries represent
40 opportunistic extraction and sampling of the naturally occurring metavolcanic
41 stone to determine its overall suitability for creating flaked-stone implements. It
42 appears that these naturally occurring outcrops were examined for quality stone
43 material, which was reduced with the removal of cortex followed by the transport

1 of usable stone to various field camps and habitation areas for further reduction
2 and tool manufacture. The locations of these field camps and habitation areas
3 are not known, although it is likely there are a number of them in the project
4 vicinity.

5 The individual artifacts found at the newly discovered sites do not represent a
6 specific period of occupation other than an association with the broad prehistoric
7 past. The previously recorded site CA-SDI-16300 and the two newly discovered
8 sites CA-SDI-18578 and -18579 are representative of special use prehistoric
9 quarry areas. The study area contains a number of exposed Santiago Peak
10 metavolcanic cobbles or boulders that are suitable for making prehistoric tools.
11 This is a fine-grained stone, generally blue to blue-green in color which provides
12 a predictable fracture plane and is seen throughout the southern part of San
13 Diego County as a source stone for flaked stone tools. Based on the current
14 survey these small quarry locales do not include an associated buried deposit or
15 other evidence of prehistoric settlement or use.

16 The appropriate CDPR forms have been completed and were submitted to the
17 South Coastal Information Center for assignment of official trinomials and
18 Primary designations. Those trinomials are used here.

19 *Truck Trail – CA-SDI-18578.* Truck Trail CA-SDI-18578 represents a location
20 where a limited number of flakes were removed from small metavolcanic
21 cobbles. This site is on a small, plateau that is bisected by the Truck Trail. The
22 site assemblage consists of approximately 50 pieces of fine-grained
23 metavolcanic debitage. This material appears to have been removed from
24 several moderately sized metavolcanic cobbles. The site appears to have been
25 created by “testing” or extraction of usable stone material for making formal tools
26 such as scrapers and projectile points. With the exception of a few cores and the
27 debitage, no other artifacts were found. The artifact scatter measures
28 approximately 20 by 30 meters, with the majority of the artifacts found on the
29 north side of the Truck Trail. Given the soil conditions and the geology of the
30 area the potential for a subsurface deposit is considered very low for this site.
31 Although CA-SDI-18578 is approximately 250 meters to the east of CA-SDI-
32 16370 and contains similar artifacts, this site is believed to be a new resource.
33 While it is possible that the plotted location of CA-SDI-16370 could be offset by
34 250 meters, this is not supported by the current work effort.

35 *Truck Trail – CA-SDI-18579.* Truck Trail CA-SDI-18579 is a small flake scatter
36 with a scraper and a broken mano. The site is at the east end of the Truck Trail,
37 on a small plateau overlooking the Tijuana River drainage. As with CA-SDI-
38 18578, this site is defined by a number of moderate-sized metavolcanic cobbles
39 that appear to have been tested for suitability for the creation of flaked stone
40 tools. The resulting debitage and cores are what define this site area. The area
41 is also used as a helicopter landing pad (Pad 33) by the Border Patrol. The
42 Truck Trail passes approximately 20 meters to the north of the site. Surface
43 artifacts consist of approximately approximately 15 pieces of fine-grained

1 metavolcanic chipping waste, a scraper, and a mano fragment, scattered over an
2 area 20 by 30 meters. The two formal tools are a fine-grained metavolcanic
3 scraper and a granite mano fragment.

4 **Newly Discovered Isolates.** Two isolated finds, both fine-grained metavolcanic
5 flakes, were found along the survey route. These items were not recorded but
6 were noted on the project maps. No additional artifacts or archaeological
7 resources (prehistoric or historic) were found during the survey.

8 **Section A-2**

9 **Previously Recorded Sites**

10 *CA-SDI-9101.* This two-locus site is a bedrock milling complex with a scatter of
11 flaked stone artifacts and a second locus with a scatter of flaked stone and one
12 ground stone artifacts. This site was recorded in 1981 by the BLM as part of the
13 Mission Park application. The site is south of Tecate Mission Road (also known
14 as South Grape View) for Section A-2 and outside of the proposed project
15 corridor with a sufficient buffer.

16 *CA-SDI-9102.* This site is several thousand meters to the west of CA-SDI-9102
17 and is a small scatter of flaked stone artifacts. This site was recorded in 1981 by
18 the BLM during the survey for the Mission Park application. The site is south of
19 the access road for Section A-2 (i.e., Tecate Mission Road) and is outside the
20 proposed project corridor with a sufficient buffer.

21 *CA-SDI-9968.* This site was recorded in 1984 and is known as the Heard Ranch
22 site. The site occupies land on both sides of the international border and
23 surrounds an historic residence that is currently occupied. The site is at the
24 southern end of the access road (i.e., Tecate Mission Road) for Section A-2 and
25 is on private property. There are numerous bedrock milling features on the large
26 granite boulders with a surface scatter of flaked and ground stone artifacts as
27 well as pockets of dark soil which could indicate accumulated midden.
28 Inspection of the site was limited during the current project because of private
29 property restrictions, though surface indications did not demonstrate that this site
30 extends to the access road.

31 **Newly Recorded Sites.** The survey of the Section A-2 proposed project corridor
32 resulted in the recording of one new cultural resource site. This site is referred to
33 as GV-1 and was identified along Tecate Mission Road. The site is a bedrock
34 milling station with a light surface scatter of debitage. Three slicks were recorded
35 on a single, large granite boulder. The site is on the edge of the existing road
36 with no evidence that it continues into the road right-of-way.

37 **Architectural Resources.** Review of maps and land records indicate that there
38 are no buildings or structures present within the APE, or with viewsheds that
39 would include the construction corridor for the Proposed Action. Accordingly, the
40 Proposed Action would have no impact on architectural resources.

1 **Resources of Traditional, Religious, and Cultural Significance to Native**
2 **American Tribes.** A review of the NRHP provided information on one sacred
3 site within the vicinity of the construction corridor for the Proposed Action.
4 Kuchamaa/Tecate Peak is identified as an ACEC by the BLM. This area
5 encompasses a sacred mountain (Tecate Peak) that is a spiritual center for
6 Native American people of southern California and northern Baja California.
7 Tecate Peak was placed on the NRHP by the County of San Diego in 1992
8 (#92001268). This resource is listed for religious or ceremonial reasons and it is
9 identified as a ceremonial site.

10 In 1981, a proposal to build a campground on the lower slopes of Tecate Peak
11 initiated the preparation of an Environmental Impact Report by the BLM. As a
12 result of research into ethnographic literature and Native American consultation,
13 the BLM sought a nomination of Kuchamaa as a NRHP district. The Tecate
14 Peak District encompasses 510 acres of both state and Federal lands. The
15 district was determined to be eligible for the NRHP based upon its uniqueness as
16 a site of extreme religious significance to the Kumeyaay and other Indians
17 throughout southern California. It should be noted that portions of Kuchamaa are
18 still privately owned. This creates a dilemma for the Kumeyaay, who feel that
19 they risk personal harm by divulging information about their sacred mountain, but
20 that, should portions of it be developed, the power of the site would be
21 diminished. A detailed discussion is included in **Appendix I**.

22 **3.13 VISUAL RESOURCES**

23 Visual resources include both natural and man-made features that influence the
24 visual appeal of an area for residents and visitors. Visual resources can be
25 defined as the visible physical features on a landscape (e.g., land, water,
26 vegetation, animals, structures, and other features).

27 In order to meet its responsibility to maintain the scenic values of public lands,
28 BLM has developed a Visual Resource Management (VRM) system based on
29 human perceptions and expectations in the context of the existing landscape.
30 Different levels of scenic values require different levels of management.
31 Determining how an area should be managed first requires an assessment of the
32 area's scenic values. For management purposes, BLM has developed Visual
33 Resource Classes.

- 34 1. *Class I Objective.* The objective of this class is to preserve the existing
35 character of the landscape. This class provides for natural ecological
36 changes but also allows very limited management activity. The level of
37 change to the characteristic landscape should be very low and must not
38 attract attention.
- 39 2. *Class II Objective.* The objective of this class is to preserve the existing
40 character of the landscape. The level of change to the characteristic
41 landscape should be low. Management activities are allowed, but should

1 not attract the attention of the casual observer. Any changes must repeat
2 the basic elements of form, line, color, and texture found in the
3 predominant natural features of the characteristic landscape. New
4 projects can be approved if they blend in with the existing surroundings
5 and don't attract attention.

6 3. *Class III Objective.* The objective of this class is to partially retain the
7 existing character of the landscape. The level of change to the
8 characteristic landscape should be moderate. Management activities
9 might attract attention but should not dominate the view of the casual
10 observer. Changes should repeat the basic elements found in the
11 predominant natural features of the characteristic landscape. New
12 projects can be approved that are not large-scale, dominating features.

13 4. *Class IV Objective.* The objective of this class is to provide for
14 management activities which require major modifications of the existing
15 character of the landscape. The level of change to the characteristic
16 landscape can be high. These management activities can dominate the
17 view and be the major focus of viewer attention. However, every attempt
18 should be made to minimize the impact of these activities through careful
19 location, minimal disturbance, and repeating the basic elements of
20 predominant natural features (BLM 1986a).

21 **Section A-1**

22 As discussed in **Section 3.4**, the majority of the Proposed Action would be on
23 Federal lands managed by the BLM. The area surrounding the Section A-1 falls
24 into two classes. The OMW, north of the Proposed Action, is classified as a
25 Class I Visual Resource and the BLM-managed land surrounding the OMW are
26 designated as a Class III Visual Resource.

27 **Section A-2**

28 Although Section A-2 of the Proposed Action is mostly on private property, the
29 area would be designated as a Class III Visual Resource under the BLM VRM
30 system.

31 **3.14 SOCIOECONOMIC RESOURCES, ENVIRONMENTAL JUSTICE, AND** 32 **PROTECTION OF CHILDREN**

33 ***Socioeconomic Resources.*** Socioeconomics is defined as the basic attributes
34 and resources associated with the human environment, particularly
35 characteristics of population and economic activity.

36 Socioeconomic data shown in this section are presented at the community and
37 county levels to characterize baseline socioeconomic conditions in the context of
38 regional and state trends. Data have been collected from previously published

1 documents issued by Federal, state, and local agencies; and from state and
2 national databases (e.g., U.S. Census Bureau).

3 **Environmental Justice, Protection of Children, and Safety.** There are no
4 Federal regulations on socioeconomics; however, there is one EO that pertains
5 to environmental justice issues based on socioeconomic and racial makeup of an
6 affected population and the health effects that could be imposed on them. On
7 February 11, 1994, President Clinton issued EO 12898, *Federal Actions to*
8 *Address Environmental Justice in Minority Populations and Low-Income*
9 *Populations*. This EO requires that Federal agencies' actions substantially
10 affecting human health or the environment do not exclude persons, deny persons
11 benefits, or subject persons to discrimination because of their race, color, or
12 national origin. The EO was created to ensure the fair treatment and meaningful
13 involvement of all people regardless of race, color, national origin, or income with
14 respect to the development, implementation, and enforcement of environmental
15 laws, regulations, and policies. Fair treatment means that no groups of people,
16 including racial, ethnic, or socioeconomic groups, should bear a disproportionate
17 share of the negative environmental consequences resulting from industrial,
18 municipal, and commercial operations or the execution of Federal, state, tribal,
19 and local programs and policies. Consideration of environmental justice
20 concerns includes race, ethnicity, and the poverty status of populations in the
21 vicinity of a proposed action. Such information aids in evaluating whether a
22 proposed action would render vulnerable any of the groups targeted for
23 protection in the EO.

24 In addition to EO 12898, President Clinton issued EO 13045, *Protection of*
25 *Children From Environmental Health Risks and Safety Risks*. This EO called for
26 the protection of children from exposure to disproportionate environmental health
27 and safety risks. This EO established that each agency has a responsibility to
28 ensure that its policies, programs, activities, and standards address risk to
29 children that result from environmental health risks or safety risks.

30 **Sections A-1 and A-2**

31 **Socioeconomic Resources.** The proposed tactical infrastructure of Sections
32 A-1 and A-2 are within southern San Diego County. As of January 1, 2007, San
33 Diego County had a population of 3,098,269, which is a 10.1 percent increase
34 over the 2000 Census population (SANDAG 2007b). Sections A-1 and A-2
35 would be located in relatively sparsely populated areas of San Diego County;
36 however the Mexican cities of Tijuana and Tecate, which have a combined
37 population of more than 2 million people, are along the U.S./Mexico international
38 border to the southwest and southeast, respectively, of the Proposed Action.
39 Section A-1 is adjacent to the OMW and near the community of Otay Mesa,
40 California. Section A-2 is just west of the community of Tecate, California, and
41 within the Zip Code 91980. Otay Mesa and Tecate, California, were chosen as
42 the Regions of Influence (ROIs) for the Proposed Action because they best
43 represent the socioeconomic and demographic characteristics of the area. ROI 1

1 (community of Otay Mesa) is defined by the City of San Diego Otay Mesa
 2 Community Planning Area, while ROI 2 (community of Tecate) is defined by Zip
 3 Code 91980.

4 Otay Mesa is a community within the City of San Diego that has undergone
 5 considerable commercial and industrial development in recent years. As of
 6 January 1, 2007, Otay Mesa had a population of 13,892, which is a 698 percent
 7 increase from the 2000 U.S. Census population of 1,740 (SANDAG 2007c).
 8 Otay Mesa has become the largest commercial land border port and one of the
 9 busiest commercial land border crossings in the United States (Otay Mesa
 10 undated).

11 Tecate, California, is an unincorporated community in San Diego County that is
 12 directly adjacent to the Mexican City of Tecate, Baja California. The community
 13 of Tecate, California, is a relatively sparse area that had a population of 177
 14 during the 2000 Census, but as of January 1, 2007, the population had
 15 decreased by approximately 22 percent to 139 (see **Table 3.14-1**) (SANDAG
 16 2007d).

17 **Table 3.14-1. State, County, and ROI Population Trends Comparison**

Year	State of California	San Diego County	ROI 1 (Community of Otay Mesa)	ROI 2 (Community of Tecate)
2000	33,871,648	2,813,833	1,740	177*
2007	37,662,518	3,098,269	13,892	139
Change 2000 to 2007	11.2%	10.1%	698.4%	-21.5%

Source: U.S. Census Bureau 2000, State of California 2006, SANDAG 2007b, SANDAG 2007c, SANDAG 2007d.

Note: * Minor adjustments were made to the 2000 U.S. Census total population data for Zip Code 91980 after its initial release in order to more accurately reflect the region's true population and housing distribution. Therefore, the total population for Zip Code 91980 (Community of Tecate) in Table 3.14-1, which used data from 2007, is different from that used in Table 3.14-2, which used 2000 data.

18 Based on 2000 U.S. Census data, employment types in the affected ROIs vary
 19 (see **Table 3.14-2**). The largest employment type in ROIs 1 and 2, San Diego
 20 County, and California is educational, health, and social services (21.1, 25.5,
 21 19.4, and 18.5 percent, respectively) (SANDAG 2003a, SANDAG 2003b,
 22 SANDAG 2003c, U.S. Census Bureau 2000). In 2006, the unemployment rate in
 23 San Diego County was 4 percent (Fedstats 2007).

24 **Environmental Justice, Protection of Children, and Safety.** As of January
 25 2007, approximately 44 percent of the 13,892 people living in Otay Mesa were
 26 Hispanic. Of the non-Hispanic residents, approximately 45 percent were White;
 27 41 percent were Black or African American; 12 percent were Asian and Pacific
 28

1 **Table 3.14-2. Employment Type of Residents in State, County, and ROIs**

Economic and Social Indicators	State of California	San Diego County	ROI 1 (Community of Otay Mesa)	ROI 2 (Community of Tecate)
Employed Persons in Armed Forces (Percent of Employed Total Population, Age 16 and over)	0.9	6.5	3.8	0.0
Employed Persons By Industry (Percent of Employed Civilian Population, Age 16 and over)				
Agriculture, forestry, fishing and hunting, and mining	1.9	0.7	0.0	5.5
Construction	6.2	6.6	3.8	14.5
Manufacturing	13.1	11.0	12.6	3.6
Wholesale trade	4.1	3.2	3.3	5.5
Retail trade	11.2	11.3	11.8	7.3
Transportation and warehousing, and utilities	4.7	3.8	7.1	1.8
Information	3.9	3.5	4.5	1.8
Finance, insurance, real estate, and rental and leasing	6.9	7.1	5.6	0.0
Professional, scientific, management, administrative, and waste management services	11.6	13.3	6.9	5.5
Educational, health and social services	18.5	19.4	21.1	25.5
Arts, entertainment, recreation, accommodation and food services	8.2	9.6	7.9	14.5
Other services (except public administration)	5.2	5.2	4.6	7.3
Public administration	4.5	5.4	11.0	7.3

2 Source: U.S. Census Bureau 2000, SANDAG 2003c, SANDAG 2003a, SANDAG 2003b

3 Islander; 2 percent were of some other race; and 0.6 percent were American
 4 Indian. As of 2007 the median household income was \$97,694 (current dollars)
 5 and the approximate median age was 38.3. The approximate percentage of the
 6 population under the age of 5 years old in Otay Mesa was 3.2 percent in 2007
 7 (SANDAG 2007c). As of January 2007, the Zip Code 91980, containing Tecate,
 8 was 37.4 percent Hispanic, and of the non-Hispanic population, 78.2 percent
 9 were White, 8.0 were Black or African American, 5.7 percent were American

1 Indian, 2.3 percent were Asian or Pacific Islander, 5.7 percent were some other
 2 race. The 2007 median household income in Zip Code 91980 was \$38,776
 3 (current dollars) and the approximate median age was 35 years old (SANDAG
 4 2007d).

5 Demographics in Otay Mesa and Tecate, California, are similar to those in San
 6 Diego County. As of 2007, approximately 29.3 percent of the population in San
 7 Diego County was Hispanic, and of the non-Hispanic population, 72.9 percent
 8 were White, 13.9 percent were Asian or Pacific Islander, 7.6 percent were Black
 9 or African American, 4.8 percent were some other race, and 0.7 percent was
 10 American Indian. San Diego County’s 29.3 percent Hispanic population is lower
 11 than Otay Mesa and Tecate, however the 2007 median household income (in
 12 current dollars) in San Diego County and Tecate, California (\$68,388 and
 13 \$97,694 respectively) were lower than the median household income of Otay
 14 Mesa (\$97,694) (see **Table 3.14-3**) (SANDAG 2007b). This trend is also
 15 reflected in the poverty status. Based upon 2000 U.S. Census data, 13 percent
 16 of the population in San Diego County and 8 percent in Tecate, California, lived
 17 below the poverty line, while 4 percent lived below the poverty line in Otay Mesa
 18 (see **Table 3.14-3**) (SANDAG 2003a, SANDAG 2003b).

19 **Table 3.14-3. 2007 Demographic and Economic Characteristics**
 20 **of ROIs and San Diego County**

	San Diego County	ROI 1 (Community of Otay Mesa)	ROI 2 (Community of Tecate)
2007 Total Population	3,098,269	13,892	139
Percent Hispanic	29.3	43.9	37.4
Percent Non-Hispanic	70.7	56.1	62.6
Percent White	72.9	44.8	78.2
Percent Black or African American	7.6	41.2	8.0
Percent American Indian	0.7	0.6	5.7
Percent Asian or Pacific Islander	13.9	11.5	2.3
Percent “Some other race”	4.8	1.9	5.7
Median Household Income	\$68,388	\$97,694	\$38,776

21 Source: SANDAG 2007b, SANDAG 2007c, SANDAG 2007d

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SECTION 4

Environmental Consequences



4. ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter presents an analysis of the potential direct and indirect impacts each alternative would have on the affected environment, as characterized in **Section 3**. Alternatives were evaluated against their potential impact on environmental resources; including social, natural, cultural, and visual resources.

In developing this EIS, the proponent agencies adhered to the procedural requirements of NEPA, the CEQ regulations for implementing NEPA (40 CFR 1500–1508), and *National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts*. The following discussion elaborates on the nature of the characteristics that might relate to various impacts:

- *Short-term or long-term*. These characteristics are determined on a case-by-case basis and do not refer to any rigid time period. In general, short-term impacts are those that would occur only with respect to a particular activity or for a finite period or only during the time required for construction or installation activities. Long-term impacts are those that are more likely to be persistent and chronic.
- *Direct or indirect*. A direct impact is caused by a Proposed Action and occurs at or near the location of the action. An indirect impact is caused by a Proposed Action and might occur later in time or be farther removed in distance but still be a reasonably foreseeable outcome of the action.
- *Negligible, minor, moderate, or major*. These relative terms are used to characterize the magnitude or intensity of an impact. Negligible impacts are generally those that might be perceptible but are at the lower level of detection. A minor impact is slight, but detectable. A moderate impact is readily apparent. A major impact is one that is severely adverse or exceptionally beneficial.
- *Significance*. Significant impacts are those that, in the specific context within which they occur and due to their intensity (severity), meet the thresholds for significance set forth in CEQ regulations (40 CFR 1508.27). This EIS meets the agencies' requirements to prepare a detailed statement on major Federal actions significantly affecting the quality of the human environment (42 U.S.C. 102.2(c)).
- *Adverse or beneficial*. An adverse impact is one having adverse, unfavorable, or undesirable outcomes on the man-made or natural environment. A beneficial impact is one having positive outcomes on the man-made or natural environment. A single act might result in adverse impacts on one environmental resource and beneficial impacts on another resource.

- 1 • *Context.* The context of an impact can be localized or more widespread
2 (e.g., regional). While the definition of the term “local” (or localized) can
3 vary by resource, it can be broadly defined as one that occurs within an
4 established regulatory limit (e.g., 100-meter mixing boundary) or within
5 approximately 10 kilometers (6 miles) of the source. “Regional” impacts
6 are broadly defined as those that occur on the order of 100 kilometers (62
7 miles) or more from the source.
- 8 • *Intensity.* The intensity of an impact is determined through consideration
9 of several factors, including whether the Proposed Action might have an
10 adverse impact on the unique characteristics of an area (e.g., historical
11 resources, ecologically critical areas), public health or safety, or
12 endangered or threatened species or designated critical habitat. Impacts
13 are also considered in terms of their potential for violation of Federal,
14 state, or local environmental law; their controversial nature; the degree of
15 uncertainty or unknown effects, or unique or unknown risks; if there are
16 precedent-setting effects; and their cumulative impact (see **Section 6**).

17 For each resource area, the evaluation criteria provide a framework for
18 establishing whether an impact would be negligible, minor, moderate, or major.
19 Although some evaluation criteria have been designated based on legal or
20 regulatory limits or requirements, others are based on best professional judgment
21 and BMPs. The evaluation criteria include both quantitative and qualitative
22 analyses, as appropriate to each resource.

23 **4.2 AIR QUALITY**

24 **4.2.1 No Action Alternative**

25 Under the No Action Alternative, USBP would not construct or maintain new
26 tactical infrastructure in the USBP San Diego Sector and operational activities
27 would remain unchanged. Therefore, the No Action Alternative would not create
28 any additional impacts on air quality beyond those that are already occurring, as
29 described in **Section 3.2**.

30 **4.2.2 Proposed Action**

31 Regulated pollutant emissions from the Proposed Action would not contribute to
32 or affect local or regional attainment status with the NAAQS. The Proposed
33 Action would generate air pollutant emissions during construction and
34 maintenance of the proposed tactical infrastructure.

35 **Proposed Construction Projects**

36 Major, short-term, adverse impacts would be expected from construction
37 emissions and land disturbance associated with the Proposed Action.

1 The construction projects would generate total suspended particulate and PM₁₀
2 emissions as fugitive dust from ground-disturbing activities (e.g., grading,
3 trenching, soil piles) and from combustion of fuels in construction equipment.
4 Fugitive dust emissions would be greatest during the initial site preparation
5 activities and would vary from day to day depending on the construction phase,
6 level of activity, and prevailing weather conditions. The quantity of uncontrolled
7 fugitive dust emissions from a construction site is proportional to the area of land
8 being worked and the level of construction activity.

9 Construction operations would also result in emissions of criteria pollutants as
10 combustion products from construction equipment. These emissions would be of
11 a temporary nature. The NAAQS emissions factors and estimates were
12 generated based on guidance provided in USEPA AP-42, Volume II, *Mobile*
13 *Sources*. Fugitive dust emissions for various construction activities were
14 calculated using emissions factors and assumptions published in USEPA's
15 AP-42 Section 11.9.

16 For purposes of this analysis, the project duration and affected proposed project
17 corridor that would be disturbed (presented in **Section 2**) were used to estimate
18 fugitive dust and all other pollutant emissions. The construction emissions
19 presented in **Table 4.2-1** include the estimated annual construction PM₁₀
20 emissions associated with the Proposed Action. These emissions would produce
21 slightly elevated short-term PM₁₀ ambient air concentrations. However, the
22 impacts would be temporary, and would fall off rapidly with distance from the
23 proposed construction sites. As seen in **Table 3-1**, the emissions of NAAQS
24 pollutant is not high; would not contribute to the deterioration of the air quality in
25 the region; does not exceed the *de minimis* threshold limits for nitrogen oxide
26 (NO_x), volatile organic compounds (VOCs), and PM_{10/2.5}; and does not exceed 10
27 percent of the regional values.

28 The construction emissions presented in **Table 4.2-1** include the estimated
29 annual emissions from construction equipment exhaust associated with the
30 Proposed Action in Calendar Year 2008 and operation of diesel-powered
31 generators. Early phases of construction projects involve heavier diesel
32 equipment and earthmoving, resulting in higher NO_x and PM₁₀ emissions. Later
33 phases of construction projects involve more light gasoline equipment, resulting
34 in more CO and VOC emissions. However, the impacts would be temporary, fall
35 off rapidly with distance from the proposed construction site, and would not result
36 in any long-term impacts.

37 **Haul Truck Emissions**

38 Minor, short-term, adverse impacts would be expected from haul truck emissions
39 to transport the required cut-and-fill materials along the proposed project corridor.

1
2

Table 4.2-1. Estimates of Total Proposed Construction Emissions from the Proposed Action in Tons Per Year

Description	NO _x	VOC	CO	SO _x	PM ₁₀
Construction Emissions	56.743	8.459	66.291	1.135	56.739
Haul Truck Emissions	0.572	0.176	0,959	0.045	0.680
Generator Emissions	14.702	1.200	3.167	0.967	1.034
Total Proposed Action Emissions	72.017	9.835	70.417	2.147	58.453
Federal <i>de minimis</i> Threshold	100	50	100	NA	100
SDIAQCR Regional Emissions	76,343	95,371	605,178	2,007	72,011
Percent of SDIAQCR Regional Emissions	0.094	0.010	0.012	0.107	0.081

Source: USEPA 2007b

3 Large amounts of cut-and-fill are required from both onsite and offsite for the
 4 Proposed Action. It is assumed that approximately 291,222 cy of cut material,
 5 and 306,268 cy of fill material would be required from the proposed project
 6 corridor in order to construct Sections A-1 and A-2. In addition, approximately
 7 60,000 cy of fill materials would be needed from off site and another 60,000 cy of
 8 cut waste would have to be removed from the project. Each haul truck is
 9 assumed to transport 30 cy of material. Furthermore, all onsite haul trucks would
 10 travel approximately 2 miles round trip and all offsite fill and waste materials
 11 would be transported an average of 10 miles round trip. This equates to
 12 approximately 23,913 haul truck loads traveling 79,826 miles (average of 83.15
 13 miles per working days). Emissions factors for these heavy-duty diesel vehicles
 14 were taken from AP-42, Volume II, *Mobile Sources* to estimate emissions.
 15 Details of these emissions calculations can be found in **Appendix F**.

16 **Generators**

17 The Proposed Action’s activities would require six diesel-powered generators to
 18 power construction equipment. It is assumed that these generators would be
 19 approximately 75 horsepower and operate approximately 8 hours per day for 190
 20 working days. The emissions factors and estimates were generated based on
 21 guidance provided in USEPA AP-42, Volume I, *Stationary Internal Combustion*
 22 *Sources*. The generators to be used under the Proposed Action would be
 23 registered with the CARB under the Portable Equipment Registration Program
 24 (PERP), or would be operated under stationary source operating permits issue
 25 by the SDCAQCD. The CBP would coordinate with the SDCAQCD to ensure
 26 that all necessary registrations/operating permits for these generators are in
 27 place.

1 **Proposed Operations and Maintenance Activities**

2 After construction is completed, the USBP San Diego Sector would begin patrols
3 along Sections A-1 and A-2. The vehicles used for surveillance of the existing
4 border area are currently generating criteria pollutants and would not introduce
5 new pollutant sources. Therefore, no net increase of criteria pollutant emissions
6 would be expected.

7 The construction of new tactical infrastructure would increase maintenance
8 activities. Maintenance activities associated with the Proposed Action would be
9 comparable to current maintenance within the USBP San Diego Sector. Future
10 maintenance might be conducted by contractors. The air emissions associated
11 with maintenance would be a negligible contribution to overall air quality in the
12 SDIAQCR. No long-term adverse impacts on air quality would be expected.

13 **Greenhouse Gases**

14 The Proposed Action would result in CO₂ emissions from the operation of
15 construction vehicles, including haul trucks, and generators. Using emissions
16 coefficients reported by the Energy Information Administration (EIA 2007),
17 operation of construction vehicles would result in an estimated 66 tons of CO₂,
18 and operation of generators would result in an estimated 274 tons CO₂.
19 Therefore, short-term greenhouse gas emissions associated with construction
20 activities would total approximately 340 tons of CO₂. These emissions estimates
21 are included in **Appendix F**.

22 After construction is completed, USBP San Diego Sector would begin patrols
23 along Sections A-1 and A-2. The vehicles used for surveillance of the existing
24 border area are currently generating CO₂; therefore, no net increase of criteria
25 pollutant emissions would be expected. Maintenance activities associated with
26 the Proposed Action would be comparable to ongoing maintenance with other
27 similar fence sections, which are summarized under *Proposed Operations and*
28 *Maintenance Activities* above. The Proposed Action would result in negligible
29 CO₂ emissions associated with maintenance activities.

30 The USEPA has estimated that the total greenhouse emissions for California
31 were 427 million metric tons of carbon dioxide equivalent (MMTCE) in 1990
32 (CARB 2007b). The short-term CO₂ emissions associated with construction (340
33 tons) represent less than 0.0001 percent of the total estimated California CO₂
34 inventory. Long-term increases in CO₂ emissions would result from increased
35 maintenance activities. The Proposed Action would be expected to have a
36 negligible contribution to CO₂ and greenhouse gases.

37 **Summary**

38 Since San Diego County, including the area associated with the Proposed
39 Action, is within a Federal Subpart 1 (Basic) and state nonattainment area for 8-
40 hour O₃, the Federal moderate maintenance area for CO, and state

1 nonattainment area for PM₁₀ and PM_{2.5}, the General Conformity Rule
2 requirements are applicable to the Proposed Action. **Table 4.2-1** illustrates that
3 the Proposed Action's NO_x, VOCs, and PM₁₀ emissions would be less than the
4 *de minimis* thresholds for the SDIAQCR. In addition, emissions from the
5 Proposed Action would be much less than 10 percent of the emissions inventory
6 for SDIAQCR (USEPA 2007b). Therefore, major, adverse impacts on regional or
7 local air quality are not anticipated from implementation of the Proposed Action.

8 **4.3 NOISE**

9 **4.3.1 No Action Alternative**

10 Under the No Action Alternative, there would not be any construction of tactical
11 infrastructure. Therefore, no impacts on existing noise conditions would occur.

12 **4.3.2 Proposed Action**

13 Short-term moderate adverse impacts are expected under the Proposed Action.
14 Sources of noise from the Proposed Action would include blasting, the operation
15 of construction equipment, noise from construction vehicles, and USBP activity
16 such as vehicle noise.

17 **Blast Noise**

18 As discussed in **Section 2**, two sections of primary pedestrian fence along the
19 U.S./Mexico international border would be constructed. As part of the
20 construction, particularly for Section A-1, blasting would need to occur to enable
21 construction of the fence and related infrastructure.

22 Blast noise was modeled with the Blast Noise Prediction computer program,
23 BNoise 2.0, using an application that estimates single event noise levels. The
24 noise from blasting activities varies depending on the type of explosive, the
25 amount, and the type of material that would be subject to the explosion. To
26 estimate the noise from blasting under the Proposed Action, several different
27 amounts of TNT were used, ranging from 2.2 pounds to 8.8 pounds. Noise from
28 blasting generates an average noise level of approximately 117 to 126 dBC at
29 100 feet. Blasting activities would only occur during the construction period. As
30 such, short-term moderate adverse noise impacts would be anticipated as a
31 result of the blasting during construction activities.

32 **Construction Noise**

33 The construction of the access road, fence, and related tactical infrastructure
34 would result in noise impacts on the populations in the vicinity of the proposed
35 fence.

- 1 • The closest residence between Puebla Tree and Boundary Monument
2 250, proximate to Valle Redondo, California, is approximately 7,000 feet
3 south of Section A-1. Populations in this area would experience noise
4 levels of approximately 43 dBA from construction activities.
- 5 • The closest residence between Puebla Tree and Boundary Monument
6 250, in the town of Dulzura, California, is approximately 14,000 feet north
7 of Section A-1. Populations in this area would experience noise levels of
8 approximately 37 dBA from construction activities.
- 9 • The closest residence west of Tecate is approximately 250 feet from
10 Section A-2. Residences in this area would experience noise levels of
11 approximately 72 dBA from construction activities.

12 Implementation of the Proposed Action would have temporary, minor, adverse
13 effects on the noise environment from the use of heavy equipment during
14 construction activities. However, noise generation would last only for the
15 duration of construction activities and would be isolated to normal working hours
16 (i.e., between 7:00 a.m. and 5:00 p.m.).

17 **Vehicular Noise**

18 Noise impacts from increased construction traffic would be temporary in nature.
19 These impacts would also be confined to normal working hours and would last
20 only as long as the construction activities were ongoing. However, SR 94 and
21 SR 188 pass by several residential areas. It is anticipated that the Proposed
22 Action would have short-term moderate adverse noise impacts as a result of the
23 increase in traffic, most notably in the areas around Dulzura and Tecate.

24 **USBP Operations**

25 The construction of the border fence and related infrastructure would make the
26 area around Section A-1 more accessible to vehicles. However, given that the
27 closest population is about 7,000 feet away, and the USBP already operates in
28 this area, the increase in noise from USBP traffic is not expected to be
29 significant. USBP traffic is also not anticipated to significantly increase around
30 Section A-2.

31 Impacts of noise to wildlife are further discussed in **Section 4.10**.

32 **4.4 LAND USE AND RECREATION**

33 **4.4.1 No Action Alternative**

34 Under the No Action Alternative, CBP would not implement the Proposed Action.
35 No new fencing or access roads would be constructed. The affected
36 environment described in **Section 3.4** would remain unchanged. In areas of
37 private property, concerns about safety and security would still hold down

1 property values in the absence of increased tactical infrastructure. Recreational
2 value of BLM land would continue to be limited due to public concerns over
3 safety due to the continuing presence of illegal foot traffic from cross-border
4 violators. In addition, other land uses in the vicinity of the Proposed Action could
5 continue to be disrupted by the presence of cross-border violators.

6 **4.4.2 Proposed Action**

7 Constructing the proposed fence and access roads could result in short- and
8 long-term, minor, adverse and beneficial impacts on land use. The severity of
9 the adverse impacts would vary depending on the disruption to land uses and the
10 need for rezoning to accommodate the fence and access road. Short-term,
11 minor, adverse impacts would occur from construction and use of staging areas
12 during the construction. Impacts on land use would vary depending on potential
13 changes in land use and the land use of adjacent properties. USBP might be
14 required to obtain a permit or zoning variance based on local restrictions and
15 ordinances. USBP would adhere to all local zoning laws and ordinances to
16 lessen impacts on land use conditions of areas affected. In addition, special
17 permits might be required to traverse railroads, roadways, streams, and state
18 and Federal lands.

19 Short-term, minor, adverse impacts due to construction activities and long-term,
20 minor, adverse impacts due to the presence of the primary pedestrian fence and
21 the associated preclusion of use of the affected land would occur on residential
22 land uses. There is no residential land use along Section A-1; however the
23 eastern end of the proposed project corridor of Section A-2 would traverse
24 residential land with several structures. Therefore, Section A-2 would affect
25 landowners whose property would be traversed or is adjacent to the proposed
26 alignment.

27 Construction along the border usually requires the government to acquire some
28 interest in the land. The Secretary of DHS is authorized (8 U.S.C. 1103) to
29 contract for and buy any interest in land adjacent to or in the vicinity of the
30 international land border when the Secretary deems the land essential to control
31 and guard the border against any violation of immigration law. The acquisition of
32 land is a negotiable process that would be carried out between USBP and
33 individual landowners on a case-by-case basis.

34 The proposed fence and access roads would traverse both public and private
35 lands. Various methods could be used to acquire the necessary interests in land.
36 These methods include, among other things, acquiring permanent easements,
37 ROW, or outright purchase.

38 For those proposed tactical infrastructure sections that are on Federal lands, the
39 most likely means of acquisition would be an ROW obtained from the relevant
40 Federal land manager. On private land, the government would likely purchase
41 the land or some interest in land from the relevant landowner. Acquisition from

1 private landowners is a negotiable process that is carried out between the
2 government and the landowner on a case-by-case basis. The government also
3 has the statutory authority to acquire such interests through eminent domain.

4 No long-term changes to land use within the Roosevelt Reservation would occur
5 because this area is designated for border enforcement. However, use of
6 construction staging areas would result in temporary and short-term changes to
7 land use, but upon completion of construction, the staging areas would be
8 rehabilitated and returned to their original condition.

9 Short-term, minor, indirect, adverse impacts on recreation and open land uses,
10 including the recreation and open space uses of the OMW, Pack Trail, and
11 Marron Valley Preserve, would occur during construction of Section A-1. These
12 impacts would be short-term and localized to staging and construction areas. No
13 adverse impacts on recreation would be expected after construction, during
14 operation of the Proposed Action. Additional long-term adverse land use impacts
15 could occur if the Proposed Action precludes use of some portion of the Marron
16 Valley Preserve as a conservation land bank. This impact could be lessened by
17 coordination with the City of San Diego during the land acquisition process, and
18 possibly compensating the city for removal or disturbance of the lands in the land
19 bank.

20 There would be adverse impacts related to the Proposed Action's inconsistency
21 with regulations governing the management of the OMW. The Wilderness Act of
22 1964 specifically prohibits several uses within wilderness areas, including use of
23 motorized vehicles, equipment, or mechanical transport; or the erection of a
24 structure or installation (P.L. 88-577, 88th Congress, Section 4[c]). However, the
25 Act includes a special provision that allows the President to authorize within
26 wilderness areas in national forests the establishment and maintenance of "other
27 facilities needed in the public interest, including the road construction and
28 maintenance essential to development and use thereof, upon his determination
29 that such use or uses in the specific area would better serve the interests of the
30 United States and the people thereof than will its denial" (P.L. 88-577, Section
31 4[d]).

32 Long-term, indirect, beneficial impacts on recreational and open space areas
33 could occur as a result of decreased illegal cross-border activity onto the OMW.
34 In addition, by reducing the amount of illegal cross-border activity within and
35 adjacent to the proposed project corridor, disturbance to lands north of this
36 corridor would be reduced or possibly eliminated.

37 No impacts would occur on land use of the Kuchamaa ACEC or the Kuebler
38 Ranch Site.

39 No impacts would occur on the public facility land uses, including the detention
40 and correctional facilities, in the vicinity of the Proposed Action.

1 Within Section A-1, portions of U.S. land would be south of the fence, therefore
2 since this land would be difficult and possibly unsafe to access, its value would
3 decrease significantly.

4 A Minimum Tool Analysis for the OMW will be conducted in accordance with
5 BLM Manual 8560, Management of Designated Wilderness.

6 **4.5 GEOLOGY AND SOILS**

7 **4.5.1 No Action Alternative**

8 The No Action Alternative would result in the continuation of existing conditions
9 for geologic resources, as characterized in **Section 3.5**. Soil resources would
10 continue to be degraded by cross-border violators who often damage habitat, cut
11 vegetation, and increase erosion through repeated use of footpaths (CRS 2006).

12 **4.5.2 Proposed Action**

13 **Physiography and Topography.** Short- and long-term, minor, adverse impacts
14 on the natural topography would occur as a result of implementing the Proposed
15 Action. Grading, blasting, contouring, and trenching associated with the
16 installation of the fence, patrol roads, access roads, and other tactical
17 infrastructure would impact approximately 61.5 acres for Section A-1 and 12.9
18 acres for Section A-2, which would alter the existing topography.

19 **Geology.** Short- and long-term, negligible to minor adverse impacts on geologic
20 resources could occur at locations where bedrock is at the surface and blasting
21 would be necessary to grade for fence placement or patrol and access road
22 development. Geologic resources could affect the placement of the fence or
23 patrol and access roads due to the occurrence of bedrock at the surface, or as a
24 result of structural instability. In most cases, it is expected that project design
25 and engineering practices could be implemented to mitigate geologic limitations
26 to site development.

27 **Soils.** Short-term, minor, direct, adverse impacts on soils in USBP San Diego
28 Sector would be expected as a result of implementing the Proposed Action. Soil
29 disturbance and compaction due to grading, contouring, and trenching
30 associated with the installation of the fence, patrol roads, and access roads
31 would impact approximately 36 acres for Section A-1 and 5 acres for Section
32 A-2.

33 The proposed construction activities would be expected to result in an increase in
34 soil erosion due to the steep topography. Soil disturbance on steep slopes has
35 the potential to result in excessive erosion due to instability of the disturbed soils
36 and high storm water runoff energy and velocity. An SWPPP and sediment and
37 erosion control plans would be developed to minimize sediment runoff. Wind
38 erosion has the potential to impact disturbed soils where vegetation has been

1 removed due to the semi-arid climate of the region. Construction activities would
2 be expected to directly impact the existing soils as a result of grading,
3 excavating, placement of fill, compaction, and mixing or augmentation necessary
4 to prepare the site for development of the fence, patrol and access roads, and
5 associated utility lines.

6 Because proposed construction would result in a soil disturbance of greater than
7 1 acre, authorization under the Cal/EPA State Water Resources Control Board
8 (SWRCB) General Permit for Discharges of Storm Water Associated with
9 Construction Activity (Construction General Permit, 99-08-DWQ) would be
10 required. Construction activities subject to this permit include clearing, grading,
11 and disturbances to the ground, such as stockpiling or excavation, but do not
12 include regular maintenance activities performed to restore the original line,
13 grade, or capacity of the facility. The Construction General Permit requires the
14 development and implementation of an SWPPP to include BMPs.

15 Additional soil disturbance could occur during and following construction as a
16 result of periodic patrols. Compaction and erosion of soil would be expected as a
17 result of patrol operations and possible off-road vehicle use that could decrease
18 vegetation cover and soil permeability.

19 The Visalia sandy loam (5–9 percent slopes) is designated as a prime farmland
20 soil. However, none of the area within the fence corridor in the United States is
21 being used for agricultural purposes. The corridor selected for border fence and
22 patrol road development would be linear and limited in extent; therefore any
23 impacts as a result of the Proposed Action to designated prime farmland soils
24 would be considered negligible to minor.

25 **4.6 HYDROLOGY AND GROUNDWATER**

26 **4.6.1 No Action Alternative**

27 Under the No Action Alternative, CBP would not implement the Proposed Action.
28 As a result, there would be no change from the baseline conditions and no
29 effects on surface hydrology, groundwater, surface water, or floodplains would be
30 expected to occur.

31 The No Action Alternative would result in continuation of the existing condition of
32 water resources, as discussed in **Section 3.6**. Water resources would also
33 continue to be degraded by cross-border violators from the increase in
34 sedimentation caused by erosion of repeatedly used footpaths.

35 **4.6.2 Proposed Action**

36 **Hydrology and Groundwater.** Short- and long-term, minor, direct, adverse
37 impacts on surface hydrology would be expected as a result of implementing the
38 Proposed Action. Under the Proposed Action, blasting, grading, and contouring

1 would be expected to alter the topography and remove vegetation, cobble, and
2 gravel which could potentially increase erosion and runoff during heavy
3 precipitation events. SWPPPs and sediment and erosion control plans would be
4 developed to minimize sediment runoff. Revegetating the area with native
5 vegetation following construction could reduce the impacts of erosion and runoff
6 due to the changes in hydrological potential dependant on the success of
7 vegetation establishment.

8 Water would be required for pouring concrete, for soil compaction associated
9 with cut-and-fill operations, and watering of road and ground surfaces for dust
10 suppression during construction. Because of the remote location of the proposed
11 project corridor, the drilling of up to two wells might be required. However, water
12 would be used for construction only and water use would be temporary. Once
13 construction is complete, it is likely that both wells would be maintained for fire
14 suppression and operational dust control. Based on 100 gallons of water per
15 cubic yard of cut-and-fill, approximately 35 million gallons of water would be
16 required for soil compaction associated with cut-and-fill operations. Additional
17 water would be needed for pouring concrete and dust suppression. The
18 Proposed Action is not expected to affect any water supplies (municipal or
19 otherwise). If it is determined that the unconfined aquifer is not sufficient to
20 supply water for construction, additional sources of water would be identified.
21 Water not lost to evaporation during watering of surfaces during construction
22 would potentially contribute to aquifer recharge through downward seepage.

23 Implementation of storm water and spill prevention BMPs developed consistent
24 with the SWPPP and other applicable plans and regulations would minimize
25 potential runoff or spill-related impacts on groundwater quality during
26 construction.

27 **4.7 SURFACE WATER AND WATERS OF THE UNITED STATES**

28 **4.7.1 No Action Alternative**

29 Under the No Action Alternative, CBP would not implement the Proposed Action.
30 As a result, there would be no change from the baseline conditions and no
31 effects on surface hydrology, groundwater, surface water, or floodplains would be
32 expected to occur.

33 The No Action Alternative would result in the continuation of existing conditions
34 associated with water resources, as discussed in **Section 3.7**. Water resources
35 would also continue to be degraded by cross-border violators from the increase
36 in sedimentation caused by erosion of repeatedly used footpaths.

37 **4.7.2 Proposed Action**

38 **Surface Waters and Waters of the United States.** Long-term, minor, adverse
39 impacts on waters of the United States would be expected as a result of Section

1 A-1 crossing intermittent tributaries associated with Copper and Buttewig
2 Canyons and Section A-2 crossing an intermittent tributary of the Tijuana River.
3 Fence design (**Appendix E**), meant to allow small animals to pass, would also
4 allow water to flow unimpeded. Necessary permits from the USACE-Los
5 Angeles District would be obtained prior to construction into drainages. If
6 constructed, these fence locations would need to be inspected following runoff
7 events to remove any debris and to maintain the integrity of the primary
8 pedestrian fence and ensure that there is sufficient passage to allow water to
9 flow unimpeded.

10 Section A-1 contains areas of riparian corridor (Copper and Buttewig canyons)
11 and Section A-2 contains an intermittent tributary of the Tijuana River.
12 Delineations for wetlands and waters of the United States have not yet been
13 conducted. The most current information available to identify wetlands is the
14 National Wetlands Initiative (NWI) (USFWS 2007). There are no NWI wetlands
15 in Sections A-1 or A-2. Approximately 2.4 acres of riverine wetlands are
16 estimated within the proposed project corridor by review of aerial photography. A
17 wetland delineation would be conducted followed by a jurisdictional determination
18 by the USACE prior to any construction activities.

19 If wetland impacts cannot be avoided, any necessary CWA Section 404 permits
20 and Rivers and Harbors Act Section 10 Permits would be obtained. As part of
21 the permitting process, a wetlands identification, mitigation, and restoration plan
22 would be developed, submitted, and implemented to reduce and compensate for
23 unavoidable impacts. The plan would be developed in accordance with USACE
24 guidelines and in cooperation with USEPA. The plan would outline BMPs from
25 preconstruction to post-construction activities to reduce impacts on wetlands and
26 water bodies. A Section 401 (a) CWA Permit would also be obtained to ensure
27 that action would comply with state water quality standards.

28 **Water Quality.** Short-term, negligible, adverse impacts on water quality would
29 be expected as a result of the Proposed Action. The Proposed Action would
30 cumulatively increase impervious surface area and runoff potential in the
31 proposed project corridor. Approximately 82.4 acres of soil disturbance would
32 occur during construction activities for Section A-1 and approximately 10 acres
33 for Section A-2. The soil disturbance associated with the Proposed Action would
34 disturb more than 1 acre of soil, therefore authorization under the Cal/EPA
35 SWRCB *Construction General Permit* (99-08-DWQ) would be required. Erosion
36 and sediment control and storm water management BMPs during and after
37 construction would be implemented consistent with the SWPPP developed under
38 the Construction General Permit. Based on these requirements, adverse
39 impacts on surface water quality would be reduced to negligible.

1 **4.8 FLOODPLAINS**

2 **4.8.1 No Action Alternative**

3 Under the No Action Alternative, CBP would not implement the Proposed Action.
4 As a result, there would be no change from the baseline conditions and no
5 effects on surface hydrology, groundwater, surface water, or floodplains would be
6 expected to occur.

7 The No Action Alternative would result in the continuation of existing conditions
8 associated with water resources, as discussed in **Section 3.8**. Water resources
9 would also continue to be degraded by cross-border violators from the increase
10 in sedimentation caused by erosion of repeatedly used footpaths.

11 **4.8.2 Proposed Action**

12 During the 2007 biological survey to support this EIS (see **Appendix H**), it was
13 observed that Section A-1 would cross intermittent washes associated with
14 Copper and Buttewig canyons. Based on field observations, these intermittent
15 washes might have narrow associated floodplains. Analysis using FEMA FIRMs
16 was inconclusive. This panel has not been printed due to its Zone D designation.
17 Zone D is used by FEMA to designate areas where there are possible but
18 undetermined flood hazards. In areas designated as Zone D, no analysis of
19 flood hazards has been conducted (FEMA 2006). Prior to construction, hydraulic
20 modeling would be conducted to determine impacts on floodplains.

21 Should the canyons in question be determined to be floodplains, a specific eight-
22 step process must be followed to comply with EO 11988 outlined in the FEMA
23 document *Further Advice on EO 11988 Floodplain Management*. The eight
24 steps, which are summarized below, reflect the decisionmaking process required:

- 25 1. Determine if a proposed action is in the base floodplain (that area which
26 has a one percent or greater chance of flooding in any given year)
- 27 2. Conduct early public review
- 28 3. Identify and evaluate practicable alternatives to locating in the base
29 floodplain, including alternative sites outside of the floodplain
- 30 4. Identify impacts of the Proposed Action
- 31 5. If impacts cannot be avoided, develop measures to minimize the impacts
32 and restore and preserve the floodplain, as appropriate
- 33 6. Reevaluate alternatives
- 34 7. Present the findings and a public explanation
- 35 8. Implement the action.

1 No impacts associated with the 100-year or 500-year floodplains are expected as
2 a result of the construction of Section A-2. According to the FEMA FIRM Panel
3 No. 06073C2250F for San Diego County, California, Section A-2 is in Zone X or
4 “areas determined to be outside the 500-year floodplain.” However, Section A-2
5 would cross an intermittent tributary of the Tijuana River with potential for minor
6 adverse effects associated with erosion and sedimentation in the event of a high-
7 volume storm event or flooding during site construction. Properly designed
8 erosion and sediment controls and storm water management practices
9 implemented during construction activities would minimize potential for adverse
10 impacts. Fences installed in washes/arroyos would be designed and constructed
11 in a manner to ensure that water flow during excessive rain events would not be
12 impeded or ponded.

13 **4.9 VEGETATION**

14 **4.9.1 No Action Alternative**

15 Under the No Action Alternative, proposed tactical infrastructure would not be
16 built and there would be no change in fencing, access roads, or other facilities
17 along the U.S./Mexico international border. Under the No Action Alternative, the
18 environmental stresses currently impacting the vegetation resources in the area
19 would continue. Existing illegal cross-border activities and cattle grazing
20 activities are adversely affecting existing vegetation. The adverse impacts are
21 most severe along the south slope of the OMW from Puebla Tree to Monument
22 250.

23 The most significant impact of the No Action Alternative is that cows from Mexico
24 would continue to trample and graze on the southern slopes of the OMW. The
25 remoteness of the area, steepness of the terrain, and cross-border violator
26 destruction of existing barbed-wire fencing makes it difficult to stop cross border
27 grazing. Impacts would continue from trampling and new foot path creation
28 caused by the cross-border violators along both the Section A-1 and A-2 areas.
29 Risk of increased fire frequency would continue from illegal camping on the
30 OMW.

31 Impacts from the No Action Alternative along the proposed access roads include
32 the potential for increased fire frequency and increase in foot path creation.
33 These impacts affect all areas around Sections A-1 and A-2. There is also an
34 increased risk to the vegetation resources from the introduction of new invasive
35 species unintentionally being brought to the area by the continued levels of illegal
36 cross-border violator traffic and grazing cattle.

37 The current impacts on vegetation beyond the existing fence west of Tecate and
38 along the areas of improved access roads near Tecate would continue under the
39 No Action Alternative. These areas would have an increased risk of fire resulting
40 in greater fire frequency and an increased risk of the introduction of invasive
41 plant species. The recovery of the recently burned vegetation in the Section A-2

1 area also would be affected by continued trampling and footpath creation from
2 current levels of illegal cross-border traffic.

3 In summary, anticipated continuation or potential increases in illegal cross-border
4 traffic and illegal grazing would be expected to have short- and long-term,
5 moderate adverse impacts on vegetation in the region.

6 **4.9.2 Proposed Action**

7 Construction of Section A-1 and A-2 tactical infrastructure would have long-term,
8 adverse impacts on vegetation resources. Impacts from construction of
9 Section A-1 would include cut-and-fill required to build the fence and a
10 permanent impact area adjacent to the fence. The total permanent impact on
11 vegetation from fence construction is expected to be 26.8 acres. Six types of
12 habitat representing 21.4 acres would be adversely impacted by Section A-1
13 construction (**Table 3.9-2**). Also impacted would be 5.4 acres of undifferentiated
14 habitat. This undifferentiated habitat is expected to include southern cottonwood-
15 willow riparian forest, southern mixed chaparral, mafic southern mixed chaparral,
16 and Diegan coastal sage scrub.

17 The proposed Section A-1 patrol road would parallel the fence as closely as
18 possible, but would deviate where topography does not allow. Permanent
19 impacts from the patrol road include a 24-foot-wide road and required cut-and-fill
20 areas. The impacts described here are only for those areas that do not overlap
21 impacts from fence construction. Approximately 31 acres would be permanently
22 impacted by construction of the patrol road (see **Table 4.9-1**).

23 Improvements to the Otay Mountain Truck Trail (between Alta Road and the
24 Puebla Tree Spur) and the Puebla Tree Spur would have long-term, adverse
25 impact on four habitats totaling 13.7 acres (**Table 4.9-1**). The remainder of the
26 Otay Mountain Truck Trail is developed, undifferentiated exotic habitat, and
27 undifferentiated native habitat. The estimated 2.5 acres of impacts on developed
28 and undifferentiated exotic habitats are found in the Kuebler Ranch Area. A
29 permanent paved road roughly a half mile long would be built to County of San
30 Diego standards at the west end of the Otay Mountain Truck Trail in the area
31 known as Kuebler Ranch. Construction would have a long-term, adverse impact
32 on an estimated 26 acres of undifferentiated native vegetation, which consists of
33 southern closed cone coniferous forest, southern mixed chaparral, mafic
34 southern mixed chaparral, chamise chaparral, and Diegan coastal sage scrub.

35 Improvements to Marron Valley Road (SR 94 to Boundary Monument 250 Road)
36 would permanently impact an estimated 65.6 acres, consisting of 15.1 acres of
37 mapped habitat between Mine Canyon and Boundary Monument 250 and 41.5
38 acres of undifferentiated habitat. The 6.3 acres of undifferentiated exotic habitats
39

1 **Table 4.9-1. Acreage of Estimated Impacts of Proposed Action**

Habitat	Section A-1					Section A-2		Total
	Fence Section	Patrol Road	Staging Areas (temporary impacts)	Otay Mtn. Truck Trail	Marron Valley Road	Fence Section	Tecate Access Road	
Southern Mixed Chaparral 37120	10.1	11.8	4.5	3.3	1.2	4.2	22.0	57.1
Mafic southern mixed chaparral 37122	0.2	0.4	5.1	7.0	0.0	0.0	0.0	12.7
Diegan Coastal Sage Scrub 32500	9.3	12.2	3.2	2.7	12.9	0.0	3.5	43.8
Mulefat scrub 63310	0.2	0.1	0.5	0.0	0.0	0.0	0.0	0.8
Southern Coast Live Oak Riparian forest 61310	0.9	0.9	1.0	0.0	0.8	0.3	0.4	4.3
Whitethorn chaparral 37532	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Non-Native grassland 42200	0.0	0.0	0.0	0.0	0.0	0.9	0.5	1.4
Chamise Chaparral 37200	0.7	0.0	0.0	0.7	0.2	0.0	0.0	1.6
Southern Cottonwood-Willow Riparian Forest 61330	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
Southern Interior Cypress Forest 83330	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
Disturbed 11300	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Landscaped 12000	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Developed 12000	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0

Habitat	Section A-1					Section A-2		Total
	Fence Section	Patrol Road	Staging Areas (temporary impacts)	Otay Mtn. Truck Trail	Marron Valley Road	Fence Section	Tecate Access Road	
Undifferentiated native vegetation	5.4	5.3	0.0	26.3	35.2	0.0	0.0	72.2
Undifferentiated exotic vegetation	0.0	0.0	0.0	1.5	6.3	0.0	0.0	7.8

Note: Estimates of potential impacts to access roads are based on a 60 foot wide impact corridor.

1 occur at the residences along Marron Valley Road, and near the former ranch in
 2 Marron Valley. The undifferentiated native habitat predominantly consists of
 3 southern mixed chaparral, mafic southern mixed chaparral, chamise chaparral
 4 and Diegan coastal sage scrub, mulefat scrub, southern cottonwood-willow
 5 riparian forest, and southern coast live oak riparian forest.

6 Construction staging areas would temporarily impact five habitats totaling 14.3
 7 acres (**Table 4.9-1** and **Figure 2-2**). One staging area is proposed for Section
 8 A-2. Staging areas within the proposed project corridor are discussed above.

9 Construction of Section A-2 tactical infrastructure would permanently impact
 10 approximately 5.6 acres of vegetation, including three native habitats and 0.9
 11 acres of non-native grassland (**Table 4.9-1**). The proposed A-2 access road
 12 from SR 94 Tecate Mission Road would permanently impact an estimated 28.5
 13 acres of vegetation. There are 22 acres of burned southern mixed chaparral,
 14 consisting of eight vegetation types (**Table 4.9-1**).

15 The proposed construction, operation, and maintenance of tactical infrastructure
 16 in Sections A-1 and A-2 would have a permanent, adverse impact on 190.7 acres
 17 of vegetation, and a temporary adverse impact on 14.3 acres. These impacts
 18 represent short- and long-term, minor to moderate, adverse impacts on
 19 vegetation resources.

20 Potential beneficial impacts from the Proposed Action would occur from reduced
 21 foot traffic across Sections A-1 and A-2. The Proposed Action would reduce the
 22 potential risk of fire frequency by reducing the number of people crossing and
 23 camping on OMW. This is a beneficial impact on all vegetation resources in and
 24 around Otay Mountain and Tecate Peak. The vegetation has suffered a higher-
 25 than-average fire frequency over the past 12 years, with four catastrophic
 26 wildfires affecting one or both those mountains. Reduction of fire hazard would
 27 represent short- and long-term, moderate to major, beneficial impacts on
 28 vegetation.

1 The Proposed Action would also reduce adverse impacts on vegetation from
2 trampling and the creation of informal footpaths by reducing cross-border violator
3 traffic through the OMW. Cross border grazing impacts north of the tactical
4 infrastructure would be eliminated, resulting in short- and long-term, minor to
5 moderate, beneficial impacts on vegetation resources. Cross border grazing
6 impacts would increase south of the proposed fence line, resulting in short- and
7 long-term, minor to moderate, adverse impacts on vegetation resources in that
8 area.

9 The reduction in foot traffic and grazing would have an indirect, long term
10 beneficial impact on OMW vegetation from reducing the potential for and rate of
11 introduction of invasive exotic species. This represents a short- and long-term,
12 minor to moderate beneficial impact on native vegetation.

13 In summary, implementation of the Proposed Action would result in short- and
14 long-term minor to moderate, adverse impacts, and short- and long-term minor to
15 major beneficial impacts on the vegetation resources.

16 **4.10 WILDLIFE AND AQUATIC RESOURCES**

17 **4.10.1 No Action Alternative**

18 Under the No Action Alternative, proposed tactical infrastructure would not be
19 built and there would be no change in fencing, access roads, or other facilities
20 along the U.S./Mexico international border in the proposed project locations
21 within the USBP San Diego Sector. Anticipated continuation or even increases
22 in cross-border violator traffic would be expected to have some adverse impacts
23 on wildlife and aquatic resources.

24 **4.10.2 Proposed Action**

25 Temporary impacts on wildlife (disturbances by noise and dust) would occur
26 along the access roads, within and adjacent to staging areas, and along the
27 alignment during constructions. Access roads would require moderate to
28 substantial improvements, specifically the Otay Mountain Truck Trail and the
29 BLM Road leading to Puebla Tree. In order for ingress/egress by trucks and
30 heavy equipment, significant road widening would be required to safely
31 accommodate truck traffic.

32 Potential threats to wildlife in San Diego County include barrier to movement,
33 interruption of corridors, increased human activity, and loss of habitat. Some
34 wildlife deaths, particularly reptiles and amphibians could increase due to the
35 improved accessibility of the area and increased vehicle traffic. Although some
36 incidental take might occur, wildlife populations within the proposed project
37 corridor would not be significantly impacted through the implementation of the
38 Proposed Action.

1 Noise created during construction would be anticipated to result in short-term,
2 moderate, adverse effects on wildlife. Noise levels after construction are
3 anticipated to return to close to current ambient levels. Elevated noise levels
4 during construction could result in reduced communication ranges, interference
5 with predator/prey detection, or habitat avoidance. More intense effects on
6 wildlife resulting with intense pulses of noise associated with blasting, could
7 potentially result in behavioral change, disorientation, or hearing loss. Predictors
8 of wildlife response to noise include noise type (i.e., continuous or intermittent),
9 prior experience with noise, proximity to a noise source, stage in the breeding
10 cycle, activity, and age. Prior experience with noise is the most important factor
11 in the response of wildlife to noise, because wildlife can become accustomed (or
12 habituate) to the noise. The rate of habituation to short-term construction is not
13 known, but it is anticipated that wildlife would be displaced from the areas where
14 the habitat is cleared and the fence and associated tactical infrastructure
15 constructed, and temporarily dispersed from areas adjacent to the proposed
16 project corridors during construction periods. See **Section 4.3** for additional
17 details on expected noise levels associated with the Proposed Action.

18 The Tijuana River is considered a migration corridor for many species. The
19 fence would be constructed well above the river, however there could still be side
20 canyon crossing issues through live oak riparian vegetation and habitat (e.g.,
21 Copper, Buttewig, Mine canyons and smaller ones). Side canyons are from 10 to
22 60 meters across and the larger ones have channels incised to 5 to 8 meters
23 deep. They are strewn with boulders up to 2 meters diameter. Riparian bottoms
24 in the areas along the Pack Trail consist of mature oaks. There are several
25 areas of coastal sage scrub observed along the Pack Trail. Areas slated for cut-
26 and-fill would fill in two riparian corridors (in the bottoms of Copper Canyon and
27 Buttewig Canyon). These direct impacts on wildlife species associated with
28 these canyons would be adverse and permanent where the cut-and-fill would
29 occur.

30 There is good potential for Herme's copper, Thorne's hairstreak, and Harbison
31 dun skipper to occur along the access roads that lead to the Puebla Tree (west
32 side of the Pack Trail). These three species rely on a host plant, the Tecate
33 cypress (*Cupressus forbesii*), San Diego sedge (*Caryx spisa*), and redberry
34 (*Rhamnus crocea*), respectively (Klein 2007). Loss of habitat by implementation
35 of the Proposed Action would have short and long-term, negligible to major
36 adverse impacts on these butterflies in the areas disturbed by the proposed
37 construction.

38 Impacts on mammals are expected to be indirect, adverse, and minor, due to
39 their ability to disperse. Impacts on reptiles are expected to be indirect, adverse,
40 and moderate. This is due to their inability to disperse as quickly as other
41 wildlife.

42 Implementation of the Proposed Action would be anticipated to have short- and
43 long-term, negligible to major, adverse impacts on wildlife due to habitat

1 conversion; short-term, minor to moderate, adverse impacts on wildlife due to
2 construction noise; and minor to moderate, adverse impacts on aquatic habitats
3 due to siltation from construction activities. Minor to moderate beneficial impacts
4 would result from protection of wildlife and habitats U.S. side of the fence.

5 There would be no direct adverse impact on aquatic resources in the proposed
6 project corridor. However, fish species and their habitat would continue to be
7 indirectly impacted in the short term through habitat alteration and loss due to
8 illegal trails and erosion. In the long term, the fence would reduce or eliminate
9 cross-border violator traffic through this area. This would allow the slopes to
10 revegetate and the riparian habitat to return to a more natural state. These
11 changes would be anticipated to result in long-term, minor to moderate,
12 beneficial impacts on aquatic species.

13 **4.11 SPECIAL STATUS SPECIES**

14 Section 7 of the ESA requires Federal agencies to consult with the USFWS when
15 actions might affect federally listed species or designated critical habitat. Pre-
16 consultation coordination with USFWS is underway for this project. The USFWS
17 has provided critical feedback on the location and design of fence sections to
18 avoid, minimize, or mitigate potential impacts on listed species or designated
19 critical habitat. CBP is developing the BA in coordination with the USFWS.
20 Potential effects of fence construction, operation, and maintenance would be
21 analyzed in both the BA and BO to accompany the Final EIS.

22 Potential impacts on federally listed species and migratory birds are based on
23 currently available data. Impacts are developed from a NEPA perspective and
24 are independent of any impact determinations made for the Section 7
25 consultation process. Impact categories used in this document cannot be
26 assumed to correlate entirely to potential impact determinations which have not
27 yet been made under the Section 7 consultation process.

28 **4.11.1 No Action Alternative**

29 Under the No Action Alternative, proposed tactical infrastructure would not be
30 built and there would be no change in fencing, access roads, or other facilities
31 along the U.S./Mexico international border in the proposed project locations
32 within the USBP San Diego Sector. Anticipated continuation or even increases
33 in cross-border violator traffic would be expected to have short- and long-term
34 adverse impacts on special status species and their habitats in the region.

35 **4.11.2 Proposed Action**

36 **Quino Checkerspot Butterfly (Quino)**

37 This species occupies grasslands, remnant forblands, juniper woodlands, and
38 open scrub and chaparral communities that support the larval host plants and

1 provide a variety of adult nectar resources. The larval host plants are annuals
2 that thrive in clay soils but can also occur in other soil types.

3 Adult Quino have been observed in numerous locations within and near the east
4 and west ends of the project corridor. The apparent absence of locations along
5 the central portion of the proposed alignment is undoubtedly due to the difficulty
6 of accessing this area and not to true absence of the species in this area.
7 Potential habitat (three of the host plant species) were observed along the 5-mile
8 stretch proposed for Section A-1 during the October and December 2007 surveys
9 and the species is assumed to be present throughout.

10 Based on the known locations and observed potential habitat for this species,
11 implementation of the Proposed Action is anticipated to result in the permanent
12 loss of approximately 75 acres of suitable habitat for this species, resulting in
13 moderate adverse impacts on the species in the project area.

14 Although BMPs would be implemented to avoid and minimize impacts on
15 individuals during construction, there is a relatively high likelihood that some
16 individual of the species would be killed during construction. This butterfly's
17 biology is somewhat unique for butterflies in general in that the 3rd or 4th larval
18 growth (instar) will enter into its winter stasis (diapause) sometime in May. It
19 remains this way until sufficient winter rains stimulate plant growth. If sufficient
20 plant growth occurs, then the caterpillars come out of diapause and continue
21 their feeding until they reach larval maturity, pupate, and then finally emerge as
22 adults. If the winter rains are appropriate, caterpillars could emerge from
23 diapause sometime in January. Pupation would occur sometime in February and
24 adults would emerge in March. Once adults emerge, the cycle begins all over.
25 Depending on the amount and timing of the rains the timeline would shift either
26 earlier or later. Diapause typically occurs in or near the host plant patch upon
27 which the larvae were feeding prior to entering diapause. Adults will disperse to
28 suitable habitat and are known to disperse anywhere from 1 to 3 kilometers a
29 year. Sometimes dispersal could be further if wind assisted.

30 The best scenario to reduce impacts on individual Quino checkerspot butterflies
31 would be for construction (i.e., clear or remove host plants from the 60-foot
32 impact corridor) to start immediately after emergence of the adults in March.
33 However, since individual variation in time of emergence occurs, some Quino
34 would likely still be in pupation and would be unable to disperse away from the
35 impact area. Therefore, even under this best-timing scenario, some individuals
36 would still likely be killed. Numbers of individuals lost to construction would
37 increase from this minimum, depending upon the timing of land clearing for the
38 construction effort. As such, direct impacts of construction activities on this
39 species would be short-term, major, and adverse, while long-term impacts would
40 be moderately adverse.

41 Indirect impacts from construction and subsequent operation of the access and
42 patrol roads include dust impacts on individuals and habitat that would extend

1 beyond the boundaries of the project corridor. Increased settling of dust on larval
2 host species and on nectar-providing species for the adults, could reduce
3 palatability of larval host plants and reduce availability of nectar to adults. With
4 the use of BMPs to reduce dust emissions during construction, these impacts are
5 anticipated to be short- and long-term, minor to moderate, and adverse in the
6 project area. An unexpected benefit of dust layers on vegetation is that it
7 apparently provides some minimal resistance to fire. Bands of vegetation along
8 the access roads that were coated with dust from operations on those access
9 roads were not as severely burned during the wildfires of 2003 as was vegetation
10 farther from the roads that was less dust-coated (Dossey 2007). This effect
11 might result in short- and long-term, negligible to minor, beneficial impacts on this
12 species.

13 A second beneficial impact anticipated to result from implementation of the
14 Proposed Action is the reduction of foot traffic and grazing impacts on habitat for
15 and individuals of this species. This area currently receives heavy foot traffic and
16 illegal cattle grazing. These activities undoubtedly result in adverse impacts due
17 to reduction of habitat quantity and quality, and to crushing of individuals. The
18 potential cessation of these illegal activities in this area could result in short- and
19 long-term, minor to major, beneficial impacts on this species.

20 In summary, for Quino checkerspot butterfly, direct and indirect impacts of
21 construction, operation, and maintenance associated with implementation of the
22 Proposed Action would include short- and long-term impacts in the project area
23 and range from negligible to major beneficial and major adverse.

24 **Arroyo Toad**

25 The arroyo toad occupies shallow, slow-moving stream habitats, and riparian
26 habitats that are disturbed naturally on a regular basis, primarily by flooding.
27 Adjacent stream banks can be sparsely to heavily vegetated with trees and
28 shrubs such as mulefat (*Baccharis* spp.), California sycamore (*Platanus*
29 *racemosa*), cottonwoods (*Populus* spp.), coast live oak (*Quercus agrifolia*), and
30 willows (*Salix* spp.) (USFWS 1999) but must be sandy enough for the toads to
31 burrow into the substrate. For breeding, the arroyo toad uses open sites such as
32 overflow pools, old flood channels, and pools with shallow margins, all with
33 gravel bottoms. This species aestivates in sandy terraces adjacent to the stream
34 habitat.

35 No habitat for this species was observed during the field surveys for this project.
36 NatureServe data indicate a record approximately 0.8 miles south of the eastern
37 access road. The existing access road traverses the northern boundary of the
38 aestivation habitat associated with this record. The portion of the existing access
39 road that intersects the aestivation habitat is straight such that upgrades, if any
40 are required, would be minimal. As such, conversion of habitat and impacts on
41 individual arroyo toads as a result of implementing the Proposed Action are
42 anticipated to be short- and long-term, negligible to minor, adverse. Beneficial

1 impacts similar to those described for Quino checkerspot butterfly would be
2 anticipated due to reduced foot traffic and grazing in this area.

3 In summary, for arroyo toad, direct and indirect impacts of construction,
4 operation, and maintenance associated with implementation of the Proposed
5 Action would include short- and long-term impacts and range from negligible to
6 minor adverse, and negligible to major beneficial.

7 **Coastal California Gnatcatcher**

8 This species occurs almost exclusively in mature coastal sage scrub habitat with
9 occasional populations in chaparral. Due to the wildfires of 2003 which burned
10 through the proposed project corridor, suitable habitat does not currently occur
11 within or near the project corridor and no impacts on individual birds are
12 anticipated from construction. However the coastal sage scrub and chaparral
13 vegetation that is in the proposed project corridor might become suitable habitat
14 if it is allowed to mature. Removal of approximately 75 acres of potential future
15 habitat would represent a long-term minor adverse impact on this species in the
16 project area.

17 A beneficial impact anticipated to result from implementation of the Proposed
18 Action is the reduction of foot traffic and grazing impacts on habitat for and
19 individuals of this species. This area currently receives heavy foot traffic and
20 illegal cattle grazing. Cross-border violators sometimes set wildfires in this area.
21 These activities undoubtedly result in adverse impacts due to reduction of habitat
22 quantity and quality, interference with breeding and nesting behaviors, and
23 potentially even direct mortality of eggs or young in nests. Reduction and
24 potentially even cessation of these illegal activities in this area could result in
25 short- and long-term, minor to major, beneficial impacts on this species.

26 In summary, for Coastal California gnatcatcher, direct and indirect impacts of
27 construction, operation, and maintenance associated with implementation of the
28 Proposed Action would include long-term minor adverse impacts, and short- and
29 long-term, minor to major beneficial impacts.

30 **Least Bell's Vireo**

31 LBV is a migratory species that requires early-successional riparian habitat
32 during its breeding season which extends from mid-March to September in
33 southern California. No records of LBV are known from in or near the project
34 corridor. However, a narrow band of suitable riparian habitat occurs along the
35 Tijuana River just south of the project corridor. Therefore, this species is
36 assumed to be present in that riparian habitat.

37 The riparian woodlands south of the project corridor would be directly impacted
38 by increased noise levels during construction; noise from operation and
39 maintenance activities are anticipated to return to ambient. If breeding pairs of
40 LBV occur within this strand of habitat, the elevated noise level could interfere

1 with communication and breeding behaviors. This would represent a short-term,
2 minor adverse impact on this species in the project area.

3 Implementation of the Proposed Action could reduce or even terminate the use of
4 this riparian corridor as a staging area for cross-border violators, allowing the
5 habitat to flourish and LBV to conduct normal behaviors in this habitat without
6 human disturbance.

7 This would represent a short- and long-term, minor, beneficial impact on LBV as
8 a result of implementing the Proposed Action.

9 In summary, for LBV, direct impacts of construction associated with
10 implementation of the Proposed Action would be short-term, minor, and adverse.
11 Beneficial impacts of implementing the Proposed Action would be short- and
12 long-term, minor, and beneficial.

13 **Southwestern Willow Flycatcher**

14 This neotropical migrant usually breeds in dense or patchy riparian habitats along
15 streams or other wetlands near standing water or saturated soils. The breeding
16 season can extend from early May to early September.

17 No records of SWF are known from in or near the project corridor. No suitable
18 habitat for this species was observed in or near the project corridor. However,
19 the riparian woodland habitat along the Tijuana River has the potential to provide
20 suitable habitat in the future, as it reaches taller heights.

21 The strand of potential future habitat along the Tijuana River would receive no
22 direct impacts from construction, operation, or maintenance activities associated
23 with implementation of the Proposed Action. Implementation of the Proposed
24 Action could reduce or even terminate the use of this riparian corridor as a
25 staging area for cross-border violators, allowing the habitat to mature and future
26 SWF to conduct normal behaviors in the mature habitat with reduced or no
27 human disturbance. This would represent a long-term, minor, beneficial impact
28 on SWF as a result of implementing the Proposed Action.

29 In summary, for SWF there would be no direct impacts of construction associated
30 with implementation of the Proposed Action. Beneficial impacts of implementing
31 the Proposed Action would be long-term, minor, and beneficial.

32 **Migratory Birds**

33 Proposed construction would adversely affect migratory birds by disturbing
34 habitat, habitat conversion, increased mortality during construction, and
35 subsequent disturbance from the use of patrol roads and noise. Approximately
36 75 acres of vegetation would be cleared along the corridor for the Proposed
37 Action. Impacts on migratory birds could be substantial, given the potential
38 timing of fence construction. However, implementation of BMPs to avoid or

1 minimize adverse impacts could markedly reduce their intensity. The following is
2 a list of BMPs normally recommended for reduction or avoidance of impacts on
3 migratory birds:

- 4 • Any groundbreaking construction activities should be performed before
5 migratory birds return to the area (approximately 1 March) or after all
6 young have fledged (approximately 31 July) to avoid incidental take.
- 7 • If construction is scheduled to start during the period in which migratory
8 bird species are present, steps should be taken to prevent migratory birds
9 from establishing nests in the potential impact area. These steps could
10 include covering equipment and structures, and use of various excluders
11 (e.g., noise). Birds can be harassed to prevent them from nesting on the
12 site. Once a nest is established, they cannot be harassed until all young
13 have fledged and left the nest site.
- 14 • If construction is scheduled to start during the period when migratory birds
15 are present, a supplemental site-specific survey for nesting migratory birds
16 should be performed immediately prior to site clearing.
- 17 • If nesting birds are found during the supplemental survey, construction
18 should be deferred until the birds have left the nest. Confirmation that all
19 young have fledged should be made by a competent biologist.

20 Because not all of the above BMPs can be fully implemented due to time
21 constraints of fence construction, a Migratory Bird Depredation Permit would be
22 obtained from the USFWS.

23 Assuming implementation of the above BMPs to the fullest extent feasible,
24 impacts from the Proposed Action on migratory birds is anticipated to be short-
25 and long-term, minor, and adverse due to construction disturbance and
26 associated loss of habitat, and long-term, minor, and beneficial due to reduction
27 of foot traffic through migratory bird habitat north of the impact corridor.

28 **4.12 CULTURAL RESOURCES**

29 **4.12.1 No Action Alternative**

30 Under the No Action Alternative, proposed tactical infrastructure would not be
31 constructed and there would be no change in fencing, or access roads along the
32 border sections in USBP San Diego Sector. Since there would be no tactical
33 infrastructure built, there would be no change to cultural, historical, and
34 archaeological resources. No historic properties would be impacted.

35 **4.12.2 Proposed Action**

36 For assessing the impacts of the Proposed Action on archaeological resources,
37 the APE is confined to the construction corridor for each alternative, as well as
38 the access roads and staging areas. The APE for analysis of impacts on

1 resources of traditional, religious, or cultural significance to Native American
2 tribes includes both those areas that would be impacted directly by ground
3 disturbance as well as the viewshed and general setting of those resources.

4 Potential impacts on cultural resources associated with the project are limited to
5 ground-disturbing construction and future maintenance and patrolling activities
6 and indirect impacts from increased access. Based on the results of a cultural
7 resources survey of the proposed project corridor (see **Appendix I**) and data
8 provided on the site records, archaeological monitoring is recommended at five
9 specific locations (CA-SDI-18578, CA-SDI-18579, CA-SDI-16300, CA-SDI-
10 16388, and CA-SDI-16371) during all ground-disturbing activities associated with
11 the project. All ground-disturbing activity within this portion of the study area
12 would be monitored by a professional archaeologist who meets the requirements
13 for archaeological monitors set by the reviewing agency.

14 Evaluations for eligibility to the National Register have not been conducted on
15 newly recorded sites CA-SDI-18578 and CA-SDI-18579; or for CA-SDI-16300,
16 -16388, or -16371 on Section A-1; or GV-1 on Section A-2. Prior to construction
17 of the proposed fence or use of the Truck Trail and Tecate Mission Road in the
18 vicinity of these site areas, the boundaries of the sites would be clearly marked
19 with flagging or protective fencing to avoid inadvertent impacts on the resources.
20 Alternatively CBP could evaluate these sites to determine their significance. The
21 evaluation program would include additional mapping and excavation of
22 exploratory units to determine the nature and character of any subsurface
23 deposits. In addition, evaluation would result in more accurate definitions of the
24 extent and nature of these site areas. If the individual sites are determined not to
25 be eligible, monitoring would not be required.

26 Since no cemeteries, isolated Native American or other human remains have
27 been documented within the study area, the potential for impacts on unrecorded
28 Native American or other human remains during the project appears to be
29 relatively low. If Native American or other human remains are inadvertently
30 discovered during the course of project actions, there would be no further
31 excavation or disturbance of the remains or the vicinity until the remains and the
32 vicinity have been evaluated in accordance with CEQA Section 10564.5,
33 California Health and Safety Code (CHSC) Section 7050.5, Public Resources
34 Code (PRC) Section 5097.98, and the NAGPRA, as appropriate.

35 The impacts on Kuchamaa have not been defined and the development of
36 protective measures has not been accomplished. Consultation with associated
37 tribal groups has been initiated and is ongoing; additional consultation will be
38 necessary to arrive at appropriate project protocols. Additional information
39 regarding design and project limits should be developed to facilitate the
40 presentation of this project to concerned parties with respect to traditional cultural
41 property concerns.

1 **4.13 VISUAL RESOURCES**

2 **Degree of Contrast Criteria**

3 To properly assess the contrasts between the existing conditions and the
4 Proposed Action, it is necessary to break each down into the basic features (i.e.,
5 landform/water, vegetation, and structures) and basic elements (i.e., form, line,
6 color, and texture) so that the specific features and elements that cause contrast
7 can be accurately identified.

8 General criteria and factors used when rating the degree of contrast are as
9 follows:

- 10 • *None*. The element contrast is not visible or perceived
- 11 • *Weak*. The element contrast can be seen but does not attract attention
- 12 • *Moderate*. The element contrast begins to attract attention and dominate
13 the characteristic landscape
- 14 • *Strong*. The element contrast demands attention, cannot be overlooked,
15 and is dominant in the landscape.

16 When applying the contrast criteria, the following factors are considered :

- 17 1. *Distance*. The contrast created by a Proposed Action usually is less as
18 viewing distance increases.
- 19 2. *Angle of Observation*. The apparent size of a Proposed Action is directly
20 related to the angle between the viewer's line-of-sight and the slope upon
21 which the Proposed Action is to take place. As this angle nears 90
22 degrees (vertical and horizontal), the maximum area is viewable.
- 23 3. *Length of Time the Project Is In View*. If the viewer can only view the
24 Proposed Action for a short period of time, the contrast might not be of
25 great concern. If the Proposed Action can be viewed for a long period of
26 time, the contrast could be very significant.
- 27 4. *Relative Size or Scale*. The contrast created by the Proposed Action is
28 directly related to its size and scale as compared to the immediate
29 surroundings.
- 30 5. *Season of Use*. Contrast ratings should consider the physical conditions
31 that exist during the heaviest or most critical visitor-use season, such as
32 snow cover and tree defoliation during the winter, leaf color in the fall,
33 and lush vegetation and flowering in the spring.
- 34 6. *Light Conditions*. The amount of contrast could be substantially affected
35 by the light conditions. The direction and angle of light can affect color
36 intensity, reflection, shadow, form, texture, and many other visual aspects

- 1 of the landscape. Light conditions during heavy periods must be a
2 consideration in contrast ratings.
- 3 7. *Recovery Time*. The amount of time required for successful revegetation
4 should be considered. Few projects meet the VRM management
5 objectives during construction activities. Recovery usually takes several
6 years and goes through several phases (e.g., bare ground to grasses, to
7 shrubs, to trees).
- 8 8. *Spatial Relationships*. The spatial relationship within a landscape is a
9 major factor in determining the degree of contrast.
- 10 9. *Atmospheric Conditions*. The visibility of a Proposed Action due to
11 atmospheric conditions such as air pollution or natural haze should be
12 considered.
- 13 10. *Motion*. Movements such as waterfalls, vehicles, or plumes draw
14 attention to a Proposed Action (BLM 1986b).

15 **4.13.1 No Action Alternative**

16 Under the No Action Alternative, no primary pedestrian fence and supporting
17 infrastructure would be constructed, resulting in no construction-related changes
18 to the current landscape. However, under the No Action Alternative, cross-
19 border violators would continue to impact the area. Without improved USBP
20 patrol efficiency and effectiveness provided by road improvements, the area's
21 natural vistas would continue to be degraded by trash, trails, and wildfires
22 associated with cross-border violators. Indirect impacts from continued cross-
23 border violators would permanently degrade the visual character of the area.
24 Additionally, the illegal grazing of cattle herded into the area by Mexican farmers
25 would continue to degrade vegetative stands with the potential for the
26 introduction of unwanted and unsightly invasive species.

27 **4.13.2 Proposed Action**

28 The construction activity associated with the Proposed Action would result in
29 both temporary and permanent moderate contrasts to both Class I and Class III
30 Visual Resources.

31 The construction of access roads and fences in a Class I Visual Resource area is
32 a strong contrast to the OMW and also represents a moderate to strong contrast
33 in areas of lesser class designation. The following paragraphs discuss factors
34 that may offset the strong contrasts.

35 In most areas of Section A-1 the fence would be screened from view by elevation
36 and undulating terrain. **Figure 4.13-1** displays the degree to which the tactical
37 infrastructure is visible from various trailheads within the OMW. Public viewing is
38 also limited in this area because of low visitation frequency.

39

1

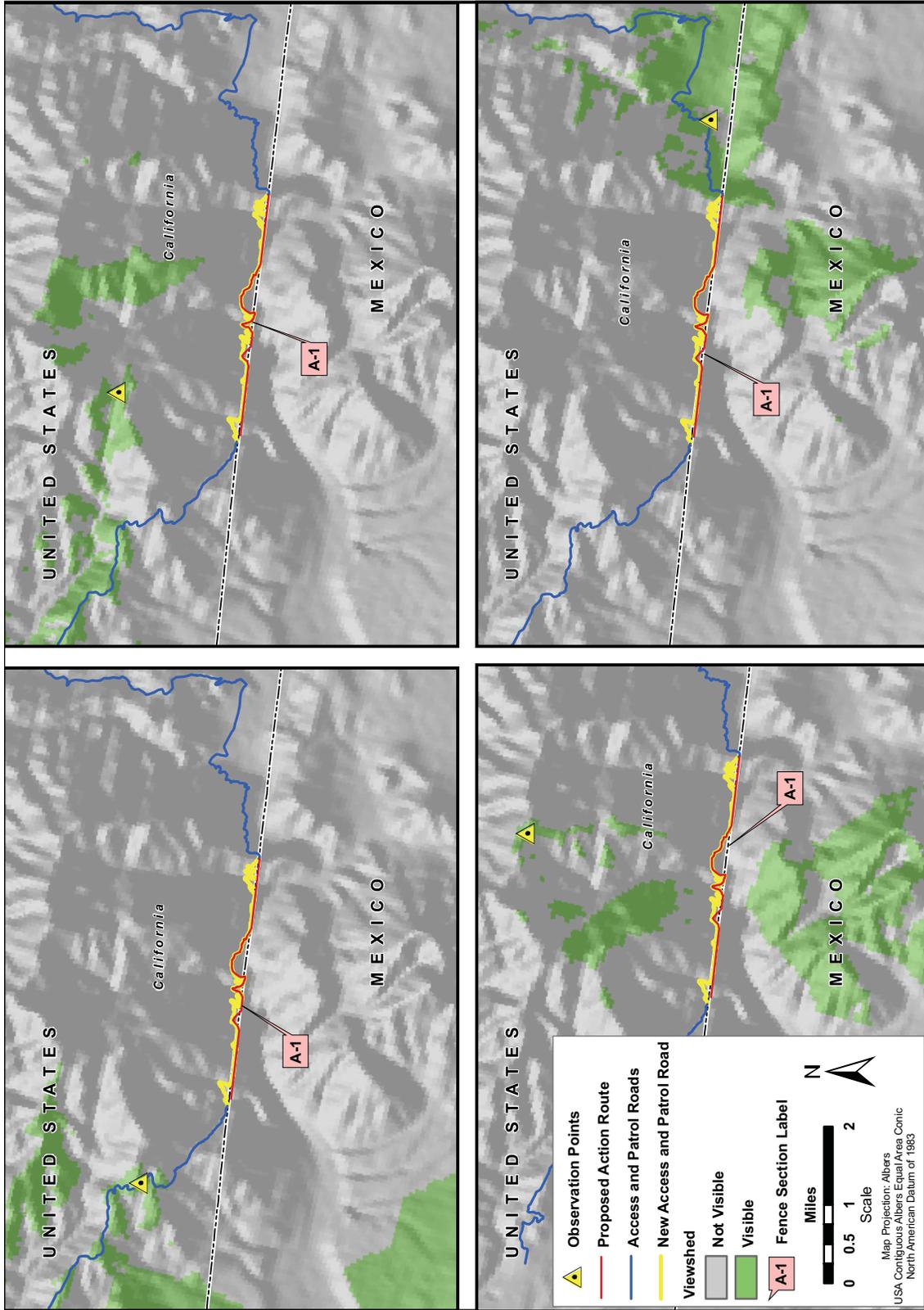


Figure 4.13-1. Viewsheds Associated with Section A-1

3 2

1 In Section A-2, the fence would connect to an existing fence and patrol roads,
2 which greatly reduces the overall contrast created by the Proposed Action.
3 **Figure 4.13-2** demonstrates that, although visibility is high from certain elevated
4 vantage points (by design for observation of the border), there is limited line of
5 sight from other locations. Line of sight from Tecate Peak appears to be
6 negligible.

7 Over time, the changes to the landscape caused by construction and repair of
8 access roads would dissipate significantly, therefore reducing the contrast of
9 viewable sections of both sections. Additionally, the presence of the fence would
10 protect the area's natural vistas from continuing degradation by trash, foot trails,
11 and potential wildfires associated with cross-border violators. The illegal grazing
12 of cattle herded into the area by Mexican farmers would also be prevented,
13 therefore reducing the potential for the introduction of unwanted and unsightly
14 invasive species.

15 There are numerous design techniques and construction practices that can be
16 used to reduce the visual impacts from surface-disturbing projects. These
17 methods would be used in conjunction with BLM's visual resource contrast rating
18 process wherein both the existing landscape and the Proposed Action are
19 analyzed for their basic elements of form, line, color, and texture. The design
20 techniques and construction practices include:

- 21 • Partial clearing of the limits of construction rather than clearing the entire
22 area – leaving islands of vegetation results in a more natural look
- 23 • Using irregular clearing shapes
- 24 • Feathering/thinning the edges of the cleared areas. Feathering edges
25 reduces strong lines of contrast. To create a more natural look along an
26 edge, a good mix of vegetation species and sizes should be retained
- 27 • Hauling in or hauling out excessive earth cut or fill in sensitive viewing
28 areas
- 29 • Rounding or warping slopes (shaping cuts and fills to appear as natural
30 forms)
- 31 • Bending slopes to match existing landforms
- 32 • Retaining existing rock formations, vegetation, and drainage whenever
33 possible
- 34 • Split-face rock blasting (cutting rock areas so that the resulting rock forms
35 are irregular in shape, as opposed to making uniform "highway" rock cuts)
- 36 • Toning down freshly broken rock faces through the use of asphalt
37 emulsions and rock stains
- 38 • Using retaining walls to reduce the amount and extent of earthwork

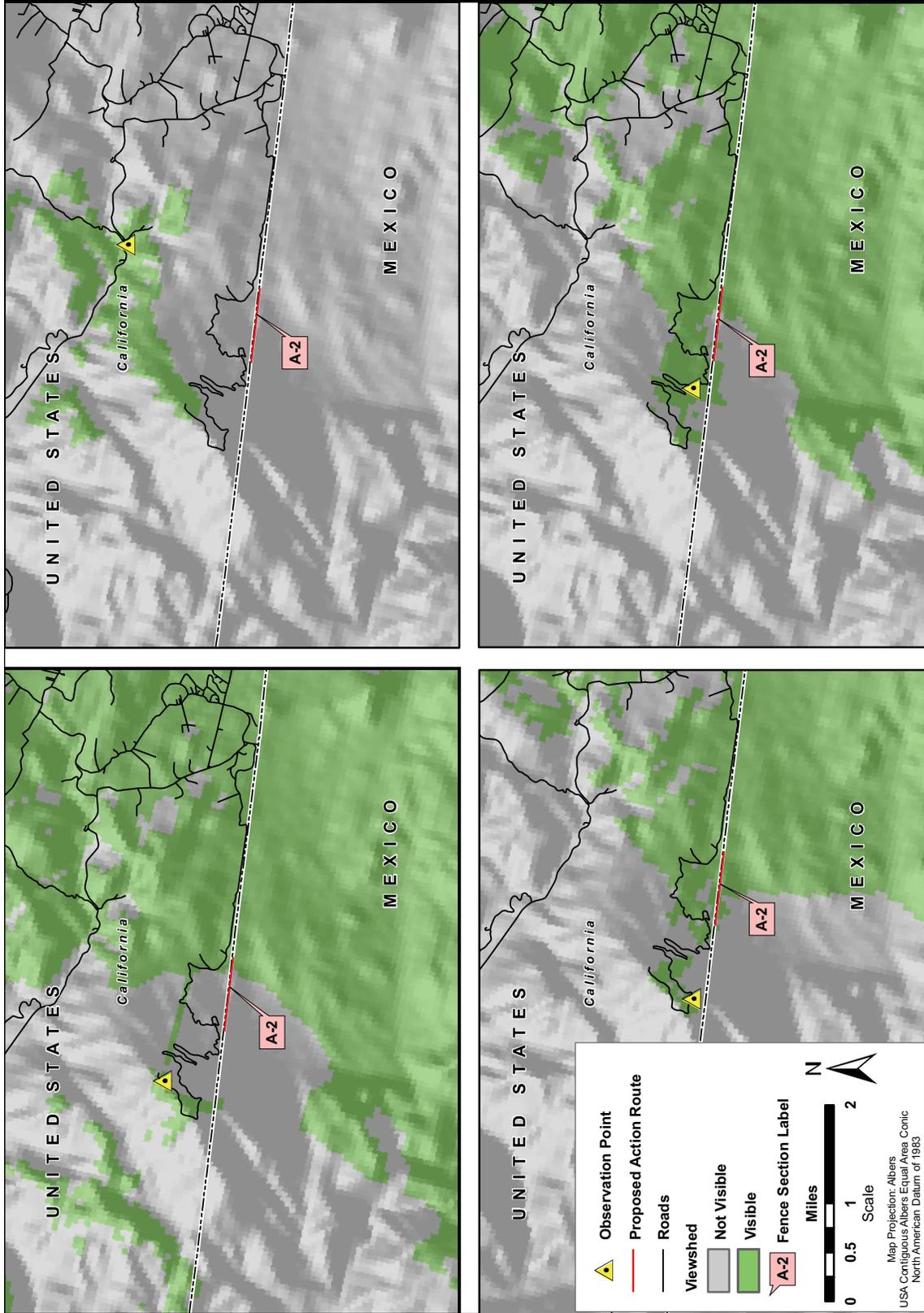


Figure 4.13-2. Viewsheds Associated with Section A-2

1
2

- 1
- 2 • Retaining existing vegetation by using retaining walls, reducing surface
- 3 disturbance, and protecting roots from damage during excavations
- 4 • Avoiding soil types that would generate strong contrasts with the
- 5 surrounding landscape when they are disturbed
- 6 • Prohibiting dumping of excess earth and rock on downhill slopes
- 7 • Striping, saving, and replacing topsoil (6-inch surface layer) on disturbed
- 8 earth surfaces
- 9 • Mulching cleared areas
- 10 • Furrowing slopes
- 11 • Using planting holes on cut-and-fill slopes to retain water
- 12 • Choosing native plant species
- 13 • Fertilizing, mulching, and watering vegetation
- 14 • Replacing soil, brush, rocks, and forest debris over disturbed earth
- 15 surfaces when appropriate, thus allowing for natural regeneration rather
- 16 than introducing an unnatural looking grass cover.

17 **4.14 SOCIOECONOMIC RESOURCES, ENVIRONMENTAL JUSTICE, AND**

18 **PROTECTION OF CHILDREN**

19 **4.14.1 No Action Alternative**

20 Under the No Action Alternative, there would be no change from the baseline
21 conditions. There would be no tactical infrastructure constructed. Under the No
22 Action Alternative, illegal immigration, narcotics trafficking, and opportunities for
23 terrorists and terrorist weapons to enter the United States would remain. Over
24 time, the number of crimes committed by smugglers and some cross-border
25 violators would increase, and an increase in property damage would also be
26 expected. Short-term local employment benefits from the purchase of
27 construction materials and the temporary increase in construction jobs would not
28 occur. Furthermore, money from construction payrolls that would circulate within
29 the local economy would not be available.

30 Because the types of jobs obtained by cross-border violators generally are low-
31 skilled and pay at or below minimum wage, some American workers have been
32 displaced by undocumented workers willing to work for less pay and fewer
33 benefits. Children of cross-border violators born in the United States are entitled
34 to public assistance programs and education at a substantial cost to the
35 American taxpayer. Implementation of the No Action Alternative would see these
36 problems continue. One potential benefit of the No Action Alternative might be
37 that cheap labor would be available to area farmers during harvesting (DHS
38 2004).

1 **4.14.2 Proposed Action**

2 Construction of proposed tactical infrastructure would have short-term, minor,
3 direct and indirect, beneficial impacts on socioeconomics through increased
4 employment and the purchase of goods and services. Project impacts related to
5 employment, temporary housing, public services, and material supplies would be
6 minor, temporary, and easily absorbed within the existing USBP San Diego
7 Sector regional resource and socioeconomics infrastructure. Construction would
8 occur over approximately 9 months in 2008, with a construction workforce
9 peaking at about 200 workers. No permanent workers would be needed to
10 maintain the access roads and fence sections.

11 Construction costs associated with the Proposed Action are estimated to be
12 approximately \$50 million. As stated in **Section 2.2.8**, if approved, design/build
13 contracts would be issued to construct the fence.

14 Short-term moderate increases to populations would be expected in construction
15 areas. Construction is expected to be drawn primarily from the regional
16 workforce. Due to the temporary nature of the Proposed Action, there would be
17 no change in population size or distribution and a relatively small increase in
18 employment and contribution to the local economy. Therefore, demand for new
19 housing units and other social services would not be expected.

20 No permanent or long-term effects on employment, population, personal income,
21 or poverty levels; or other demographic or employment indicators would be
22 expected from construction and operation of the tactical infrastructure. Since the
23 Proposed Action would not measurably affect the local economy or workforce, no
24 social effects are expected. There would be a net short-term increase in income
25 to the region, as the funding for the project would come from outside the area,
26 and, as a Federal project, construction workers would be paid the “prevailing
27 wage” under the Davis-Bacon Act, which might be higher than the average wage
28 in the construction industry locally.

29 No effects are expected on environmental justice populations or children. The
30 construction area is localized and does not have the potential to
31 disproportionately affect low-income, minority populations, or children. Although
32 Otay Mesa and the zip code containing Tecate (91980) have a higher Hispanic
33 population than San Diego County, potential impacts on low-income or minority
34 populations would not be disproportionate. The proposed project corridor of
35 Section A-1 is in the unpopulated OMW and Section A-2 is along a remote area,
36 therefore there is little potential to affect environmental justice populations.

37 The proposed tactical infrastructure under this alternative would have short- to
38 long-term, indirect, beneficial effects on children and safety in the ROIs and
39 surrounding areas. The USBP San Diego Sector features no natural barriers to
40 entry, therefore cross-border violators and smugglers are largely undeterred in
41 this area (CRS 2006). The addition of tactical infrastructure would increase the

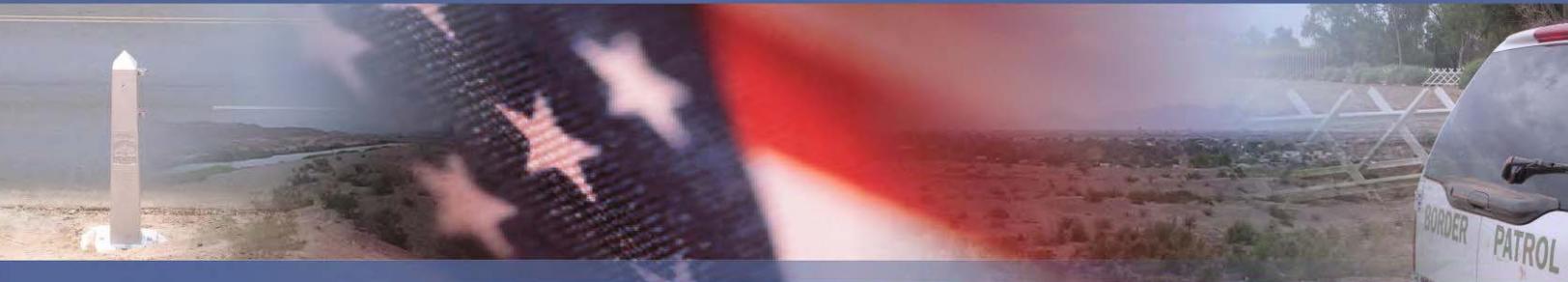
1 safety of USBP agents in the USBP San Diego Sector and would help to secure
2 the OMW for visitors. The Proposed Action would help to deter illegal border
3 crossings in the immediate area, which in turn could prevent drug smugglers,
4 terrorists, and cross-border violators from entering the surrounding area.
5 Previous fencing sections built in 1994 under Operation Gatekeeper have
6 resulted in increased property values and new commercial growth in the USBP
7 San Diego Sector.

8 However, minor, indirect, adverse impacts on human safety could result from the
9 Proposed Action. Previous fencing built in the USBP San Diego Sector under
10 Operation Gatekeeper pushed cross-border violators to adjacent more remote
11 desert areas while many attempted to jump the fence and were injured in doing
12 so. Hospitals in the San Diego County routinely treat cross-border violators that
13 have sustained injuries, such as broken bones. Hospitals in adjacent Imperial
14 County had an increase in the number of dehydration and exhaustion cases from
15 apprehended cross-border violators who were forced to attempt crossing in more
16 remote areas in the USBP San Diego Sector (Berestein 2004). Implementation
17 of Sections A-1 and A-2 could result in similar effects from the additional tactical
18 infrastructure.

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SECTION 5

Mitigation and CEQA Findings



5. MITIGATION AND CEQA FINDINGS

CBP has applied special design criteria to reduce adverse environmental impacts associated with the Proposed Action, including selecting a corridor for the tactical infrastructure that would avoid or minimize impacts on environmental and cultural resources. CBP has determined that construction, operation, and maintenance of tactical infrastructure in the USBP San Diego Sector would result in adverse environmental impacts. These impacts would be most significant during the period of construction. However, CBP has concluded, that the severity of impacts could be significantly reduced through the following course of action:

- BMPs would be used to avoid, minimize, or mitigate impacts on environmental, cultural, and historical resources.
- CBP would implement a Construction Mitigation and Restoration (CM&R) Plan, Storm Water Pollution Prevention Plan (SWPPP), Spill Prevention Control and Countermeasure (SPCC) Plan, Blasting Specifications, Dust Control Plan, Fire Prevention and Suppression Plan, and Unanticipated Discovery Plan for Cultural Resources.
- CBP would complete a ROD that discusses the results of appropriate consultations and mitigation measures with the USFWS, the CDFG, the SHPO, and Native American tribes before construction would begin in any given area.
- An environmental inspection process implemented according to a Mitigation and Monitoring Plan (MMP) would be prepared to ensure compliance with all mitigation measures.

In addition, CBP developed resource area-specific mitigation measures to further reduce the potential environmental impacts that would otherwise result from construction of the Proposed Action.

Table 5.1-1 presents a summary of the Proposed Action's potential environmental impacts and the mitigation measures identified to avoid or reduce each impact. The impacts are classified before and after mitigation in accordance with the CEQA significance classifications. The recommended mitigation would reduce potential environmental impacts to less than significant levels in most cases. However, the Quino Checkerspot Butterfly habitat would be impacted and mitigation is not available to reduce impacts to less than significant levels. **Table 5.1-1** is the basis for the mitigation and monitoring that would be implemented during construction, operation, and maintenance of the USBP San Diego Sector Tactical Infrastructure.

Table 5.1-1. Mitigation Monitoring Program for the USBP San Diego Tactical Infrastructure

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
AIR QUALITY					
Air Quality 1	<p>The construction activities that would generate emissions include land clearing, ground excavation, and cut and fill operations. The intermittent and short-term emissions generated by these activities would include dust from soil disruption and combustion emissions from the construction equipment. These emissions could result in minor, temporary impacts on air quality in the vicinity of fence installation.</p>	<p>Significant (CEQA Class II)</p>	<p>Construction equipment would be operated on an as-needed basis, and the emissions from gasoline and diesel engines would be minimized because the engines must be built to meet the standards for mobile sources established by the USEPA mobile source emissions regulations including those in Title 40 CFR Part 85. Most of the construction equipment would be powered by diesel engines and would be equipped with typical control equipment (e.g., catalytic converters), and project-related vehicles and construction equipment would be required to use the new low-sulfur diesel fuel as soon as it is commercially available. In addition, CBP would implement the following measures to minimize impacts on air resources: minimize idling time for diesel equipment whenever possible; ensure that diesel-powered construction equipment is properly tuned and maintained, and shut off when not in direct use; prohibit engine tampering to increase horsepower; use California Air Resources Board-certified low-sulfur diesel fuel (less than 15 parts per million [ppm]); and reduce construction-related trips as feasible for workers and equipment, including trucks.</p>	<p>Less than significant (CEQA Class III)</p>	<p>CBP</p>

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
AIR QUALITY (continued)					
Air Quality 2	Construction of the Proposed Action would generate emissions of nonregulated greenhouse gas (GHG). CO ₂ would be formed as a primary product of combustion of the diesel and gas engines used to power construction equipment and vehicles.	Less than significant (CEQA III)	Increases in emissions of GHG would occur during construction. These emissions would be minimized by observing the equipment operation BMPs discussed in Air Quality 1, and would be negligible.	Less than significant (CEQA III)	CBP
Air Quality 3	Construction of the Proposed Action would generate emissions of PM ₁₀ .	Less than significant (CEQA III)	Fugitive dust generated by construction activities would be minimized by the implementation of CBP's Projectwide Dust Control Plan. The Projectwide Dust Control Plan includes control measures identified as BMPs by some of the regulating agencies. The measures that would be implemented include the following: take every reasonable precaution to minimize fugitive dust emissions from construction activities; take every reasonable measure to limit visible density (opacity) of emissions to less than or equal to 20 percent; apply water one or more times per day to all affected unpaved roads, and unpaved haul and access roads; reduce vehicle speeds on all unpaved roads, and unpaved haul and access roads; clean up track-out and carry-out areas at paved road access points at a minimum of once every 48 hours; if bulk transfer operations are required, spray handling and transfer points with water at least 15 minutes before use.	Less than significant (CEQA III)	CBP

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
NOISE					
Noise 1	Individuals in the immediate vicinity of the construction activities could experience an increase in noise.	Significant (CEQA Class II)	Noise associated with construction activities would be both temporary and intermittent. Equipment would be operated on an as-needed basis. A majority of the activities would occur away from population centers. The duration of construction in the few populated areas would be limited to a few days.	Less than significant (CEQA Class III)	CBP
GEOLOGY AND SOILS					
Geology and Soils 1	Disturbances to the natural topography along the construction easement will be impacted by grading activities.	Significant (CEQA Class II)	After completion of construction, topographic contours and drainage conditions would be restored as close as practicable to their preconstruction condition.	Less than significant (CEQA Class III)	CBP and BLM
Geology and Soils 2	Blasting might be necessary along Section A-1. Blasting could adversely affect geological resources.	Significant (CEQA Class II)	The Proposed Action was developed to avoid geologic formations that would require blasting to the extent possible.	Less than significant (CEQA Class III)	CBP and BLM

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
GEOLOGY AND SOILS (continued)					
Geology and Soils 3	Construction of the tactical infrastructure could expose soils to erosional forces, compact soils, affect soil fertility, cause mixing of soil horizons, and facilitate the dispersal and establishment of weeds.	Significant (CEQA Class II)	CBP would mitigate impacts on soils by implementing its CM&R Plan developed in consultation with the BLM, the USFWS, and the CDFG, and its Project-wide Dust Control Plan. Fugitive dust generated by construction activities would be minimized by the implementation of CBP's Project-wide Dust Control Plan. The Project-wide Dust Control Plan includes control measures identified as BMPs by some of the regulating agencies. The measures that would be implemented include the following: take every reasonable precaution to minimize fugitive dust emissions from construction activities; take every reasonable measure to limit visible density (opacity) of emissions to less than or equal to 20 percent; apply water one or more times per day to all affected unpaved roads, and unpaved haul and access roads; reduce vehicle speeds on all unpaved roads, and unpaved haul and access roads; clean up track-out and carry-out areas at paved road access points at a minimum of once every 48 hours; if bulk transfer operations are required, spray handling and transfer points with water at least 15 minutes before use. CBP would also adhere to BMPs identified in the project SWPP Plan.	Less than significant (CEQA Class III)	CBP
Geology and Soils 4	Contamination from spills or leaks of fuels, lubricants, and coolant from construction equipment could have an impact on soils.	Significant (CEQA Class II)	CBP would mitigate impacts on soils by implementing its SPCC Plan for Hazardous Materials and Wastes.	Less than significant (CEQA Class III)	None required.

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
WATER RESOURCES					
Hydrology and Groundwater 1	Refueling of vehicles and storage of fuel, oil, and other fluids during the construction phase of the project could create a potential long-term contamination hazard to groundwater resources. Spills or leaks of hazardous liquids could contaminate groundwater and affect users of the aquifer.	Significant (CEQA Class II)	CBP would comply with its SPCC Plan. This includes avoiding or minimizing potential impacts by restricting the location of refueling activities and storage facilities and by requiring immediate cleanup in the event of a spill or leak. Additionally, the SPCC Plan identifies emergency response procedures, equipment, and clean-up measures in the event of a spill.	Less than significant (CEQA Class III)	None required.
Surface Waters 1	Spoil piles placed in floodplains during trenching or excavation for infrastructure foundation construction could cause an increase in flood levels or could be washed downstream or be deleterious to aquatic life.	Significant (CEQA Class II)	CBP would manage spoil piles to avoid placement in floodplains. Dry washes are also regulated by the SWRCB. CBP will leave gaps in the spoil piles in dry washes so the washes remain open during construction. CBP would prepare and submit an updated CM&R Plan to the Agency Staffs before construction if necessary to incorporate any additional requirements of Federal, state, and local permits. CBP would adhere to BMPs identified within the project SWPP Plan to avoid sedimentation issues.	Less than significant (CEQA Class III)	CBP

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
WATER RESOURCES (continued)					
Surface Waters 2	Refueling of vehicles and storage of fuel, oil, or other hazardous materials near surface waters could create a potential for contamination if a spill were to occur. Immediate downstream users of the water could experience degradation in water quality. Acute chronic toxic effects on aquatic organisms could result from such a spill.	Significant (CEQA Class II)	CBP would comply with its SPCC Plan. This includes avoiding or minimizing potential impacts by restricting the location of refueling activities and storage facilities and by requiring immediate cleanup in the event of a spill or leak. Additionally, the SPCC Plan identifies emergency response procedures, equipment, and clean-up measures in the event of a spill.	Less than significant (CEQA Class III)	None required.
Waters of the United States 1	The primary impact of the Proposed Action on wetlands would be the temporary and permanent alteration of wetland vegetation. Other impacts could include temporary changes in wetland hydrology and water quality, mixing of topsoil and subsoil, and compaction and rutting of soils.	Significant (CEQA Class II)	CBP would adhere to its CM&R Plan, and comply with the USACE's Section 404 and the SDRWQCB's Section 401 Water Quality Certification permit conditions. Wetlands would be restored to preconstruction contours. Construction of the project would result in no net loss of wetlands because no wetlands would be permanently drained or filled. Some of the mitigation measures pertaining to wetland crossings include the following: minimizing construction time in wetland areas, requiring nonessential construction to avoid crossing wetland areas, and storing and returning the top foot of soil from wetland areas to preserve root stock for regrowth.	Less than significant (CEQA Class III)	CBP

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
CULTURAL RESOURCES					
Cultural Resources 1	Construction of tactical infrastructure could impact upon the presence of archaeological sites.	Significant (CEQA Class II)	To address potential impacts on paleontological resources resulting from the Proposed Action, CBP will develop an Archaeological Resource Mitigation and Monitoring (ARMM) Plan. The ARMM Plan includes a summary of the literature and museum archival review, field survey results, and assessment of potential impacts on archaeological resources; project-wide and site-specific mitigation and monitoring measures; and curation and reporting procedures. In accordance with the ARMM Plan, CBP would have an archaeological monitor onsite in areas where archaeological resources have been identified. Known sites would be flagged and clearly identified. Additional measures of the plan include availability of a qualified project archaeologist to be called to the proposed project corridor to respond to construction-related issues and training of construction personnel and Environmental Inspectors (EIs) regarding the possibility that archaeological resources could be encountered during construction. Consultation with Native American Tribes would be ongoing throughout the project timeline.	Less than significant (CEQA Class III)	CBP

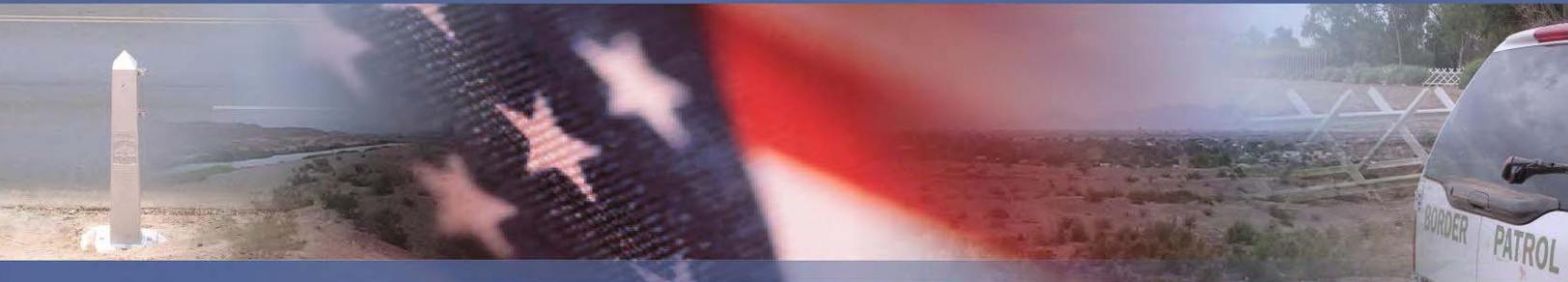
Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
BIOLOGICAL RESOURCES					
Vegetation 1	The primary impact of the Proposed Action on vegetation would be the cutting, clearing, or removal of existing vegetation within the construction work area. The removal of desert vegetation would have longer-term impacts than in agricultural areas where vegetation reestablishes quickly.	Significant (CEQA Class II)	CBP would minimize the area of new disturbance and the impacts on vegetation. CBP would implement its CM&R Plan to reduce impacts on vegetation within the construction and permanent ROWs and improve re-vegetation potential. Some of the measures that would be implemented include the following. Crush or skim vegetation within the construction corridor in areas where grading is not required, which would result in less soil disturbance. The remaining root crowns would aid in soil stabilization, help retain organic matter in the soil, aid in moisture retention, and have the potential to re-sprout following construction. Preserve native vegetation removed during clearing operations. The cut vegetation would be windrowed along the ROW during construction and then respread over the disturbed areas as part of restoration activities.	Less than significant (CEQA Class III)	CBP
Vegetation 2	Removal of existing vegetation and the disturbances of soils during construction could create conditions for the invasion and establishment of exotic-nuisance species.	Significant (CEQA Class II)	CBP would reduce the potential to spread noxious weeds and soil pests by implementing the measures included in its CM&R Plan. These measures include, survey by a qualified biologist, flagging or treatment before construction, identification of populations of plants listed as invasive exotics by the California Invasive Plant Council and the BLM National List of Invasive Weed Species of Concern, not allowing for disposal of soil and plant materials from nonnative areas to native areas, washing all construction equipment before beginning work on the project, use of gravel or fill material from weed-free sources for relatively weed-free areas, use of certified weed-free hay bales, implementation of post-construction monitoring and treatment of invasive weeds.	Less than significant (CEQA Class III)	CBP

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
BIOLOGICAL RESOURCES (continued)					
Vegetation 3	Fires inadvertently started by construction activities (e.g., welding), equipment, or personnel could affect wildlife by igniting vegetation along the ROW.	Significant (CEQA Class II)	CBP would implement its Fire Prevention and Suppression Plan to minimize the potential for wildfires. Some of the measures contained in the plan include requiring the contractor to train all personnel on fire prevention measures, restricting smoking and parking to cleared areas, requiring all combustion engines to be equipped with a spark arrester, and requiring vehicles and equipment to maintain a supply of fire suppression equipment (e.g., shovels and fire extinguishers).	Less than significant (CEQA Class III)	None required.
Wildlife 1	Some impact on migratory birds could result from habitat loss associated with construction of the project. Clearing of vegetation could also destroy nests and cause mortality of nestlings and nesting adults.	Significant (CEQA Class II)	CBP would attempt to schedule construction in native habitats outside of the breeding season for migratory birds. If, however, construction activities are necessary during the bird breeding season, in accordance with its CM&R Plan, CBP would remove vegetation that could provide nesting substrate from the ROW before the breeding season, thus eliminating the possibility that birds could nest on the ROW. Qualified biologists would conduct preconstruction surveys to confirm the absence of nesting birds before construction begins. CBP would, in consultation with the USFWS, the BLM, and the CDFG, develop Pre-clearing Plans to protect migratory bird species during construction. These plans would include specific details of the pre-clearing methods to be implemented, the specific locations where pre-clearing would occur, and the dates pre-clearing would be initiated and completed	Less than significant (CEQA Class III)	CBP

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
BIOLOGICAL RESOURCES (continued)					
Wildlife 2	Construction would temporarily impact Quino checkerspot butterfly critical habitat at work areas, temporary access roads, and along the construction corridor.	Significant (CEQA Class II)	CBP would limit disturbance of previously unaffected areas to the narrowest extent practicable. Further, CBP would compensate for the loss of critical habitat. Clearing of vegetation in the affected areas would likely result in destruction of larval stage butterflies. Additional BMPs and Mitigation Strategies are being developed in conjunction with USFWS pursuant to the Section 7 consultation process.	Significant (CEQA Class II)	None required.
VISUAL RESOURCES					
Visual Resources 1	Installation of tactical infrastructure would impact visual resources.	Significant (CEQA Class II)	CBP will adopt techniques outlined in BLM's Visual Resources Management System. Examples of suggested methods include but would not be limited to: rounding and/or warping slopes (shaping cuts and fills to appear as natural forms); prohibiting dumping of excess earth/rock on downhill slopes; using retaining walls to reduce the amount and extent of earthwork; Replacing soil, brush, rocks, forest debris, etc., over disturbed earth surfaces when appropriate, thus allowing for natural regeneration rather than introducing an unnatural looking grass cover; Partial clearing of the limits of construction rather than clearing the entire area – leaving islands of vegetation results in a more natural look.	Less than significant (CEQA Class III)	None required.
SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE AND SAFETY					
Socioeconomics 1	Construction of the project could temporarily increase the population in the area by about 200 people.	Less than significant (CEQA Class III)	No mitigation is proposed during construction. This negligible short-term increase in population would not significantly affect housing availability or increase the demand for public services in excess of existing and projected capabilities.	Less than significant (CEQA Class III)	None required.

Mitigation Number	Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation	Monitoring Responsibility
Environmental Justice 1	The project could result in a disproportionately high and adverse effect or impact on a minority or low-income portion of the population.	Less than significant (CEQA Class III)	No mitigation is proposed. U.S. Bureau of Census data show that minority and low-income populations are present along the proposed infrastructure routes, but there is no potential for disproportionate adverse impacts on these populations. CBP will conduct open houses in the proposed project corridor in January 2008 to inform the public about the project and provide an opportunity for the public to ask questions and express concerns. These public input opportunities will be announced in the local newspapers in English and Spanish, and Spanish translators will be present.	Less than significant (CEQA Class III)	None required.

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE AND SAFETY (continued)



SECTION 6

Cumulative Impacts



6. CUMULATIVE IMPACTS

1
2 CEQ defines cumulative impacts as the “impacts on the environment that result
3 from the incremental impact of the action when added to other past, present, and
4 reasonably foreseeable future actions regardless of what agency (Federal or
5 non-Federal) or person undertakes such other actions” (40 CFR 1508.7).
6 Cumulative impacts can result from individually minor but collectively significant
7 actions taking place over a period of time by various agencies (Federal, state,
8 and local) or individuals. Informed decisionmaking is served by consideration of
9 cumulative impacts resulting from projects that are proposed, under construction,
10 recently completed, or anticipated to be implemented in the reasonably
11 foreseeable future.

12 This cumulative impacts analysis summarizes expected environmental effects
13 from the combined impacts of past, current, and reasonably foreseeable future
14 projects in accordance with CEQ regulations implementing NEPA and CEQ
15 guidance on cumulative effects (CEQ 1997, 2005). The geographic scope of the
16 analysis varies by resource area. For example, the geographic scope of
17 cumulative impacts on noise, visual resources, soils, and vegetation is very
18 narrow and focused on the location of the resource. The geographic scope of air
19 quality, wildlife and sensitive species, and socioeconomics is much broader and
20 considers more county- or regionwide activities. Projects that were considered
21 for this analysis were identified by reviewing USBP documents, news releases,
22 and published media reports; and through consultation with planning and
23 engineering departments of local governments, and state and Federal agencies.

24 Projects that do not occur in close proximity (i.e., within several miles) to the
25 proposed tactical infrastructure would not contribute to a cumulative impact and
26 are generally not evaluated further.

27 **Cumulative Fencing, Southern Border.** There are currently 62 miles of landing
28 mat fence at various locations along the U.S./Mexico international border (CRS
29 2006); 14 miles of single, double, and triple fence in San Diego, California; 70
30 miles of new pedestrian fence approved and currently under construction; and
31 fence adjacent to POEs throughout the southern border. In addition, 225 miles of
32 fence (including the approximately 4.4 miles proposed under the action
33 considered in this EIS) are proposed. The implementation of proposed fence
34 initiatives are being studied for specified areas in Texas, New Mexico, Arizona,
35 and California.

36 **Past Actions.** Past actions are those within the cumulative effects analysis
37 areas that have occurred prior to the development of this EIS. The effects of
38 these past actions are generally included in the affected environment described
39 in **Section 3**. For example, development throughout San Diego County has
40 shaped the existing conditions described in **Section 3**.

1 **Present Actions.** Present actions include current or funded construction
2 projects, USBP or other agency operations in close proximity to the proposed
3 fence locations, and current resource management programs and land use
4 activities within the cumulative effects analysis areas. Ongoing actions
5 considered in the cumulative effects analysis include extensive construction
6 activities in the East Otay Mesa area.

7 **Reasonably Foreseeable Future Actions.** Reasonably foreseeable future
8 actions consist of activities that have been approved and can be evaluated with
9 respect to their effects. The following activities are reasonably foreseeable future
10 actions:

- 11 • SBI. SBI is a comprehensive program focused on transforming border
12 control through technology and infrastructure. The goal of the program is
13 to field the most effective proven technology, infrastructure, staffing, and
14 response platforms, and integrate them into a single comprehensive
15 border security suite for USBP. Potential future SBI projects include
16 deployment of sensor technology, communications equipment, command
17 and control equipment, fencing, barriers capable of stopping a vehicle,
18 and any required road or components such as lighting and all-weather
19 access roads (Boeing 2007). Within the next 2 years, 225 miles of
20 primary fence are proposed for construction (including the approximately
21 4.4 miles addressed in this EIS).
- 22 • East Otay Mesa Specific Plan. San Diego County has developed the East
23 Otay Mesa Specific Plan to promote development of the area into a
24 comprehensive industrial and business district. The plan calls for the area
25 to be divided into the following land use categories: heavy industrial (289
26 acres), light industrial (410 acres), a Technology Business Park (937
27 acres), conservation/limited use (241 acres), and regional circulation
28 corridors (130 acres) (City of San Diego 2007).
- 29 • South Coast Resource Management Plan Amendment for the San Diego
30 County Border Mountains. The BLM is proposing to prepare an
31 amendment to the South Coast Resource Management Plan for BLM-
32 administered public lands in the Border Mountains area of San Diego
33 County, including Otay Mountain. The plan amendment proposes to
34 establish management guidelines for lands acquired since 1994 and
35 designate a travel network.
- 36 • BLM Upgrade of the Border Pack Trail. The trail runs east-west along the
37 border below the OMW. The wilderness boundary is actually 100 feet
38 north of the edge of the trail. The existing trail is mainly a hiking trail, but
39 ATVs can access the trail at this time with some difficulty. The BLM is
40 proposing to upgrade the trail to better accommodate ATVs safely. This
41 would include widening the trail and constructing turnarounds and pull-
42 outs. The primary obstacle with upgrading the trail is that it supports the
43 endangered Quino checkerspot butterfly and habitat (CBP 2007b).

- 1 • San Diego Gas & Electric (SDG&E) Transmission Line. SDG&E has
2 proposed to construct a new 150-mile transmission line between the cities
3 of El Centro and San Diego. The stated purpose of the project is to bring
4 renewable energy sources into San Diego from Imperial County, reduce
5 energy costs, and improve reliability of electrical service in the San Diego
6 area. SDG&E has filed an application with the California Public Utilities
7 Commission (CPUC) to construct the Sunrise Powerlink Project (SRPL).
8 A joint EIS/Environmental Impact Report (EIR) is being prepared (BLM
9 2007).
- 10 • Construction of Tactical Infrastructure. USBP is currently constructing a
11 border tactical infrastructure system along the U.S./Mexico international
12 border within San Diego County. The tactical infrastructure system project
13 spans 14 miles and includes secondary and tertiary fences, patrol and
14 maintenance roads, lights, and integrated surveillance and intelligence
15 system resources. Approximately 9 miles of the 14-mile project have
16 been completed or are currently under construction. These projects
17 approved for this infrastructure initiative were addressed under several
18 individual EAs as pilot projects for the tactical infrastructure system.
19 When completed, the tactical infrastructure system would impact
20 approximately 297 acres, consisting of disturbed/developed lands, coastal
21 sage scrub, maritime succulent scrub, and grasslands.

22 Seven road and tactical infrastructure projects are proposed that include
23 construction, repair, maintenance, and upgrade of existing roads and
24 infrastructure within the Brown Field Station Area of Operations (AO).

25 In addition, ongoing maintenance of approximately 104 miles of patrol roads
26 throughout the Brown Field, El Cajon, and Campo Stations AOs is proposed.
27 The roads adjacent to or nearest the proposed project corridor are the Marron
28 Valley Road (6.6 miles) and Barrett Truck Trail (9.6 miles) (CBP 2007b).

29 The FY 2007 DHS Appropriations Act provided \$1.2 billion for the installation of
30 fencing, infrastructure, and technology along the border (CRS 2006). USBP is
31 proposing to construct up to 225 miles of primary fence in the Rio Grande Valley,
32 Marfa, Del Rio, and El Paso, Texas; Tucson and Yuma, Arizona; and El Centro
33 and San Diego, California, sectors. Proposed Section A-2 which is evaluated in
34 this EIS, would connect to existing fence west of Tecate, California.

35 **Table 6.0-1** presents the potential cumulative effects that might occur from
36 implementation of the Proposed Action.

Table 6.0-1. Summary of Potential Cumulative Effects

Resource	Past Actions	Current Background Activities	Proposed Action	Known Future Actions	Cumulative Effects
Air Quality	State nonattainment for 8-hour O ₃ ; Federal moderate maintenance for CO; state nonattainment for PM ₁₀ and PM _{2.5} .	Existing emissions sources continue to adversely affect regional air quality.	Construction activities would temporarily contribute to PM and combustion emissions.	Proposed new construction and business development in East Otay Mesa area would contribute to emissions and adverse regional air quality.	Construction activities would temporarily contribute to CO and PM emissions. Continued attainment.
Noise	Commercial and residential development, vehicles dominate ambient noise.	Commercial and residential development, vehicles dominate ambient noise near urban areas. Remote areas temporarily impacted by ATV recreational activities.	Short-term noise impacts from construction.	None.	Current activities would be the dominant noise source. Negligible cumulative impacts.
Land Use and Recreation	Establishment of OMW. Commercial and residential development, infrastructure improvements on natural areas.	Development of natural area.	USBP purchase of land or easements to construct tactical infrastructure. Natural areas developed for tactical infrastructure. Development inconsistent with Wilderness Act.	Residential and commercial development permanently alters natural areas.	Moderate adverse impacts on natural areas.

Resource	Past Actions	Current Background Activities	Proposed Action	Known Future Actions	Cumulative Effects
Geology and Soils	Intrusions by border-cross violators have modified soils.	Continued illegal border crossings adversely affect soils.	Grading, excavating, and recontouring would significantly disturb soils.	Continued illegal border crossings adversely affect soils.	Grading, excavating, and recontouring would significantly disturb geology.
Water Resources: Hydrology and Groundwater	Degradation of aquifers due to pollution; changes in hydrology due to increased impervious areas.	Continued degradation of aquifers from pollution; changes in hydrology due to increased impervious areas.	Short-term minor adverse effects from groundwater use for dust suppression during construction.	Minor to moderate short- and long-term impacts from development and increased impervious areas.	Minor short-term impact from groundwater use during construction.
Surface Waters and Waters of the United States	Degradation of water resources due to pollution.	Surface water quality adversely impacted by development.	Soil disturbance, erosion during construction, impacts on wetlands.	Construction erosion and sediment runoff, potential oil spills and leaks.	Nonpoint discharges, construction erosion and sediment runoff, potential oil spills and leaks.
Floodplains	Increase in impervious surfaces near Section A-2 increase runoff flood hazards.	Increase in impervious surfaces near Section A-2 increase runoff and flood hazards.	None.	Increase in impervious surfaces near Section A-2 increases runoff and flood hazards.	None.
Vegetation	Degraded historic habitat of sensitive and common wildlife species.	Continued urbanization results in loss of native species.	Habitat fragmentation. Minor to moderate loss of native species and habitat.	Continued urbanization results in loss of native species and habitat.	Moderate to major adverse impacts on vegetation and habitats.
Wildlife and Aquatic Resources	Loss of native habitat due to development; loss of wildlife corridors; impacted habitat and food sources.	Development continues to impact biological resources and wildlife habitat.	Minor to moderate loss of habitat and wildlife corridors, and habitat fragmentation.	Minor to moderate loss of habitat and wildlife corridors.	Minor to moderate loss of habitat and wildlife corridors.

Resource	Past Actions	Current Background Activities	Proposed Action	Known Future Actions	Cumulative Effects
Special Status Species	Habitat loss and degraded water quality impacted sensitive species.	Development continues to adversely impact and reduce potential habitat.	Moderate to major loss of habitat due to construction disturbance and fragmentation.	Development continues to adversely impact, reduce, and fragment potential habitat.	Fragmentation of suitable habitat might significantly reduce available habitat for certain sensitive species.
Cultural Resources	Possible destruction of unknown artifacts.	Identification and recordation of historic and cultural resources.	Minor adverse impacts on archaeological resources.	Proposed new construction and expansion into eastern San Diego County might adversely affect cultural resources.	Long-term adverse impacts from past destruction of unknown artifacts.
Visual Resources	Degradation of visual appeal due to illegal foot traffic, causing extensive littering and other blemishes to the landscape.	Development of natural areas for community and industry infrastructure.	Constant static visual interruption at fixed points. Loss of recreational area.	Continued moderate to severe impacts on Class I and Class III Visual Resources.	Major long-term impacts from tactical infrastructure.
Socioeconomic Resources, Environmental Justice, and Protection of Children	Urban development throughout county.	Strong local economy and high land values.	Minor, temporary contribution to local construction	Continued strong local economy, high land values, and expansion into eastern county.	Minor stimulation of local economies from construction activities.

1 **6.1 AIR QUALITY**

2 Proposed construction and USBP patrolling along the new fence Section A-1
3 would combine with past actions (current severe nonattainment for PM₁₀ and
4 moderate nonattainment for 8-hour O₃), and ongoing or future construction
5 activities in the East Otay Mesa area to produce both temporary and long-term
6 adverse cumulative impacts on regional air quality. USBP operational activities
7 along the patrol road would produce minor adverse impacts on air quality due to
8 increased vehicle emissions and PM₁₀ emissions due to driving on the dirt patrol
9 road. Emissions from construction, operation, and maintenance activities would
10 not be expected to significantly affect local or regional air quality.

11 **6.2 NOISE**

12 Negligible cumulative effects on ambient noise would be expected. The
13 Proposed Action would result in noise from construction, operation, and
14 maintenance of tactical infrastructure. The Proposed Action would combine with
15 existing noise sources to produce negligible cumulative effects along Section
16 A-2.

17 **6.3 LAND USE AND RECREATION**

18 USBP purchase of land or easements to construct tactical infrastructure, when
19 combined with past, current, and reasonably foreseeable future development,
20 would result in long-term, adverse impacts on lands classified as “undeveloped”
21 or “natural.” The Proposed Action might be inconsistent with the Wilderness Act
22 relative to OMW.

23 **6.4 GEOLOGY AND SOILS**

24 Moderate localized impacts on geology and soils would be from the additive
25 effects of current or ongoing actions, the Proposed Action, and other reasonably
26 foreseeable future actions. Additive effects include some minor changes in
27 topography, disturbance to surface bedrock, and increases in erosion. Potential
28 impacts of the Proposed Action would include minor changes in topography and
29 surface bedrock due to grading, contouring, blasting, and trenching; minor soil
30 disturbance; and a minor increase in erosion. However, the impacts associated
31 with the Proposed Action would be negligible in comparison to the impacts of
32 current and future actions.

33 **6.5 HYDROLOGY AND GROUNDWATER**

34 Moderate impacts on hydrology and groundwater would be expected from the
35 cumulative effects of current or ongoing actions, the Proposed Action, and other
36 reasonably foreseeable future actions. Cumulative impacts would include
37 changes in hydrology from increases in impervious surfaces and reductions in

1 the quantity and quality of groundwater in local aquifers. The Proposed Action
2 would result in minor adverse impacts in hydrology from changes on topography
3 and minor use of groundwater.

4 **6.6 SURFACE WATER AND WATERS OF THE UNITED STATES**

5 Moderate impacts on surface water and waters of the United States would be
6 expected from the cumulative effects of current or ongoing actions, the Proposed
7 Action, and other reasonably foreseeable future actions. Cumulative impacts
8 would occur from soil disturbance reducing water quality resulting in indirect
9 adverse impacts on wetlands. The Proposed Action would result in minor to
10 moderate impacts on riparian areas and wetlands. An estimated 2.4 acres of
11 Riverine wetlands would be permanently impacted by construction of the tactical
12 infrastructure. USBP would obtain CWA Section 404 permits and mitigate the
13 loss of wetlands. Since wetlands have not been delineated, acres potentially
14 impacted could be higher. Cumulative impacts on wetlands would be long-term
15 and adverse.

16 **6.7 FLOODPLAINS**

17 Moderate impacts on floodplains are expected from the additive effects of current
18 or ongoing actions, the Proposed Action, and other reasonably foreseeable
19 future actions. Additive effects would include an increase in the quantity and
20 velocity of storm water runoff caused by an increase in impervious surface, which
21 in turn causes an increase in flood hazards. Potential impacts of the Proposed
22 Action would include an increase in impervious surface in the floodplain by
23 placing a portion of a fence across an intermittent wash in Section A-1. This
24 wash could potentially be a floodplain. If it is determined that this area is a
25 floodplain, impacts would be avoided and minimized to the maximum extent
26 practicable. However, the impacts associated with the Proposed Action would be
27 negligible in comparison to the impact of current and future actions.

28 **6.8 VEGETATION**

29 Conversion of land for development is reducing the areal extent of native
30 chamise chaparral and riparian communities in this portion of San Diego County.
31 These habitats and their component species become rarer with each acre lost to
32 development. Clearing for fence construction and long-term USBP operational
33 activities might combine with these activities to produce a long-term adverse
34 cumulative effect. Border-cross violators have created a large number of
35 footpaths through the chaparral shrublands on the OMW. Fence construction
36 might concentrate border-cross violators into corridors which, if left unchecked,
37 would create wider unvegetated paths and produce a major adverse impact on
38 those areas. Closing the maze of footpaths in the interior of the OMW would
39 allow some land recovery outside of areas associated with permanent
40 maintenance roads and patrol roads. Cumulative impacts would be long-term
41 and adverse.

1 **6.9 WILDLIFE AND AQUATIC RESOURCES**

2 Minor to moderate impacts on wildlife and species are expected from the additive
3 effects of the past, present, and reasonably foreseeable future actions.
4 Cumulative impacts would mainly result from fragmentation of degraded habitat,
5 disturbance and degradation of native vegetation, and construction traffic.
6 Indirect impacts would result from noise during construction, and loss of potential
7 food web species. Species would also be impacted by spills and leaks from
8 mobilized equipment.

9 **6.10 SPECIAL STATUS SPECIES**

10 As discussed in **Section 4.11** CBP began Section 7 preconsultation coordination
11 with the USFWS regarding potential impacts on listed species or designated
12 critical habitat. The potential effects of fence construction, operation, and
13 maintenance associated with the Proposed Action will be analyzed in the BA and
14 BO. Special status species are commonly protected because their historic range
15 and habitat has been reduced and will only support a small number of
16 individuals. Past, present, and future activities which have impacted or have the
17 potential to impact special status species in the vicinity of the Proposed Action
18 include illegal livestock grazing, cross-border violator traffic, and residential and
19 commercial development. If continued as currently occurring, these activities are
20 anticipated to have major adverse cumulative impacts on special status species
21 in the area of the Proposed Action through further reduction of habitat quantity
22 and quality. If implemented, the Proposed Action would reduce or halt both
23 illegal livestock grazing and cross-border violator traffic in the analyzed impact
24 area and beyond. This would represent major long-term beneficial impacts.
25 However, implementation of the Proposed Action would also have major adverse
26 impacts from habitat alteration and loss. The past, present, and reasonably
27 foreseeable future activities described above in combination with the impacts of
28 the Proposed Action would result in major adverse and major beneficial
29 cumulative impacts. The Proposed Action would provide a relatively small
30 proportion of the adverse impacts and all of the beneficial impacts.

31 **6.11 CULTURAL RESOURCES**

32 No cumulative impacts on known historic and cultural resources are expected
33 from the additive effects of past, present, and reasonably foreseeable future
34 actions. Planning and consultation with BLM and the California SHPO would
35 limit the possibility of future impacts on unknown historical and cultural
36 resources.

37 **6.12 VISUAL RESOURCES**

38 Moderate to severe impacts on visual resources are possible from the additive
39 effects of current or ongoing actions, the Proposed Action, and other reasonably

1 foreseeable future actions. The presence of construction equipment would
2 produce a short-term adverse impact on visual resources. Once installed, the
3 tactical infrastructure would create a permanent and fixed visual interruption in
4 the viewscape. Adverse cumulative effects could include adverse impacts from
5 the fence and patrol road combined with paths created by illegal cross-border
6 activities. Over time, the visual contrast of the Proposed Action might diminish
7 through re-establishment of vegetation and the softening of the edges of the area
8 impacted by construction. The encroachment of overall development of the area
9 would degrade vistas from various vantage points.

10 **6.13 SOCIOECONOMIC RESOURCES, ENVIRONMENTAL JUSTICE, AND**
11 **PROTECTION OF CHILDREN**

12 Fence and road construction has the potential for minor beneficial effects from
13 temporary increase in construction jobs and purchase of goods and services.
14 Construction activities are negligible compared to substantial construction
15 activities in East Otay Mesa area. The proposed tactical infrastructure would
16 have short- to long-term indirect beneficial effects on children and safety by
17 reducing the number of border-cross violators, smugglers, terrorists, and terrorist
18 weapons. Indirect minor adverse impacts on human safety would occur from
19 border-cross violators attempting to cross the border in more remote or
20 hazardous areas.

21 **6.14 SIGNIFICANT UNAVOIDABLE IMPACTS/STATEMENT OF**
22 **OVERRIDING CONSIDERATIONS**

23 Effects on all resources were evaluated to determine any significant impact that
24 would remain so after mitigation. The USFWS and CDFG have not yet issued
25 conclusions regarding the impact of the Proposed Action on Federal- and state-
26 listed species.

27 **6.15 IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF RESOURCES;**
28 **SHORT- AND LONG-TERM USES OF THE ENVIRONMENT**

29 The major nonrenewable resources that would be consumed by the Proposed
30 Action are fossil fuels used to power construction vehicles and patrol vehicles
31 over the life of the project. There would be a number of irretrievable resources
32 committed to the proposal. The primary irretrievable resources potentially lost
33 would include the following:

- 34 • Soils (water and wind erosion could occur in disturbed areas)
- 35 • Wildlife habitat (construction activities would result in the long-term loss of
36 native desert habitats)

- 1 • Land use (aboveground facilities and permanent access roads would
2 replace native desert vegetation and urban vegetation communities for the
3 life of the Project)
- 4 • Visual resources (the presence of the tactical infrastructure would
5 permanently affect viewsheds).

6 CBP has concluded that overall the Proposed Action would result in limited
7 unmitigated adverse environmental impacts. While the losses described above
8 would occur, the majority would be minimized and compensated for by USBP's
9 mitigation plans. For these reasons, the irreversible and irretrievable resource
10 commitments are considered acceptable.

11 The physical materials required to construct the proposed tactical infrastructure
12 would be irretrievably lost. These materials could include concrete, metals, or
13 plastics depending on the type of tactical infrastructure constructed (refer to
14 **Appendix A** for examples of pedestrian fence design). This would be a minor
15 irretrievable lost because none of these materials are considered scarce.

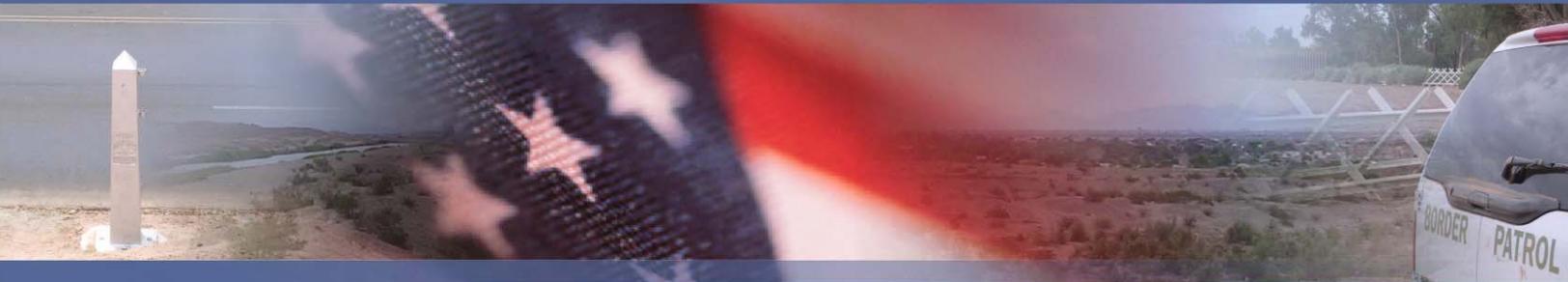
16 CBP would not begin construction activities until the following occur:

- 17 • USFWS issues a BO on Federal-listed species and issues incidental take
18 permits, if required.
- 19 • The CDFG makes a consistency determination on the USFWS' BO
20 pursuant to Section 2080.1 of the California Fish and Game Code or
21 issues an Incidental Take Permit that covers both federally and state-listed
22 species that could be affected.
- 23 • CBP obtains an Incidental Take Permit under Section 2081 of the
24 California Fish and Game Code for all state-listed species that could be
25 affected, or receives concurrence from the CDFG that an Incidental Take
26 Permit is not required.
- 27 • CBP prepares a revised Projectwide Dust Control Plan.
- 28 • CBP prepares an MMP consistent with the identified mitigation measures.

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SECTION 7

Acronyms and Abbreviations



7. ACRONYMS AND ABBREVIATIONS

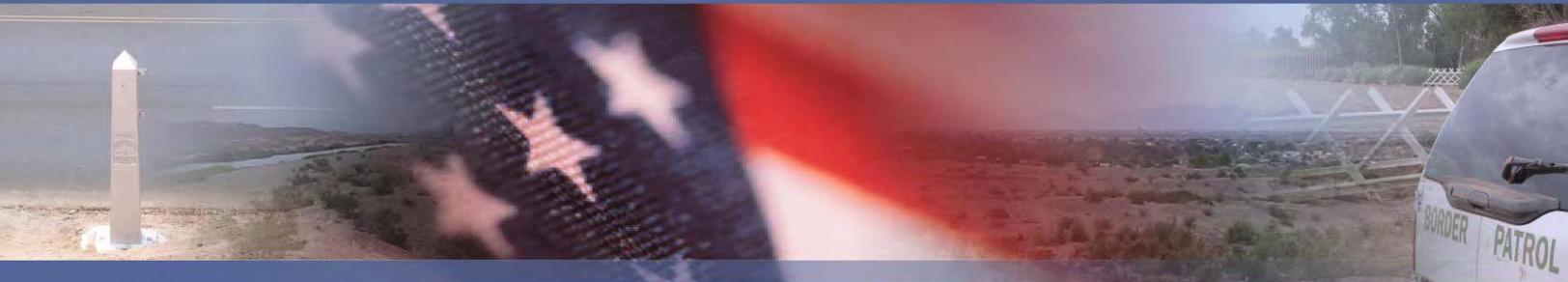
°F	degrees Fahrenheit	CDFG	California Department of Fish and Game
ACEC	Area of Critical Environmental Concern	CDPR	California Department of Parks and Recreation
ACHP	Advisory Council on Historic Preservation	CEQ	Council on Environmental Quality
ADNL	A-weighted day-night average sound level	CEQA	California Environmental Quality Act
AO	Area of Operations	CESA	California Endangered Species Act
APE	Area of Potential Effect	CFR	Code of Federal Regulations
AQCR	air quality control region	CHSC	California Health and Safety Code
ARMM	Archaeological Resource Mitigation and Monitoring	CM&R	Construction Mitigation and Restoration
ATV	all-terrain vehicle	CNDDDB	California Natural Diversity Database
BA	Biological Assessment	CO	carbon monoxide
BLM	Bureau of Land Management	CO ₂	carbon dioxide
BMP	Best Management Practice	COC	constituent of concern
BO	Biological Opinion	CPUC	California Public Utilities Commission
CAA	Clean Air Act	CRS	Congressional Research Service
CAGN	Coastal California gnatcatcher	CWA	Clean Water Act
Cal/EPA	California Environmental Protection Agency	cy	cubic yards
CARB	California Air Resources Board	CZMA	Coastal Zone Management Act
CBP	Customs and Border Protection	dba	A-weighted decibels
CCA	Corrections Corporation of America	dbc	C-weighted decibels
CCR	California Code of Regulations	DHS	U.S. Department of Homeland Security
CDCR	California Department of Corrections and Rehabilitation	EA	Environmental Assessment

EIR	Environmental Impact Report	NEPA	National Environmental Policy Act
EIS	Environmental Impact Statement	NHPA	National Historic Preservation Act
EO	Executive Order	NO ₂	nitrogen dioxide
ESA	Endangered Species Act	NOA	Notice of Availability
FEMA	Federal Emergency Management Agency	NOI	Notice of Intent
FIRM	Flood Insurance Rate Map	NO _x	nitrogen oxide
FPPA	Farmland Protection Policy Act	NPDES	National Pollutant Discharge Elimination System
FY	Fiscal Year	NRCS	Natural Resources Conservation Service
GHG	greenhouse gas	NRHP	National Register of Historic Places
HCP	Habitat Conservation Plan	O ₃	ozone
IBWC	International Boundary and Water Commission	OMW	Otay Mountain Wilderness
ICE	Immigrations and Customs Enforcement	P.L.	Public Law
LBV	least Bell's vireo	Pb	lead
MBTA	Migratory Bird Treaty Act	PERP	Portable Equipment Registration Program
MD	Management Directive	PM ₁₀	particles equal to or less than 10 microns in diameter
MMP	Mitigation and Monitoring Plan	PM _{2.5}	particles equal to or less than 2.5 microns in diameter
MMTCE	million metric tons of carbon equivalent	POE	Port of Entry
MSCP	Multiple Species Conservation Program	ppm	parts per million
MSL	mean sea level	PRC	Public Resources Code
NAAQS	National Ambient Air Quality Standards	ROD	Record of Decision
NAGPRA	Native American Graves Protection and Repatriation Act	ROI	Region of Influence
NCCP	Natural Communities Conservation Plan	ROW	right-of-way
		SAAQS	State Ambient Air Quality Standards

SANDAG	San Diego Association of Governments	USEPA	U.S. Environmental Protection Agency
SBI	Secure Border Initiative	USFWS	U.S. Fish and Wildlife Service
SC	species of special concern	USIBWC	United States Section, International Boundary and Water Commission
SDAPCD	San Diego County Air Pollution Control District	UTM	Universal Transverse Mercator
SDFS	San Diego fairy shrimp	VOC	volatile organic compound
SDG&E	San Diego Gas & Electric	VRM	Visual Resources Management
SDIAQCR	San Diego Interstate Air Quality Control Region		
SDWA	Safe Drinking Water Act		
SHPO	State Historic Preservation Office		
SO ₂	sulfur dioxide		
SPCC	Spill Prevention Control and Countermeasure		
SR	State Route		
SRMA	Special Recreation Management Area		
SRPL	Sunrise Powerlink Project		
SWF	southwestern willow flycatcher		
SWPPP	Storm Water Pollution Prevention Plan		
SWRCB	State Water Resources Control Board		
TMDL	Total Maximum Daily Loads		
TSS	total suspended solids		
U.S.C.	United States Code		
USACE	U.S. Army Corps of Engineers		
USBP	U.S. Border Patrol		

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SECTION 8

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SECTION 9

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APPENDIX A

Standard Design for Tactical Infrastructure



APPENDIX A

STANDARD DESIGN FOR TACTICAL INFRASTRUCTURE

A properly designed tactical infrastructure system is an indispensable tool in deterring those attempting to illegally cross the U.S. border. Tactical infrastructure is also integral to maintaining USBP's flexibility in deploying agents and enforcement operations. A formidable infrastructure acts as a force multiplier by slowing down illegal entrants and increasing the window of time that agents have to respond. Strategically developed tactical infrastructure should enable USBP managers to better utilize existing manpower when addressing the dynamic nature of terrorists, illegal aliens, and narcotics trafficking (INS 2002).

USBP apprehension statistics remain the most reliable way to codify trends in illegal migration along the border. Based on apprehension statistics, in a 2006 report on border security, the Congressional Research Service concluded that "the installation of border fencing, in combination with an increase in agent manpower and technological assets, has had a significant effect on the apprehensions made in the San Diego sector" (CRS 2006).

Since effective border enforcement requires adequate scope, depth, and variety in enforcement activity, any single border enforcement function that significantly depletes USBP's ability to satisfactorily address any other enforcement action creates exploitable opportunities for criminal elements. For example, the intense deployment of personnel resources necessary to monitor urban border areas without tactical infrastructure adversely affects the number of agents available for boat patrol, transportation check points, patrolling remote border areas, and other tasks. Tactical infrastructure reduces this effect by reinforcing critical areas, allowing the agents to be assigned to other equally important border enforcement roles (INS 2002).

Fencing

Two applications for fencing have been developed in an effort to control illegal cross-border traffic: primary pedestrian fences that are built on the border, and secondary fences that are constructed parallel to the primary pedestrian fences. These fences present a formidable physical barrier which impede cross-border violators and increases the window of time USBP agents have to respond (INS 2002).

There are several types of primary pedestrian fence designs USBP can select for construction depending on various site conditions and law enforcement tactics employed. Each option offers relative advantages and disadvantages. Fencing composed of concrete panels, for example, is among the more cost-effective options, but USBP agents cannot see through it. USBP prefers fencing

structures offering visual transparency, allowing observation of activities developing on the other side of the border.

Over the past decade, USBP has deployed a variety of types of fencing, such as primary pedestrian fence (see **Figures A-1** through **A-4**), primary pedestrian fence with wildlife migratory portals (see **Figures A-5** and **A-6**), and bollard fencing (see **Figure A-7**).



Figure A-1. Typical Primary Pedestrian Fence Foundation



Figure A-2. Typical Primary Pedestrian Fence Design



Figure A-3. Typical Primary Pedestrian Fence Design



Figure A-4. Typical Primary Pedestrian Fence Design



Figure A-5. Primary Pedestrian Fence with Wildlife Migratory Portals



Figure A-6. Wildlife Migratory Portals



Figure A-7. Bollard Fence

Bollard fencing has been effective in its limited deployment and can also be seen through. However, it is expensive to construct and to maintain. Landing mat fencing is composed of Army surplus carbon steel landing mats which were used to create landing strips during the Vietnam War. Chain-link fencing is relatively economical, but more easily compromised. In selecting a particular fencing design, USBP weighs various factors such as its effectiveness as a law enforcement tool, the costs associated with construction and maintenance, potential environmental impacts, and other public interest concerns. USBP continues to develop fence designs to best address these objectives and constraints.

Patrol Roads

Patrol roads provide USBP agents with quick and direct access to anyone conducting illegal activity along the border, and allow agents access to the various components of the tactical infrastructure system. Patrol roads typically run parallel to and a few feet north of the primary pedestrian fence. Patrol roads are typically unpaved, but in some cases “all-weather” roads are necessary to ensure continual USBP access (INS 2002).

Lighting

Two types of lighting (permanent and portable) might be constructed in specific urban locations. Illegal entries are often accomplished by using the cover of darkness, which would be eliminated by lighting. Lighting acts as a deterrent to cross-border violators and as an aid to USBP agents in capturing illegal aliens, smugglers, terrorists, or terrorist weapons after they have entered the United States (INS 2001). Lighting locations are determined by USBP based on projected operational needs of the specific area.

The permanent lighting would be stadium-type lights on approximately 30- to 40-foot high poles with two to four lights per pole. Each light would have a range of 400 to 1,000 watts, with lower-wattage bulbs used where feasible. Wooden poles, encased in concrete and steel culvert pipe to prevent them from being cut down, would most often be used, although steel poles with concrete footings might also be used. The poles might be existing poles or they might need to be installed. Electricity would be run in overhead lines unless local regulations require the lines to be underground (DHS 2004). Lights would operate from dusk to dawn. Light poles adjacent to U.S. IBWC levees would be coordinated with and approved by the U.S. IBWC. The final placement and direction of lighting has been and would continue to be coordinated with the USFWS, with the USFWS having final review over both placement and direction along each fence section.



Portable lights are self-contained units with generators that can be quickly moved to meet USBP operational requirements. Portable lights are powered by a 6-kilowatt self-contained diesel generator. Portable lights would generally operate continuously every night and would require refueling every day prior to the next night's operation. The portable light systems can be towed to the desired location by USBP vehicles, but they are typically spaced approximately 100 to 400 feet apart, depending upon topography and operational needs. Each portable light would have a light fan directed toward the fence to produce an illuminated area of 100 ft². The lighting systems would have shields placed over the lamps to reduce or eliminate the effects of backlighting. Effects from the lighting would occur along the entire corridor where they could be placed; however, in reality, only parts of the fence would be illuminated at a given time since the portable lights would be periodically relocated to provide the most effective deterrent and enforcement strategy (INS 2001).

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APPENDIX B

Applicable Laws and Executive Orders



Table of Applicable Laws and Executive Orders ¹

Title, Citation	Summary
Archaeological and Historical Preservation Act, 16 U.S.C. 469	Protects and preserves historical and archeological data. Requires Federal agencies to identify and recover data from archeological sites threatened by a proposed action(s).
Clean Air Act, 42 U.S.C. 7401–7671q, as amended	Establishes Federal standards for air pollutants. Prevents significant deterioration in areas of the country where air quality fails to meet Federal standards.
Clean Water Act, 33 U.S.C. 1251–1387 (also known as the Federal Water Pollution Control Act)	Comprehensively restores and maintains the chemical, physical, and biological integrity of the nation’s waters. Implemented and enforced by the U.S. Environmental Protection Agency (USEPA).
Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9601–9675 (also known as “Superfund”)	Provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and cleanup of inactive hazardous substances disposal sites. Establishes a fund financed by hazardous waste generators to support cleanup and response actions.
Endangered Species Act of 1973, 16 U.S.C. 1531–1543, as amended	Protects threatened, endangered, and candidate species of fish, wildlife, and plants and their designated critical habitats. Prohibits Federal action that jeopardizes the continued existence of endangered or threatened species. Requires consultation with U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries and a biological assessment when such species are present in an area affected by government activities.
Fish and Wildlife Coordination Act, 16 U.S.C. 661–667e, as amended	Authorizes the Secretaries of the Interior and Commerce to provide assistance to and cooperate with Federal and state agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. The 1946 amendments require consultation with the USFWS and the state fish and wildlife agencies involving any waterbodies that are proposed or authorized, permitted, or licensed to be impounded, diverted, or otherwise controlled or modified by any agency under a Federal permit or license.
Migratory Bird Treaty Act, 16 U.S.C. 703–712	Implements various treaties for protecting migratory birds; the taking, killing, or possession of migratory birds is unlawful.

Table of Applicable Laws and Executive Orders ¹ (continued)

Title, Citation	Summary
National Environmental Policy Act of 1969, 42 U.S.C. 4321–4370e, as amended	Requires Federal agencies to use a systematic approach when assessing environmental impacts of government activities. Proposes an interdisciplinary approach in a decisionmaking process designed to identify unacceptable or unnecessary impacts to the environment.
National Historic Preservation Act, 16 U.S.C. 470–470x-6	Requires Federal agencies to consider the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object eligible for inclusion, or listed in the National Register of Historic Places (NRHP). Provides for the nomination, identification (through NRHP listing), and protection of significant historical and cultural properties.
Noise Control Act of 1972, 42 U.S.C. 4901–4918	Establishes a national policy to promote an environment free from noise that jeopardizes health and welfare. Authorizes the establishment of Federal noise emissions standards and provides relevant information to the public.
Occupational Safety and Health Act of 1970, 29 U.S.C. 651–678	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.
Resource Conservation and Recovery Act, 42 U.S.C. 6901–6992k	Establishes requirements for safely managing and disposing of solid and hazardous waste and underground storage tanks.
Executive Order (EO) 12372, <i>Intergovernmental Review of Federal Programs</i> , July 14, 1982, 47 FR 30959 (6/16/82), as supplemented	Requires Federal agencies to consult with state and local governments when proposed Federal financial assistance or direct Federal development impacts interstate metropolitan urban centers or other interstate areas.
EO 12898, <i>Environmental Justice</i> , February 11, 1994, 59 FR 7629 (2/16/94), as amended	Requires certain Federal agencies, to the greatest extent practicable permitted by law, to make environmental justice part of their missions by identifying and addressing disproportionately high and adverse health or environmental effects on minority and low-income populations.

Table of Applicable Laws and Executive Orders ¹ (continued)

Title, Citation	Summary
EO 13148, <i>Greening the Government Through Leadership in Environmental Management</i> , April 21, 2000, 65 FR 24595 (4/26/00)	Designates the head of each Federal agency to ensure that all necessary actions are taken to integrate environmental accountability into agency day-to-day decision making and long-term planning processes, across all agency missions, activities, and functions. Establishes goals for environmental management, environmental compliance, right-to-know (informing the public and their workers of possible sources of pollution resulting from facility operations) and pollution prevention, and similar matters.
EO 13175, <i>Consultation and Coordination with Indian Tribal Governments</i> , November 6, 2000, 65 FR 67249 (11/09/00)	Requires Federal agencies to establish an accountable process that ensures meaningful and timely input from tribal officials in developing policies that have tribal implications.
EO 13186, <i>Responsibilities of Federal Agencies to Protect Migratory Birds</i> , January 10, 2001, 66 FR 3853 (1/17/01)	Requires each agency to ensure that environmental analyses of Federal actions (required by the National Environmental Policy Act or other established environmental review processes) evaluate the effects of actions and agency plans on migratory birds, emphasizing species of concern. Agencies must support the conservation intent of migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities, and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.
EO 11593, <i>Protection and Enhancement of the Cultural Environment</i> , May 13, 1971, 36 FR 8921 (5/15/71)	Requires all Federal agencies to locate, identify, and record all cultural resources, including significant archeological, historical, or architectural sites.

Note: ¹ This table only reflects those laws and EOs that might reasonably be expected to apply to the Proposed Action and alternatives.

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Other laws and Executive Orders relevant to consideration of the construction, maintenance, and operation of tactical infrastructure include, but are not limited to:

- American Indian Religious Freedom Act, 42 U.S.C. 1996, et seq.
- Antiquities Act, 16 U.S.C. 433, et seq.; Archeological Resources Protection Act, 16 U.S.C. 470 aa-II, et seq.
- Architectural Barriers Act, 42 U.S.C. 4151, et seq.

- 1 • Community Environmental Response Facilitation Act, 42 U.S.C. 9620, et
2 seq.
- 3 • Department of Transportation Act, P.L. 89-670, 49 U.S.C. 303, Section
4 4(f), et seq.
- 5 • Emergency Planning and Community Right-to-Know Act, 42 U.S.C.
6 11001–11050, et seq.
- 7 • Environmental Quality Improvement Act, P.L. 98-581, 42 U.S.C. 4371, et
8 seq.
- 9 • Farmlands Protection Policy Act, P.L. 97-98, 7 U.S.C. 4201, et seq.
- 10 • Federal Insecticide, Fungicide, and Rodenticide Act, P.L. 86-139, 7 U.S.C.
11 135, et seq.
- 12 • Federal Records Act, 44 U.S.C. 2101-3324, et seq.
- 13 • Fish and Wildlife Act of 1956, P.L. 85-888, 16 U.S.C. 742, et seq.
- 14 • Flood Disaster Protection Act, 42 U.S.C. 4001, et seq.
- 15 • Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001,
16 et seq.
- 17 • Otay Mountain Wilderness Act of 1999. P.L.106-145
- 18 • Pollution Prevention Act of 1990, 42 U.S.C. 13101-13109, et seq.
- 19 • Safe Drinking Water Act, P.L. 93-523, 42, U.S.C. 201, et seq.
- 20 • Toxic Substances Control Act, 7 U.S.C. 136, et seq.
- 21 • Wild and Scenic Rivers Act, P.L. 90-542, 16 U.S.C. 1271, et seq.
- 22 • Wilderness Act of 1964. P.L. 88-577
- 23 • EO 12114, dated January 9, 1979, *Environmental Effects Abroad of Major*
24 *Federal Actions*, 44 FR 1957
- 25 • EO 12088, dated October 13, 1978, *Federal Compliance with Pollution*
26 *Control Standards*, 43 FR 47707, as amended by EO 12580, dated
27 January 23, 1987, and revoked (in part) by EO 13148, dated April 21,
28 2000
- 29 • EO 13132, dated August 4, 1999, *Federalism*, 64 FR 43255
- 30 • EO 11988, dated May 24, 1977, *Floodplain Management and Protection*,
31 42 FR 26951, as amended by EO 12148, dated July 20, 1979, 44 FR
32 43239
- 33 • EO 13007, dated May 24, 1996, *Historic Sites Act*, 16 U.S.C. 46, et seq.;
34 Indian Sacred Sites, 61 FR 26771

- 1 • EO 12372, dated July 14, 1982, *Intergovernmental Review of Federal*
2 *Programs*, 47 FR 30959, as amended by EO 12416, April 8, 1983, 48 FR
3 15587; supplemented by EO 13132, August 4, 1999, 64 FR 43255
- 4 • EO 13112, dated February 3, 1999, *Invasive Species*, 64 FR 6183, as
5 amended by EO 13286, February 28, 2003, 68 FR 10619
- 6 • EO 11514, dated March 5, 1970, *Protection and Enhancement of*
7 *Environmental Quality*, 35 FR 4247, as amended by EO 11541, July
8 1, 1970, 35 FR 10737 and EO 11991, May 24, 1977, 42 FR 26967
- 9 • EO 13045, dated April 21, 1997, *Protection of Children from*
10 *Environmental Health and Safety Risks*, 62 FR 19885, as amended by EO
11 13229, October 9, 2001, 66 FR 52013 and EO 13296, April 18, 2003, 68
12 FR 19931
- 13 • EO 11990, dated May 24, 1977, *Protection of Wetlands*, 42 FR 26961, as
14 amended by EO 12608, September 9, 1987, 52 FR 34617
- 15

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APPENDIX C

Draft Scoping Summary Report



SCOPING REPORT

FOR THE

**SAN DIEGO SECTOR PROPOSED CONSTRUCTION,
OPERATION, AND MAINTENANCE OF TACTICAL
INFRASTRUCTURE
ENVIRONMENTAL IMPACT STATEMENT**

Prepared for:

U.S. Customs and Border Patrol

Prepared by:



OCTOBER 2007

**SCOPING REPORT
SAN DIEGO SECTOR TACTICAL INFRASTRUCTURE EIS**

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1. INTRODUCTION

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2 This report documents comments and recommendations gathered from the
3 public scoping and other outreach activities conducted by the U.S. Customs and
4 Border Protection (CBP) on the San Diego Sector Proposed Construction,
5 Operation, and Maintenance of Tactical Infrastructure Environmental Impact
6 Statement (EIS).

7 CBP proposes to construct, operate, and maintain approximately 4 miles of
8 tactical infrastructure. Proposed tactical infrastructure would consist of
9 pedestrian fence, patrol roads, and access roads in two sections along the
10 U.S./Mexico international border in San Diego County, California. The first
11 section would be approximately 3.6 miles in length and would start at the Puebla
12 Tree and end at boundary monument 250. The proposed section would be on
13 and adjacent to the Otay Mountain Wilderness (OMW), would follow the Pak
14 Trail, and would not connect to any existing fence. The OMW is on public lands
15 administered by the Bureau of Land Management (BLM). The second section
16 would be approximately 0.8 miles in length and would connect with existing
17 border fence west of Tecate, Mexico. This fence section is an extension of
18 existing fence up Tecate Peak and would pass through a riparian area. Some
19 portions of the fence sections would be on multiple privately owned land parcels.

20 The EIS process will serve as a planning tool to assist agencies with
21 decisionmaking authority associated with the Proposed Action and ensure that
22 the required public involvement under the National Environmental Policy Act
23 (NEPA) is accomplished. When completed, the EIS will present potential
24 environmental impacts associated with the Proposed Action and alternatives and
25 provide information to assist in the decisionmaking process about whether and
26 how to implement the Proposed Action.

27

2. THE NEPA PROCESS AND THE EIS

NEPA requires Federal agencies to evaluate the potential environmental impacts of proposed projects and policies. The primary goal of NEPA is to provide sufficient information for the decisionmakers to make an informed decision. During the NEPA process, agencies consider issues ranging from air quality and biological impacts on cultural resources and socioeconomic impacts. CBP has determined that the most appropriate NEPA process for the San Diego Sector Tactical Infrastructure is an EIS, which is the most detailed analysis prescribed by the Council on Environmental Quality (CEQ). Public involvement is a vital component of the NEPA for vesting the public in the decisionmaking process and allowing for full environmental disclosure. Guidance for implementing public involvement is codified in Title 40 Code of Federal Regulations (CFR) 1506.6, thereby ensuring that Federal agencies make a diligent effort to involve the public in preparing NEPA documents. The public involvement process for this proposed project is outlined in the following steps:

- **Conduct Public Scoping.** In this phase of the process, CBP asked the public to provide feedback on the proposed project, potential environmental impacts, and analysis methods. Public scoping is critical for determining the issues to be discussed in the EIS and the methods for conducting the study. Outreach efforts included a Notice of Intent (NOI) to prepare an EIS in the *Federal Register* (**Appendix A**) and announcements of the public scoping process in local newspapers in English and Spanish (**Appendix B**). A Web site (www.BorderFenceNEPA.com) was established and information on the Proposed Action was posted on the Web site (**Appendix C**). Information on providing comments was discussed, and links to submit comments from the Web site were also provided.
- **Prepare a Draft EIS (DEIS).** The DEIS is the first version of the formal document. The DEIS will be distributed to the public libraries throughout the affected area; Federal, state, regional, and local agencies; private citizens; and local organizations. CBP will hold a public meeting to provide citizens an opportunity to make formal oral and written comments concerning the DEIS. Outreach efforts will include a Notice of Availability (NOA) of the DEIS and announcement of a public open house in the *Federal Register* and local newspapers. At the public open house, resource experts will be present to answer questions and the public will have an opportunity to enter comments and concerns into the official record.
- **Prepare a Final EIS (FEIS).** After the close of the comment period on the DEIS, CBP will prepare the FEIS to document the manner in which comments have been resolved. An NOA of the FEIS will appear in the *Federal Register* and local papers. The public will have 30 days to comment on the FEIS.

- 1 • **Prepare a Record of Decision.** A Record of Decision (ROD) will be
- 2 prepared to document the final agency decision on the Proposed Action.
- 3 Notice of the ROD will be made available on the Web site.

4

3. PUBLIC INVOLVEMENT PROCESS

1
2 CBP invited comments from the public to help determine the scope of the EIS by
3 publishing an NOI in the *Federal Register* (72 FR 184) on September 24, 2007.
4 The NOI provided background information on the Proposed Action, the EIS, a
5 description of the scoping process, and a discussion of alternative methods for
6 the public to provide comments. A copy of the NOI is included in **Appendix A** of
7 this Scoping Report.

8 Announcements were published in newspapers in the San Diego area to
9 announce the development of the EIS. Announcements were placed in two
10 English language newspapers; the *San Diego Union-Tribune* and the *San Diego*
11 *Daily Transcript*, and in two Spanish language newspapers; *Hispanos Unidos*
12 and *La Prensa San Diego*.

13 A Web site was developed at www.BorderFenceNEPA.com to provide
14 information to the public on the Proposed Action. Information posted on the Web
15 site includes a description of the Proposed Action, a map of the locations of the
16 tactical infrastructure, a picture of the type of fence proposed, and information on
17 the NEPA process and opportunities for public involvement. A description of the
18 ways to submit comments on the scope of the EIS is also included (via the Web
19 site, email, fax, or mail). A link from the Web site to submit comments is
20 provided to facilitate comments from individuals reviewing information on the
21 Web site.

22 Public scoping comments were accepted through October 15, 2007. Comments
23 were reviewed for incorporation into the DEIS. Comments will continue to be
24 accepted throughout the EIS environmental planning period, but comments
25 received after October 15, 2007, will be evaluated following the publication of the
26 DEIS.

27 The Public Scoping Period represents only the first of multiple opportunities for
28 public comment. USBP current plans include a 45-day public comment period
29 once the DEIS is released. During this time, CBP also plans to hold a public
30 information meeting on the DEIS. Comments on the DEIS will contribute to the
31 FEIS. In addition, there will be a 30-day public comment period once the FEIS is
32 released. Comments on the FEIS will contribute to the Record of Decision.

33 As each of these documents is released for public comment, a Notice of
34 Availability will be published in the *Federal Register* and local newspapers.

4. PUBLIC SCOPING RESULTS

4.1 ISSUES AND CONCERNS

Comments were received from 3,503 private individuals during the scoping period. In addition, letters were received from the U.S. Environmental Protection Agency, Region 9 and the International Boundary and Water Commission (Appendix D). A letter was also received from the nongovernmental organization, Defenders of Wildlife. Table 4-1 summarizes the comments received during the public scoping period.

Table 4-1. Summary of Comments During the San Diego Tactical Infrastructure Scoping Comment Period

Comment Type	Summary of Concerns Raised in Scoping Comments
Alternatives suggested	<ul style="list-style-type: none"> • Continuous fence along entire US/Mexico border (double or triple layer) • Enforce immigration laws better • Armed forces along the entire border • Improve law enforcement options: immigration/deportation • Change/alter laws (do not allow a child born to an illegal to obtain citizenship) • Stronger enforcement and harsher penalties for employers that hire illegal immigrants, harsher penalties to illegal border crossers • Build “bridges of compassion and understanding” and stronger enforcement and harsher penalties for employers that hire illegal immigrants • More USBP agents, hi-tech patrolling, and guard dogs in lieu of fence • Use numerous contractors to build fence along entire border and give incentives for finishing early • Solid fence (this would give the appearance to the illegal border crossers that the “grass is not greener on the other side”) • Manned towers and electronic surveillance instead of fence • Use salvaged land mines along border instead of fence • Detain illegal crossers and set up prison camp along border and using detained persons for building the fence • Vehicle barriers instead of fence • Sterilize mothers of anchor babies • See through plastic fence

Comment Type	Summary of Concerns Raised in Scoping Comments
Changes to fence design	<ul style="list-style-type: none"> • Machine gun nests on fence every few miles • Water cannons on top of fence controlled from “Command Center” • Include razor wire on top of fence to prevent scaling, or some type of spikes to prevent use of rope, razor wire should extend 30–40 feet from base of fence • Electrified fence • Fence with surveillance (e.g., camera/video, sensors, lasers, and underground sensors) • Replace all run-down existing fences in addition to building a double layer fence for entire border • Fence should be made of noncorrosive material and a minimum 3-foot-deep concrete foundation • Include a mine field along the fence and manned gun turrets every 300 yards or include mines between a double layered fence • Minimum design criteria should include that the materials be low maintenance (core 10 steel and salt/air resistant) and modular (easy to replace/repair) • Height of fence should be 50 feet above ground and extend 25 feet below ground. • Fence should duplicate the Israelis • Fence should include small openings for animals • Needs to have a technology to detect tampering • Aesthetics should not be considered, just effectiveness • Fence should be equipped with a system to alert of trespassers • Fence should be constructed of concrete and at least 30–50 feet high • Double layer fence should have ditch, trench, or concrete blockers to stop all traffic • Use unmanned aerial vehicles with 30-caliber gatling guns and FLIR (forward looking infrared radar), or unmanned aerial surveillance • The fence should have a net at the top to catch anyone trying to jump/climb over • Fence should have sensors to detect those that try to tunnel underneath • A moat should supplement the fence • Eliminate surfaces on the fence that will allow people to jump over the fence

Comment Type	Summary of Concerns Raised in Scoping Comments
EIS Process	<ul style="list-style-type: none"> • EIS should be waived • EIS should also consider the negative impact the illegal immigrants create when crossing the border • Need to explain DHS’s process for bypassing environmental laws and regulations and whether there is an intention to do so for this project • USBP’s future plans to build additional border walls should be evaluated to avoid segmenting the entire project’s effects • Effectiveness of other border projects needs to be evaluated • A clear statement of purpose and need should be included • Cumulative impacts should focus on resources of concern and clearly identify the resources analyzed, the resources not analyzed, and why • The environmental baseline should be assessed prior to recent, intensive development in the area
Other/Questions raised	<ul style="list-style-type: none"> • What will stop people from tunneling underneath the fence? • Who watches the areas that have a natural flow of water? • Why don’t we have to the same on the Canada border? • Communicate and work with many environmental orgs and security companies to determine the best implementation of the fence • Companies which have won the construction bid should be penalized if they are unable to meet design criteria or schedule • ID verification in welfare offices, schools, or any taxpayer funded service – we need a national fraud proof ID • Will other sections of the fence be repaired that currently have damage (e.g., Yuma Sector) • Need to revise laws for existing illegal aliens to revoke privileges and rights given to immigrants • Fence should not change historic surface runoff characteristics at international border • Should not preclude the access of U.S. IBWC maintenance personnel
Geology and Soils	<ul style="list-style-type: none"> • Impact from illegal border crossers: Erosion of areas with elevation due to the frequent paths carved into the hill

Comment Type	Summary of Concerns Raised in Scoping Comments
Water Resources	<ul style="list-style-type: none"> • EIS should discuss original (natural) drainage patterns and should identify whether any components are within the 50- or 100-year floodplain • Changes to existing drainage patterns should be evaluated • Should meet the requirements of CWA Section 402 • Work with the USACE to see if a 404 permit under CWA is needed
Biological Resources	<ul style="list-style-type: none"> • Impact from illegal border crossers: Frequent burning of sensitive areas affecting plants and wildlife, trampling (foot and vehicular) of protected plant and small animal species • Impact from illegal border crossers: Destruction of cacti (made by Native American 2594) • If needed, build another reserve to transplant fauna and flora affected by fence • Efforts be undertaken to examine potential impacts on the endangered Quino Checkerspot Butterfly and other threatened and endangered species • Prepare an inventory of present wildlife so that the fence design can consider modes of transport and whether or not the fence would obstruct every inventoried species' mode of transport • Follow EO 13112 regarding invasive species • Impact of borders and fences on animal movements and migrations. • Include analysis of nocturnal species movements and patterns from lighting.
Cultural Resources	<ul style="list-style-type: none"> • Follow EO 13175, 13007 • Describe process and outcome of government to government consultation between the U.S. and USBP and each of the tribal governments

Comment Type	Summary of Concerns Raised in Scoping Comments
Air Quality	<ul style="list-style-type: none"> • San Diego County is currently in nonattainment for the 8-hour ozone NAAQS • Discussion of ambient air conditions (baseline or existing conditions), NAAQS, criteria pollutant nonattainment areas, and potential air quality impacts of the project (direct and cumulative) • Should include analysis of construction-related emissions • The EIS should address the applicability of Clean Air Act Section 176 and USEPA’s general conformity regulations at 40 CFR Parts 51 and 93 • Mitigation measures could include reducing DPM and other pollutants with particle traps, using specialized catalytic converters (oxidation catalysts), properly tune diesel equipment, prohibit engine tampering to increase horsepower, distance certain equipment away from residences, require low sulfur diesel, using newer equipment, adopt a construction emissions mitigation plan
Aesthetics and Visual Resources	<ul style="list-style-type: none"> • Impact from illegal border crossers: Dumping of trash, feces, and urine
Hazardous Materials and Wastes	<ul style="list-style-type: none"> • Impacts from illegal border crossers: Leakage of hazardous materials such as antifreeze, engine oil, transmission fluid from vehicles (owned by illegal border crossers) lacking proper maintenance to prevent the discharge into environmentally sensitive areas
Socioeconomics and Environmental Justice	<ul style="list-style-type: none"> • Impacts on the OMW should be evaluated

1

5. NEXT STEPS

1
2 CBP is working with resource agencies and stakeholders to prepare a DEIS for
3 review. The DEIS will incorporate those issues discussed during the public
4 comment period.

5 Following the publication of the NOA in the *Federal Register* for the DEIS, there
6 will be a 45-day comment period and a public meeting. The public meeting will
7 allow the general public to interface with resource agencies and other
8 stakeholder groups. Comments pertaining to the DEIS during that time will be
9 reviewed and incorporated into the FEIS.

10 A final 30-day comment period will follow the *Federal Register* publication of the
11 NOA for the FEIS. Public comments during this time will be considered by CBP
12 along with final comments by resource agencies. Following the public comment
13 period, CBP decisionmakers will review all materials applicable to the Proposed
14 Action and prepare a ROD. **Table 5-1** outlines the three phases of the EIS
15 process that involve public participation.

16 **Table 5-1. Public Input Process for the**
17 **San Diego Tactical Infrastructure EIS**

Phase I ⇒	Phase II ⇒	Phase III ⇒	Final
Notice of Intent for an EIS	Notice of Availability of the DEIS	Notice of Availability of the FEIS	Record of Decision
↓	↓	↓	
Public Scoping Comments	Public Meetings	Public Comments	
↓	↓	↓	
20-day Comment Period	45-day Public Comment Period	30-day Public Comment Period	

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**SCOPING REPORT
APPENDIX A
NOTICE OF INTENT**

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DEPARTMENT OF HOMELAND SECURITY
Bureau of Customs and Border Protection
Notice of Intent To Prepare an Environmental Impact Statement (EIS) and Request for Public Comments Concerning Proposed Construction and Operation of Tactical Infrastructure for the U.S. Customs and Border Protection, Office of Border Patrol San Diego Sector

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of Intent to Prepare an Environmental Impact Statement and Request for Public Comments.

SUMMARY: Pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 *et seq.* (NEPA), U.S. Customs and Border Protection (CBP) will prepare an Environmental Impact Statement (EIS) to identify and assess the potential impacts associated with a proposal to construct and operate approximately four miles of tactical infrastructure and supporting patrol roads along the U.S./Mexico international border south of and adjacent to Otay Mountain Wilderness area in San Diego County, California (the Proposed Action). The purpose of the Proposed Action is to further CBP's ability to gain effective control of the border by denying pedestrian and other access in this high priority section of the Office of Border Patrol's (OBP's) San Diego Sector. CBP is the decision-making agency for this Proposed Action.

Notice is hereby given that the public scoping process has been initiated to prepare an EIS that will address the impacts and alternatives of the Proposed Action. The purpose of the scoping process is to solicit public comment regarding the range of issues, including

potential impacts and alternatives that should be addressed in the EIS.

FOR FURTHER INFORMATION CONTACT: Visit <http://www.BorderFenceNEPA.com> or e-mail:

information@BorderFenceNEPA.com. Written requests for information may be submitted to: Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A14, Fort Worth, Texas 76102; Phone: (817) 886-1585; and Fax: (817) 886-6404.

Background: An EIS is being prepared in support of a proposal by OBP's San Diego Sector for controlling and deterring the influx of illegal immigration and contraband into the United States. To assist Border Patrol officers, OBP is proposing to install and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, lights, and other infrastructure along approximately four miles of the U.S./Mexico international border within OBP's San Diego Sector.

In order to secure the nation's borders, CBP is developing and deploying the most effective mix of proven technology, infrastructure, and increased personnel. In some locations, fencing is a critical element of border security. OBP has identified this area of the border as a location where fence would significantly contribute to CBP's priority mission homeland security. As a part of this Proposed Action, two segments of fence are proposed for construction.

One segment is approximately 3.4 miles long and would start at the Pueblo Tree and end at boundary monument 250. The proposed segment would be adjacent to and south of the Otay Mountain Wilderness: would follow the Pack Truck Trail; and would not connect to any existing fence. The Otay Mountain Wilderness is on public lands administered by the Bureau of Land Management (BLM), U.S. Department of the Interior in San Diego County, California. The wilderness boundary is at least 100 feet from the U.S./Mexico border, and the proposed fence would occur in this corridor between the U.S./Mexico border and the wilderness boundary. However, due to steep topography, a portion of road or other tactical infrastructure might encroach into the wilderness area.

The second segment would be approximately 0.6 miles long and would connect with existing border fence west of Tecate. This fence segment is an extension of existing fence up Tecate Peak and would pass through a riparian area. This proposed fence segment would be on privately owned land.

Potential alternatives for environmental impacts analysis will consider location, construction, and operation of tactical infrastructure. Potential alternatives must meet the need to gain effective control of our nation's borders, as well as essential technical, engineering, and economic threshold requirements to ensure that the Proposed Action is environmentally sound, economically viable, and meets all applicable laws and regulations.

The EIS will comply with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality regulations in 40 CFR Parts 1500-1508, and Department of Homeland Security (DHS) Management Directive 5100.1 (*Environmental Planning Program*).

Consistent with 40 CFR 1508.28, the EIS will analyze the site-specific environmental impacts of the proposed action which were broadly described in two previous programmatic EISs prepared by the former U.S. Immigration and Naturalization Service (which now falls under the responsibility of CBP), Department of Defense, and Joint Task Force 6 (JTF-6). The *Programmatic EIS for JTF-6 Activities Along the U.S./Mexico Border*, August 1994, and its supplementing document, *Supplemental Programmatic EIS for INS and JTF-6 Activities*, June 2001, were prepared to address the cumulative effects of past and reasonably foreseeable projects undertaken by JTF-6 for numerous law enforcement agencies within the four southwestern states (California, Arizona, New Mexico, and Texas). These documents can be obtained from the U.S. Army Corps of Engineers, Fort Worth District, Engineering Construction and Support Office Web site, at <https://ecso.swf.usace.army.mil/> by sending an e-mail to charles.mcgregor@swf02.usace.army.mil; or by mailing a request to: Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A14, Fort Worth, Texas 76102.

Public Participation: Pursuant to the Council on Environmental Quality's regulations, CBP invites public participation in the NEPA process. This notice requests public participation in the scoping process, establishes a public comment period, and provides information on how to participate.

Public scoping is an open process for determining the scope of the EIS and identifying significant issues related to the proposed action. Anyone wishing to provide comments, suggestions, or relevant information on the Proposed Action may do so as follows:

54278

Federal Register / Vol. 72, No. 184 / Monday, September 24, 2007 / Notices

You may submit comments to CBP by contacting the SBInet, Tactical Infrastructure Program Office. To avoid duplication, please use only one of the following methods:

(a) Electronically through the Web site at: <http://www.BorderFenceNEPA.com>;

(b) By e-mail to: SDcomments@BorderFenceNEPA.com;

(c) By mail to: San Diego Tactical Infrastructure EIS, c/o e²M, 2751 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031; or

(d) By fax to: (757) 257-7643.

Comments and related material must reach CBP by October 15, 2007. CBP will consider all comments and material received during the NOI comment period. If you submit a comment, please include your name and address, and identify your comments as for the San Diego Sector EIS. Comments received after October 15, 2007 will receive responses following the publication of the draft EIS.

This scoping period is not the only opportunity you will have to comment. A draft EIS will be prepared, and prior to the development of a final EIS, CBP will release the draft EIS for public review. At that time, a Notice of Availability (NOA) will be published in the *Federal Register*, the *San Diego Union Tribune*, and the *San Diego Daily Transcript*. The NOA will announce the availability of the draft EIS, how to obtain a copy, and the dates, times, and places of any associated public informational meetings.

Dated: September 19, 2007.

Eugene H. Schied,

Assistant Commissioner, Office of Finance.

[FR Doc. E7-18830 Filed 9-21-07; 8:45 am]

BILLING CODE 3111-14-P

**SCOPING REPORT
APPENDIX B**

NEWSPAPER ADS

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San Diego Union-Tribune, 9/24/07

**Notice of Intent to Prepare an Environmental Impact Statement (EIS)
and Request for Public Comments Concerning Proposed Construction
and Operation of Tactical Infrastructure for the
U.S. Customs and Border Protection,
Office of Border Patrol San Diego Sector**

Pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq., (NEPA), U.S. Customs and Border Protection (CBP) will prepare an Environmental Impact Statement (EIS) to identify and assess the potential impacts associated with a proposal to construct and operate approximately four miles of tactical infrastructure and supporting patrol roads along the U.S./Mexico international border south of and adjacent to Otay Mountain Wilderness area in San Diego County, California (the Proposed Action). The purpose of the Proposed Action is to further CBP's ability to gain effective control of the border by denying pedestrian and other access in this high priority section of the Office of Border Patrol's (OBP's) San Diego Sector.

The EIS will comply with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality regulations in 40 CFR Parts 1500–1508, and Department of Homeland Security (DHS) Management Directive 5100.1 (Environmental Planning Program).

Consistent with 40 CFR 1508.28, the EIS will analyze the site-specific environmental impacts of the Proposed Action, which were broadly described in two previous programmatic EISs prepared by the former U.S. Immigration and Naturalization Service (INS) (which now fall under the responsibility of CBP), Department of Defense, and Joint Task Force 6 (JTF-6). The Programmatic EIS for JTF-6 Activities Along the U.S./Mexico Border, August 1994, and its supplementing document, Supplemental Programmatic EIS for INS and JTF-6 Activities, June 2001, were prepared to address the cumulative effects of past and reasonably foreseeable projects undertaken by JTF-6 for numerous law enforcement agencies within the four southwestern states (California, Arizona, New Mexico, and Texas). These documents can be obtained from the U.S. Army Corps of Engineers, Fort Worth District, Engineering Construction and Support Office website, at <https://ecso.swf.usace.army.mil>; by sending an email request to charles.mcgregor@swf02.usace.army.mil; or by mailing a request to Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A14, Fort Worth, Texas 76102.

Pursuant to the Council on Environmental Quality's regulations, CBP invites public participation in the NEPA process. This notice requests public participation in the scoping process, establishes a public comment period, and provides information on how to participate. Public scoping is an open process for determining the scope of the EIS and identifying significant issues related to the Proposed Action. Anyone wishing to provide comments, suggestions, or relevant information on the Proposed Action may do so as follows:

- (a) Electronically through the web site at www.BorderFenceNEPA.com;
- (b) By email to SDcomments@BorderFenceNEPA.com;
- (c) By mail to: San Diego Tactical Infrastructure EIS, c/o e²M, 2751 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031; or
- (d) By fax to 757-257-7643.

Comments and related material must reach CBP by October 15, 2007. CBP will consider all comments and material received during the NOI comment period. If you submit a comment, please include your name and address, and identify your comments as for the San Diego Sector EIS. Comments received after October 15, 2007 will receive responses following the publication of the draft EIS.

San Diego Daily Transcript, 09/24/07

CERTIFICATE OF PUBLICATION

Lauri Watson
Engineering-environmental Management, Inc. (e2M)
2751 Prosperity Ave. Suite 200
Fairfax VA 22031

IN THE MATTER OF

CASE NO.

Environment Impact Statement

Notice of Intent to Prepare an Environmental Impact Statement (EIS) and Request for Public Comments Concerning Proposed Construction and Operation of Tactical Infrastructure for the U.S. Customs and Border Protection, Office of Border Patrol San Diego Sector. Pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq., (NEPA), U.S. Customs and Border Protection (CBP) will prepare an Environmental Impact Statement (EIS) to identify and assess the potential impacts associated with a proposal to construct and operate approximately four miles of tactical infrastructure and supporting patrol roads along the U.S./Mexico international border south of and adjacent to Clay Mountain Wilderness Area in San Diego County, California (the Proposed Action). The purpose of the Proposed Action is to further CBP's ability to gain effective control of the border by denying possession and other access in this high priority section of the Office of Border Patrol's (OBP's) San Diego Sector. The EIS will comply with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality regulations in 40 CFR Parts 1500-1508, and Department of Homeland Security (DHS) Management Directive 5100.1 (Environmental Planning Program). Consistent with 40 CFR 1508.28, the EIS will analyze the site-specific environmental impacts of the Proposed Action, which were broadly described in two previous programmatic EISs prepared by the former U.S. Immigration and Naturalization Service (INS) (which now falls under the responsibility of CBP), Department of Defense, and Joint Task Force 6 (JTF-6). The Programmatic EIS for JTF-6 Activities Along the U.S./Mexico Border, August 1994, and its supplementing document, Supplemental Programmatic EIS for INS and JTF-6 Activities, June 2001, were prepared to address the cumulative effects of past and reasonably foreseeable projects undertaken by JTF-6 for numerous law enforcement agencies within the four southwestern states (California, Arizona, New Mexico, and Texas). These documents can be obtained from the U.S. Army Corps of Engineers, Fort Worth District, Engineering Construction and Support Office website at https://wco.usace.army.mil/ by sending an email request to charles.mcgregor@sw02.usace.army.mil/ or by mailing a request to Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 919 Taylor St., Room 3A14, Fort Worth, Texas 76102. Pursuant to the Council on Environmental Quality's regulations, CBP invites public participation in the NEPA process. This notice requests public participation in the scoping process, establishes a public comment period, and provides information on how to participate. Public scoping is an open process for determining the scope of the EIS and identifying significant issues related to the Proposed Action. Anyone wishing to provide comments, suggestions, or relevant information on the Proposed Action may do so as follows: (a) Electronically through the web site at www.BorderFenceNEPA.com (b) By email to SDComments@BorderFenceNEPA.com (c) By mail to: San Diego Tactical Infrastructure EIS, c/o e2M 2751 Prosperity Avenue, Suite 200 Fairfax, Virginia 22031 (d) By fax to 757-257-7543. Comments and related material must reach CBP by October 15, 2007. CBP will consider all comments and material received during the NOI comment period. If you submit a comment, please include your name and address, and identify your comments as for the San Diego Sector EIS. Comments received after October 15, 2007 will receive responses following the publication of the draft EIS. Pub. Sep 24-00030874

I, Cathy L. Krueger, am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not party to or interested in the above entitled matter. I am the principal clerk of the San Diego Transcript, a newspaper of general circulation, printed and published daily, except on Saturdays and Sundays, in the City of San Diego, County of San Diego and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of San Diego, State of California, under the date of January 23, 1909, Decree No. 14894; and the

Notice of Intent

is a true and correct copy of which the annexed is a printed copy and was published in said newspaper on the following date(s), to wit:

September 24

I certify under penalty of perjury that the forgoing is true and correct.

Dated at San Diego, California this September 24, 2007

Cathy L. Krueger
Signature

Hispanos Unidos, 09/28/07

Página 4

28 de septiembre al 4 de octubre del 2007



Aviso de Intento a Preparar un Aviso sobre el Ambiente (EIS por sus siglas en inglés) y Petición para Comentarios Públicos Concernientes a la Construcción Propuesta y Operación de Infraestructura Táctica para la Protección de la Frontera y la Aduana de los Estados Unidos Oficina del Sector de San Diego para la Patrulla Fronteriza

De acuerdo a la Regla Nacional Ambiental del Acto de 1969, 42 U.S.C. 4321 et seq., (NEPA, por sus siglas en inglés), la Aduana de los Estados Unidos y Protección de la Frontera (CBP, por sus siglas en inglés) preparará un Aviso de Impacto al Ambiente (EIS) para identificar y asistir en los impactos potenciales asociados con la propuesta para construir y operar aproximadamente cuatro millas de infraestructura táctica y apoyo a las carreteras de patrullas a lo largo de la frontera internacional de México/Estados Unidos al sur del área adyacente de las Montañas de Otay en el Condado de San Diego, California (la Acción Propuesta). El propósito de la Acción Propuesta es el implementar la habilidad de CBP para incrementar control efectivo para la frontera y detener el acceso a peatones y otros en su sección de alta prioridad en la Oficina de la Patrulla Fronteriza (OBP, por sus siglas en inglés) del Sector de San Diego.

El EIS irá de acuerdo con las Reglas Nacionales del Ambiente para el acto de 1969 (NEPA, por sus siglas en inglés), el Concejo para Regular la Calidad del Ambiente en 40 partes CFR 1500-1508, y el Departamento de Seguridad Nacional (DHS, por sus siglas en inglés) en Manejo de la Directiva 5 100.1 (Programa de Planeación Ambiental).

En Consistencia con la 40 CFR 1508.28, el EIS analizará el sitio específico para los impactos ambientales de la Acción Propuesta, que han sido ampliamente descritos en dos programaciones previas de EIS preparadas por la antigua agencia del Servicio de Inmigración y Naturalización de los Estados Unidos (INS, por sus siglas en inglés) (que ahora caen bajo responsabilidad de CBP), Departamento de Defensa, y la Fuerza Unida de Acción 6 (JTF-6, por sus siglas en inglés). El programado EIS para las actividades de JTF-6 a lo Largo de la Frontera de México/Estados Unidos, en agosto de 1994, y su documento suplementario, Programa Suplementario EIS para actividades de INS y JTF-6, Junio del 2001, fueron preparados para asistir los efectos acumulativos de proyectos pasados previstos llevados a cabo por JTF-6 para numerosas agencias para ejercer la ley entre los cuatro estados (California, Arizona, Nuevo México y Texas). Estos documentos pueden ser obtenidos por parte de los Ingenieros de las Fuerzas Armadas de Los Estados Unidos, el Distrito de 'Forth Worth', Ingeniería en Construcción y Oficina de Apoyo por medio de su página de Internet en: <https://ecso.swf.usace.army.mil>; o enviando un correo electrónico a charles.mcgregor@swf02.usace.army.mil; o por correspondencia escrita a 'Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A14, Fort Worth, Texas 76102'.

De acuerdo al Concejo de regulaciones de Calidad Ambiental, CBP invita al público a la participación en el proceso de NEPA. Este aviso requiere la participación del público en el proceso de análisis, establece un periodo de comentario público, provee información en cómo participar. El Análisis público en un proceso abierto para determinar la visualización de EIS e identificar los temas significativos relacionados a la Acción Propuesta. Cualquiera que desee proveer comentarios, sugerencias, o información relevante en la Acción Propuesta que pueden ser de la siguiente manera:

- (a) Electrónicamente por medio de la página de Internet en: www.BorderFenceNEPA.com;
- (b) Por correo electrónico a SDcomments@BorderFenceNEPA.com;
- (c) Por correo a: San Diego Tactical Infrastructure EIS, c/o e2M, 2751 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031; o también
- (d) Por fax al 757-257-7643.

Comentarios y material relacionado debe llegar a CBP antes del 15 de octubre del 2007. CBP considerará todos los comentarios y material recibido durante el periodo de comentarios de NOI. Si usted envía un comentario, favor de incluir su nombre y dirección, e identifique sus comentarios como parte del Sector de San Diego EIS. Comentarios recibidos después del 15 de octubre del 2007 recibirán respuesta después de la publicación del borrador de EIS.

Published in Hispanos Unidos Newspaper on 09/28/2007

La Prensa, 09/28/07

La Prensa San Diego

September 28, 2007

NOTICIA DE INTENTO PARA PREPARAR UNA DECLARACION DE IMPACTO AMBIENTAL (EIS) Y SOLICITAR COMENTARIOS PUBLICOS REFERENTE A PROPUESTA DE CONSTRUCCION Y OPERACION DE LA INFRAESTRUCTURA TACTICA PARA LA ADUANA DE EE.UU. Y PROTECCION DE LA FRONTERA, LA OFICINA DE LA PATRULLA FRONTERIZA SECTOR SAN DIEGO

De conformidad al Acto de la Política del Ambiente Nacional de 1969, 42 U.S.C. 4321 et seq. (NEPA) Aduanas EE.UU. y Protección de la Frontera (CBP) prepararán una Declaración de Impacto Ambiental (EIS) para identificar y evaluar los impactos potenciales con la propuesta de construir y operar aproximadamente cuatro millas de infraestructura táctica y apoyar caminos de patrullaje por la frontera sur internacional EE.UU./México y adyacente al área Paramo Montañoso de Otay en el Condado de San Diego, California (la Acción Propuesta). El propósito de la Acción Propuesta es para promover la habilidad de CBP para obtener control efectivo de la frontera con el fin de negar el acceso a los peatones y otros en esta sección altamente prioritaria de la Oficina de la Patrulla Fronteriza (OBP's) Sector San Diego.

El EIS accederá con el Acto de la Política del Ambiente Nacional de 1969 (NEPA), las regulaciones del Consejo en Calidad Ambiental en 40 CFR Partes 1500-1508, y el Departamento de Seguridad Nacional (DHS) Directiva Administrativa 5100/1 (Programa de Planeación Ambiental).

Consistente con 40 CFR 1508.28, el EIS analizará los impactos del ambiente del sitio específico y la Acción Propuesta, los cuales fueron descritos en términos generales en dos anteriores programáticos EIS preparados por el anterior Servicio de Inmigración de EE.UU. y Naturalización (INS) (el cual ahora está bajo la responsabilidad del CBP), Departamento de Defensa, y la Fuerza Operativa 6 (JTF-6). La Programática EIS para JTF-6 Actividades a lo largo de la Frontera EE.UU./México, Agosto 1994, y su documento suplementario, Programático Suplementario EIS para INS y Actividades JTF-6, Junio 2001, fueron preparados para abocar los efectos cumulativos del pasado y proyectos razonablemente previsibles asumidos por JTF-6 por varias agencias de seguridad dentro de los cuatro estados suroestes (California, Arizona, Nuevo México y Texas). Estos documentos pueden ser obtenidos de la página cibernética del U.S. Army Corps of Engineers, Fort Worth District, Engineering Construction and Support Office en <https://llecso.swf.usace.army.mil>; solicitando una petición por correo electrónico a charles.mcgregor@swf02.usace.army.mil; o mandando por correo una petición a Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St. Room 3A14, Fort Worth, Texas 76102.

De conformidad a las regulaciones del Consejo de Calidad del Ambiente, CBP invita la participación del público en el proceso de NEPA. Esta noticia solicita participación pública en el proceso de investigación, establece un periodo de comentarios públicos, y provee información en cómo participar. La investigación pública es un proceso abierto para determinar el alcance del EIS e identificar asuntos significativos relacionados con la Acción Propuesta. Cualquiera que desee proveer comentarios, sugerencias, o información relevante en la Acción Propuesta puede hacerlo en la siguiente forma:

- (a) Electrónicamente a través de la página cibernética www.BorderFenceNEPA.com;
- (b) Por correo electrónico a: SDcomments@BorderFenceNEPA.com
- (c) Por correo a: San Diego Tactical Infrastructure EIS, c/o e2M, 2751 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031; o
- (d) Por fax a: 757-257-7643.

Comentarios y material relacionado debe llegar por Octubre 15, 2007. CBP considerará todos los comentarios y material recibido durante el periodo de comentarios NOI. Si usted manda un comentario, por favor incluya su nombre y dirección, e identifique su comentario hacia San Diego Sector EIS. Comentarios recibidos después de Octubre 15, 2007 recibirán respuestas siguiendo la publicación del borrador EIS.

Published: 9/28/07

La Prensa San Diego

**SCOPING REPORT
APPENDIX C**

WEB SITE

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Border Fence NEPA

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Department of Homeland Security

Introduction

The U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol (USBP) is preparing Environmental Impact Statements (EISs) and Environmental Assessments (EAs) to identify and assess the potential environmental impacts associated with proposed construction, maintenance, and operation of tactical infrastructure along the U.S./Mexico international border (the Proposed Actions). The tactical infrastructure includes primary fence and patrol roads.

The purpose of the Proposed Actions is to further USBP's ability to gain effective control of our nation's borders by denying pedestrian and other access in sections of the USBP's Sectors. These sectors include Rio Grande Valley, TX (EIS), San Diego, CA (EIS), El Centro, CA (EA), Del Rio, TX (EA), and Marfa, TX (EA).

The EAs and EISs are being prepared pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq., (NEPA); the Clean Air Act of 1970, as amended; the Clean Water Act of 1977, as amended; the National Historic Preservation Act of 1966; the Archaeological Resource Protection Act of 1979; various Executive Orders (EOs), and applicable Federal and state laws and regulations.

This site has been developed to facilitate public comment on the EAs and EISs and to provide information on how and where to submit comments.

FOR FURTHER INFORMATION CONTACT: Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A28, Fort Worth, Texas 76102. Fax: (817) 886-6404.

Related Documents:

[Final PEIS for JTF-6 Activities along the U.S./Mexico Border, August 1994](#)

[Final Supplemental PEIS for INS and JTF-6 Activities, June 2001](#)

[EIS for Operation Rio Grande, April 2004](#)

Links:

[What is NEPA?](#)

[Steps in the EIS Process](#)

[Resources and Issues Evaluated in an EIS](#)

[U.S. Department of Homeland Security \(DHS\)](#)

[DHS Management Directive on Environmental Planning Program](#)

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San Diego Sector EIS

Introduction

An Environmental Impact Statement (EIS) is being prepared in support of a proposal by U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol (USBP) San Diego Sector for controlling and deterring the influx of illegal immigration and contraband into the United States. To assist USBP agents and officers in gaining effective control of our nation's borders, USBP is proposing to construct, maintain, and operate tactical infrastructure consisting of pedestrian fences, supporting patrol roads, and other infrastructure along approximately 5.6 miles of the U.S./Mexico international border within the USBP's San Diego Sector.

In order to secure the nation's borders, USBP is developing and deploying the most effective mix of proven technology, infrastructure, and increased personnel. In some locations, fence is a critical element of border security. USBP has identified this area of the border as a location where fence would significantly contribute to USBP's priority mission of homeland security. As a part of this Proposed Action, two segments of fence are proposed for construction.

Proposed Fence Segments for Border Patrol San Diego Sector

Map Number	Border Patrol Station	General Location	Land Ownership	Length of Fence Segment (miles)
A-1	Brown Field	Pak Truck Trail	Public: BLM managed	4.88
A-2	Brown Field	West of Tecate	Private	0.69
Total				5.57

One segment would be approximately 4.9 miles long and would start at the Puebla Tree and end at boundary monument 250. The proposed segment would be adjacent to and south of the Otay Mountain Wilderness, would follow the Pak Truck Trail, and would not connect to any existing fence. The Otay Mountain Wilderness is on public lands administered by BLM. The wilderness boundary is at least 100 feet from the U.S./Mexico international border, and the proposed fence would occur in this corridor

between the U.S./Mexico international border and the wilderness boundary. However, due to steep topography, a portion of road or other tactical infrastructure might encroach into the wilderness area.

The second segment would be approximately 0.7 miles long and would connect with existing border fence west of Tecate Peak. This fence segment would extend up a portion of Tecate Peak and would pass through a riparian area. This proposed fence segment could encroach on privately owned land.

The EIS will evaluate potential environmental impacts from construction, maintenance, and operation of the proposed tactical infrastructure, consisting of:

- Tactical infrastructure includes installation of two primary fence (areas of the border that are not currently fenced) segments as listed in the table above and a single-lane unpaved patrol road.
- The proposed tactical infrastructure would impact an approximate 60 foot wide corridor along each fence segment. This corridor would include fences, access roads, patrol roads, and construction staging areas. Vegetation would be cleared and grading may occur where needed. The area temporarily impacted within the two segments (both route alternatives) would be approximately 41 acres. Wherever possible, existing roads would be used for construction access.
- Significant amounts of blasting activity, cut and fill operations, creation of at least two stationing areas, the construction of switchback roads, and general improvement to existing access roads would be required to construct the fence and an adjacent patrol road. Wherever possible, existing roads would be used for construction access.
- If approved, the final design would be developed by a design/build contractor overseen by the U.S. Army Corps of Engineers (USACE). However, design criteria that have been established based on USBP operational needs require that, at a minimum, any fencing must meet the following requirements:
 - 15 feet high and extend below ground
 - Capable of withstanding a crash of a 10,000-pound (gross weight) vehicle traveling at 40 miles per hour
 - Capable of withstanding vandalism, cutting, or various types of penetration
 - Semi-transparent, as dictated by operational need
 - Designed to survive extreme climate changes
 - Designed to reduce or minimize impacts on small animal movement
 - Not impede the natural flow of water
 - Aesthetically pleasing to the extent possible.

The USACE is working with public and private land owners to obtain easements or purchase the construction corridor. Where necessary, the Corps might purchase privately owned land for the fence, access roads, and patrol roads.

If approved, construction of the new Tactical Infrastructure would begin in Spring 2008 and continue through December 31, 2008.

[General Locations of Tactical Infrastructure in San Diego Sector](#)

[See the complete Notice of Intent \(NOI\) published in the Federal Register.](#)

Scoping and Public Comments

A public scoping process has been initiated for the San Diego Sector EIS. The purpose of the scoping

process is to solicit public comment regarding the range of issues, including potential impacts and alternatives that should be addressed in the EIS.

Public scoping is an open process for determining the scope of the EIS and identifying significant issues related to the Proposed Action as described above. Anyone wishing to provide comments, suggestions, or relevant information on the Proposed Action may do so as follows:

You may submit comments to CBP by contacting SBInet, Tactical Infrastructure Program Office. To avoid duplication, please use only one of the following methods:

- (a) Electronically through the website at: www.BorderFenceNEPA.com;
- (b) By email to: SDcomments@BorderFenceNEPA.com;
- (c) By mail to: San Diego Tactical Infrastructure EIS, c/o e²M, 2751 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031; or
- (d) By fax to: (757) 257-7643.

Comments and related material must reach the CBP by **October 15, 2007**. CBP will consider all comments and material received during the NOI comment period. If you submit a comment, please include your name and address, and identify your comments as for the San Diego Sector EIS. Comments received after **October 15, 2007** will receive responses following the publication of the draft EIS.

[Click here to email your comments.](#)

[Examples of Proposed Fence](#)

* Name

* Email

* Subject

* Verify

B5FDE

* Message

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**SCOPING REPORT
APPENDIX D
AGENCY LETTERS**

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U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 23 2007

Honorable H. Paul Cuero, Jr., Chairman
Campo Band of Kumeyaay Indians
36190 Church Road, Suite 1
Campo, California 91906

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Cuero:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

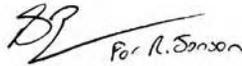
Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable H. Paul Cuero, Jr.
Page 2

A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on September 24, 2007. A copy of the NOI is enclosed, which provides additional information about the proposed project, background information, and the framework for Federal environmental review requirements under NEPA.

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures



54278

Federal Register / Vol. 72, No. 184 / Monday, September 24, 2007 / Notices

You may submit comments to CBP by contacting the SBInet, Tactical Infrastructure Program Office. To avoid duplication, please use only one of the following methods:

(a) Electronically through the Web site at: <http://www.BorderFenceNEPA.com>;

(b) By e-mail to: SDcomments@BorderFenceNEPA.com;

(c) By mail to: San Diego Tactical Infrastructure EIS, c/o e2M, 2751 Prosperity Avenue, Suite 200, Fairfax, Virginia 22031; or

(d) By fax to: (757) 257-7643.
Comments and related material must reach CBP by October 15, 2007. CBP will consider all comments and material received during the NOI comment period. If you submit a comment, please include your name and address, and identify your comments as for the San Diego Sector EIS. Comments received after October 15, 2007 will receive responses following the publication of the draft EIS.

This scoping period is not the only opportunity you will have to comment. A draft EIS will be prepared, and prior to the development of a final EIS, CBP will release the draft EIS for public review. At that time, a Notice of Availability (NOA) will be published in the *Federal Register*, the *San Diego Union Tribune*, and the *San Diego Daily Transcript*. The NOA will announce the availability of the draft EIS, how to obtain a copy, and the dates, times, and places of any associated public informational meetings.

Dated: September 19, 2007.

Eugene H. Schied,
Assistant Commissioner, Office of Finance.
[FR Doc. E7-18830 Filed 9-21-07; 8:45 am]
BILLING CODE 9111-14-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Coastal Barrier Improvement Act of 1990; Amendments to the John H. Chafee Coastal Barrier Resources System

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of distribution and availability of replacement maps of eight of the John H. Chafee Coastal Barrier Resources System.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), have replaced maps of eight John H. Chafee Coastal Barrier Resources System units in North Carolina, Georgia, Florida, and Texas, as directed by Congress. We are using this notice to inform the public

about the distribution and availability of the replacement maps.

DATES: The replacement map for Units T07/T07P became effective on December 1, 2003. The replacement maps for Unit NC-07P became effective on October 18, 2004. The replacement map for Units P25/P25P became effective on October 30, 2004. The replacement maps for Units FL-95P, FL-96, and CA-06P became effective on October 16, 2006.

ADDRESSES: For information about how to get copies of the maps or where to go to view them, see **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: Ms. Katie Niemi, Department of the Interior, U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation, (703) 358-2161.

SUPPLEMENTARY INFORMATION:

Background

In 1982, Congress passed the Coastal Barrier Resources Act (Pub. L. 97-348) to restrict Federal spending that has the effect of encouraging development on undeveloped coastal barriers along the Atlantic and Gulf of Mexico coasts. In the Coastal Barrier Improvement Act of 1990 (Pub. L. 101-591), Congress amended the 1982 Act to broaden the definition of a coastal barrier, and approved a series of maps entitled "John H. Chafee Coastal Barrier Resources System" dated October 24, 1990. These maps identify and depict those coastal barriers located on the coasts of the Atlantic Ocean, Gulf of Mexico, Great Lakes, Virgin Islands, and Puerto Rico that are subject to the Federal funding limitations outlined in the Act.

The Act also defines Service responsibilities regarding the John H. Chafee Coastal Barrier Resources System maps. We have official custody of these maps and prepare and distribute copies. In the *Federal Register* on June 6, 1991 (56 FR 26304), we published a notice of the filing, distribution, and availability of the maps entitled "John H. Chafee Coastal Barrier Resources System" and dated October 24, 1990. We have announced all subsequent map revisions in the *Federal Register*.

Revisions to the John H. Chafee Coastal Barrier Resources System in Texas

Public Law 108-138, enacted on December 1, 2003, replaced one of the six maps relating to Matagorda Peninsula Units T07/T07P in Matagorda County, Texas, with a revised map entitled "John H. Chafee Coastal Barrier Resources System, Matagorda Peninsula Unit T07/T07P" for that area. The changes to the map ensure that the

boundary of Unit T07 does not include property within the Matagorda Dunes Homesites Subdivision. A full complement of infrastructure was available to each lot within the subdivision prior to 1982, therefore meeting the Coastal Barrier Resources Act definition of "developed" at the time the subdivision was included within Unit T07 in 1982. Under the new map, 76 acres (23 fastland acres and 53 associated aquatic habitat acres) were removed from Unit T07, and 3 acres of associated aquatic habitat were added to Unit T07. Additionally, 80 acres were reclassified from Unit T07 to Unit T07P.

Revisions to the John H. Chafee Coastal Barrier Resources System in North Carolina

Public Law 108-339, enacted on October 18, 2004, replaced the two maps relating to Cape Fear Unit NC-07P in New Hanover and Brunswick Counties, North Carolina, with two revised maps entitled "John H. Chafee Coastal Barrier Resources System, Cape Fear Unit NC-07P." The changes to the maps ensure that the boundary of Unit NC-07P follows the exterior boundaries of lands held for conservation or recreation. Under the new maps, 273 acres (13 acres of fastland and 261 acres of associated aquatic habitat) were removed from Unit NC-07P, and 8,117 acres (2,714 acres of fastland and 5,403 acres of associated aquatic habitat) were added to Unit NC-07P.

Revisions to the John H. Chafee Coastal Barrier Resources System in Florida

Public Law 108-380, enacted on October 30, 2004, replaced one of the two maps relating to Cedar Keys Units P25/P25P in Levy County, Florida, with a revised map entitled "John H. Chafee Coastal Barrier Resources System, Cedar Keys Unit P25/P25P." The changes to the map clarify the boundaries of an excluded area on Cedar Key so that the Unit P25 boundary more precisely follows geomorphic features. Under the new map, 41 acres (32 fastland acres and 9 associated aquatic habitat acres) were removed from Unit P25, and 56 acres (1 acre of fastland and 55 acres of associated aquatic habitat) were added to Unit P25.

Public Law 109-355, enacted on October 16, 2006, replaced the map relating to Grayton Beach Unit FL-95P and Draper Lake Unit FL-96 in Walton County, Florida, with a revised map entitled "John H. Chafee Coastal Barrier Resources System, Grayton Beach Unit FL-95P Draper Lake Unit FL-96." The changes to the map ensure that the boundary of Unit FL-95P follows the exterior boundaries of Grayton Beach

review. At that time, a Notice of Availability (NOA) will be published in the *Federal Register*, the *Brownsville Herald* (Brownsville, Texas), and the *The Monitor* (McAllen, Texas). The NOA will announce the availability of the draft EIS, how to obtain a copy, and the dates, times, and places of any associated public informational meetings.

Dated: September 19, 2007.

Eugene H. Schied,
Assistant Commissioner, Office of Finance.
[FR Doc. E7-18829 Filed 9-21-07; 8:45 am]
BILLING CODE 9111-14-P

DEPARTMENT OF HOMELAND SECURITY

Bureau of Customs and Border Protection

Notice of Intent To Prepare an Environmental Impact Statement (EIS) and Request for Public Comments Concerning Proposed Construction and Operation of Tactical Infrastructure for the U.S. Customs and Border Protection, Office of Border Patrol San Diego Sector

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of Intent to Prepare an Environmental Impact Statement and Request for Public Comments.

SUMMARY: Pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 *et seq.* (NEPA), U.S. Customs and Border Protection (CBP) will prepare an Environmental Impact Statement (EIS) to identify and assess the potential impacts associated with a proposal to construct and operate approximately four miles of tactical infrastructure and supporting patrol roads along the U.S./Mexico international border south of and adjacent to Otay Mountain Wilderness area in San Diego County, California (the Proposed Action). The purpose of the Proposed Action is to further CBP's ability to gain effective control of the border by denying pedestrian and other access in this high priority section of the Office of Border Patrol's (OBP's) San Diego Sector. CBP is the decision-making agency for this Proposed Action.

Notice is hereby given that the public scoping process has been initiated to prepare an EIS that will address the impacts and alternatives of the Proposed Action. The purpose of the scoping process is to solicit public comment regarding the range of issues, including

potential impacts and alternatives that should be addressed in the EIS.

FOR FURTHER INFORMATION CONTACT: Visit <http://www.BorderFenceNEPA.com> or e-mail: information@BorderFenceNEPA.com. Written requests for information may be submitted to: Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A14, Fort Worth, Texas 76102; Phone: (817) 886-1585; and Fax: (817) 886-6404.

Background: An EIS is being prepared in support of a proposal by OBP's San Diego Sector for controlling and deterring the influx of illegal immigration and contraband into the United States. To assist Border Patrol officers, OBP is proposing to install and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, lights, and other infrastructure along approximately four miles of the U.S./Mexico international border within OBP's San Diego Sector.

In order to secure the nation's borders, CBP is developing and deploying the most effective mix of proven technology, infrastructure, and increased personnel. In some locations, fencing is a critical element of border security. OBP has identified this area of the border as a location where fence would significantly contribute to CBP's priority mission homeland security. As a part of this Proposed Action, two segments of fence are proposed for construction.

One segment is approximately 3.4 miles long and would start at the Puebla Tree and end at boundary monument 250. The proposed segment would be adjacent to and south of the Otay Mountain Wilderness; would follow the Pack Truck Trail; and would not connect to any existing fence. The Otay Mountain Wilderness is on public lands administered by the Bureau of Land Management (BLM), U.S. Department of the Interior in San Diego County, California. The wilderness boundary is at least 100 feet from the U.S./Mexico border, and the proposed fence would occur in this corridor between the U.S./Mexico border and the wilderness boundary. However, due to steep topography, a portion of road or other tactical infrastructure might encroach into the wilderness area.

The second segment would be approximately 0.5 miles long and would connect with existing border fence west of Tecate. This fence segment is an extension of existing fence up Tecate Peak and would pass through a riparian area. This proposed fence segment would be on privately owned land.

Potential alternatives for environmental impacts analysis will consider location, construction, and operation of tactical infrastructure. Potential alternatives must meet the need to gain effective control of our nation's borders, as well as essential technical, engineering, and economic threshold requirements to ensure that the Proposed Action is environmentally sound, economically viable, and meets all applicable laws and regulations.

The EIS will comply with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality regulations in 40 CFR Parts 1500-1508, and Department of Homeland Security (DHS) Management Directive 5100.1 (*Environmental Planning Program*).

Consistent with 40 CFR 1508.28, the EIS will analyze the site-specific environmental impacts of the proposed action which were broadly described in two previous programmatic EISs prepared by the former U.S. Immigration and Naturalization Service (which now falls under the responsibility of CBP), Department of Defense, and Joint Task Force 6 (JTF-6). The *Programmatic EIS for JTF-6 Activities Along the U.S./Mexico Border*, August 1994, and its supplementing document, *Supplemental Programmatic EIS for INS and JTF-6 Activities*, June 2001, were prepared to address the cumulative effects of past and reasonably foreseeable projects undertaken by JTF-6 for numerous law enforcement agencies within the four southwestern states (California, Arizona, New Mexico, and Texas). These documents can be obtained from the U.S. Army Corps of Engineers, Fort Worth District, Engineering Construction and Support Office Web site, at <https://ecso.swf.usace.army.mil/>; by sending an e-mail to charles.mcgregor@swf02.usace.army.mil; or by mailing a request to: Charles McGregor, U.S. Army Corps of Engineers, Engineering Construction and Support Office, 819 Taylor St., Room 3A14, Fort Worth, Texas 76102.

Public Participation: Pursuant to the Council on Environmental Quality's regulations, CBP invites public participation in the NEPA process. This notice requests public participation in the scoping process, establishes a public comment period, and provides information on how to participate.

Public scoping is an open process for determining the scope of the EIS and identifying significant issues related to the proposed action. Anyone wishing to provide comments, suggestions, or relevant information on the Proposed Action may do so as follows:

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U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 23 2007

Honorable Bobby L. Barrett, Chairman
Viejas Band of Mission Indians
P.O. Box 908
Alpine, California 91903

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Barrett:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Bobby L. Barrett
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 20 2007

Honorable Leroy Elliott, Chairman
Manzanita Band of Mission Indians
P.O. Box 1302
Boulevard, California 91905

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Elliott:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Leroy Elliott
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Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Johnny Hernandez, Spokesman
Santa Ysabel Band of Mission Indians
P.O. Box 130
Santa Ysabel, California 92070

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Hernandez:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Johnny Hernandez
Page 2

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable John James, Chairman
Cabazon Band of Mission Indians
84-245 Indio Springs Pkwy
Indio, California 92203

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. James:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable John James
Page 2

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Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Allen E. Lawson, Spokesman
San Pasqual Band of Mission Indians
27458 North Lake Wolford Rd., Level #3
Valley Center, CA 92082

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Lawson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

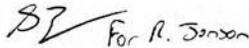
Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Allen E. Lawson
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Handwritten signature of Robert F. Janson, with the text "For R. Janson" written below it.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Howard Maxcy, Chairman
Mesa Grande Band of Mission Indians
P.O. Box 270
Santa Ysabel, California 92070

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Maxcy:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Howard Maxcy
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Richard Milanovich, Chairperson
Agua Caliente Band of Cahuilla Indians
600 East Tahquitz Canyon Way
Palm Springs, CA 92262

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Milanovich:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

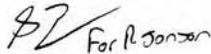
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Honorable Richard Milanovich
Page 2

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Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
1048 Crestwood Road
Boulevard, California 92905

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Parada:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

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Honorable Gwendolyn Parada
Page 2

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Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Harlan Pinto, Chairman
Cuyapaipa Band of Mission Indians
4054 Willows Road
Alpine, California 91903-2250

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Pinto:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

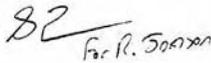
Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Harlan Pinto
Page 2

A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on September 24, 2007. A copy of the NOI is enclosed, which provides additional information about the proposed project, background information, and the framework for Federal environmental review requirements under NEPA.

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 23 2007

Honorable Catherine Saubel, Spokeswoman
Los Coyotes Band of Mission Indians
2300 Camino San Ignacio
Warner Springs, California 92086

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Saubel:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Catherine Saubel
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Handwritten signature of Robert F. Janson, with the text "For Janson" written below it.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 23 2007

Honorable Rhonda Welch-Sealco, Chairwoman
Barona Band of Mission Indians
1095 Barona Road
Lakeside, CA 92040

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Welch-Sealco:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Rhonda Welch-Sealco
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Handwritten signature of Robert F. Janson in black ink, with the name "For R. Janson" written below it.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Honorable Daniel J. Tucker, Chairman
Sycuan Band of Mission Indians
5459 Dehesa Road
El Cajon, CA 92019

OCT 23 2007

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Tucker:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

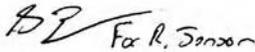
Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Daniel J. Tucker
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Handwritten signature of Robert F. Janson in black ink.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Mr. Milford Wayne Donaldson, FAIA
California State Historic Preservation Officer
ATTN: Michael McGuirt
Office of Historic Preservation
1416 9TH Street, Room 1442-7
Sacramento, CA 95814

OCT 2 2 2007

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Donaldson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate consultation with your office.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project sites is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969

Mr. Milford Wayne Donaldson
Page 2

(NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on September 24, 2007. A copy of the NOI is enclosed, which provides additional information about the proposed project, background information, and the framework for Federal environmental review requirements under NEPA.

We welcome your comments on this undertaking and look forward to hearing any concerns your office may have. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 23 2007

Honorable Leon Acebedo, Chairman
Jamul Band of Mission Indians
13910 Lyons Valley Road
Jamul, California 91935

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Acebedo:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Leon Acebedo
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Mr. Ren Lohofener
Regional Director
U.S. Fish and Wildlife Service
Pacific Region
911 NE 11th Avenue
Portland, OR 97232

OCT 18 2007

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Lohofener:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, his effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969

Page 2
Mr. Ren Lohofener

(NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

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Your agency has been identified as a Federal authority with responsibilities for resources that may be impacted by the Proposed Action. In accordance with the Council on Environmental Quality (CEQ) regulations addressing cooperating agencies (40 CFR 1501.6 and 1508.5) and CEQ's January 30, 2002, guidance, CBP is inviting you to participate in the development of the EIS as a cooperating agency. Please contact Mr. Charles McGregor of the USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 if your agency would like to be a cooperating agency.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor at (817) 886-1585 or Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at 619-216-4028.

Sincerely,


Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure

Cc: Mike Horton

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Mr. Steve Thompson, Manager
California/Nevada Operations Office
U.S. Fish and Wildlife Service
2800 Cottage Way
Room W-2606
Sacramento, CA 95825-1846

DOT 18

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Thompson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, his effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969

Page 2

Mr. Steve Thompson

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Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor at (817) 886-1585 or Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at 619-216-4028.

Sincerely,


Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure

Cc: Mike Horton

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Mr. John Kalish
Field Manager
Palm Springs/South Coast Field Office
U.S. Bureau of Land Management
P.O. Box 581260
North Palm Springs, CA 92258-1260

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Kalish:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any

Page 2
Mr. John Kalish

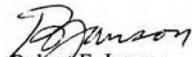
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Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor at (817) 886-1585 or Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at 619-216-4028.

Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure

Cc: Ms. Janaye Byergo

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

COL Thomas H. Magness, IV
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd., Suite 980
Los Angeles, CA 90017

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear COL Magness:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

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Page 2
COL Thomas H. Magness, IV

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A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on September 24, 2007. A copy of the NOI is enclosed, which provides additional information about the proposed project, background information, and the framework for Federal environmental review requirements under NEPA.

Your agency has been identified as a Federal authority with responsibilities for resources that may be impacted by the Proposed Action. In accordance with the Council on Environmental Quality (CEQ) regulations addressing cooperating agencies (40 CFR 1501.6 and 1508.5) and CEQ's January 30, 2002, guidance, CBP is inviting you to participate in the development of the EIS as a cooperating agency. Please contact Mr. Charles McGregor of the USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O Box 17300, Forth Worth, Texas 76102-0300 if your agency would like to be a cooperating agency.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor at (817) 886-1585 or Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at 619-216-4028.

Sincerely,


Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure

U.S. Department of Homeland Security
Washington, DC 20229



**U.S. Customs and
Border Protection**

Mr. Wayne Nastri
Regional Administrator, Region 9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

OCT 18 2007

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Nastri:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969

Page 2

Mr. Wayne Nastri

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Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

October 15, 2007

Mr. Charles McGregor
U.S. Army Corps of Engineers
Engineering Construction and Support Office
819 Taylor St. Room 3A14
Fort Worth, TX 76102

Subject: Scoping Comments for the Construction and Operation of Tactical Infrastructure for the U.S. Customs and Border Protection (CBP), Office of Border Patrol San Diego Sector

Dear Mr. McGregor:

The U.S. Environmental Protection Agency (EPA) has reviewed the Federal Register Notice published on September 24, 2007 requesting comments on the Bureau of Customs and Border Protection's decision to prepare an Environmental Impact Statement. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act.

The proposed project is to construct and operate approximately 5.57 miles of tactical infrastructure and supporting patrol roads along the U.S./Mexico international border south of and adjacent to Otay Mountain Wilderness area, with a segment extending the existing fence west of Tecate in San Diego County, California. The proposed tactical infrastructure would impact an approximate 60 foot wide corridor along each fence segment and include fences, access roads, patrol roads, and construction staging areas. The project involves vegetation clearing and grading on approximately 41 acres, significant amounts of blasting activity, cut and fill operations, creation of at least two stationing areas, construction of switchback roads, and general improvement to existing access roads. To assist in the scoping process, we have identified several issues for your attention in the preparation of the DEIS, which are detailed in the attached comments.

We appreciate the opportunity to provide comments on the preparation of the DEIS, and look forward to continued participation in this process as more information becomes available. When the DEIS is released for public review, please send one hard copy to the address above

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(mail code: CED-2). If you have any questions, please contact me at (415) 972-3846 or Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,



Nova Blazej, Manager
Environmental Review Office

Enclosure: EPA's Detailed Comments

cc: Justin Seastrand, Bureau of Land Management, Otay Mountain Wilderness Area

EPA DETAILED SCOPING FOR THE CONSTRUCTION AND OPERATION OF TACTICAL INFRASTRUCTURE FOR THE U.S. CUSTOMS AND BORDER PROTECTION, OFFICE OF BORDER PATROL SAN DIEGO SECTOR, OCTOBER 15, 2007

Purpose and Need / Alternatives Analysis

A clear purpose and need sets the stage for thorough consideration of a range of alternatives. The Notice of Intent (NOI) states that the purpose of the project is to further U.S. Customs and Border Protection's (CBP) ability to gain effective control of the border by denying pedestrian and other access in the high priority San Diego Sector of the Office of Border Patrol.

All reasonable alternatives that fulfill the purpose of the project's purpose and need should be evaluated in detail, including alternatives to physical barriers such as infrastructure to support a "virtual fence" if this meets the purpose and need. A robust range of alternatives will include an alternative that avoids significant environmental impacts. The DEIS should provide a clear discussion of the reasons for the elimination of alternatives which are not evaluated in detail.

The environmental impacts of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The potential environmental impacts of each alternative should be quantified to the greatest extent possible (e.g., acres of wetlands impacted, tons per year of emissions produced, etc.).

Compliance with Environmental Regulations

The DEIS should discuss any legislative acts that allow the Department of Homeland Security agencies to bypass U.S. environmental laws and regulations, and whether there is the intention to do so for this project.

Water Resources

The DEIS should describe the original (natural) drainage patterns in the project locale, as well as the drainage patterns of the area during project operations. Also, the DEIS should identify whether any components of the proposed project are within a 50 or 100-year floodplain.

Clean Water Act Section 402

The DEIS should note that, under the federal Clean Water Act (CWA), any construction project disturbing a land area of one or more acres requires a construction storm water discharge permit. The DEIS should document the project's consistency with applicable storm water permitting requirements. Requirements of a storm water pollution prevention plan should be reflected as appropriate in the DEIS. The DEIS should discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality and aquatic resources. The CBP should coordinate the California Regional Water Quality Control Board on all required permits.

Clean Water Act Section 404

The fence and infrastructure south of the Otay Mountain Wilderness will cross a number of drainages, and the fence segment west of Tecate would pass through a riparian area. Impacts to waters of the U.S. should be avoided or mitigated to the maximum extent possible. The project applicant should coordinate with the U.S. Army Corps of Engineers to determine if the proposed project requires a Section 404 permit under the CWA. Section 404 regulates the discharge of dredged or fill material into waters of the U.S. The DEIS should describe all waters of the U.S. that could be affected by the project alternatives, and include maps that clearly identify all waters within the project area. The discussion should include acreages and channel lengths, habitat types, values, and functions of these waters.

If a permit is required, EPA will review the project for compliance with *Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials* (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (“404(b)(1) Guidelines”). Pursuant to 40 CFR 230, any permitted discharge into waters of the U.S. must be the least environmentally damaging practicable alternative available to achieve the project purpose. The DEIS should include an evaluation of the project alternatives in this context in order to demonstrate the project’s compliance with the 404(b)(1) Guidelines. If, under the proposed project, dredged or fill material would be discharged into waters of the U.S., the DEIS should discuss alternatives to avoid those discharges. EPA strongly encourages early coordination with the U.S. Army Corps of Engineers. Information on waters of the U.S. is best disclosed at the DEIS stage so that the appropriateness of the proposed NEPA alternative can be evaluated in the context of the 404(b)(1) Guidelines, and relevant comments can receive responses and effect appropriate modifications in the Final EIS.

If a discharge to waters of the U.S. is anticipated, the DEIS should discuss how potential impacts would be minimized and mitigated. This discussion should include: (a) acreage and habitat type of waters of the U.S. that would be created or restored; (b) water sources to maintain the mitigation area; (c) the revegetation plans, including the numbers and age of each species to be planted, as well as special techniques that may be necessary for planting; (d) maintenance and monitoring plans, including performance standards to determine mitigation success; (e) the size and location of mitigation zones; (f) the parties that would be ultimately responsible for the plan’s success; and (g) contingency plans that would be enacted if the original plan fails. Mitigation should be implemented in advance of the impacts to avoid habitat losses due to the lag time between the occurrence of the impact and successful mitigation.

Biological Resources

The border region of California and Baja California comprises one of the world’s biodiversity hotspots. The project area to the south of Otay Mountain Wilderness contains especially rich botanical resources and includes habitat that is important to the conservation of the federally endangered Quino checkerspot butterfly. We recommend that the CBP work closely with the Bureau of Land Management regarding the protection of wilderness and biological resources in

this area, and consult with the U.S. Fish and Wildlife Service for the protection of threatened and endangered species.

Wildlife Impacts

The DEIS should identify all petitioned and listed threatened and endangered species and critical habitat that might occur within the project area. The document should identify and quantify which species or critical habitat might be directly or indirectly affected by each alternative. We recommend that the DEIS include a biological assessment, as well as a description of the outcome of consultation with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act.

The Border Fence NEPA website at www.borderfenceNEPA.com indicates that any fencing must be designed to reduce or minimize impacts on small animal movement and not impede the natural flow of water. EPA commends these design criteria and suggests that the CBP prepare an inventory of resident wildlife so that fence design can consider modes of transport. The DEIS should identify all wildlife movement corridors that could be obstructed or impacted by infrastructure. For all species that are impacted, the DEIS should discuss the other cumulative impacts these species are experiencing on an ecosystem level. The DEIS should discuss how the border infrastructure could impact vegetation and its distribution and use as cover by resident wildlife species.

Mitigation

The DEIS should propose measures that will mitigate direct impacts to wildlife, such as provision for wildlife crossings, and cumulative impacts on an ecosystem level. For example, if species will be impacted from natural movements due to the proposed project, mitigation to restore or enhance movement and habitat in other areas of their range should be proposed. EPA recommends the project include the development of alternative water sources if the project prohibits wildlife populations from accessing water sources. The DEIS should also evaluate the impacts that increased illumination would have on wildlife species in the area and identify and evaluate technologies that can detect pedestrians without impacting nocturnal wildlife.

Air Quality

San Diego County currently does not meet the health-based air quality standard for ozone and is designated as nonattainment (basic) for the 8-hour ozone National Ambient Air Quality Standard or NAAQS.

The DEIS should provide a detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards (NAAQS), criteria pollutant nonattainment areas, and potential air quality impacts of the project (including cumulative and indirect impacts) for each fully evaluated alternative. Construction related impacts should also be discussed.

General Conformity

The DEIS should address the applicability of CAA Section 176 and EPA's general conformity regulations at 40 CFR Parts 51 and 93. Federal agencies need to ensure that their actions, including construction emissions subject to state jurisdiction, conform to an approved implementation plan. Emissions authorized by a CAA permit issued by the State or the local air pollution control district would not be assessed under general conformity but through the permitting process.

Construction Emissions Mitigation

EPA recommends an evaluation of the following measures to reduce construction emissions of criteria air pollutants and hazardous air pollutants (air toxics). The DEIS should address the use of these measures during construction.

- Reduce emissions of diesel particulate matter (DPM) and other air pollutants by using particle traps and other technological or operational methods. Control technologies such as traps control approximately 80 percent of DPM. Specialized catalytic converters (oxidation catalysts) control approximately 20 percent of DPM, 40 percent of carbon monoxide emissions, and 50 percent of hydrocarbon emissions.
- Ensure that diesel-powered construction equipment is properly tuned and maintained, and shut off when not in direct use.
- Prohibit engine tampering to increase horsepower.
- Locate diesel engines, motors, and equipment as far as possible from residential areas and sensitive receptors (schools, daycare centers, and hospitals).
- Require low sulfur diesel fuel (<15 parts per million), if available.
- Reduce construction-related trips of workers and equipment, including trucks.
- Lease or buy newer, cleaner equipment (1996 or newer model), using a minimum of 75 percent of the equipment's total horsepower.
- Use engine types such as electric, liquified gas, hydrogen fuel cells, and/or alternative diesel formulations.
- Adopt a *Construction Emissions Mitigation Plan* to reduce construction emissions.
- Work with the local air pollution control district(s) to implement the strongest mitigation for reducing construction emissions.

Indirect and Cumulative Impacts

The definition of *cumulative impact* is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR Part 1508.7). Per guidance provided by the Council on Environmental Quality (CEQ), the cumulative impacts analysis should provide the context for understanding the magnitude of the impacts of the alternatives by analyzing the impacts of other past, present, and reasonably foreseeable projects or actions and then considering those cumulative impacts in their entirety (CEQ's Forty Questions, #18). Where adverse cumulative impacts may exist, the DEIS

should disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.

The DEIS should focus on resources of concern – those resources that are “at risk” and/or are significantly impacted by the proposed project, before mitigation. In the introduction to the Cumulative Impacts section, identify which resources are analyzed, which ones are not, and why. For each resource analyzed, the DEIS should:

- Identify the current condition of the resource as a measure of past impacts. For example, the percentage of species habitat lost to date.
- Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or in stasis.
- Identify the future condition of the resource based on an analysis of the cumulative impacts of reasonably foreseeable projects or actions added to existing conditions and current trends. For example, what will the future condition of the watershed be.
- Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource, and provide a specific measure for the projected impact from the proposed alternatives.
- Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.
- Identify opportunities to avoid and minimize impacts, including working with other entities.

Coordination with Tribal Governments

Executive Order 13175

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

The DEIS should describe the process and outcome of government-to-government consultation between the U.S. Customs and Border Protection (CBP) and each of the tribal governments within the project area, issues that were raised (if any), and how those issues were addressed in the selection of the proposed alternative.

National Historic Preservation Act and Executive Order 13007

Historic properties under the National Historic Preservation Act (NHPA) are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer (SHPO/THPO).

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity of such sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

The DEIS should address the existence of Indian sacred sites in the project area. It should address Executive Order 13007, distinguish it from Section 106 of the NHPA, discuss how the CBP will avoid adversely affecting the physical integrity of sacred sites, if they exist, and address other requirements of the Order.

Invasive Species

The project involves grading and clearing of vegetation, which can introduce invasive species. Executive Order 13112, *Invasive Species* (February 3, 1999), mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. The DEIS should include project design features that call for the development of an invasive plant management plan to monitor and control noxious weeds, and to utilize native plants for restoration of disturbed areas after construction.

U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

Commissioner Carlos Marin
International Boundary and Water Commission
U.S. Section
4111 North Mesa, Suite C-100
El Paso, TX 79902-1441

OCT 18 2007

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Commissioner Marin:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP.

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Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor at (817) 886-1585 or Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at 619-216-4028.

Sincerely,


Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

October 15, 2007

United States Customs and Border Protection
San Diego Tactical Infrastructure EIS
c/o e²M
2751 Prosperity Avenue, Suite 200
Fairfax, Virginia 22031

Dear Customs Border Protection:

Thank you for the opportunity to comment on the notice of intent (NOI) to prepare an Environmental Impact Statement (EIS) on proposed construction and operation of tactical infrastructure for the United States Customs and Border Protection (CBP) in the vicinity of the Otay Mountain Wilderness Area and just west of Tecate. The United States Section, International Boundary and Water Commission (USIBWC), has reviewed the NOI dated September 24, 2007, and offers the following comments for your use.

As indicated in previous correspondence related to CBP fence projects, the USIBWC requests that proposed construction activities be accomplished in a manner that does not change historic surface runoff characteristics at the international border. If the project falls within USIBWC jurisdiction or property, the USIBWC will not approve any construction near the international boundary in the United States that increases, concentrates, or relocates overland drainage flows into either country. This requirement is intended to ensure that developments in one country will not cause damage to lands or resources in the other country as required by the 1970 Treaty. We also request that you ensure that structures constructed along the border are maintained in an adequate manner and that liability issues created by these structures are addressed.

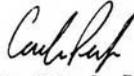
As with previous work by Border Patrol along the international boundary, the USIBWC requires that proposed works and related facilities not affect the permanence of existing boundary monuments and not impede access for their maintenance by USIBWC personnel. Any proposed construction must allow for line-of-sight visibility between each of the boundary monuments. The USIBWC requests that engineering drawings be submitted for review and approval before beginning construction on USIBWC jurisdictional property. The drawings must show the location of each component in relationship to the international boundary and nearby monuments.

In order to avoid any confusion and to allow better coordination, the USIBWC requests that a table be added to the Cumulative Effects Section that lists all the border fence projects, by state, that are being programmed for construction. This is due to the overwhelming amount of projects by the Border Patrol along the international border. For your information, the USIBWC has designated Mr. Richard Peace, Division Engineer, Operations and Maintenance Division as the agency single point of contact for border fence and other border security projects. Any future correspondence should be addressed to Mr. Peace at the letterhead address.

The Commons, Building C, Suite 100 • 4171 N. Mesa Street • El Paso, Texas 79902
(915) 832-4100 • (FAX) (915) 832-4190 • <http://www.ibwc.state.gov>

If you have any questions regarding these comments, please contact Mr. Richard Peace at (915) 832-4158.

Sincerely,



Carlos Peña, Jr., P.E.
Division Engineer
Environmental Management Division

<p style="text-align: center;">Memorandum of Understanding Among U. S. Department of Homeland Security and U. S. Department of the Interior and U. S. Department of Agriculture Regarding Cooperative National Security and Counterterrorism Efforts on Federal Lands along the United States' Borders</p> <p>I. Purpose and Scope</p> <p>A. This Memorandum of Understanding (MOU) is made and entered into by the Department of Homeland Security (DHS), including and on behalf of its constituent bureau U.S. Customs and Border Protection (CBP) and the CBP Office of Border Patrol (CBP-BP); the Department of the Interior (DOI), including and on behalf of its constituent bureaus, the National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), and the Bureau of Reclamation (BOR); and the Department of Agriculture (USDA), including and on behalf of its constituent agency the U.S. Forest Service (USFS). Throughout this MOU, these three Departments, including their constituent agencies, may be referred to as "the Parties." Any reference to a bureau, agency, or constituent component of a Party shall not be deemed to exclude application to any appropriate bureau or constituent component of that Party. DHS recognizes that the BIA enters into this agreement only on its own behalf and not on behalf of any Indian tribe.</p> <p>B. The geographic and jurisdictional scope of this MOU is nationwide. The Parties recognize the national security and counterterrorism significance of preventing illegal entry into the United States by cross-border violators (CBVs), including but not limited to the following: drug and human smugglers and smuggling organizations, foreign nationals, and terrorists and terrorist organizations. The Parties further recognize that damage to DOI and USDA-managed lands and natural and cultural resources is often a significant consequence of such illegal entry. The Parties are committed to preventing illegal entry into the United States, protecting Federal lands and natural and cultural resources, and - where possible - preventing adverse impacts associated with illegal entry by CBVs.</p> <p>C. This MOU is intended to provide consistent goals, principles, and guidance related to border security, such as law enforcement operations; tactical infrastructure installation; utilization of roads; minimization and/or prevention of significant impact on or impairment of natural and cultural resources; implementation of the Wilderness Act, Endangered Species Act, and other related environmental law, regulation, and policy across land management agencies; and provide for coordination and sharing information</p>	<p>on threat assessments and other risks, plans for infrastructure and technology improvements on Federal lands, and operational and law enforcement staffing changes. This MOU provides guidance in the development of individual agreements, where appropriate, between CBP and land management agencies to further the provisions contained herein.</p> <p>D. This MOU is entered into pursuant to the governing statutory authorities of each of the Parties.</p> <p>E. The Parties acknowledge that CBP operation and construction within the sixty-foot "Roosevelt Reservation" of May 27 1907 (along the US-Mexico border) and the sixty-foot "Taft Reservation" of May 3, 1912 (along the US-Canada border) is consistent with the purpose of those reservations and that any CBP activity (including, but not limited to, operations and construction) within the sixty-foot reservations is outside the oversight or control of Federal land managers.</p> <p>F. This MOU supersedes any conflicting provision of any prior MOU or Memorandum of Agreement between the Parties or their subordinate bureaus or components.</p> <p>II. Background</p> <p>A. DHS, through its constituent bureaus (including CBP and its CBP-BP), is statutorily mandated to control and guard the Nation's borders and boundaries, including the entirety of the northern and southern land and water borders of the United States.</p> <p>B. DOI and USDA, through their constituent bureaus, are statutorily charged as managers of Federal lands throughout the United States, including DOI and USDA lands in the vicinity of international borders that are administered as wilderness areas, conservation areas, national forests, wildlife refuges, units/irrigation projects of the Bureau of Reclamation, and/or units of the national park system. Tribal governments have primary management roles over tribal lands; however, the United States, through the BIA, may also have a stewardship or law enforcement responsibility over these lands. Many of these Federal and tribal lands contain natural and cultural resources that are being degraded by activities related to illegal cross-border movements.</p> <p>C. The volume of CBVs, can and has, in certain areas, overwhelmed the law enforcement and administrative resources of Federal land managers. In order to more effectively protect national security, respond to terrorist threats, safeguard human life, and stop the degradation of the natural and cultural resources on those lands, DOI and USDA land managers will work cooperatively with CBP to benefit from the enforcement presence, terrorist and CBV interdiction, and rescue operations of CBP.</p>
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<p>III. Common Findings and Affirmation of the Parties</p> <p>A. The Parties to this MOU recognize that CBP-BP access to Federal lands can facilitate rescue of CBVs on Federal lands, protect those lands from environmental damage, have a role in protecting the wilderness and cultural values and wildlife resources of these lands, and is necessary for the security of the United States. Accordingly, the Parties understand that CBP-BP, consistent with applicable Federal laws and regulations, may access public lands and waterways, including access for purposes of tracking, surveillance, interdiction, establishment of observation points, and installation of remote detection systems.</p> <p>B. The Parties recognize that DOI and USDA have responsibility for enforcing Federal laws relating to land management, resource protection, and other such functions on Federal lands under their jurisdiction.</p> <p>IV. Responsibilities and Terms of Agreement</p> <p>A. The Parties Agree to the Following Common Goals, Policies, and Principles:</p> <ol style="list-style-type: none"> 1. The Parties enter into this MOU in a cooperative spirit with the goals of securing the borders of the United States, addressing emergencies involving human health and safety, and preventing or minimizing environmental damage arising from CBV illegal entry on public lands; 2. The Parties will strive to both resolve conflicts at and delegate resolution authority to the lowest field operational level possible while applying the principles of this MOU in such manner as will be consistent with the spirit and intent of this MOU; 3. The Parties will develop and consistently utilize an efficient communication protocol respecting the chain of command for each of the Parties that will result in the consistent application of the goals, policies, and principles articulated in this MOU, and provide a mechanism that will, if necessary, facilitate the resolution of any conflicts among the Parties. If resolution of conflict does not occur at the local level, then the issue will be elevated first to the regional/sector officer; if not resolved at the regional/sector level, then the issue will be elevated to the headquarters level for resolution; 4. The Parties will cooperate with each other to complete, in an expedited manner, all compliance that is required by applicable Federal laws not otherwise waived in furtherance of this MOU. If such activities are authorized by a local agreement as described in sub-article IV.B below, then the DOI, USDA, and CBP will complete the required compliance before executing the agreement; 	<p>5. The Parties will cooperate with each other to identify methods, routes, and locations for CBP-BP operations that will minimize impacts to natural, cultural, and wilderness resources resulting from CBP-BP operations while facilitating needed CBP-BP access;</p> <p>6. The Parties will, as necessary, plan and conduct joint local law enforcement operations consistent with all Parties' legal authorities;</p> <p>7. The Parties will establish a framework by which threat assessments and other intelligence information may be exchanged, including intelligence training to be conducted by all parties so that the intelligence requirements of each may be identified and facilitated;</p> <p>8. The Parties will establish forums and meet as needed at the local, regional, and national levels to facilitate working relationships and communication between all Parties;</p> <p>9. The Parties will develop and share joint operational strategies at the local, regional, and national levels, including joint requests for infrastructure and other shared areas of responsibility;</p> <p>10. The Parties will share the cost of environmental and cultural awareness training unless otherwise agreed; and</p> <p>11. The Parties will, as appropriate, enter into specific reimbursable agreements pursuant to the Economy Act, 31 U.S.C. §1535 when one party is to furnish materials or perform work or provide a service on behalf of another party.</p> <p>B. Responsibilities and Terms Specific to DOI and USDA. The DOI and the USDA hereby recognize that, pursuant to applicable law, CBP-BP is authorized to access the Federal lands under DOI and USDA administrative jurisdiction, including areas designated by Congress as wilderness, recommended as wilderness, and/or wilderness study areas, and will do so in accordance with the following conditions and existing authorities:</p> <ol style="list-style-type: none"> 1. CBP-BP agents on foot or on horseback may patrol, or pursue, or apprehend suspected CBVs, off-road at any time on any Federal lands administered by the Parties; 2. CBP-BP may operate motor vehicles on existing public and administrative roads and/or trails and in areas previously designated by the land management agency for off-road vehicle use at any time, provided that such use is consistent with presently authorized public or administrative use. At CBP-BP's request, the DOI and the USDA will provide CBP-BP with keys, combinations, or other means necessary to
<p style="text-align: center;">- 3 -</p>	<p style="text-align: center;">- 4 -</p>

<p>access secured administrative roads/trails. CBP-BP may ding existing public and administrative roads that are unpaved for the purpose of cutting sign, subject to compliance with conditions that are mutually agreed upon by the local Federal land manager and the CBP-BP Sector Chief. For purposes of this MOU, "existing public roads/trails" are those existing roads/trails, paved or unpaved, on which the land management agency allows members of the general public to operate motor vehicles, and "existing administrative roads/trails" are those existing roads/trails, paved or unpaved, on which the land management agency allows persons specially authorized by the agency, but not members of the general public, to operate motor vehicles;</p> <p>3. CBP-BP may request, in writing, that the land management agency grant additional access to Federal lands (for example, to areas not previously designated by the land management agency for off-road use) administered by the DOI or the USDA for such purposes as routine patrols, non-emergency operational access, and establishment of temporary camps or other operational activities. The request will describe the specific lands and/or routes that the CBP-BP wishes to access and the specific means of access desired. After receiving a written request, the local Federal land manager will meet promptly with the CBP-BP Sector Chief to begin discussing the request and negotiating the terms and conditions of an agreement with the local land management agency that authorizes access to the extent permitted by the laws applicable to the particular Federal lands. In each agreement between CBP-BP and the local land management agency, the CBP-BP should be required to use the lowest impact mode of travel and operational setup reasonable and practicable to accomplish its mission. The CBP-BP should also be required to operate all motorized vehicles and temporary operational activities in such a manner as will minimize the adverse impacts on threatened or endangered species and on the resources and values of the particular Federal lands. However, at no time should officer safety be compromised when selecting the least impactful conveyance or operational activity. Recognizing the importance of this matter to the Nation's security, the CBP-BP Sector Chief and the local Federal land manager will devote to this endeavor the resources necessary to complete required compliance measures in order to execute the local agreement within ninety (90) days after the Federal land manager has received the written request for access. Nothing in this paragraph is intended to limit the exercise of applicable emergency authorities for access prior to the execution of the local agreement. The Secretaries of the Interior, Agriculture, and Homeland Security expect that, absent compelling justification, each local agreement will be executed within that time frame and provide the maximum amount of access requested by the CBP-BP and allowed by law;</p>	<p>4. Nothing in this MOU is intended to prevent CBP-BP agents from exercising existing exigent/emergency authorities to access lands, including authority to conduct motorized off-road pursuit of suspected CBVs at any time, including in areas designated or recommended as wilderness, or in wilderness study areas when, in their professional judgment based on articulated facts, there is a specific exigency/emergency involving human life, health, safety of persons within the area, or posing a threat to national security, and they conclude that such motorized off-road pursuit is reasonably expected to result in the apprehension of the suspected CBVs. Articulated facts include, but are not limited to, visual observation; information received from a remote sensor, video camera, scope, or other technological source; fresh "sign" or other physical indication; canine alert; or classified or unclassified intelligence. For each such motorized off-road pursuit, CBP-BP will use the least intrusive or damaging motorized vehicle readily available, without compromising agent or officer safety. In accordance with paragraph IV.C.4, as soon as practicable after each such motorized off-road pursuit, CBP-BP will provide the local Federal land manager with a brief report;</p> <p>5. If motorized pursuits in wilderness areas, areas recommended for wilderness designation, wilderness study areas, or off-road in an area not designated for such use are causing significant impact on the resources, or if other significant issues warrant consultation, then the Federal land manager and the CBP-BP will immediately meet to resolve the issues subject to paragraphs IV.A.2 and IV.A.3 of this MOU;</p> <p>6. CBP may request, in writing, that the land management agency authorize installation or construction of tactical infrastructure for detection of CBVs (including, but not limited to, observation points, remote video surveillance systems motion sensors, vehicle barriers, fences, roads, and detection devices) on land under the local land management agency's administrative jurisdiction. In areas not designated as wilderness, the local Federal land manager will expeditiously authorize CBP to install such infrastructure subject to such terms and conditions that are mutually developed and articulated in the authorization issued by the land management agency. In areas designated or managed as wilderness, the local Federal land manager, in consultation with CBP, will promptly conduct a "minimum requirement," minimum tool, or other appropriate analysis. If supported by such analysis, the local Federal land manager will expeditiously authorize CBP to install such infrastructure subject to such terms and conditions that are mutually developed and articulated in the authorization issued by the land management agency;</p>
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<p>7. The DOI and USDA will provide CBP-BP agents with appropriate environmental and cultural awareness training formatted to meet CBP-BP operational constraints. The DOI and USDA will work with CBP-BP in the development and production of maps for use or reference by CBP-BP agents including, as appropriate, site-specific and resource-specific maps that will identify specific wildlife and environmentally or culturally sensitive areas;</p> <p>8. The DOI and USDA will, as applicable, provide CBP-BP with all assessments and studies done by or on behalf of DOI or USDA on the effects of CBVs on Federal lands and native species to better analyze the value of preventative enforcement actions;</p> <p>9. The DOI and USDA will assist CBP-BP in search and rescue operations on lands within the respective land managers' administration when requested;</p> <p>10. The CBP-BP and land management agencies may cross-deputize or cross-designate their agents as law enforcement officers under each other agency's statutory authority. Such cross-deputization or cross-designation agreements entered into by the local land management agency and the field operations manager for the CBP-BP shall be pursuant to the policies and procedures of each agency; and</p> <p>11. DOI and USDA will work at the field operations level with affected local CBP-BP stations to establish protocols for notifying CBP-BP agents when DOI or USDA law enforcement personnel are conducting law enforcement operations in an area where CBP-BP and DOI/USDA operations can or will overlap.</p> <p>C. Responsibilities and Terms Specific to the CBP. DHS hereby agrees as follows:</p> <ol style="list-style-type: none"> 1. Consistent with the Border Patrol Strategic Plan, CBP-BP will strive to interdict CBVs as close to the United States' international borders as is operationally practical, with the long-term goal of establishing operational control along the immediate borders; 2. If the CBP-BP drugs any unpaved roads for the purpose of cutting sign under provision IV.B.2 above, then CBP-BP will maintain or repair such roads to the extent that they are damaged by CBP-BP's use or activities; 3. If CBP-BP agents pursue or apprehend suspected CBVs in wilderness areas or off-road in an area not designated for such use under 	<p>paragraph IV.B.5, then the CBP-BP will use the lowest impact mode of travel practicable to accomplish its mission and operate all motorized vehicles in such a manner as will minimize the adverse impacts on threatened or endangered species and on the resources and values of the particular Federal lands, provided officer safety is not compromised by the type of conveyance selected;</p> <p>4. CBP-BP will notify the local Federal land manager of any motorized emergency pursuit, apprehension, or incursion in a wilderness area or off-road in an area not designated for such use as soon as is practicable. A verbal report is sufficient unless either CBP-BP or the land managing agency determines that significant impacts resulted, in which case a written report will be necessary;</p> <p>5. If motorized pursuits in wilderness areas, areas recommended for wilderness designation, wilderness study areas, or off-road in an area not designated for such use are causing significant impact on the resources as determined by a land manager, or if other significant issues warrant consultation, then the CBP-BP and Federal land manager will immediately meet to resolve the issues subject to paragraphs IV.A.2 and IV.A.3 of this MOU;</p> <p>6. CBP will consult with land managers to coordinate the placement and maintenance of tactical infrastructure, permanent and temporary video, seismic and other remote sensing sites in order to limit resource damage while maintaining operational efficiency;</p> <p>7. CBP-BP will ensure that current and incoming CBP-BP agents attend environmental and cultural awareness training to be provided by the land management agencies;</p> <p>8. CBP-BP will provide land management agencies with appropriate and relevant releasable statistics of monthly CBV apprehensions, search and rescue actions, casualties, vehicles seized, drug seizures, and arrests, weapons seizures and arrests, and other significant statistics regarding occurrences on the lands managed by the land manager;</p> <p>9. CBP-BP will consult with land managers in the development of CBP-BP's annual Operational Requirements Based Budgeting Program to ensure affected land managers can provide input and are, in the early stages of planning, made aware what personnel, infrastructure, and technology the CBP-BP would like to deploy along the border within their area of operation; and</p> <p>10. CBP-BP will work at the field operations manager level with affected local land management agencies to establish protocols for notifying</p>
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<p>land management agency law enforcement officers when BP is conducting special operations or non-routine activities in a particular area.</p> <p>V. Miscellaneous Provisions</p> <p>A. Nothing in this MOU may be construed to obligate the agencies or the United States to any current or future expenditure of funds in advance of the availability of appropriations, nor does this MOU obligate the agencies or the United States to spend funds for any particular project or purpose, even if funds are available.</p> <p>B. Nothing in this MOU will be construed as affecting the authority of the Parties in carrying out their statutory responsibilities.</p> <p>C. This MOU may be modified or amended in writing upon consent of all Parties, and other affected Federal agencies may seek to become a Party to this MOU.</p> <p>D. The Parties shall retain all applicable legal responsibility for their respective personnel working pursuant to this MOU with respect to, <i>inter alia</i>, pay, personnel benefits, injuries, accidents, losses, damages, and civil liability. This MOU is not intended to change in any way the individual employee status or the liability or responsibility of any Party under Federal law.</p> <p>E. The Parties agree to participate in this MOU until its termination. Any Party wishing to terminate its participation in this MOU shall provide sixty (60) days written notice to all other Parties.</p> <p>F. This document is an intra-governmental agreement among the Parties and does not create or confer any rights, privileges, or benefits upon any person, party, or entity. This MOU is not and shall not be construed as a rule or regulation.</p>	<p>In witness whereof, the Parties hereto have caused this Memorandum of Understanding to be executed and effective as of the date of the last signature below.</p> <p>Date: <u>3/24/06</u></p> <p>Date: <u>3/31/06</u></p> <p>Date: <u>3/29/06</u></p> <p> Secretary of Homeland Security</p> <p> Secretary of the Interior</p> <p> Secretary of Agriculture</p>
<p>- 9 -</p>	<p>- 10 -</p>

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APPENDIX D

Public Comments on the Draft EIS
(Reserved Space)



***COMMENTS ON THE DRAFT EIS WILL BE
INCLUDED IN THIS APPENDIX ONCE RECEIVED.***

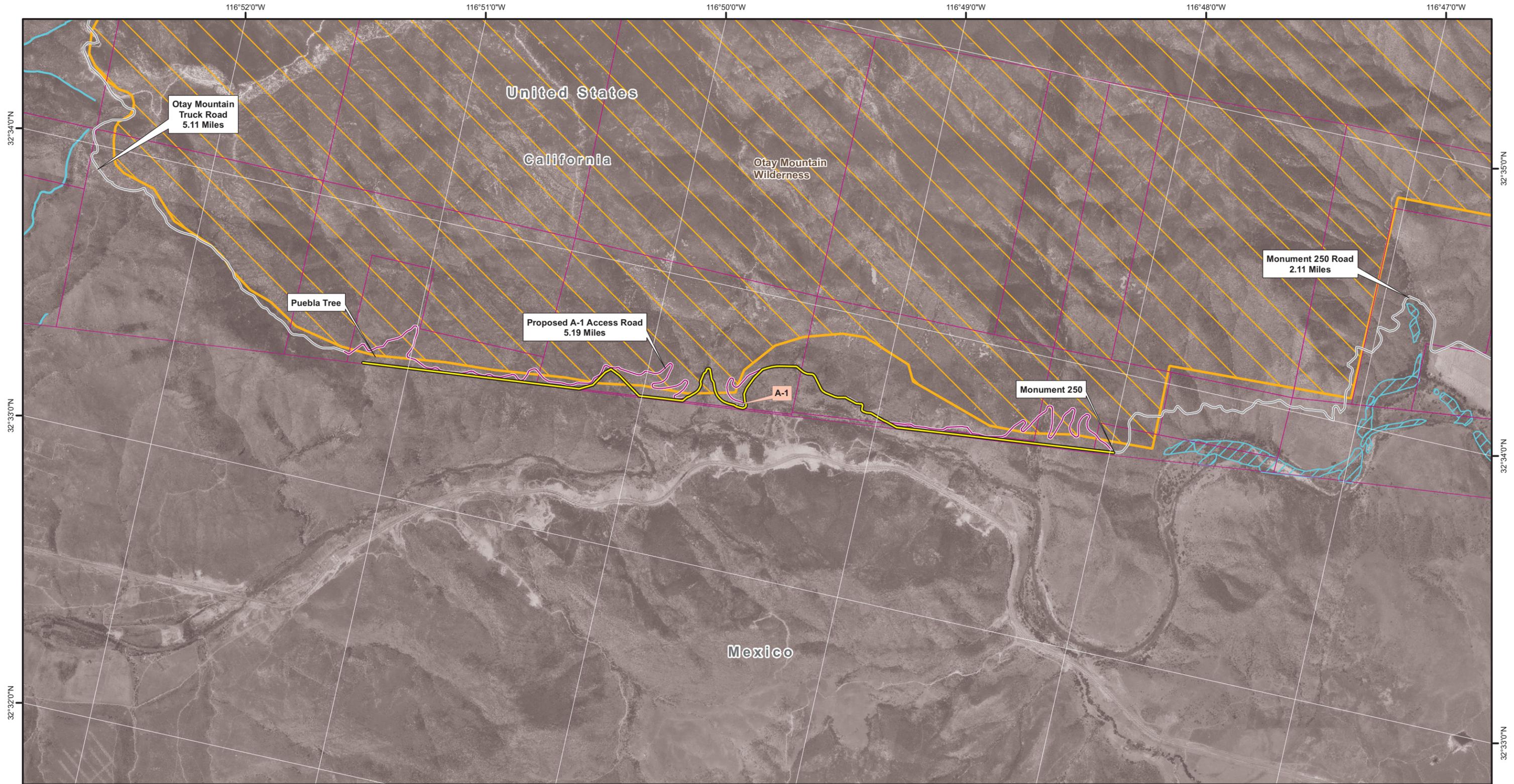
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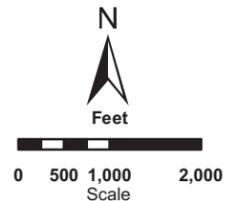
APPENDIX E

Detailed Maps of the Proposed Tactical
Infrastructure Sections Showing Land Use
and Water





-  Proposed Fence Route
-  Proposed A-1 Access Road Route
-  Existing Access Roads
-  Land Parcels
-  National Wetlands Inventory
-  Otay Mountain Wilderness



**USBP
Proposed Tactical Infrastructure EIS
San Diego Sector, Texas
Detailed Proposed
Fence Section Maps**

Projection: Albers
USA Contiguous Albers Equal Area Conic
North American Datum of 1983

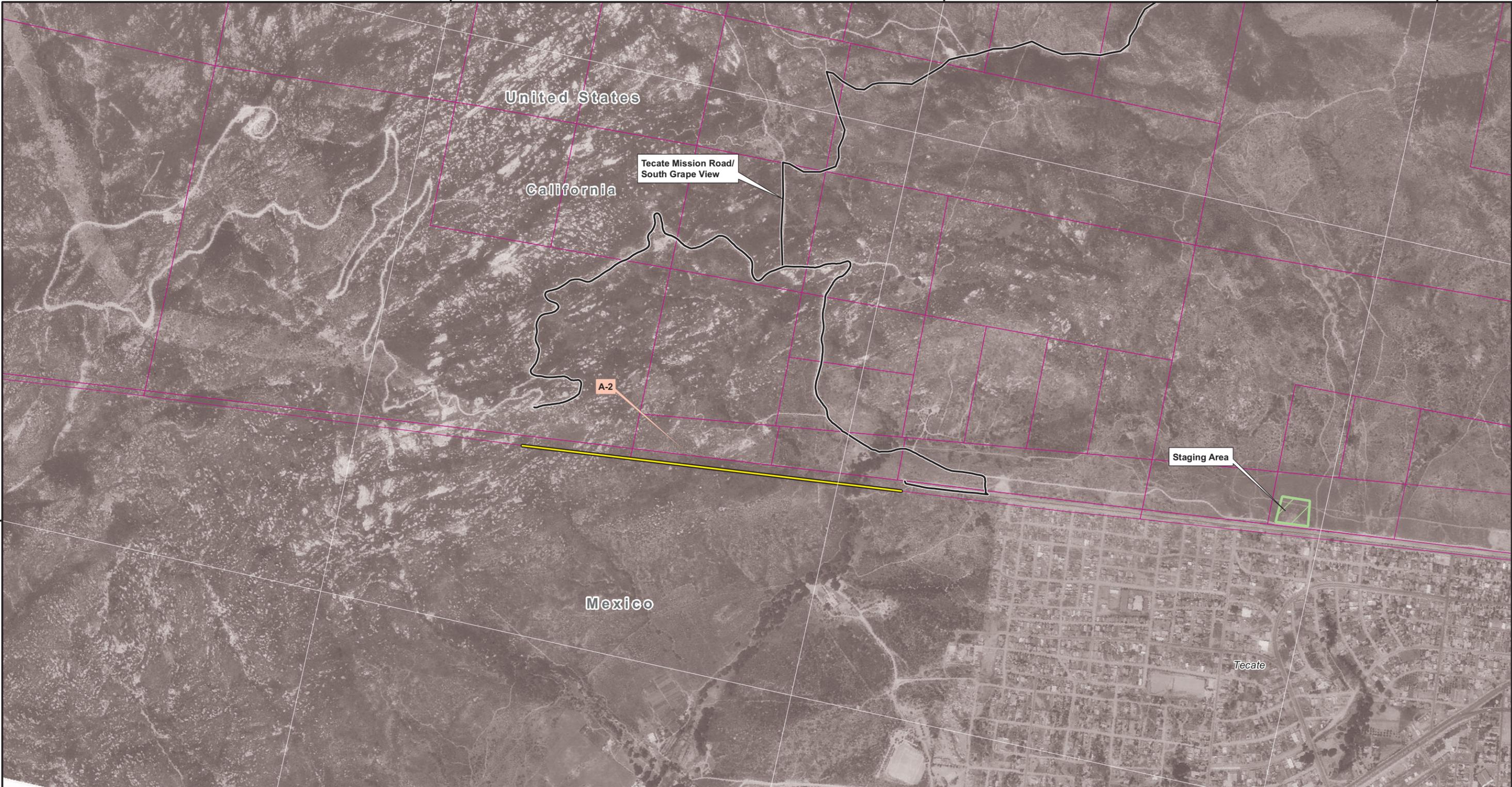
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116°40'0"W

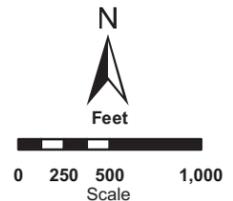
116°39'0"W

32°34'0"N

32°35'0"N



-  Proposed Fence Route
-  Existing Access Roads
-  Proposed Construction Staging Area
-  Land Parcels



**USBP
Proposed Tactical Infrastructure EIS
San Diego Sector, Texas
Detailed Proposed
Fence Section Maps**

Projection: Albers
USA Contiguous Albers Equal Area Conic
North American Datum of 1983

December 2007

Scale 1" = 1000'

Map 2 of 2



APPENDIX F

Air Quality Information



APPENDIX F

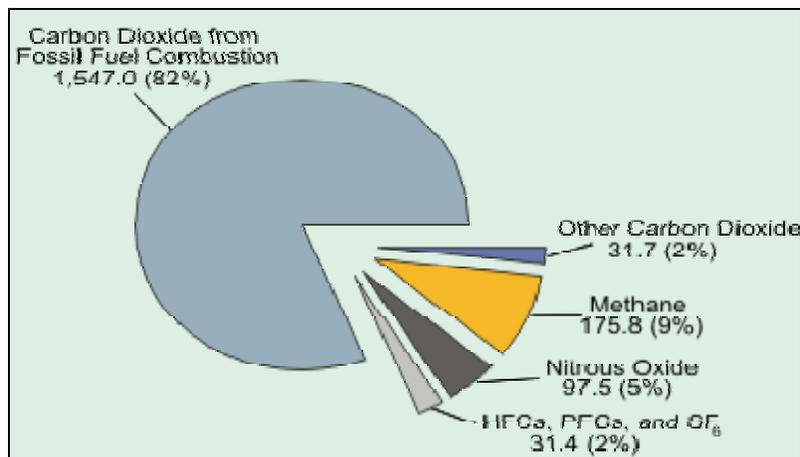
AIR QUALITY INFORMATION

Greenhouse Gases

In April 2007, the U.S. Supreme Court declared that carbon dioxide (CO₂) and other greenhouse gases are air pollutants under the Clean Air Act (CAA). The Court declared that the U.S. Environmental Protection Agency (USEPA) has the authority to regulate emissions from new cars and trucks under the landmark environment law.

Many chemical compounds found in the Earth's atmosphere act as "greenhouse gases." These gases allow sunlight to enter the atmosphere freely. When sunlight strikes the Earth's surface, some of it is reflected back towards space as infrared radiation (heat). Greenhouse gases absorb this infrared radiation and trap the heat in the atmosphere. Over time, the trapped heat results in the phenomenon of global warming.

Many gases exhibit these "greenhouse" properties. The sources of the majority of greenhouse gases come mostly from natural sources but are also contributed to by human activity and are shown in **Figure F-1**. It is not possible to state that a specific gas causes a certain percentage of the greenhouse effect because the influences of the various gases are not additive.

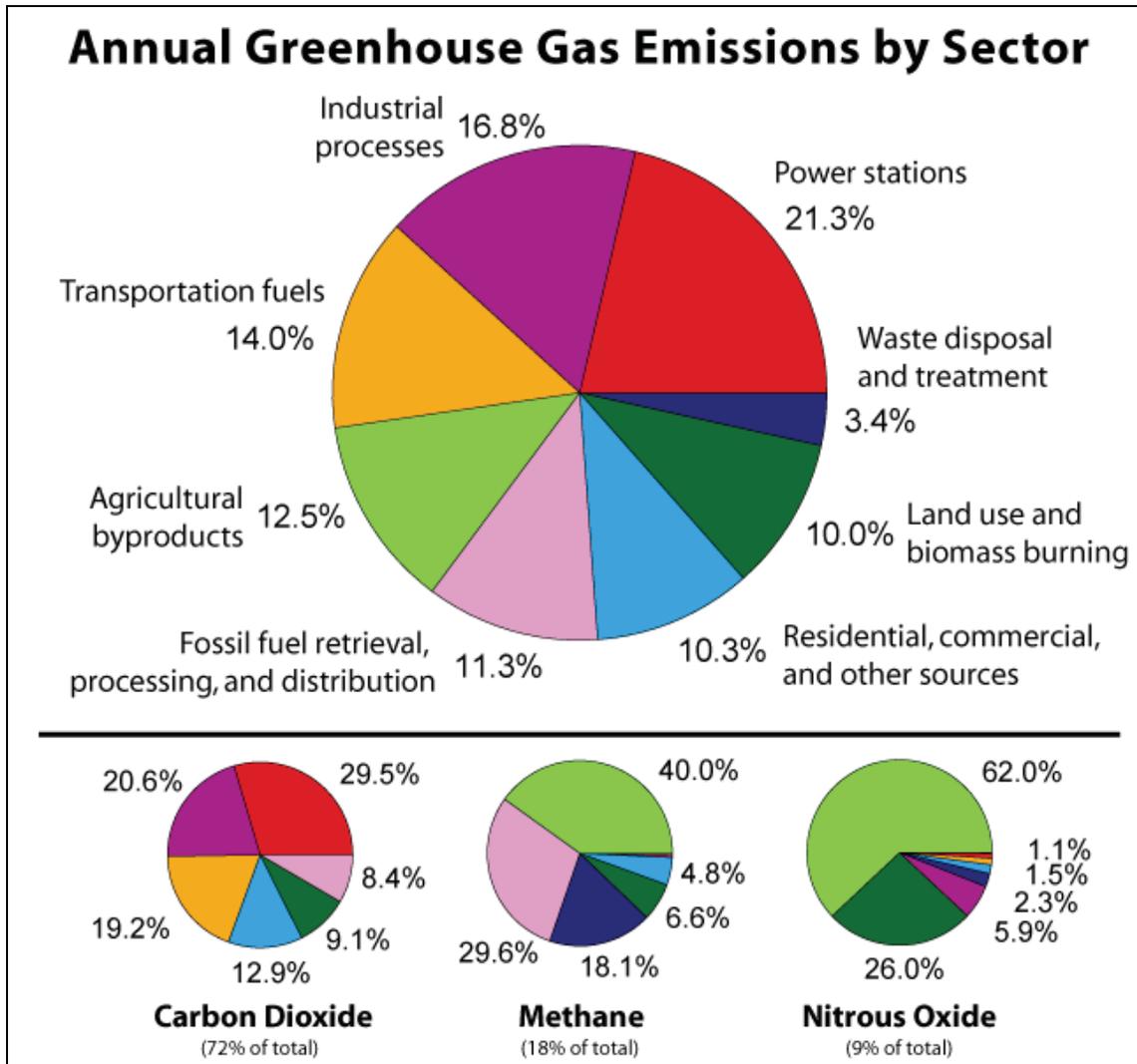


Source: Energy Information Administration 2003

Figure F-1. Greenhouse Gas Emissions From Burning of Gas (Million Metric Tons of Carbon Equivalent)

Figure F-2 displays the annual greenhouse gas emissions by sector in the United States. Most government agencies and military installations are just beginning to establish a baseline for their operations and their impact on the greenhouse effect. Since the USEPA has not promulgated an ambient standard or *de minimis* level for CO₂ emissions for Federal actions, there is no standard value to compare an action against

in terms of meeting or violating the standard. Hence, we shall attempt to establish the effects on air quality as a result of the amount of CO₂ produced by the Federal action and what could be done to minimize the impact of these emissions.



Source: Rosmarino 2006

Figure F-2. Annual Greenhouse Gas Emissions by Sector

References

Energy Information Administration. 2003. "Greenhouse Gases, Climate Change, and Energy." EIA Brochure. 2003. Available online: <<http://www.eia.doe.gov/oiaf/1605/ggccebro/chapter1.html>>. Last updated April 2, 2004. Accessed November 4, 2007.

Tanyalynnette Rosmarino, Director of Field Engineering, Northeast, BigFix, Inc. 2006. "A Self-Funding Enterprise Solution to Reduce Power Consumption and Carbon Emissions." Slide presentation for the NYS Forum's May Executive Committee Meeting Building an Energy Smart IT Environment. 2006. Available online: <http://www.nysforum.org/documents/html/2007/execcommittee/may/enterprisepowerconsumptionreduction_files/800x600/slide1.html>. Accessed November 4, 2007.

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Summary	Summarizes total emissions by calendar year.
Combustion	Estimates emissions from non-road equipment exhaust as well as painting.
Fugitive	Estimates fine particulate emissions from earthmoving, vehicle traffic, and windblown dust
Grading	Estimates the number of days of site preparation, to be used for estimating heavy equipment exhaust and earthmoving dust emissions
Maintenance Emissions	Estimates the total emissions from future maintenance of fencelines and access roads from mowers.
Generator Emissions	Estimates the total emissions from emergency generators to power construction equipment.
AQCR Tier Report	Summarizes total emissions for the San Diego Intrastratet AQCR Tier Reports for 2001, to be used to compare project to regional emissions.

Air Quality Emissions from Proposed Action

	NO_x (ton)	VOC (ton)	CO (ton)	SO₂ (ton)	PM₁₀ (ton)	CO₂ (ton)
Construction Combustion	56.743	8.459	66.291	1.135	1.904	46.800
Construction Fugitive Dust	0.000	0.000	0.000	0.000	54.835	-
Haul Trucks	0.572	0.176	0.959	0.045	0.680	19.458
Generator Emissions	14.702	1.200	3.167	0.967	1.034	274.312
TOTAL CY2008	72.017	9.835	70.417	2.147	58.453	340.570

CY2008

Since future year budgets were not readily available, actual 2001 air emissions inventories for the counties were used as an approximation of the regional inventory. Because the Proposed Action is several orders of magnitude below significance, the conclusion would be the same, regardless of whether future year budget data set were used.

San Diego Intrastrate AQCR

Year	Point and Area Sources Combined				
	NO_x (tpy)	VOC (tpy)	CO (tpy)	SO₂ (tpy)	PM₁₀ (tpy)
2001	76,343	95,371	605,178	2,007	72,011

Source: USEPA-AirData NET Tier Report (<http://www.epa.gov/air/data/geosel.html>). Site visited on 17 October 2007.

Determination Significance (Significance Threshold = 10%) for Construction Activities

	Point and Area Sources Combined				
	NO_x (tpy)	VOC (tpy)	CO (tpy)	SO₂ (tpy)	PM₁₀ (tpy)
Minimum - 2001	76,343	95,371	605,178	2,007	72,011
2008 Emissions	72,017	9,835	70,417	2,147	58,453
Proposed Action %	0.094%	0.010%	0.012%	0.107%	0.081%

Minimum - 2001
2008 Emissions
Proposed Action %

Construction Combustion Emissions for CY 2008

Combustion Emissions of VOC, NO_x, SO₂, CO and PM₁₀ Due to Construction

Includes:

100% of Construct Pedestrian Fence A-1	653,400 ft ²	15.00	acres
100% of Construct Pedestrian Fence A-2	221,760 ft ²	5.09	acres
100% of Excavate Cut/Fill Limits	1,742,400 ft ²	40.00	acres
100% of Pave Access Road	31,680 ft ²	0.73	acres
100% of Grade Access Road	30,413 ft ²	0.70	acres
100% of Grade Staging Areas	1,102,068 ft ²	25.30	acres
Construction area planned per month	315,143 ft ²	7.23	acres

Assumptions:

- Total ground disturbance for pedestrian fence A-1 would be 15 acres .
- Total ground disturbance for pedestrian fence A-2 would be 3,696 feet long by 60 feet wide (221,760 ft²).
- Total ground disturbance for excavation areas for cut and fill operations would be 40 acres .
- Total ground disturbance for staging areas would be 25.30 acres.
- New access road would be graded and lined with gravel for 0.24 miles and paved for 0.25 miles. Access road is 24 feet wide. Construction would occur in Calendar Year 2008 for a total of 240 working days (Assumes working 7 days/week).

Total Building Construction Area:	0 ft ²
Total Demolished Area:	0 ft ²
Total Paved Area:	31,680 ft ²
Total Disturbed Area:	3,781,721 ft ²
Construction Duration:	1.0 year(s)
Annual Construction Activity:	240 days/yr

Emission Factors Used for Construction Equipment

Reference: Guide to Air Quality Assessment, SMAQMD, 2004

Emission factors are taken from Table 3-2. Assumptions regarding the type and number of equipment are from Table 3-1 unless otherwise noted.

Grading

Equipment	No. Req ^d . ^a per 10 acres	NO _x (lb/day)	VOC ^b (lb/day)	CO (lb/day)	SO ₂ ^c	PM ₁₀ (lb/day)
Bulldozer	1	29.40	3.66	25.09	0.59	1.17
Motor Grader	1	10.22	1.76	14.98	0.20	0.28
Water Truck	1	20.89	3.60	30.62	0.42	0.58
Total per 10 acres of activity	3	60.51	9.02	70.69	1.21	2.03

Paving

Equipment	No. Req ^d . ^a per 10 acres	NO _x (lb/day)	VOC ^b (lb/day)	CO (lb/day)	SO ₂ ^c	PM ₁₀ (lb/day)
Paver	1	7.93	1.37	11.62	0.16	0.22
Roller	1	5.01	0.86	7.34	0.10	0.14
Total per 10 acres of activity	2	12.94	2.23	18.96	0.26	0.36

Demolition

Equipment	No. Req ^d . ^a per 10 acres	NO _x (lb/day)	VOC ^b (lb/day)	CO (lb/day)	SO ₂ ^c	PM ₁₀ (lb/day)
Loader	1	7.86	1.35	11.52	0.16	0.22
Haul Truck	1	20.89	3.60	30.62	0.42	0.58
Total per 10 acres of activity	2	28.75	4.95	42.14	0.58	0.80

Building Construction

Equipment ^d	No. Req ^d . ^a per 10 acres	NO _x (lb/day)	VOC ^b (lb/day)	CO (lb/day)	SO ₂ ^c	PM ₁₀ (lb/day)
Stationary						
Generator Set	1	11.83	1.47	10.09	0.24	0.47
Industrial Saw	1	17.02	2.12	14.52	0.34	0.68
Welder	1	4.48	0.56	3.83	0.09	0.18
Mobile (non-road)						
Truck	1	20.89	3.60	30.62	0.84	0.58
Forklift	1	4.57	0.79	6.70	0.18	0.13
Crane	1	8.37	1.44	12.27	0.33	0.23
Total per 10 acres of activity	6	67.16	9.98	78.03	2.02	2.27

Note: Footnotes for tables are on following page

Architectural Coatings

Equipment	No. Req ^a . per 10 acres	NO _x (lb/day)	VOC ^b (lb/day)	CO (lb/day)	SO ₂ ^c	PM ₁₀ (lb/day)
Air Compressor	1	6.83	0.85	5.82	0.14	0.27
Total per 10 acres of activity	1	6.83	0.85	5.82	0.14	0.27

- a) The SMAQMD 2004 guidance suggests a default equipment fleet for each activity, assuming 10 acres of that activity, (e.g., 10 acres of grading, 10 acres of paving, etc.). The default equipment fleet is increased for each 10 acre increment in the size of the construction project. That is, a 26 acre project would round to 30 acres and the fleet size would be three times the default fleet for a 10 acre project.
- b) The SMAQMD 2004 reference lists emission factors for reactive organic gas (ROG). For the purposes of this worksheet ROG = VOC.
- c) The SMAQMD 2004 reference does not provide SO₂ emission factors. For this worksheet, SO₂ emissions have been estimated based on approximate fuel use rate for diesel equipment and the assumption of 500 ppm sulfur diesel fuel. For the average of the equipment fleet, the resulting SO₂ factor was found to be approximately 0.04 times the NO_x emission factor for the mobile equipment (based upon 2002 USAF IERA "Air Emissions Inventory Guidance") and 0.02 times the NO_x emission factor for all other equipment (based on AP-42, Table 3.4-1)
- d) Typical equipment fleet for building construction was not itemized in SMAQMD 2004 guidance. The equipment list above was assumed based on SMAQMD 1994 guidance.

PROJECT-SPECIFIC EMISSION FACTOR SUMMARY

Source	Equipment Multiplier*	SMAQMD Emission Factors (lb/day)				
		NO _x	VOC	CO	SO ₂ **	PM ₁₀
Grading Equipment	9	4727.932	704.775	5523.344	94.559	158.613
Paving Equipment	1	0.941	0.162	1.379	0.019	0.026
Demolition Equipment	1	0.000	0.000	0.000	0.000	0.000
Building Construction	1	0.000	0.000	0.000	0.000	0.000
Air Compressor for Architectural Coating	1	0.000	0.000	0.000	0.000	0.000
Architectural Coating**			0.000			

*The equipment multiplier is an integer that represents units of 10 acres for purposes of estimating the number of equipment required for the project

**Emission factor is from the evaporation of solvents during painting, per "Air Quality Thresholds of Significance", SMAQMD, 1994

Example: SMAQMD Emission Factor for Grading Equipment NO_x = (Total Grading NO_x per 10 ac*((total disturbed area/43560)/10))*(Equipment Multiplier)

Summary of Input Parameters

	Total Area (ft ²)	Total Area (acres)	Total Days
Grading:	3,781,721	86.82	6
Paving:	31,680	0.73	4
Demolition:	0	0.00	0
Building Construction:	0	0.00	0
Architectural Coating	0	0.00	0

(from "CY2008 Grading" worksheet)

(per the SMAQMD "Air Quality of Thresholds of Significance", 1994)

NOTE: The 'Total Days' estimate for paving is calculated by dividing the total number of acres by 0.21 acres/day, which is a factor derived from the 2005 MEANS Heavy Construction Cost Data, 19th Edition, for 'Asphaltic Concrete Pavement, Lots and Driveways - 6" stone base', which provides an estimate of square feet paved per day. There is also an estimate for 'Plain Cement Concrete Pavement', however the estimate for asphalt is used because it is more conservative. The 'Total Days' estimate for demolition is calculated by dividing the total number of acres by 0.02 acres/day, which is a factor also derived from the 2005 MEANS reference. This is calculated by averaging the demolition estimates from 'Building Demolition - Small Buildings, Concrete', assuming a height of 30 feet for a two-story building; from 'Building Footings and Foundations Demolition - 6" Thick, Plain Concrete'; and from 'Demolish, Remove Pavement and Curb - Concrete to 6" thick, rod reinforced'. Paving is double-weighted since projects typically involve more paving demolition. The 'Total Days' estimate for building construction is assumed to be 230 days, unless project-specific data is known.

Project Emissions per Month (lbs)

	NO _x	VOC	CO	SO ₂	PM ₁₀
Grading Equipment	28,367.59	4,228.65	33,140.06	567.35	951.68
Paving	3.76	0.65	5.52	0.08	0.10
Demolition	-	-	-	-	-
Building Construction	-	-	-	-	-
Architectural Coatings	-	-	-	-	-
Total Emissions (lbs):	28,371.36	4,229.30	33,145.58	567.43	951.79

Results: Total Project Annual Emissions (4 months of activity)

	NO _x	VOC	CO	SO ₂	PM ₁₀
Total Project Emissions (lbs)	113,485.43	16,917.20	132,582.32	2,269.71	3,807.14
Total Project Emissions (tons)	56.74	8.46	66.29	1.13	1.90

CO₂ Emissions

It is assumed that 20 vehicles consisting of bulldozer, grader, forklift, cranes, rollers, and light duty trucks would be used for this project.

It is further assumed that the total approximate average miles per day per vehicle would be 10 miles.

It is assumed that the average vehicle will produce 19.5 pounds of CO₂ per gallon of gas used. (www.eia.doe.gov/oiaaf/1605/coefficients)

Total CO ₂ Emissions for Proposed Action	46,800 tpy
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Example: (20 vehicles) x (10 miles/day/vehicle) x (240 days working) x (1 gal/10 miles) x (19.5 lb CO₂/gal x ton/2000lb) = 46.8 tons CO₂

Construction Fugitive Dust Emissions for CY 2008

Calculation of PM₁₀ Emissions Due to Site Preparation (Uncontrolled).

User Input Parameters / Assumptions

Acres graded per year:	86.82 acres/yr	(From "CY2008 Combustion" worksheet)
Grading days/yr:	5.59 days/yr	(From "CY2008 Grading worksheet)
Exposed days/yr:	45 assumed days/yr	graded area is exposed
Grading Hours/day:	8 hr/day	
Soil piles area fraction:	0.10	(assumed fraction of site area covered by soil piles)
Soil percent silt, s:	8.5 %	(mean silt content; expected range: 0.56 to 23, AP-42 Table 13.2.2-1)
Soil percent moisture, M:	50 %	(http://www.cpc.noaa.gov/products/soilimst/w.shtml)
Annual rainfall days, p:	30 days/yr	rainfall exceeds 0.01 inch/day (AP-42 Fig 13.2.2-1)
Wind speed > 12 mph %, i:	23 %	Ave. of wind speed at San Diego, CA (http://www.epa.gov/ttn/naaqs/ozone/areas/windr/23188.gif)
Fraction of TSP, J:	0.5	per California Environmental Quality Act (CEQA) Air Quality Handbook, SCAQMD, 1993, p. A9-99
Mean vehicle speed, S:	5 mi/hr	(On-site)
Dozer path width:	8 ft	
Qty construction vehicles:	26.04 vehicles	(From "CY2008 Grading worksheet)
On-site VMT/vehicle/day:	5 mi/veh/day	(Excluding bulldozer VMT during grading)
PM ₁₀ Adjustment Factor k	1.5 lb/VMT	(AP-42 Table 13.2.2-2 12/03 for PM ₁₀ for unpaved roads)
PM ₁₀ Adjustment Factor a	0.9 (dimensionless)	(AP-42 Table 13.2.2-2 12/03 for PM ₁₀ for unpaved roads)
PM ₁₀ Adjustment Factor b	0.45 (dimensionless)	(AP-42 Table 13.2.2-2 12/03 for PM ₁₀ for unpaved roads)
Mean Vehicle Weight W	40 tons	assumed for aggregate trucks

TSP - Total Suspended Particulate
VMT - Vehicle Miles Traveled

Emissions Due to Soil Disturbance Activities

Operation Parameters (Calculated from User Inputs)

Grading duration per acre	0.5 hr/acre	
Bulldozer mileage per acre	1 VMT/acre	(Miles traveled by bulldozer during grading)
Construction VMT per day	130 VMT/day	
Construction VMT per acre	8.4 VMT/acre	(Travel on unpaved surfaces within site)

Equations Used (Corrected for PM10)

Operation	Empirical Equation	Units	AP-42 Section (5th Edition)
Bulldozing	$0.75(s^{1.5})/(M^{1.4})$	lbs/hr	Table 11.9-1, Overburden
Grading	$(0.60)(0.051)s^{2.0}$	lbs/VMT	Table 11.9-1,
Vehicle Traffic (unpaved roads)	$[(k/s/12)^a (W/3)^b] [(365-P)/365]$	lbs/VMT	Section 13.2.2

Source: Compilation of Air Pollutant Emission Factors, Vol. I, USEPA AP-42, Section 11.9 dated 10/98 and Section 13.2 dated 12/03

Calculation of PM₁₀ Emission Factors for Each Operation

Operation	Emission Factor (mass/ unit)	Operation Parameter	Emission Factor (lbs/ acre)
Bulldozing	0.08 lbs/hr	0.5 hr/acre	0.00 lbs/acre
Grading	0.77 lbs/VMT	1 VMT/acre	0.80 lbs/acre
Vehicle Traffic (unpaved roads)	3.24 lbs/VMT	8.4 VMT/acre	27.20 lbs/acre

Emissions Due to Wind Erosion of Soil Piles and Exposed Graded Surface

Reference: California Environmental Quality Act (CEQA) Air Quality Handbook, SCAQMD, 1993.

Soil Piles EF = $1.7(s/1.5)[(365 - p)/235][(1/15)(J) = (s)(365 - p)(I)(J)/(3110.2941)$, p. A9-99.

Soil Piles EF = 10.5 lbs/day/acre covered by soil piles

Consider soil piles area fraction so that EF applies to graded area

Soil piles area fraction: 0.10 (Fraction of site area covered by soil piles)
 Soil Piles EF = 1.05 lbs/day/acres graded

Graded Surface EF = 26.4 lbs/day/acre (recommended in CEQA Manual, p. A9-93).

Calculation of Annual PM₁₀ Emissions

Source	Emission Factor	Graded Acres/yr	Exposed days/yr	Emissions lbs/yr	Emissions tons/yr
Bulldozing	0.00 lbs/acre	86.82	NA	0	0.000
Grading	0.80 lbs/acre	86.82	NA	69	0.035
Vehicle Traffic	27.20 lbs/acre	86.82	NA	2,361	1.181
Erosion of Soil Piles	1.05 lbs/acre/day	86.82	45	4,102	2.051
Erosion of Graded Surface	26.40 lbs/acre/day	86.82	45	103,138	51,569
TOTAL				109,671	54.84

Soil Disturbance EF: 28.00 lbs/acre
 Wind Erosion EF: 27.45 lbs/acre/day

Back calculate to get EF: 226.17 lbs/acre/grading day

Construction (Grading) Schedule for CY 2008

Estimate of time required to grade a specified area.

Input Parameters
 Construction area: 86.82 acres/yr (from "CY2008 Combustion" Worksheet)
 Qty Equipment: 26.04 (calculated based on 3 pieces of equipment for every 10 acres)

Assumptions.

Terrain is very rough with mountains and switchbacks.
 An average of 6" soil is excavated from one half of the site and backfilled to the other half of the site; no soil is hauled off-site or borrowed.
 200 hp bulldozers are used for site clearing.
 300 hp bulldozers are used for stripping, excavation, and backfill.
 Vibratory drum rollers are used for compacting.
 Stripping, Excavation, Backfill and Compaction require an average of two passes each.
 Excavation and Backfill are assumed to involve only half of the site.

Calculation of days required for one piece of equipment to grade the specified area.

Reference: Means Heavy Construction Cost Data, 19th Ed., R. S. Means, 2005.

Means Line No.	Operation	Description	Output	Units	Acres per equip-day)	equip-days per acre	Acres/yr (project-specific)	Equip-days per year
2230 200 0550	Site Clearing	Dozer & rake, medium brush	8	acre/day	8	0.13	86.82	10.85
2230 500 0300	Stripping	Topsoil & stockpiling, adverse soil	1,650	cu. yd/day	2.05	0.49	86.82	42.44
2315 432 5220	Excavation	Bulk, open site, common earth, 150' haul	800	cu. yd/day	0.99	1.01	43.41	43.77
2315 120 5220	Backfill	Structural, common earth, 150' haul	1,950	cu. yd/day	2.42	0.41	43.41	17.96
2315 310 5020	Compaction	Vibrating roller, 6" lifts, 3 passes	2,300	cu. yd/day	2.85	0.35	86.82	30.45
TOTAL								145.47

Calculation of days required for the indicated pieces of equipment to grade the designated acreage.

(Equip)(day)/yr: 145.47
 Qty Equipment: 26.04
 Grading days/yr: 5.59

Emissions from Haul Trucks During Cut and Fill Operations

The following table presents preliminary earthwork quantities for the proposed Pack Trail Access Road and Monument 250 Road Upgrades. It is assumed that construction staging areas will require minimal grading so are not included in the earthwork. For the cost estimate it was assumed that 70% of the cut volume will be rock, requiring pneumatic rock hammers and blasting.

Location	Cut Volume (CY)	Fill Volume (CY)	Virgin Volume (CY)	Waste Volume (CY)
Route A-1	253,622	268,764	60,000	60,000
Route A-2	37,500	37,500		
Total	291,122	306,264		

Total Haul Truck Loads for Cut and Fill Volumes	Total Miles	Daily Mileage
Total Truck Loads for Cut Materials	9,704	19,408
Total Truck Loads for Fill Materials	10,209	20,418
Total Truck Loads for Virgin Fill Materials	2,000	20,000
Total Truck Loads for Waste Materials	2,000	20,000
Total Truck Loads for Cut/Fill Materials	23,913	79,826
		83.15 Average Daily Mileage

Assumptions:
 Each haul truck can carry approximately 30 cubic yards of materials.
 Each haul truck would travel an average of 2 miles round trip for onsite cut and fill materials.
 Each haul truck would travel an average of 10 miles round trip for offsite virgin and waste materials.

Emission Factors

Emission factors are taken from the USEPA MOBILE5 emissions model, as compiled and published in "Air Emissions Inventory Guidance Document for Mobile Sources and Air Force Installations" Air Force Institute for Environmental Safety and Occupational Health Risk Analysis (AFIERA), July 2001.

All vehicle emissions are calculated assuming that the average commute vehicle is five years old. That is calendar year 2008 emissions estimates assume that the average vehicle in each vehicle class is a 2003 model.

Note that PM₁₀ emission factors include both exhaust and "fugitive" emissions (paved road, brake & tire dust, etc.).

Emission Factors in g/mi from MOBILE5 Tables for 2003 Model Year Vehicles in CY2008.

HDDV Low Altitude g/mi - 2008			
HDDV	NO _x	VOC	PM ₁₀
	6.5	2.0	7.73
		CO	SO ₂
		10.9	0.512

Reference: Tables 4-2 through 4-53, (AF IERA, July 2001)

Notes: HDDV emission factors shown above were taken from AF IERA HDDV (>8,500 lbs) emission factors

Haul Truck Emissions

HDDV Emissions by Vehicle Class- 2003 (tons)					
HDDV	NO _x	VOC	CO	SO ₂	PM ₁₀
	0.57	0.18	0.96	0.05	0.68

CO₂ Emissions

It is assumed that the average vehicle will produce 19.5 pounds of CO₂ per gallon of gas used. (www.eia.doe.gov/oiaf/1605/coefficients)

Total CO ₂ Emissions for Proposed Action	19,458 tpy
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Example: (83.15 ave miles/day) x (240 days working) x (1 gal/10 miles) x (19.5 lb CO₂/gal x ton/2000lb) = 19,458 tons CO₂

Emissions from Diesel Powered Generators for Construction Equipment

The Proposed Action would require six diesel powered generators to power construction equipment. These generators would operate approximately 8 hours per day for 120 working days.

Number of Generators	6
Maximum Hours of Operation	8 hrs/day
Number of Construction Days	240
Total Generator Capacity	75 hp
Hourly Rate	0.5262 MMBtu/hr
Annual Use	6,062 MMBtu/yr

Example: $1\text{hp}=0.002546966\text{ MMBtu/Hr}$
 $\text{Hourly Rate (MMBtu)} = (75\text{ Hp}/0.363) * (0.002546699\text{ MMBtu/hr}) = 0.5262\text{ MMBtu/hr}$
 $\text{Annual Use (MMBtu)} = (\text{Number of Generator} * \text{Hours Operation/Day} * \text{Number of Construction Days}) = (6 * 8 * 120 * 0.5262) = 3,030.9\text{ MMBtu/yr}$

Note: Generators horsepower output capacity is only 0.363 percent efficient (AP-42 Chapter 3.3).
 Source: USEPA AP-42 Volume I, Stationary Internal Combustion Sources, Table 3.3-1 (<http://www.epa.gov/ttn/chief/ap42/ch03/final/c03s03.pdf>)

Generator Emission Factors (Diesel)

NO _x	4.41 lb/MMBtu
VOC	0.36 lb/MMBtu
CO	0.95 lb/MMBtu
SO _x	0.29 lb/MMBtu
PM ₁₀	0.31 lb/MMBtu

Emissions (Diesel)

NO _x	13.366 tpy
VOC	1.091 tpy
CO	2.879 tpy
SO _x	0.879 tpy
PM ₁₀	0.940 tpy

Example: Total NO_x Emissions = (Annual MMBtu/year*(EF)/2000 = (3,030.9*4.41)/2000 = 6.68 tpy

Source: Emission Factors: USEPA AP-42 Volume I, Stationary Internal Combustion Sources, Table 3.3-1 (<http://www.epa.gov/ttn/chief/ap42/ch03/final/c03s03.pdf>)

Emissions from Diesel Powered Generators for Portable Lights

The Proposed Action would require 10 portable light units to meet USBP operational requirements. These portable lights are powered by a 6-kilowatt self-contained diesel generators. Portable lights would generally operate continuously every night (approximately 12 hours) 365 days per year.

Number of Generators	10
Maximum Hours of Operation	12 hrs/day
Number of Operational Days	365
Total Generator Capacity	6 hp
Hourly Rate	0.0421 MMBtu/hr
Annual Use	606 MMBtu/yr

Example: $1\text{hp}=0.002546966\text{ MMBtu/Hr}$
 $\text{Hourly Rate (MMBtu)} = (6\text{ Hp}/0.363) * (0.002546699\text{ MMBtu/hr}) = 0.0421\text{ MMBtu/hr}$
 $\text{Annual Use (MMBtu)} = (\text{Number of Generator} * \text{Hours Operation/Day} * \text{Number of Construction Days}) = (10 * 12 * 120 * 0.0421) = 606.2\text{ MMBtu/yr}$

Note: Generators horsepower output capacity is only 0.363 percent efficient (AP-42 Chapter 3.3).
 Source: USEPA AP-42 Volume I, Stationary Internal Combustion Sources, Table 3.3-1 (<http://www.epa.gov/ttn/chief/ap42/ch03/final/c03s03.pdf>)

Generator Emission Factors (Diesel)

NO _x	4.41 lb/MMBtu
VOC	0.36 lb/MMBtu
CO	0.95 lb/MMBtu
SO _x	0.29 lb/MMBtu
PM ₁₀	0.31 lb/MMBtu

Emissions (Diesel)

NO _x	1.337 tpy
VOC	0.109 tpy
CO	0.288 tpy
SO _x	0.088 tpy
PM ₁₀	0.094 tpy

Example: Total NO_x Emissions = (Annual MMBtu/year*(EF)/2000 = (606*4.41)/2000 = 1.337 tpy

Source: Emission Factors: USEPA AP-42 Volume I, Stationary Internal Combustion Sources, Table 3.3-1 (<http://www.epa.gov/ttn/chief/ap42/ch03/final/c03s03.pdf>)

CO₂ Emissions

0.140 MMBTU/gallons of diesel fuel used
 3,606 MMBTU/Year*gallons/0.140 = 25,757 gallons
 25,757 gallons*21.3 pounds CO₂/gallon = 548,624 pounds

274.312 CO ₂ Emissions (tons)
--

San Diego Intrastate Air Quality Control Region

Row #	State	County	Area Source Emissions					Point Source Emissions						
			CO	NOx	PM10	PM2.5	SO2	VOC	CO	NOx	PM10	PM2.5	SO2	VOC
1	CA	San Diego Co	600,798	73,048	69,821	17,914	1,748	91,102	4,380	3,295	2,190	1,402	259	4,269
Grand Total			600,798	73,048	69,821	17,914	1,748	91,102	4,380	3,295	2,190	1,402	259	4,269

SOURCE:

<http://www.epa.gov/air/data/geosel.html>

USEPA - AirData NET Tier Report

*Net Air pollution sources (area and point) in tons per year (2001)
Site visited on 17 October 2007.

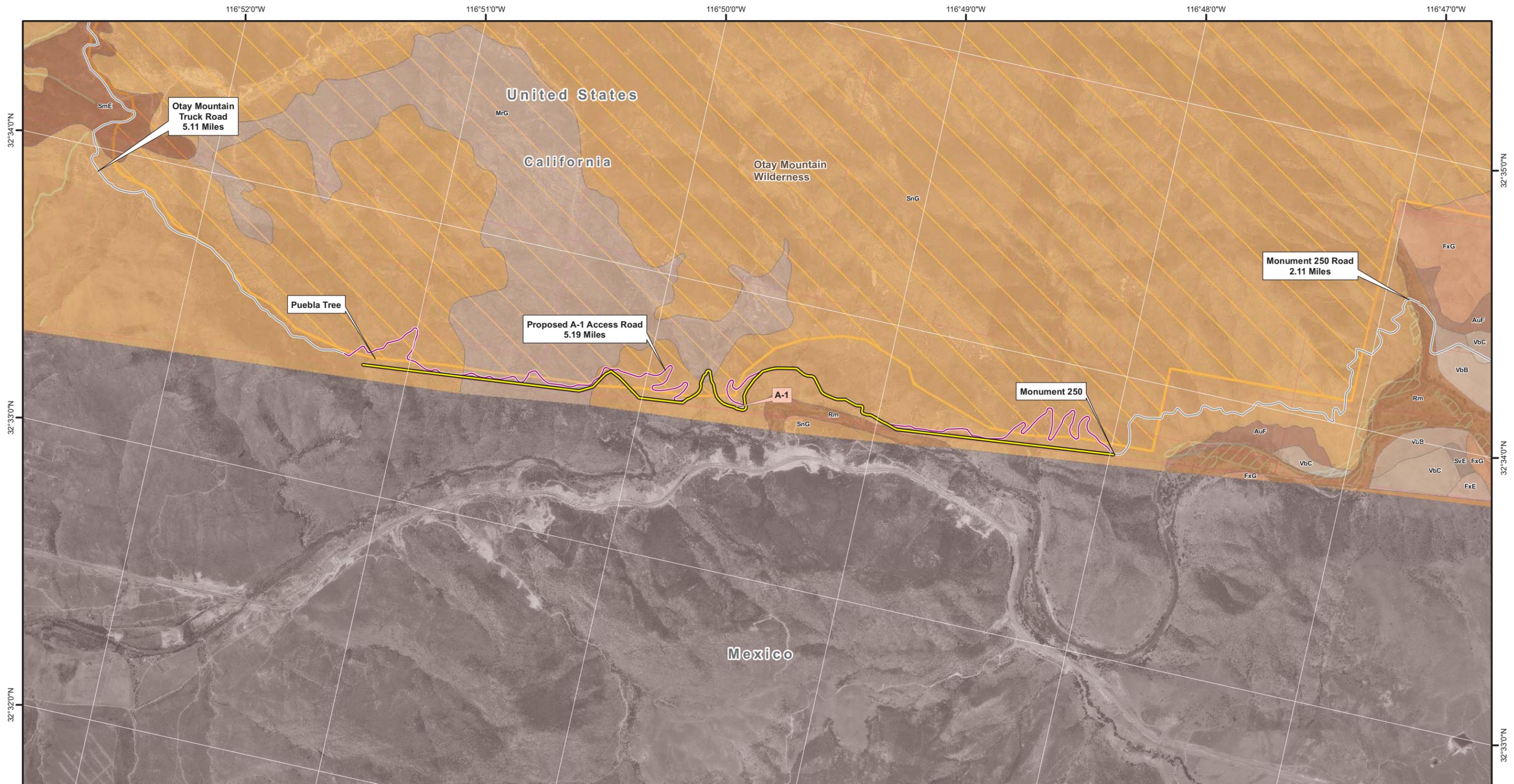
San Diego Intrastate AQCR (40 CFR 81.164): San Diego County, California



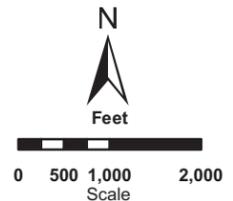
APPENDIX G

Detailed Maps of the Proposed Tactical Infrastructure Section Showing Soils





Proposed Fence Route	Soil Types	Rm, Riverwash
Proposed A-1 Access Road Route	AuF, Anderson very gravelly sandy loam, 9 to 45 percent	SmE, San Miguel rocky silt loam, 9 to 30 percent slopes
Existing Access Roads	FxE, Friant rocky fine sandy loam, 9 to 30 percent slop	SnG, San Miguel-Exchequer rocky silt loams, 9 to 70 per
Land Parcels	FxG, Friant rocky fine sandy loam, 30 to 70 percent slo	SvE, Stony land
National Wetlands Inventory	HrC, Huerhuero loam, 2 to 9 percent slopes	VbB, Visalia gravelly sandy loam, 2 to 5 percent slopes
Otay Mountain Wilderness	MrG, Metamorphic rock land	VbC, Visalia gravelly sandy loam, 5 to 9 percent slopes
	RkC, Reiff fine sandy loam, 5 to 9 percent slopes	s1001, Tujunga-Salinas-Elder (s1001)
		s1013, San Miguel-Friant-Exchequer (s1013)





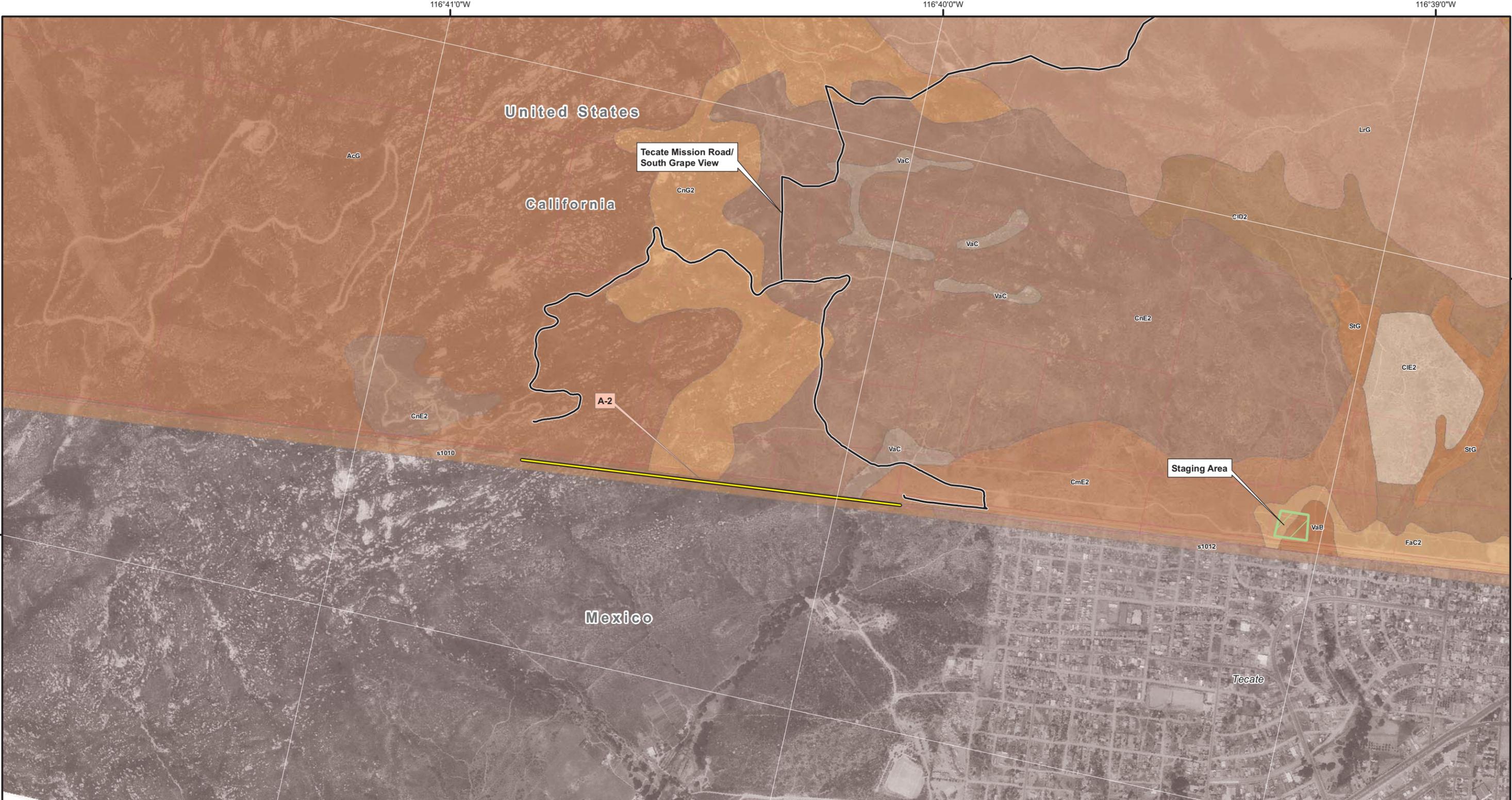
USBP
Proposed Tactical Infrastructure EIS
San Diego Sector, Texas
Detailed Proposed
Fence Section Maps

December 2007

Scale 1" = 2000'

Map 1 of 2

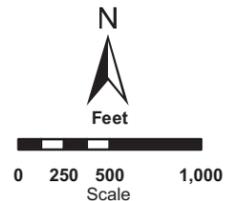
Projection: Albers
 USA Contiguous Albers Equal Area Conic
 North American Datum of 1983



- Proposed Fence Route
 - Existing Access Roads
 - Proposed Construction Staging Area
 - Land Parcels
- Soil Types**
- Label**
- AcG, Acid igneous rock land
 - CID2, Cieneba coarse sandy loam, 5 to 15 percent slopes,

- CIE2, Cieneba coarse sandy loam, 15 to 30 percent slopes
- CmE2, Cieneba rocky coarse sandy loam, 9 to 30 percent s
- CmrG, Cieneba very rocky coarse sandy loam, 30 to 75 per
- CnE2, Cieneba-Fallbrook rocky sandy loams, 9 to 30 perce
- CnG2, Cieneba-Fallbrook rocky sandy loams, 30 to 65 perc
- FaC2, Fallbrook sandy loam, 5 to 9 percent slopes, erode
- LrE2, Las Posas stony fine sandy loam, 9 to 30 percent s
- LrG, Las Posas stony fine sandy loam, 30 to 65 percent

- StG, Steep gullied land
- VaB, Visalia sandy loam, 2 to 5 percent slopes
- VaC, Visalia sandy loam, 5 to 9 percent slopes
- WmB, Wyman loam, 2 to 5 percent slopes
- WmC, Wyman loam, 5 to 9 percent slopes
- s1010, Sesame-Rock outcrop-Cieneba (s1010)
- s1012, Rock outcrop-Las Posas (s1012)



	USBP Proposed Tactical Infrastructure EIS San Diego Sector, Texas Detailed Proposed Fence Section Maps	
	Projection: Albers USA Contiguous Albers Equal Area Conic North American Datum of 1983	
December 2007	Scale 1" = 1000'	Map 2 of 2



APPENDIX H

Draft Biological Survey Report



DRAFT

**BIOLOGICAL SURVEY REPORT
SUPPORTING THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
PROPOSED CONSTRUCTION, OPERATION, AND
MAINTENANCE OF TACTICAL INFRASTRUCTURE
U.S. BORDER PATROL SAN DIEGO SECTOR,
CALIFORNIA**

Prepared for:

U.S. Customs and Border Patrol

Prepared by:



DECEMBER 2007

ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
BEPA	Bald Eagle Protection Act
BLM	Bureau of Land Management
CBP	U.S. Customs and Border Protection
CDFG	California Department of Fish and Game
CNDDB	California Department of Fish and Game's California Natural Diversity Database
CWA	Clean Water Act
DHS	U.S. Department of Homeland Security
e ² M	engineering-environmental Management, Inc.
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FE	Federally Endangered
FT	Federally Threatened
HCP	habitat conservation plan
MBTA	Migratory Bird Treaty Act
MHPA	Multiple Habitat Planning Area
MSCP	Multiple Species Conservation Program
NEPA	National Environmental Policy Act
NWI	National Wetlands Inventory
OMW	Otay Mountain Wilderness
POE	Port of Entry
SE	State Endangered
ST	State Threatened
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOUS	Waters of the United States

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**DRAFT BIOLOGICAL SURVEY REPORT
SUPPORTING THE ENVIRONMENTAL IMPACT STATEMENT FOR THE
PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE
OF TACTICAL INFRASTRUCTURE
U.S. BORDER PATROL SAN DIEGO SECTOR, CALIFORNIA**

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1. Introduction

2 This Biological Survey Report has been prepared to support the development of
3 an Environmental Impact Statement addressing proposed construction,
4 maintenance, and operation of tactical infrastructure along the U.S./Mexico
5 international border in the USBP San Diego Sector, California. The report
6 synthesizes information collected by engineering-environmental Management,
7 Inc (e²M) from a variety of sources to describe the biological resources of the
8 project areas, the potential impacts of the proposed project (described in more
9 detail below) on those biological resources, and recommendations for avoidance
10 or reduction of those impacts. Information was gathered from publicly available
11 literature, data provided by relevant land management agencies, review of aerial
12 photography and U.S. Geological Survey (USGS) topographic maps, data from
13 the California Department of Fish and Game's California Natural Diversity
14 Database (CNDDDB), Bureau of Land Management (BLM), NatureServe; field
15 surveys conducted October 10–12, 15, and 17, 2007; and December 3–5, 2007.

16 This report was developed to support National Environmental Policy Act (NEPA)
17 and Endangered Species Act (ESA) requirements for analyzing potential impacts
18 on biological resources resulting from proposed construction, maintenance, and
19 operation of tactical infrastructure. It was developed as an independent
20 document but will be included as an appendix in the Environmental Impact
21 Statement developed for this project.

22

2. Project Description

23 U.S. Department of Homeland Security (DHS), U.S. Customs and Border
24 Protection (CBP), U.S. Border Patrol (USBP) proposes to construct, operate, and
25 maintain approximately 4.4 miles of tactical infrastructure including primary
26 pedestrian fence, patrol roads, and access roads along the U.S./Mexico
27 international border in the USBP San Diego Sector, California.

28 The proposed tactical infrastructure would be constructed in two sections
29 (designated as A-1 and A-2, see **Table 2-1**) along the border within the USBP
30 San Diego Sector, in San Diego County, California. Section A-1 is approximately
31 3.6 miles in length and would start at Puebla Tree and end at Boundary
32 Monument 250. The proposed section of fence would be adjacent to and on the
33 Otay Mountain Wilderness (OMW), and would follow the U.S./Mexico
34 international border where topography allows, deviating from the border to follow
35 a newly constructed access road where conditions warrant, such as descent to
36 canyon bottoms. The length of access road and patrol road to support the
37 operation and maintenance of the fence would be approximately 5.2 miles. In
38 areas where the patrol road is not adjacent to the fence, trails suitable for light-
39 tracked vehicles would be constructed for the purposes of fence installation and
40 maintenance. These trails would require clearing of brush and boulders and
41 minor grading. Rock outcrops might require leveling for safe travel and fence
42 construction.

1 **Table 2-1. Tactical Infrastructure Sections, San Diego Sector**

Fence Section Number	Border Patrol Station	General Location	Approx. Mileage (mi)
A-1	Brown Field/Chula Vista	Pack Trail, South Side of Otay Mountain	3.6
A-2	Brown Field	West of Tecate Port of Entry	0.8
Total			4.4

2

3 The OMW is on public lands administered by Bureau of Land Management
4 (BLM). The wilderness boundary is at least 100 feet from the U.S./Mexico
5 international border. The corridor between the OMW and the U.S./Mexico
6 international border is public land administered by the BLM. Approximately one
7 half of the proposed patrol and access road would occur in this corridor between
8 the U.S./Mexico international border and the wilderness boundary. Due to steep
9 topography, approximately one half of the length of patrol and access road and
10 approximately 1,300 feet of the primary pedestrian fence would extend into the
11 OMW.

12 Section A-2 would be approximately 0.8 miles in length and would connect with
13 existing border fence west of Tecate. This fence section would extend up Tecate
14 Peak to an elevation of approximately 2,200 feet and would pass through a
15 riparian area. This proposed fence section would encroach on a mix of privately
16 owned land parcels and public land administered by the BLM. Construction of
17 this fence section would include an upgrade to an access road west of Tecate.

18 **3. Survey Methods and Limitations**

19 To provide flexibility in placing tactical infrastructure within the proposed project
20 corridor, and to ensure consideration of potential impacts due to construction and
21 use, the biological resources surveys were conducted in an area extending 300
22 feet on the north side of the proposed individual tactical infrastructure sections
23 and extending at least 0.5 miles past the proposed ends of each section. The
24 areas thus defined are referred to hereafter as the "survey corridor."

25 Intuitive controlled investigations of the survey corridor were conducted by Rod
26 Dossey of Dossey & Associates (Rare Plant Specialist, Biologist), Michael Klein
27 of Klein-Edwards Professional Services (U.S. Fish and Wildlife Service [USFWS]
28 permitted biologist for Quino checkerspot butterfly), Kevin Clark of Clark
29 Biological Services (USFWS permitted biologist for California gnatcatcher, least
30 Bell's Vireo, and Southwestern willow flycatcher), Brent Eastty of e²M (Ecologist),
31 Karen Stackpole of e²M (Senior Ecologist), and Dustin Janeke of e²M (Biologist).

32 The October 2007 surveys covered the proposed fence alignment for A-2
33 (Tecate section), a portion of the most recent alignment at that time on section A-

1 1, and a portion of the BLM access road (from the Puebla Tree to nearly halfway
2 to where the BLM Road meets Otay Truck Trail). Surveyors walked the proposed
3 project corridor as described above for each tactical infrastructure section, and
4 examined in more detail areas containing species compositions or habitat that
5 might be conducive to sensitive species. Plot data (i.e., GPS coordinates,
6 photographs, and plant community composition) were recorded at regular
7 intervals along the corridor and where plant communities presented substantial
8 shifts in species composition. These data will be used to generate vegetation
9 classifications and maps to support delineation of habitat types, analysis of
10 potential sensitive species occurrences, and analysis of potential project impacts
11 on biological resources. These maps will be included in the final report. Although
12 the surveyors are permitted to survey for or monitor for listed species in San
13 Diego, no protocol surveys were conducted. Surveyors did specifically look for
14 evidence indicating the presence of state- and federally listed species (see **Table**
15 **3-1**), and habitats that might support them. Descriptions of the federally listed
16 species are provided in **Appendix A**.

17 **Multiple Species Conservation Program**

18 The San Diego region has a greater number of threatened and endangered
19 species than anywhere else in the continental United States. Over 200 plant and
20 animal species occur in the county that are federally and/or state listed as
21 endangered, threatened, or rare; proposed or candidate for listing; or otherwise
22 considered sensitive. The Multiple Species Conservation Program (MSCP) was
23 developed to provide natural resource guidance for where future development
24 should and should not occur, and to streamline and coordinate procedures for
25 review and for permitting impacts to biological resources (MSCP 1998).

26 The MSCP is a comprehensive habitat conservation planning program in San
27 Diego that provides for a regional process to authorize incidental take of
28 protected species for urban development and for conserving multiple species and
29 their habitat within a 582,243-acre planning area in southwestern San Diego
30 County. The MSCP planning area includes 12 local jurisdictions in southern
31 coastal San Diego County. These jurisdictions implement their respective
32 portions of the MSCP Plan through subarea plans describing specific
33 implementing mechanisms for the MSCP Plan. This includes plans for the City of
34 San Diego and County of San Diego subareas. Both the county and city have
35 finalized their respective subarea plans and have received take authorizations
36 under the MSCP.

37 The MSCP Plan, and each subarea plan prepared pursuant to it, is intended to
38 serve as a multiple species habitat conservation plan (HCP) pursuant to Section
39 10(a)(2)(A) of the ESA. An HCP is required for issuance of a permit for incidental
40 take of listed species pursuant to Section 10(a)(1)(B) of the Act. An HCP may
41 also serve as a Natural Communities Conservation Plan (NCCP) pursuant to the
42 State of California's NCCP Act of 1991, provided findings are made that the plan
43 is consistent with the NCCP Act.

44

Table 3-1. Federal and State Threatened and Endangered Species in California

Scientific Name	Common Name	Federal Status	State Status
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	E	
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	E	
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	E	
<i>Bufo californicus</i>	Arroyo toad	E	
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	T	
<i>Vireo bellii pusillus</i>	Least Bell's vireo	E	E
<i>Empidonax trailii extimus</i>	Southwestern willow flycatcher	E	E
<i>Ambrosia pumila</i>	San Diego ambrosia	E	
<i>Eryngium aristulatum var. parishii</i>	San Diego button-celery	E	E
<i>Deinandra conjugens</i>	Otay tarplant	T	E
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	E	E
<i>Navarretia fossalis</i>	Spreading navarretia	T	
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	E	
<i>Orcuttia californica</i>	California Orcutt grass	E	E
<i>Baccharis vanessae</i>	Encinitas baccharis	T	E

3 Source: USFS 2007

4 Notes: E = endangered; T = Threatened

5 The MSCP Plan proposes the authorization of incidental take of 85 species,
 6 including 20 listed animal and plant species, 8 species currently proposed for
 7 federal listing as endangered or threatened, and 1 candidate for federal listing.
 8 This proposed list of species for which take is authorized is based upon full
 9 implementation of the MSCP Plan (MSCP 1998). **Table 3-2** lists the federally
 10 threatened and endangered species that are target MSCP species in the project
 11 area.

12 BLM-Listed Species

13 The proposed Section A-1 and access road are located partially within BLM
 14 lands. **Table 3-2** lists species that are BLM-designated sensitive species and
 15 MSCP target species that could occur in the proposed project corridor for
 16 Sections A-1 and A-2, or within the access roads.

17

1
2

**Table 3-2. BLM-, CNDDDB-, and MSCP-Listed
Species with the Potential to Occur in the Project Area**

Scientific Name	Common Name	BLM Status	CDFG Status	MSCP Target Species
Invertebrates				
<i>Callophrys thorneii</i>	Thorne's hairstreak butterfly	Sensitive	SC	Yes
Amphibians				
<i>Bufo californicus</i>	Arroyo toad	No	SC	SC
<i>Spea hammondi</i>	Western spadefoot Toad	Sensitive	SC	No
Reptiles				
<i>Aspidoscelis hyperythra</i>	Orange-throated whiptail	Sensitive	SC	Yes
<i>Phrynosoma coronatum</i>	San Diego (or California) horned lizard	Sensitive	SC (subspecies <i>Blainvillei</i>)	Yes (subspecies <i>Blainvillei</i>)
<i>Thamnophis hammondi</i>	Two-striped garter snake	Sensitive	No	No
Birds				
<i>Agelaius tricolor</i>	Tricolored blackbird	Sensitive	No	Yes
<i>Aquila chrysaetos</i>	Golden eagle	No	SC	Yes
<i>Athene cunicularia</i>	Burrowing owl	Sensitive	SC	Yes
Mammals				
<i>Eumops perotis californicus</i>	Western mastiff bat	Sensitive	SC	Yes
<i>Plecotus townsendii</i>	Townsend's western big-eared bat	Sensitive	SC	Yes

3 Source: BLM 1994, CDFG 2007, MSCP 1998.
 4 Notes:
 5 CDFG = California Department of Fish and Game
 6 SC = species of concern

7

4. Environmental Setting

1
2 The San Diego area is generally characterized as having a Mediterranean
3 climate. Summers are typically warm and dry, with daytime temperatures rarely
4 exceeding 90 degrees Fahrenheit (°F); winters are mild and wet, with nighttime
5 temperatures usually above freezing. In the mountainous region where the
6 project sites are located, temperatures range from 25 °F to 90 °F. Average
7 annual precipitation ranges from 10 to 25 inches, and dry periods of 7 to 8
8 months are common. Eighty-five percent of the rainfall in the region occurs from
9 November to March, but wide variations take place in monthly and seasonal
10 totals (NOAA 2007).

11 The vegetation of Southern California has generally been classified under the
12 Humid Temperate Domain, Mediterranean Division of Bailey (1995). The
13 proposed project area is predominantly classified as the California Coastal
14 Range Open Woodland–Shrub–Coniferous Forest–Meadow Province (Bailey
15 1995). The Jepson Manual (Hickman et al. 1996) describes vegetation
16 geography using combined features of the natural landscape, including natural
17 vegetation types and plant communities, and geologic, topographic, and climatic
18 variation. This geographic system places the proposed project corridor in the
19 California Floristic Province, Southwestern California Region, and Peninsular
20 Ranges Subregion.

21 NatureServe (2007) has defined ecological systems to represent recurring
22 groups of biological communities that are found in similar physical environments
23 and are influenced by similar dynamic ecological processes such as fire or
24 flooding. Ecological systems represent classification units that are readily
25 identifiable by conservation and resource managers in the field. The vegetation
26 description for the proposed project corridor was prepared in the framework of
27 ecological systems that include:

- 28 1. Southern California Dry-Mesic Chaparral (CES206.930)
- 29 2. Southern California Oak Woodland and Savanna (CES206.938).

30 Chaparral within this ecological system (CES206.930) occurs up to 4,550 feet in
31 elevation and on well-drained soils of slopes, toeslopes, and in concavities
32 (NatureServe 2007). It is characterized by several species of *Ceanothus* (*C.*
33 *megacarpus*, *C. crassifolius*, *C. leucodermis*, and *C. greggii*), *Adenostema*
34 *fasiculatum*, *A. sparsifolium*, *Arctostaphylos glauca*, *Cercocarpus betuloides*,
35 *Rhus ovata*, and *Xylococcus bicolor*. Woodlands within this ecological system
36 (CES206.938) occur in major side canyons to the Tijuana River, including
37 Copper, Buttewig, and Mine. They are characterized by species of *Quercus* (*Q.*
38 *agrifolia*, *Q. wislizenii*, and *Q. engelmannii*), *Platanus racemosa*, *Malosma laurina*,
39 *Toxicodendron diversilobum*) and *Baccharis emoryi*.

40 A summary of the ecological systems that can be found in the Southern
41 California area, along with typical species compositions and features are
42 provided in **Table 4-1**.

1

Table 4-1. Ecological Systems of Southern California

Ecological System	Characteristic Species/Features
Central and Southern California Mixed Evergreen Woodland (CES206.920)	<i>Pseudotsuga macrocarpa</i> , <i>Quercus chrysolepis</i> , <i>Q. agrifolia</i> , and <i>Q. kelloggii</i> , <i>Umbellularia californica</i> , <i>Acer macrophyllum</i> , <i>Arbutus menziesii</i> /Metasediments and Granitics
Baja Semi-Desert Coastal Succulent Scrub (CES206.934)	<i>Lycium californicum</i> , <i>Rhus integrifolia</i> , <i>Opuntia californica</i> var. <i>parkeri</i> (= <i>O. parryi</i>), <i>O. prolifera</i> , <i>O. littoralis</i> , <i>Yucca schidigera</i> , <i>Ferocactus viridescens</i> , <i>Agave shawii</i> , <i>Euphorbia misera</i> , <i>Bergerocactus emoryi</i> , <i>Simmondsia chinensis</i> /Maritime Coastal Bluffs
California Mesic Chaparral (CES206.926)	<i>Quercus berberidifolia</i> , <i>Q. wislizeni</i> var. <i>frutescens</i> , <i>Cercocarpus montanus</i> var. <i>glaber</i> (= <i>C. betuloides</i>), <i>Fraxinus dipetala</i> , <i>Garrya flavescens</i> , and <i>G. elliptica</i> , <i>Heteromeles arbutifolia</i> , <i>Lonicera</i> spp., <i>Prunus ilicifolia</i> , <i>Rhamnus crocea</i> , <i>R. ilicifolia</i> , <i>Toxicodendron diversilobum</i> , <i>Ribes</i> spp., <i>Sambucus</i> spp./North-facing Slopes, Toeslopes, Concavities, Well-drained Soils
Southern California Coastal Scrub (CES206.933)	<i>Artemisia californica</i> , <i>Salvia</i> (<i>mellifera</i> , <i>apiana</i> , <i>leucophylla</i>), <i>Encelia californica</i> , <i>Eriogonum fasciculatum</i> , <i>E. cinereum</i> , <i>Opuntia littoralis</i> , <i>Diplacus aurantiacus</i> (= <i>Mimulus aurantiacus</i>), <i>Lotus scoparius</i> , <i>Baccharis pilularis</i> /Coarse Gravel to Clay Soils
Southern California Dry-Mesic Chaparral (CES206.930)	<i>Ceanothus megacarpus</i> , <i>C. crassifolius</i> , <i>C. leucodermis</i> , <i>C. greggii</i> , <i>Adenostoma fasciculatum</i> , <i>A. sparsifolium</i> , <i>Arctostaphylos glauca</i> , <i>Cercocarpus montanus</i> (var. <i>glaber</i> , var. <i>minutiflorus</i>), <i>Rhus ovata</i> , <i>Xylococcus bicolor</i> /North-facing Slopes, Toeslopes, Concavities, Well-drained Soils
California Coastal Live Oak Woodland and Savanna (CES206.937)	<i>Quercus agrifolia</i> , <i>Rubus ursinus</i> , <i>Symphoricarpos mollis</i> , <i>Heteromeles arbutifolia</i> , <i>Toxicodendron diversiloba</i> /Dense to Sparse Canopy, Latter on South-facing Slopes
Southern California Oak Woodland and Savanna (CES206.938)	<i>Quercus agrifolia</i> , <i>Q. wislizeni</i> , <i>Q. engelmannii</i> , <i>Juglans californica</i> /Coastal Plains and Intermountain Valleys
California Central Valley and Southern Coastal Grassland (CES206.942)	<i>Nassella pulchra</i> , <i>Aristida</i> spp., <i>Achillea millefolium</i> var. <i>borealis</i> , <i>Achyrochaena mollis</i> , <i>Agoseris heterophylla</i> , <i>Bloomeria crocea</i> , <i>Triteleia ixioides</i> (= <i>Brodiaea lutea</i>), <i>Chorogalum pomeridianum</i> , <i>Clarkia purpurea</i> , <i>Dodectheon jeffreyi</i> , <i>Elymus glaucus</i> , <i>Leymus triticoides</i> , <i>Festuca californica</i> , <i>Melica californica</i> , <i>Poa secunda</i> /Fine-textured Soils, Moist in Winter

Ecological System	Characteristic Species/Features
Mediterranean California Alkali Marsh (CES206.947)	<i>Distichlis spicata</i> , <i>Juncus balticus</i> , <i>Anemopsis californica</i> , <i>Schoenoplectus americanus</i> , <i>Atriplex</i> spp., <i>Triglochin maritime</i> , <i>Cirsium</i> spp./Lake Beds, Floodplains, High Groundwater
Mediterranean California Eelgrass Bed (CES206.999)	<i>Zostera marina</i> , <i>Phyllospadix scouleri</i> , <i>Fucus distichus</i> , <i>Postelsia plamaeformis</i> /Intertidal Zones
North American Arid West Emergent Marsh (CES206.729)	<i>Scirpus</i> spp., <i>Schoenoplectus</i> spp., <i>Typha</i> spp., <i>Juncus</i> spp., <i>Potamogeton</i> spp., <i>Polygonum</i> spp., <i>Nuphar</i> spp., <i>Phalaris</i> spp./Saturated or Inundated Soils
South Coastal California Vernal Pool (CES206.950)	<i>Trichostema austromontanum</i> , <i>Pogogyne abramsii</i> , <i>Eryngium aristulatum</i> , <i>Orcuttia californica</i> , <i>Pogogyne nudiuscula</i> , <i>Navarretia fossalis</i> , <i>Hemizonia parryi</i> ssp. <i>australis</i> , <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> /Small Depressions with Durapan or Cemented Hardpans
Mediterranean California Coastal Bluff (CES206.906)	<i>Baccharis pilularis</i> , <i>Dudleya</i> spp., <i>Carpobrotus (chilensis, edulis)</i> , <i>Hazardia squarrosa</i> , <i>Eriogonum parvifolium</i> , <i>Erigeron glaucus</i> , <i>Eriophyllum stoechadifolium</i> , <i>Plantago maritima</i> /Sea Bluffs and Rocky Headlands
Mediterranean California Southern Coastal Dune (CES206.908)	<i>Abronia (maritima, umbellatum)</i> , <i>Atriplex leucophylla</i> , <i>Isocoma menziesii</i> , <i>Distichlis spicata</i> , <i>Croton californicus</i> , <i>Lupinus chamissonis</i> , <i>Carpobrotus chilensis</i> /Beaches, Foredunes, Sandspits
Southern California Coast Ranges Cliff and Canyon (CES206.904)	<i>Ceanothus megacarpus</i> , <i>C. leucodermis</i> , <i>Cercocarpus montanus</i> var. <i>minutiflorus</i> , <i>Arctostaphylos glauca</i> , <i>Xylococcus bicolor</i> /Cliff Faces, Rockfall, Canyonsides

1

2

5. Biological Resources

5.1 Vegetation Classification

The U.S. Forest Service (USFS) recognizes two provinces in the San Diego area: California Coastal Chaparral Forest Shrub Province (261) and California Coastal Range Open Woodland–Shrub–Coniferous Forest–Meadow Province (M262) (Bailey 1995). The proposed Sections A-1 and A-2 lie within both of these provinces and consist predominantly of chaparral and coastal sage scrub found on south-facing slopes and drier areas, and riparian canyon bottoms consisting of broadleaf species. Chaparral communities are adapted to periodic occurrences of fire, whereas coastal sage scrub communities exist in drier, arid areas, and the broadleaf species found in riparian areas are adapted to drastic ranges of stream flow in the canyon bottoms (USFS 2007).

NatureServe (2007) has defined ecological systems to represent recurring groups of biological communities that are found in similar physical environments and are influenced by similar dynamic ecological processes, such as fire or flooding. Ecological systems represent classification units that are readily identifiable by conservation and resource managers in the field. The ensuing vegetation description for the project area was prepared in the framework of ecological systems that include California Coastal Closed-Cone Conifer Forest and Woodland, California Maritime Chaparral, North American Warm Desert Riparian Woodland and Shrubland, California Coastal Live Oak Woodland and Savanna, Southern California Coastal Scrub, and Southern California Dry-Mesic Chaparral.

Classification of existing vegetation within this corridor was achieved by accessing nearly the entire corridor as proposed, sampling observation points, and relating them to the NatureServe Explorer classification database (2007). At the coarsest level, the six above-named ecological systems were determined and local vegetation types placed into the national system. A finer level of classification equaling or approximating the vegetation alliance level of the National Vegetation Classification System (NatureServe 2007) was used to prepare the plant community discussions under each ecological system. Unclassifiable vegetation stands and patches sampled within the proposed corridor typically consisted of nonnative species in weedy areas, such as *Bromus* sp., *Avena* sp., and *Erodium botrys*.

Habitats observed, sampled, and photographed within the project corridor range from chaparral to riparian, coastal sage scrub, oak woodland, and disturbed areas. A brief description of each plant community observed within the proposed sections is provided in **Table 5-1** through **Table 5-19**; They are distinguished using the NatureServe Vegetation Alliance level of classification or an approximation. To the extent possible, each community is illustrated and supported by representative ground photographs (**Figures 5-1** through **5-16**) and foliar cover information for dominant species. Some vegetation patches and stands are introduced nonnative species and do not readily fit into a recognized

1 vegetation alliance or ecological system designed for native vegetation; they are
2 discussed at the end of this section.

3 **5.1.1 Ecological Systems**

4 **Southern California Dry-Mesic Chaparral Ecological System (CES206.930)**

5 This ecological system includes chaparral from sea level up to 1,500 meters
6 (4,550 feet) elevation throughout Central and Southern California and inland
7 portions of Baja Norte, Mexico. It is found in dry-mesic to mesic site conditions
8 analogous to mesic chaparral. Santa Ana winds drive late-summer, stand-
9 replacing fires in these systems. Characteristic species include *Ceanothus*
10 *megacarpus*, *Ceanothus crassifolius*, *Ceanothus leucodermis*, *Ceanothus*
11 *greggii*, *Adenostoma fasciculatum*, *Adenostoma sparsifolium*, *Arctostaphylos*
12 *glauca*, *Cercocarpus montanus* var. *glaber* (= *Cercocarpus betuloides*),
13 *Cercocarpus montanus* var. *minutiflorus* (= *Cercocarpus minutiflorus*), *Rhus*
14 *ovata*, and *Xylococcus bicolor*.

15 **Southern California Coastal Scrub Ecological System (CES206.933)**

16 This ecological system includes mixed coastal shrublands from Monterey,
17 California, south into Baja Norte, Mexico. It is dominated by drought-deciduous
18 shrubs but at times can have characteristic (constant but not dominant)
19 resprouting, deep-rooted sclerophyllous shrubs. It occurs below 1,000 meters
20 (3,300 feet) elevation and may extend inland from the maritime zone in hotter,
21 drier conditions than northern (less fog-drenched) shrublands (e.g., areas with
22 10–60 centimeters of annual precipitation). Soils vary from coarse gravels to
23 clays but typically only support plant-available moisture with winter and spring
24 rain. Most predominant shrubs include *Artemisia californica*, *Salvia mellifera*,
25 *Salvia apiana*, *Salvia leucophylla*, *Encelia californica*, *Eriogonum fasciculatum*,
26 *Eriogonum cinereum*, *Opuntia littoralis*, *Diplacus aurantiacus* (= *Mimulus*
27 *aurantiacus*), *Lotus scoparius* (early seral after fire), and *Baccharis pilularis* (in
28 moister, disturbed sites). Characteristic (constant but not dominant) resprouting,
29 deep-rooted sclerophyllous shrubs include *Malosma laurina*, *Rhus integrifolia*,
30 and *Rhamnus crocea*. Fire frequency has been historically low, but in recent
31 years, the fire frequency has increased due to arson or cigarette ignition,
32 resulting in type conversion to non-native and ruderal annual grasslands.
33 *Malosma laurina* and *Rhus integrifolia* are also increasing in abundance,
34 because they can continually resprout after repeated fires. In places, *Opuntia*
35 *littoralis* may proliferate and cover entire slopes in dry rocky areas with repeated
36 fires that have killed the scrub taxa, whereas *Opuntia littoralis* can resprout and
37 spread to cover large patches.

38 **California Maritime Chaparral Ecological System (CES206.929)**

39 This ecological system includes chaparral in patches restricted by edaphic
40 conditions (sands, sandstones, other marine sediments, and stabilized sand
41 dunes) within the fog belt throughout the central and northern California coast.

1 This system is characterized by a combination of locally endemic species of
2 *Arctostaphylos* and *Ceanothus*, and they are primarily species that reproduce by
3 seed rather than resprouting. Shrubs vary in height up to 3 meters and in variable
4 density. More open patches support herbaceous vegetation, while occurrences of
5 high shrub density have no understory. Characteristic species include
6 *Arctostaphylos tomentosa*, *Arctostaphylos nummularia* (= *Arctostaphylos*
7 *sensitiva*), *Arctostaphylos tomentosa* ssp. *crustacea* (= *Arctostaphylos*
8 *crustacea*), *Arctostaphylos hookeri*, *Arctostaphylos pajaroensis*, *Arctostaphylos*
9 *montaraensis* (and others), *Ceanothus masonii*, *Ceanothus griseus*, and
10 *Ceanothus verrucosus*. Southernmost stands (San Diego County) can include
11 *Cneoridium* spp. and *Comarostaphylis diversifolia*. Other common widespread
12 woody taxa can include *Adenostoma fasciculatum*, *Salvia mellifera*, *Frangula*
13 *californica* (= *Rhamnus californica*), *Rhamnus crocea*, and *Quercus agrifolia*.
14 Controlled burns have resulted in poor survivorship of the *Arctostaphylos* spp.,
15 and current theories are that they need long fire-free intervals to develop a viable
16 seedbank that can reproduce following fire (Keeley and Davis 2005). This
17 system often co-occurs with California Coastal Closed-Cone Conifer Forest and
18 Woodland (CES206.922).

19 **California Coastal Closed-Cone Conifer Forest Ecological System (CES206.922)**

20 For purposes of this report, this system is used to identify Tecate cypress
21 (*Cupressus forbesii*)-dominated woodland communities. In general, small
22 occurrences of this system may be found in scattered locations along California's
23 entire coastline and onto the Channel Islands. They are found on marine
24 sedimentary, non-metamorphosed features, often with podsols on sterile
25 sandstone. These forests and woodlands are limited to coastal areas with
26 moderate maritime climate and likely receive more annual precipitation than
27 nearby coastal chaparral. Highly localized endemic tree species include
28 *Cupressus macrocarpa*, *Cupressus goveniana*, and *Cupressus abramsiana* in
29 scattered groves along coastal Mendocino, San Mateo, Santa Cruz, and
30 Monterey counties. *Pinus contorta* var. *contorta*, *Pinus contorta* var. *bolanderi*,
31 *Pinus muricata*, *Pinus torreyana*, and *Pinus radiata* are dominant or codominant
32 in these and other occurrences. These occurrences can also include pygmy
33 woodland expressions where nearly lateritic subsoil underlies acidic sands
34 (ancient marine terraces). Stunted and twisted *Pinus contorta* var. *contorta*
35 stands along the Oregon coast (often called pygmy forests) are also part of this
36 system. Other associated plant species include *Arctostaphylos nummularia*,
37 *Ledum groenlandicum*, *Vaccinium ovatum*, *Gaultheria shallon*, *Rhododendron*
38 *macrophyllum*, and *Morella californica* (= *Myrica californica*). The lichen and
39 moss component of this system is very diverse, includes *Cladonia* spp, and can
40 be abundant in these communities.

1 5.1.2 Associations

2 North American Warm Desert Riparian Woodland and Shrubland Ecological System 3 (CES302.753)

4 ***Baccharis salicifolia* Riparian Shrubland (CEGL003549).** This riparian
5 shrubland is known from central and southern interior coastal mountains of
6 California, the Anza-Borrego Desert, and south into Baja California, Mexico. It is
7 often found along washes, springs, and riparian corridors. It is usually a small
8 stringer community. It can occur on steep slopes associated with springs. Soils
9 are coarse to fine sandy loams, mostly derived from alluvium. Elevation ranges
10 from 216 to over 914 meters (708–3,000+ feet). The shrub layer is dominated by
11 *Baccharis salicifolia*. Non-native *Tamarix* is often found but usually in relatively
12 low cover. *Baccharis pilularis* may also be present in low cover. The herbaceous
13 layer is dominated by a variety of non-native and native species such as
14 *Ambrosia psilostachya*, *Bromus hordeaceus*, *Hirschfeldia incana*, *Lepidium*
15 *latifolium*, *Artemisia douglasiana*, and *Urtica dioica*. *Salix gooddingii* or *Platanus*
16 *racemosa* may be emergent in some stands. *Baccharis salicifolia* is usually
17 dominant. Non-native *Tamarix* is often found but usually in relatively low cover.
18 *Baccharis pilularis* may also be present in low cover. *Salix gooddingii* may be
19 emergent in some stands. The herbaceous layer is dominated by a variety of
20 non-native and native species such as *Ambrosia psilostachya*, *Bromus*
21 *hordeaceus*, *Hirschfeldia incana*, *Lepidium latifolium*, *Artemisia douglasiana*, and
22 *Urtica dioica*. Other herbaceous species include forbs *Pseudognaphalium*
23 *canescens* ssp. *beneolens* (= *Gnaphalium canescens* ssp. *beneolens*), *Lotus*
24 *unifoliolatus* var. *unifoliolatus* (= *Lotus purshianus* var. *purshianus*), *Melilotus*
25 *indicus*, and *Rumex salicifolius*, and graminoids *Aira caryophylla*, *Bromus*
26 *diandrus*, and *Vulpia myuros*.

27 California Coastal Live Oak Woodland and Savanna Ecological System (CES206.937)

28 ***Quercus agrifolia*/*Toxicodendron diversilobum* Woodland (CEGL002866).**
29 This association is known from parts of central and south coastal California. This
30 woodland association occurs on gentle to steep slopes with variable aspects at
31 low elevations between 40 and 577 meters (130–1,900 feet). It is dominated by
32 *Quercus agrifolia* in the tree layer. *Toxicodendron diversilobum* is characteristic
33 in the understory shrub layer, and a variety of grasses and forbs are in the
34 herbaceous layer. Frequently, *Diplacus aurantiacus* (= *Mimulus aurantiacus*) and
35 *Heteromeles arbutifolia* are also included. *Malosma laurina*, *Artemisia californica*,
36 *Salvia leucophylla*, *Sambucus mexicana*, and *Rhamnus ilicifolia* are occasionally
37 included in the shrub layer. The herbaceous layer is diverse and includes
38 *Leymus condensatus*, *Marah macrocarpus*, *Bromus diandrus*, *Piptatherum*
39 *miliaceum*, and *Melica imperfecta*.

40 Southern California Dry-Mesic Chaparral Ecological System (CES206.933)

41 ***Adenostoma fasciculatum* Shrubland (CEGL002924).** This shrubland occurs
42 on extremely xeric sites at 38 to 1,097 meters (124–3,600 feet) elevation on mid

1 to upper slopes and ridgetops of mostly southeast- to southwest-facing slopes,
2 but can also occur on north-facing slopes. The surface is undulating to linear, on
3 moderately steep to steep slopes. Soils tend to be moderately well-developed
4 and somewhat stony with variable textures, including sand, clay, silt, and various
5 loams. The parent material ranges from igneous, granitic, and metamorphic, to
6 gneiss and may include gabbro and serpentine substrates in the Sierra Nevada
7 foothills. Vegetation is dominated by *Adenostoma fasciculatum* in the shrub layer,
8 with a diverse but low cover herbaceous layer. *Arctostaphylos glauca*,
9 *Arctostaphylos pungens*, *Eriogonum fasciculatum*, *Heteromeles arbutifolia*,
10 *Salvia columbariae*, *Salvia apiana*, and *Yucca whipplei* may occur at low cover.
11 The herb layer is open and may include *Bromus madritensis*, *Aira caryophyllea*,
12 *Avena barbata*, *Erodium cicutarium*, and *Lotus* spp. There are rarely emergent
13 trees, at very low cover, which may include *Pinus sabiniana*, *Quercus agrifolia*,
14 *Umbellularia californica*, or *Platanus racemosa*. The chamise alliance is the most
15 widespread chaparral vegetation in California and ranges from Shasta County in
16 the north to northwestern Baja California, Mexico. It is differentiated from other
17 *Adenostoma fasciculatum* shrublands by a near total dominance of chamise.
18 Other shrubs that codominate in other associations may be present, but these
19 are generally much less than 10 percent cover, usually less than 1 percent.
20 *Adenostoma fasciculatum* is the sole dominant species in the shrub overstory.

21 **5.1.3 Alliances**

22 **Bromus Herbaceous Alliance (A.1813)**

23 This is a highly variable, catch-all alliance. Fall temperatures and precipitation
24 are the major factors determining grassland structure. *Bromus* spp. are very
25 common to dominant grasses. The composition of this widespread western
26 annual grassland alliance varies widely. Many alien and native annual species
27 may be present, including *Bromus diandrus*, *Bromus hordeaceus*, *Bromus*
28 *madritensis*, *Cynosurus echinatus*, *Aira caryophyllea*, and species of *Erodium*,
29 *Lasthenia*, *Lupinus*, *Brassica*, *Avena*, *Castilleja*, *Lolium*, and *Centaurea*. This
30 short, temperate, annual grassland forms a herbaceous canopy less than 1
31 meter in height. Emergent shrubs and trees may be present. This broadly defined
32 annual grassland alliance is composed of many native and exotic annual
33 grasses. Composition varies among stands and is largely determined by fall
34 temperatures and precipitation, light intensity, litter thickness, and
35 microtopography. Disturbance history is often directly related to the percentage
36 of exotic alien species, with heavy disturbance correlating with heavy exotic
37 invasion. Annual grasses are supremely adapted to the Mediterranean climate of
38 California; many species evolved under similar conditions in southern Europe
39 and northern Africa. Plants germinate during winter rains, and complete their life
40 cycles by the beginning of the summer drought. Seeds often remain viable for
41 many years.

42

1

Table 5-1. Vegetation Classifications Regions 1, 3, and 5

Holland Habitat	Southern Mixed Chaparral	37120
A Manual of California Vegetation	Chamise-Mission Manzanita-Woollyleaf Ceanothus Series	N/A
NatureServe Habitat	Southern California Dry Mesic Chaparral	CES206.930
Survey Date	10/11/2007	
Disturbances	This area has been burned, possibly in 2003. This area is degraded by grazing. Regions 3 and 5 are more impacted by grazing than Region 1.	
Quality Assessment	This habitat is of moderate quality when compared to similar undisturbed habitats. It is not a pristine habitat, and there are more exotic plants than would be expected in a pristine habitat of this type.	
Dominant Species	<i>Helianthemum scoparium</i> <i>Lotus scoparius</i> <i>Xylococcus bicolor</i> <i>Ceanothus tomentosus</i> <i>Adenostema fasciculatum</i>	

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Figures 5-1 and 5-2. Photographs Representative of Regions 1, 3, and 5

4

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Table 5-2. Vegetation Classifications Regions 2, 4, 6, and 15

Holland Habitat	Diegan Coastal Sage Scrub	32500
A Manual of California Vegetation	California Encelia Series*	N/A
NatureServe Habitat	Southern California Coastal Scrub	CES206.933
Date	10/11/2007 and 10/15/07	
Disturbances	This area has been burned, possibly in 2003. This area is heavily degraded by grazing. This habitat may have been affected by the drought, though those effects are impossible to distinguish from the combined effects of the above.	
Quality Assessment	This habitat is of very low quality when compared to similar undisturbed habitats. It is not a pristine habitat, and the habitat is very sparse and has a much larger number of exotic species than would be expected in a pristine habitat condition. The disturbances are so severe that even identifying dominant species is challenging.	
Notes	*San Diego Sunflower replaces Encelia in a similar ecological niche this far south in California. If Encelia is replaced with <i>Viguiera laciniata</i> then the Manual's description fits. The second photo shows this habitat in the foreground and southern mixed chaparral on the slope in the distance.	

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Figures 5-3 and 5-4. Photographs Representative of Regions 2, 4, 6, and 15

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Table 5-3. Vegetation Classifications Region 7

Holland Habitat	Diegan Coastal Sage Scrub	32500
A Manual of California Vegetation	California sagebrush-California buckwheat series	N/A
NatureServe Habitat	Southern California Coastal Scrub	CES206.933
Date	10/11/2007	
Disturbances	This area has been burned possibly in 2003. This area is regularly grazed. Several alien trails go through this area.	
Quality Assessment	This area varies from high quality to moderately low quality depending on the amount of disturbance, which is unevenly distributed. Overall the area is moderate to good quality habitat.	
Dominant Species	<i>Malosma laurina</i> <i>Artemisia californica</i> <i>Eriodictyon trichocalyx</i>	
Notes	A drainage dominated by <i>Iva hayesiana</i> runs through this area and supports the more mesic species. No photo available.	

2

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Table 5-4. Vegetation Classifications Region 8

Holland Habitat	Mulefat Scrub	63310
A Manual of California Vegetation	Mulefat series	N/A
NatureServe Habitat	Baccharis salicifolia riparian shrubland	CEGL003549
Date	10/15/2007	
Disturbances	This area has been burned, possibly in 2003. This area is grazed, but not as heavily as other portions of the surveys area.	
Quality Assessment	This area is very small and of moderate to high quality. The habitat is certainly impacted by grazing and alien activities. The area still has a high diversity and low number of exotic species for the level of impacts.	
Notes	No Photo	

4

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Table 5-5. Vegetation Classifications Region 9

Holland Habitat	Diegan Coastal Sage Scrub	32500
A Manual of California Vegetation	California buckwheat-white sage series*	N/A
NatureServe Habitat	Southern California Coastal Scrub	CES206.933
Date	10/12/2007	
Disturbances	This area has been degraded by numerous dirt roads and trails.	
Quality Assessment	This habitat is of moderate quality due to human impacts from both sides of the border. While there are patches of high quality habitat, there are also patches of extreme disturbance where no natural habitat occurs.	
Dominant Species	<i>Malosma laurina</i> <i>Eriogonum fasciculatum</i>	
Notes	*The description in A Manual of California Vegetation isn't truly reflective of field conditions, but it is the closest representation.	

2



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Figure 5-5. Photograph Representative of Region 9

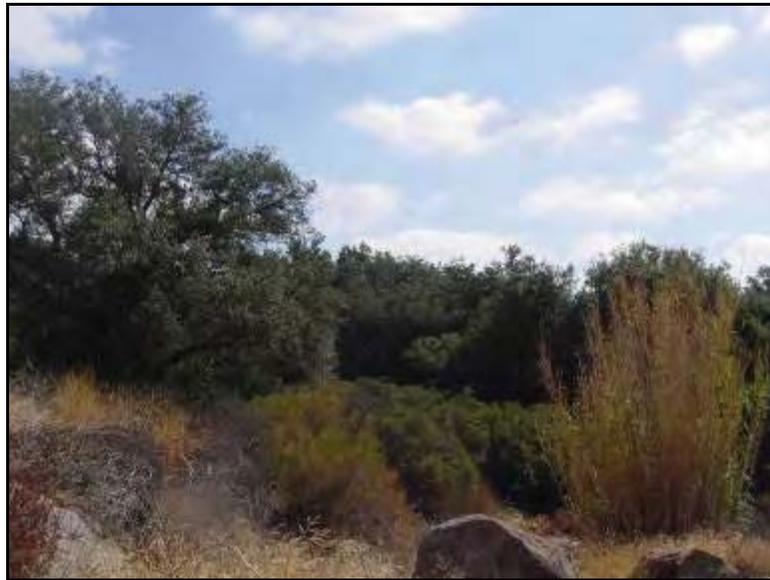
4

1

Table 5-6. Vegetation Classifications Region 10

Holland Habitat	Southern Coast Live Oak Riparian Forest	61310
A Manual of California Vegetation	Coast Live Oak Series	N/A
NatureServe Habitat	<i>Quercus agrifolia</i> / <i>Toxicodendron diversilobum</i> Woodland	CEGL002866
Date	10/12/2007	
Disturbances	There is an occupied house, with a fenced yard and road under the oaks in this woodland. There are fewer trails through the oak woodland than in the adjacent habitats.	
Dominant Species	<i>Quecus agrifolia</i>	
Quality Assessment	This habitat is of poor quality. While natives occur here, much of the understory is dominated by exotic species. A house, associated landscaping, and exotics dominate the understory. The oaks themselves appear to be doing very well.	

2



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Figure 5-6. Photograph Representative of Region 10

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Table 5-7. Vegetation Classifications Region 11

Holland Habitat	Diegan Coastal Sage Scrub	32500
A Manual of California Vegetation	California buckwheat-white sage series*	N/A
NatureServe Habitat	Southern California Coastal Scrub	CES206.933
Date	10/12/2007	
Disturbances	This area has been degraded by the large number of dirt roads and trails through it, though not nearly to the extent of Region 9. There is the foundation of an old homestead, many alien trails, and a dirt road in the eastern portion of Region 11.	
Dominant Species	<i>Artemisia californica</i> <i>Malosma laurina</i> <i>Bromus madritensis</i>	
Quality Assessment	This habitat is of high quality. There is a drainage that runs through much of it. The diversity of plant species is very high in this area. While there are many more trails than would be expected in this type of habitat, the vegetation appears to still be thriving despite the trail activity.	
Notes	*The description in A Manual of California Vegetation isn't truly reflective of field conditions, but it is the closest representation. It is very difficult to ascertain dominance in this area due to the diversity of the habitat. In the drainage, which makes up a large part of the survey area, scrub oaks are a dominant, but in fact this is a montage of microhabitats that are too small to be mapped individually and vary in dominance species. Overall though the area is a coastal sage scrub type habitat.	

2



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Figure 5-7. Photograph Representative of Region 11

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Table 5-8. Vegetation Classifications Region 12

Holland Habitat	Whitethorn Chaparral	37532
A Manual of California Vegetation	Chaparral whitethorn series	N/A
NatureServe Habitat	California maritime chaparral	CES206.929
Dominant Species	<i>Ceanothus leucodermis</i> <i>Avena</i> sp. <i>Romneya coulteri</i> var. Unk.	
Date	10/12/2007	
Disturbances	This area shows evidence of having been burned, possibly in 2005. Alien trails run through this area.	
Quality Assessment:	This habitat is of moderate quality. The area is along a ridgeline dominated by large granite boulders. The area is being invaded by exotic grasses due to the disturbance, but otherwise is of good quality.	

2



3

Figure 5-8. Photograph Representative of Region 12

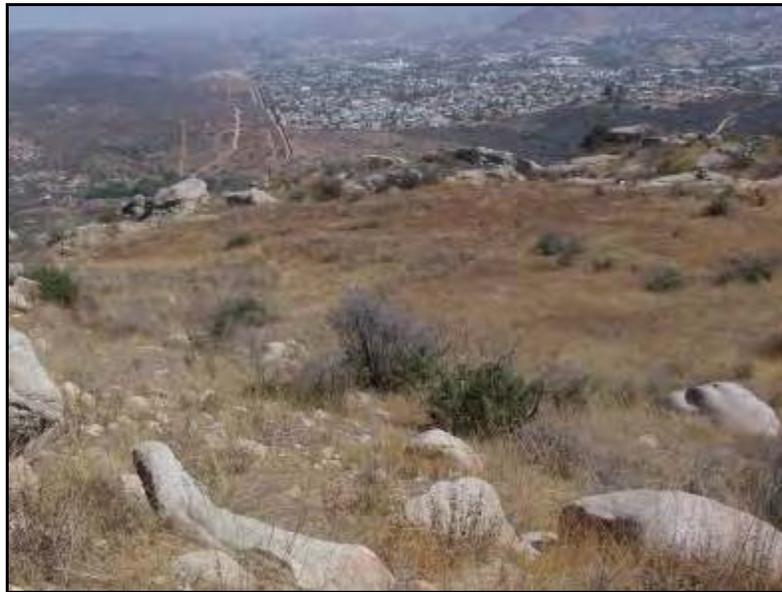
4

1

Table 5-9. Vegetation Classifications Region 13

Holland Habitat	Non-Native Grassland	42200
A Manual of California Vegetation	California annual grassland Series	N/A
NatureServe Habitat	Bromus herbaceous alliance	A.1813
Dominant Species	<i>Bromus madritensis</i> <i>Bromus mollis</i> <i>Avena</i> sp.	
Date	10/12/2007	
Disturbances	This area shows evidence of having been burned, possibly in 2005. Alien trails run through this area.	
Quality Assessment	The area appears to be type-transitioning due to fire, from whitethorn chaparral to non-native grassland.	

2



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Figure 5-9. Photograph Representative of Region 13

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Table 5-10. Vegetation Classifications Region 14

Holland Habitat	Southern Coast Live Oak Riparian forest	61310
A Manual of California Vegetation	Coast Live Oak Series	N/A
NatureServe Habitat	<i>Quercus agrifolia</i> / <i>Toxicodendron diversilobum</i> Woodland	.A.5.N.a
Dominant Species	<i>Platanus racemosa</i> <i>Quercus agrifolia</i> <i>Brickellia californica</i>	
Date	10/15/2007	
Disturbances	There are localized impacts from grazing and trails created by aliens. The area burned in the past.	
Quality Assessment	This habitat is generally of high quality. The understory of the oak trees is heavily impacted by cattle, but most of the remaining habitat is in good condition, with a very low number of exotic species.	
Notes	This is the area in the bottom of Copper Canyon.	

2



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Figure 5-10. Photograph Representative of Region 14

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Table 5-11. Vegetation Classifications Region 16

Holland Habitat	Diegan Coastal Sage Scrub	32500
A Manual of California Vegetation	California Encelia Series*	N/A
NatureServe Habitat	Southern California Coastal Scrub	CES206.933
Dominant Species	<i>Viguiera laciniata</i> <i>Bebbia juncea</i>	
Date	10/15/2007	
Disturbances	This area has been burned, possibly in 2003. This area is heavily degraded by grazing. This habitat may have been affected by the drought, though those effects are impossible to distinguish from the combined effects of the above.	
Quality Assessment:	This habitat is of very low quality when compared to similar undisturbed habitats. It is not a pristine habitat, and the habitat is very sparse and has a much larger number of exotic species than would be expected in a pristine habitat condition. The disturbances are so severe that even identifying dominant species is challenging.	
Notes:	*San Diego Sunflower (<i>Viguiera laciniata</i>) replaces Encelia in a similar ecological niche this far south in California. If Encelia is replaced with <i>Viguiera laciniata</i> , the Manuals description fits. This area is extremely steep.	

2



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Figure 5-11. Photograph Representative of Region 16

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Table 5-12. Vegetation Classifications Region 17

Holland Habitat	Southern Mixed Chaparral	37120
A Manual of California Vegetation	Chamise-Mission Manzanita-Woollyleaf Ceanothus Series	N/A
NatureServe Habitat	Southern California Dry Mesic Chaparral	CES206.930
Dominant Species	<i>Pickeringia Montana</i> <i>Xylococcus bicolor</i> <i>Romneya coulteri</i> var. Unk. <i>Ceanothus tomentosus</i>	
Date	10/15/2007	
Disturbances	This area has been burned, possibly in 2003. This area is degraded by grazing.	
Quality Assessment	This habitat is poor quality and has the heaviest trail activity in the survey area. This habitat is also heavily grazed.	

2



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Figure 5-12. Photograph Representative of Region 17

4

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Table 5-13. Vegetation Classifications Region 18

Holland Habitat	Southern Coast Live Oak Riparian forest	61310
A Manual of California Vegetation	Coast Live Oak Series	N/A
NatureServe Habitat	<i>Quercus agrifolia</i> / <i>Toxicodendron diversilobum</i> Woodland	.A.5.N.a
Dominant Species	<i>Baccharis salicifolia</i> <i>Quercus agrifolia</i> <i>Brickellia californica</i>	
Date	10/15/2007	
Disturbances	There are localized impacts from grazing and alien foot-traffic. The area burned in the past.	
Quality Assessment	This habitat is generally of high quality. The habitat is in good condition with a very low number of exotic species for a riparian area in the county. The riparian habitat here is the highest quality riparian habitat of all areas surveyed.	

2



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Figure 5-13. Photograph Representative of Region 18

4

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Table 5-14. Vegetation Classifications Region 19

Holland Habitat	Southern Mixed Chaparral	37120
A Manual of California Vegetation	Scrub oak series	N/A
NatureServe Habitat	Southern California Dry Mesic Chaparral	CES206.930
Dominant Species	<i>Quercus cedrosensis</i> <i>Malosma laurina</i> <i>Lotus scoparius</i>	
Date	10/15/2007	
Disturbances	This area has been burned, possibly in 2003. There area is impacted by grazing activity. There are many alien foot-paths in the area.	
Quality Assessment	The habitat in this area is of moderate to poor quality. There are a fair number of invasive exotics and quite a bit of grazing activity. The area appears to be struggling to recover from the 2003 fire due to the drought, and the combination of aliens and grazing activities has spread the exotic invasive species.	

2



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Figure 5-14. Photograph Representative of Region 19

4

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Table 5-15. Vegetation Classifications Regions 20 and 22

Holland Habitat	Diegan Coastal Sage Scrub	32500
A Manual of California Vegetation	California Encelia Series	N/A
NatureServe Habitat	Southern California Coastal Scrub	CES206.933
Dominant Species	<i>Hirschfeldia incana</i> <i>Lotus scoparius</i> <i>Viguiera laciniata</i> <i>Eriogonum fasciculatum</i> <i>Avena</i> sp.	
Date	10/15/2007	
Disturbances	This area has been burned, possibly in 2003.	
Quality Assessment	This habitat is generally of poor quality. It is a large area, but there are many exotic grasses and forbs degrading the habitat. The habitat is sparse and appears to be suffering from the combined fire and drought, as well as a large number of exotic forbs.	

2



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Figure 5-15. Photograph Representative of Regions 20 and 22

4

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Table 5-16. Vegetation Classifications Region 21

Holland Habitat	Chamise Chaparral	37200
A Manual of California Vegetation	Chamise series	N/A
NatureServe Habitat	<i>Adenostema fasciculatum</i> shrubland	CEGL002924
Date	10/15/2007	
Disturbances	This area is recovering from a burn.	
Dominant Species	<i>Adenostema fasciculatum</i>	
Quality Assessment	This habitat is generally of moderate quality. There are a large number of exotic grasses and forbs, though not as many as in the adjacent Regions 20 and 22.	
Notes	This is a strip of chamise chaparral within a larger expanse of highly disturbed coastal sage scrub. This habitat is of better quality than the surrounding coastal sage scrub, habitat but it is still of poor habitat quality. No photo available.	

2

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Table 5-17. Vegetation Classifications Region 23

Holland Habitat	Southern Coast Live Oak Riparian forest	61310
A Manual of California Vegetation	Coast Live Oak Series	N/A
NatureServe Habitat	<i>Quercus agrifolia/Toxicodendron diversilobum</i> Woodland	.A.5.N.a
Dominant Species	Coast Live Oak	
Date	10/15/2007	
Disturbances	There are localized impacts from grazing and alien foot-traffic. The area burned in the past.	
Quality Assessment	This habitat is generally of high quality. There is a lot of diversity within the floodplain. While exotics are heavier here than in Regions 14 or 18, this habitat is still intact and functioning. The habitat is a wider floodplain than anywhere else in the areas surveyed. It has more microhabitat niches available and greater secondary flow areas for species which prefer those areas.	
Notes	No photo available.	

4

5

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Table 5-18. Vegetation Classifications Region 24

Holland Habitat	Southern Mixed Chaparral	37120
A Manual of California Vegetation	Chamise-Mission Manzanita-Woollyleaf Ceanothus Series	N/A
NatureServe Habitat	Southern California Dry Mesic Chaparral	CES206.930
Dominant Species	<i>Xylococcus bicolor</i> <i>Ceanothus tomentosus</i>	
Date	10/17/2007	
Disturbances	This area has been burned, possibly in 2003. There is no evidence of grazing here, and very little alien trail activity.	
Quality Assessment	This habitat is of high quality and recovering naturally from the burn, though recovery may be slowed somewhat by the 2 years of recent drought.	
Notables	This area was surveyed in the rain.	

2



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Figure 5-16. Photograph Representative of Region 24

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Table 5-19. Vegetation Classifications Region 25

Holland Habitat	Mafic Southern Mixed Chaparral	37122
A Manual of California Vegetation	Chamise-Mission Manzanita-Woollyleaf Ceanothus Series	N/A
NatureServe Habitat	Southern California Dry Mesic Chaparral	CES206.930
Dominant Species	<i>Ceanothus tomentosus</i> <i>Eriodictyon trichocalyx</i> <i>Mimulus aurantiacus</i> <i>Chamaebatia australis</i> <i>Pickeringia montana</i>	
Date	10/17/2007	
Disturbances	This area has been burned, possibly in 2003. There is no evidence of grazing here, and very little alien trail activity.	
Quality Assessment	This habitat is of high quality and recovering naturally from the burn, though recovery may be slowed somewhat by the 2 years of recent drought.	
Notes	This habitat association is known for the number of rare species found within it. This area was surveyed in the rain. This is an unusual habitat formation that is common in parts of Otay Mountain, but is not known to occur elsewhere. No habitat mapping system appears to adequately address this association. It is likely this chaparral/burned Tecate cypress forest is the dominant habitat along the entire Puebla tree spur off the Otay Mountain truck trail. No photo available.	

2

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1 **5.2 Plant Species Identified**

2 A complete plant list of all species identified during the field surveys, including
3 the fence section in which it was identified, is provided in **Table 5-1**.

4 **Table 5-20. Complete Plant List of all Species Identified**

Scientific Name	Common Name	A-1	A-2	A-1 Access Road (Survey not completed)
<i>Achnatherum coronatum</i>	Giant needlegrass	X	X	X
<i>Acourtia microcephala</i>	Sacapellote		X	
<i>Adenostema fasciculatum</i>	Chamise	X	X	X
<i>Ageratina adenophora</i>	Sticky thorough-wort		X	
<i>Ambrosia monogyra</i>	Single-whorl burrow-brush	X		
<i>Ambrosia psilostachya</i>	Naked-spike ambrosia		X	
<i>Antirrhinum nuttallianum</i>	Violet snapdragon		X	
<i>Arctostaphylos glauca</i>	Bigberry Manzanita		X	
<i>Arctostaphylos otayensis</i>	Otay Manzanita	X		X
<i>Artemisia californica</i>	California sagebrush	X	X	X
<i>Arundo donax</i>	Giant reed		X	
<i>Asclepias fascicularis</i>	Narrowleaf milkweed	X		
<i>Atriplex semibaccata</i>	Australian saltbush	X	X	X
<i>Avena</i> sp.	Wild oat	X	X	X
<i>Baccharis salicifolia</i>	Willow-leaf false willow	X	X	X
<i>Baccharis sarothroides</i>	Desert broom false willow		X	
<i>Bebbia juncea</i>	Sweetbush	X		
<i>Bothriochloa barbinodis</i>	Cane bluestem	X		
<i>Brickellia californica</i>	California brickellbush	X	X	
<i>Brodiaea pulchellum</i>	Brodiaea		X	
<i>Brodiaea</i> sp.	Brodiaea		X	
<i>Bromus diandrus</i>	Ripgut brome	X	X	
<i>Bromus madritensis</i>	Compact brome		X	
<i>Bromus mollis</i>	Soft brome	X	X	
<i>Bromus rubens</i>	Red brome		X	
<i>Bromus</i> sp.	Brome	X		X
<i>Calochortus</i> sp.	Mariposa lily	X	X	
<i>Calystegia macrostegia</i>	Island false bindweed	X	X	X
<i>Carex spissa</i>	San Diego sedge	X	X	
<i>Castilleja</i> sp.	Indian paint brush		X	
<i>Caulanthus</i> sp.	Wild cabbage	X		
<i>Ceanothus leucodermis</i>	Chaparral whitethorn		X	

Scientific Name	Common Name	A-1	A-2	A-1 Access Road (Survey not completed)
<i>Ceanothus otayensis</i>	Otay Mountain ceanothus	X		X
<i>Ceanothus tomentosus</i>	Woolyleaf ceanothus	X		X
<i>Centaurea melitensis</i>	Maltese star thistle	X	X	X
<i>Cercocarpus minutiflorus</i>	Smooth mountain mahogany			X
<i>Chamaebatia australis</i>	Southern mountain misery			X
<i>Cheilanthes</i> sp.	Cloak fern	X		
<i>Cirsium occidentale</i>	Cobweb thistle	X	X	
<i>Cirsium vulgare</i>	Bull thistle	X	X	
<i>Clematis pauciflora</i>	Ropevine clematis		X	
<i>Cneoridium dumosum</i>	Bush rue		X	
<i>Cordylanthus rigidus</i>	Stiffbranch bird's beak		X	
<i>Cryptantha</i> sp.	Cryptantha	X	X	
<i>Cupressus forbesii</i>	Tecate cypress	X		X
<i>Cuscuta</i> sp.	Dodder	X	X	
<i>Daucus pusillus</i>	American wild carrot	X	X	
<i>Delphinium</i> sp.	Larkspur		X	
<i>Dendromecon rigida</i>	Tree poppy	X		
<i>Dicentra chrysantha</i>	Golden eardrops	X	X	
<i>Dudleya blachmaniae</i> ssp. <i>brevifolia</i>	Short leaved dudleya		X	
<i>Dudleya edulis</i>	Fingertips	X		
<i>Dudleya pulverulenta</i>	Chalk dudleya	X	X	
<i>Croton setigerus</i>	Dove weed		X	
<i>Epilobium canum</i>	Hummingbird trumpet	X		
<i>Erigeron foliosus</i>	Leafy daisy		X	
<i>Eriodictyon trichocalyx</i>	Smoothleaf Yerba Santa	X	X	X
<i>Eriogonum fasciculatum</i>	Flat-top buckwheat		X	
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Eastern Mojave buckwheat		X	
<i>Eriophyllum confertiflorum</i>	Golden Yarrow		X	
<i>Erodium botrys</i>	Long-beaked storkbill		X	
<i>Erodium</i> sp.	None	X		
<i>Eucalyptus</i> sp.	Eucalyptus		X	
<i>Ferocactus viridescens</i>	San Diego barrel cactus	X		
<i>Filago</i> sp.	Cudweed	X	X	
<i>Foeniculum vulgare</i>	Fennel	X	X	
<i>Gallium</i> sp.	Bedstraw		X	X
<i>Gastridium ventricosum</i>	Nit grass	X		
<i>Gnapahalium stramineum</i>	Cotton batting	X	X	X

Scientific Name	Common Name	A-1	A-2	A-1 Access Road (Survey not completed)
<i>Gnaphalium bicolor</i>	Two-tone everlasting	X	X	
<i>Gnaphalium californicum</i>	California everlasting	X		X
<i>Gnaphalium luteo-album</i>	Weedy cudweed	X		
<i>Gutierrezia californicum</i>	California snakeweed	X		
<i>Gutierrezia sarothrae</i>	Broom snakeweed	X	X	
<i>Hazardia squarrosa</i>	Sawtooth goldenbush	X	X	X
<i>Hedypnois cretica</i>	Crete weed	X		
<i>Helianthemum scoparium</i>	Common sun rose	X	X	X
<i>Helianthus</i> sp.	Sunflower		X	
<i>Hemizonia</i> sp.	Tarweed	X		
<i>Heteromeles arbutifolia</i>	Christmas Berry	X		X
<i>Hirschfeldia incana</i>	Mediterranean mustard	X	X	X
<i>Hypochoeris</i> sp.	None		X	
<i>Isocoma menziesii</i>	Coast goldenbush	X		
<i>Isomeris arborea</i>	Bladderpod			X
<i>Iva havesiana</i>	San Diego marsh elder	X		X
<i>Juncus acutus</i>	Spiny rush	X		X
<i>Keckiella antirrhinoides</i>	Yellow bush snapdragon		X	
<i>Keckiella cordifolia</i>	Climbing penstemon			X
<i>Keckiella ternata</i>	Summer bush penstemon			X
<i>Lamarckia aurea</i>	Goldentop grass	X		
<i>Lathyrus</i> sp.	None			X
<i>Lepidium</i> sp.	Pepperweed	X	X	
<i>Lessingia filaginifolia</i>	Common California aster	X	X	X
<i>Lonicera subspicata</i>	Honeysuckle	X	X	
<i>Lotus argophyllus</i>	Silver bird's foot trefoil		X	
<i>Lotus scoparius</i>	Deerweed	X	X	X
<i>Lythrum californica</i>	None	X		
<i>Malacothamnus fasciculatus</i>	Bush mallow	X	X	X
<i>Malacothamnus</i> sp.	Bush mallow	X		
<i>Malosma laurina</i>	Laurel sumac	X	X	X
<i>Marah macrocarpus</i>	Wild cucumber		X	
<i>Marrubium vulgare</i>	Horehound		X	
<i>Melilotus</i> sp.	Sweetclover		X	
<i>Melica frutescens</i>	Woody melicgrass	X		
<i>Melica imperfecta</i>	Coast range melic		X	
<i>Mimulus aurantiacus</i>	Bush monkeyflower	X	X	X
<i>Mimulus brevipes</i>	Yellow monkeyflower		X	

Scientific Name	Common Name	A-1	A-2	A-1 Access Road (Survey not completed)
<i>Mimulus guttatus</i>	Seep monkeyflower		X	
<i>Mirabilis californica</i>	Wishbone bush	X		
<i>Nassella</i> sp.	Purple needlegrass		X	
<i>Navarretia</i> sp.	Pincushionplant	X	X	
<i>Nicotiana glauca</i>	Tree tobacco		X	
<i>Opuntia littoralis</i>	Coast prickly pear	X		
<i>Ornithostaphylos oppositifolia</i>	Baja bird bush		X	
<i>Osmondenia tenella</i>	None	X	X	
<i>Paeonia californica</i>	California peony		X	
<i>Pellaea</i> sp.	None	X	X	
<i>Penstemon spectabilis</i>	Showy penstemon	X		
<i>Penstemon</i> sp.	Penstemon		X	
<i>Phacelia cicutaria</i>	Caterpillar phacelia		X	
<i>Phacelia</i> sp.	None		X	
<i>Pickeringia montana</i>	Chaparral pea	X	X	X
<i>Pityrogramma</i> sp.	None	X	X	X
<i>Plantago erecta</i>	Plantain	X	X	
<i>Platanus racemosa</i>	Western sycamore	X		
<i>Polypogon monspeliensis</i>	Annual beardgrass	X		
<i>Populus fremontii</i>	Western cottonwood		X	
<i>Porophyllum gracile</i>	Slender Poreleaf	X		
<i>Prunus ilicifolia</i>	Hollyleaf cherry			X
<i>Quercus agrifolia</i>	Coast live oak		X	
<i>Quercus berberidifolia</i>	Scrub oak		X	
<i>Quercus cedrosensis</i>	Cedros oak	X		X
<i>Rhamnus crocea</i>	Redberry		X	X
<i>Rhus ilicifolia</i>	Lemonadeberry	X		
<i>Rhus ovata</i>	Sugarbush		X	
<i>Ribes</i> sp.	Gooseberry	X		X
<i>Romneya coulteri</i>	Matilija Poppy	X	X	X
<i>Rosa minutifolia</i>	Small leaved rose			
<i>Rumex crispus</i>	Curly dock	X		
<i>Rumex</i> sp.	None		X	
<i>Salix gooddingii</i>	Goodding's willow		X	
<i>Salix lasiolepis</i>	Arroyo willow		X	
<i>Salsola tragus</i>	Russian thistle	X		X
<i>Salvia apiana</i>	White sage	X	X	
<i>Salvia clevelandii</i>	Cleveland's sage			
<i>Salvia columbariae</i>	Chia		X	

Scientific Name	Common Name	A-1	A-2	A-1 Access Road (Survey not completed)
<i>Salvia munzii</i>	Munz's sage	X		
<i>Sambucus mexicana</i>	Mexican elderberry		X	
<i>Schinus molle</i>	Peruvian peppertree		X	
<i>Schismus barbatus</i>	Common Mediterranean grass		X	
<i>Scirpus</i> sp.	None		X	
<i>Scrophularia californica</i>	Figwort	X	X	
<i>Selaginella bigelovii</i>	Spike moss	X	X	
<i>Selaginella cinerescens</i>	Ashy spike moss	X	X	X
<i>Silene gallica</i>	Small-flower catchfly			
<i>Simmondsia chinensis</i>	Jojoba	X		
<i>Solanum</i> sp.	Nightshade	X		
<i>Solidago occidentalis</i>	Goldenrod		X	X
<i>Stachys rigida</i>	Rough hedge-nettle		X	
<i>Stephanomeria virgata</i>	Virgate wire-lettuce	X		
<i>Stylocline gnaphalioides</i>	New-straw cotton-weed		X	
<i>Tamarix ramosissima</i>	salt-cedar		X	
<i>Thysanocarpus</i> sp.	Fringepod		X	
<i>Toxicodendron diversilobum</i>	Western poison-oak		X	
<i>Trichostema</i> sp.	Bluecurls	X		
<i>Urtica dioica</i>	Stinging nettle		X	
<i>Viguiera laciniata</i>	San Diego County viguiera	X		
<i>Vinca major</i>	Large-leaf Periwinkle		X	
<i>Xanthium</i> sp.	Cocklebur		X	
<i>Xylococcus bicolor</i>	Mission Manzanita	X	X	X
<i>Yucca whipplei</i>	Our-lord's-candle	X	X	X
Total number of species per section or access road:		100	113	47

- 1 Notes:
- 2 Species listed for Section A-1 and A-1 access road have not been completed as of the date of
- 3 report submittal.
- 4 Section A-2 species list is complete as of the date of report submittal.
- 5

5.3 Proposed Fence Section Characteristics and Description of Habitat Quality

A general description of the habitat quality and the characteristics of each section are provided below.

SECTION A-1

Potential Listed Plant Occurrence	San Diego ambrosia (<i>Ambrosia pumila</i>) (FE) San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>) (FE, SE) Otay tarplant (<i>Deinandra conjugens</i>) (FT, SE) Otay Mesa mint (<i>Pogogyne nudiuscula</i>) (FE, SE) Spreading navarretia (<i>Navarretia fossalis</i>) (FT) Mexican flannelbush (<i>Fremontodendron mexicanum</i>) (FE) California Orcutt grass (<i>Orcuttia californica</i>) (FE, SE) Encinitas baccharis (<i>Baccharis vanessae</i>) (FT, FE)
Listed Plants Observed	None
Suitable Listed Plant Habitat Present	Yes
If So, Habitat Quality	Large variations of poor to good-quality habitat.

FE = federally endangered; FT = federally threatened; SE = state endangered

Section Habitat Description: This section covers approximately 5.2 miles on BLM managed lands. It mostly follows the Pack Trail, a footpath on the south side of Otay Mountain. The section starts at the Puebla Tree, a well-known border patrol landmark, and ends at boundary marker 250. Topographically, the terrain is steep along most of the trail. The trail skirts the mid-span of the mountain, so that steep upslopes lead out of canyons, and steep downslopes lead into another canyon. The trail crosses Copper, Buttewig, and Mine Canyons. In addition, a drainage known as Wild Bill's is located at the beginning of the Pack Trail, nearby the Puebla Tree.

Much of Section A-1 is grazed illegally by cows, and several cows were observed during natural resource surveys. Numerous north-south trending footpaths from cows and aliens can be seen over much of the mountain. Portions of the mountain burned during the 2003 Cedar fire and show signs of recovering. Much of the area where coastal sage scrub communities are dominant (a large area of the Pack Trail) is considered disturbed and of poor quality. Areas of chaparral are of moderate quality, and riparian areas dominated by Coast live oak in the canyon bottoms are considered high-quality habitat.

Existing access roads on the west and east ends of the Pack Trail make up a total of over 13 miles of access roads that require a range of improvements. On the west side of the Pack Trail, the existing access road will begin off Alta Road and end at the Puebla Tree. This access road is approximately 5.59 miles in

1 length. Much of the BLM road which generally leads down the west side of Otay
 2 Mountain will require significant improvements to allow truck and heavy
 3 equipment ingress/egress.

4 On the east side of the Pack Trail, from the point where Boundary Marker 250 is
 5 located to Interstate 94 is approximately 7.81 miles. Several areas of these
 6 unpaved existing access roads will require improvements, such as wider
 7 turnouts, reinforcements, and culverts.

8 Several Tecate cypress were found within each of the three drainages (Mine,
 9 Copper, and Buttewig Canyons), in Wild Bill's Canyon at the beginning of the
 10 Pack Trail (not part of the current alignment, but part of a former alignment), and
 11 along the BLM access road from the Puebla Tree to approximately one-half mile
 12 northwest.

13 **[[Preparer's Note: Tecate cypress likely extends beyond one-half mile from**
 14 **the Puebla Tree; however, at the time of this draft report submittal, the**
 15 **survey had only been completed to that point. The extent of Tecate**
 16 **cypress will be revised when the survey is completed.]]**

17 No other listed plants were observed during the survey.

18 Listed wildlife species observed during the surveys along Section A-1 include
 19 several sightings of rufous-crowned sparrow, coast patch-nosed snake, orange-
 20 throated whiptail lizard, Cooper's hawk, northern harrier, and San Diego black
 21 tailed jackrabbit. In addition, Harbison dun skipper larvae and golden eagle were
 22 observed while surveying the access road (BLM Road) leading to the Puebla
 23 Tree.

24 **SECTION A-2**

Potential Listed Plant Occurrence	San Diego ambrosia (<i>Ambrosia pumila</i>) (FE) San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>) (FE, SE) Otay tarplant (<i>Deinandra conjugens</i>) (FT, SE) Otay Mesa mint (<i>Pogogyne nudiuscula</i>) (FE, SE) Spreading navarretia (<i>Navarretia fossalis</i>) (FT) Mexican flannelbush (<i>Fremontodendron mexicanum</i>) (FE) California Orcutt grass (<i>Orcuttia californica</i>) (FE, SE) Encinitas baccharis (<i>Baccharis vanessae</i>) (FT, FE)
Listed Plants Observed	None
Suitable Listed Plant Habitat Present	Yes
If So, Habitat Quality	Poor to high-quality habitat.

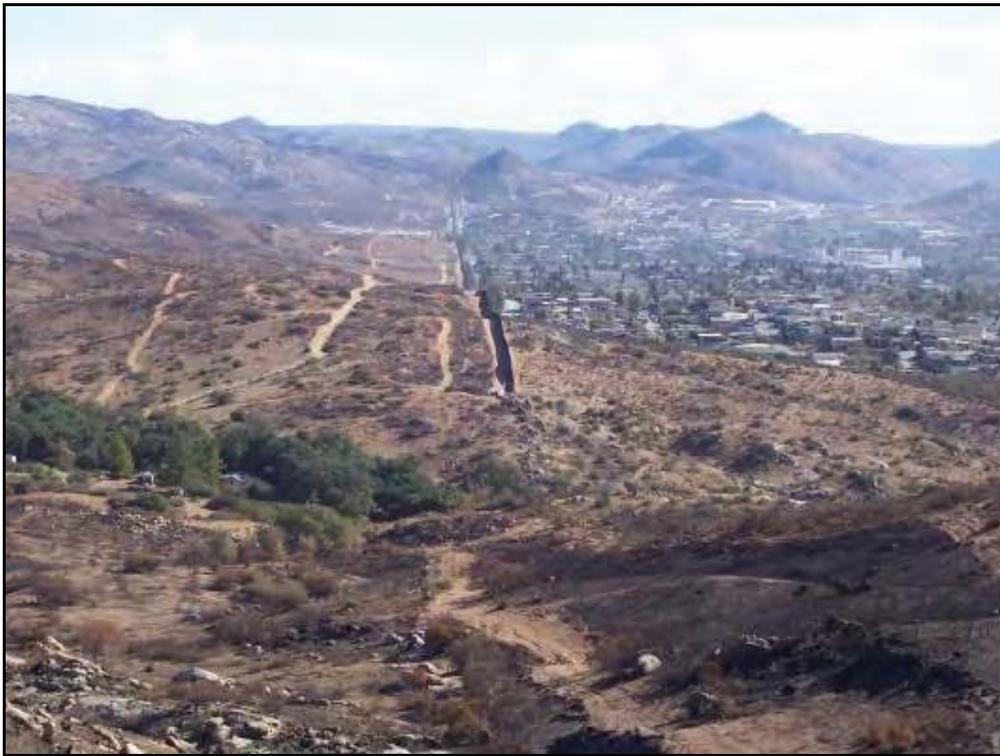
25

1 **Section Habitat Description:** Section A-2, approximately 0.7 mile in length,
2 begins at the point where the existing fence that extends from the east side of the
3 Tecate port of entry (POE) ends, and continues up a short slope. The alignment
4 in this section follows the international border. Over 2 miles of access roads are
5 proposed for this section, and one staging area along the access road that
6 parallels the existing fence.

7 High-quality CSS habitat exists in some areas of the section that are dominated
8 by *Artemisia californica* and *Malosma laurina*. An occupied house with a fenced
9 yard is within the section where the area is dominated by Coast live oak riparian
10 habitat. The understory of this habitat is mainly non-native species. Much of the
11 section is a non-native grassland, with dominant species being *Bromus* sp. and
12 *Avena* sp.

13 No federally listed plants were observed during the surveys in Section A-2.
14 Federally listed wildlife observed during A-2 surveys include coast patch-nosed
15 snake and orange throated whiptail.

16 In late October 2007, most of the alignment and associated access roads were
17 burned in the Harris fire. Figure 16 shows an overview of the burned area looking
18 east at the start of section A-2, and Figure 17 depicts the burn area within the
19 survey corridor.



20

21 **Figure 5-17. Burn Area Looking East (Photographed November 14, 2007)**
22 (Note that the stand of coast live oaks [extending from the left side of the photo]
23 within the survey corridor did not burn.)



1

2

Figure 5-18. Section A-2 Post-fire (Photographed November 14, 2007)

3

5.4 Wetlands and Waters of the United States

4

Delineations for wetlands and Waters of the United States (WOUS) have not yet been conducted but is scheduled for January 2008. The most current information available to identify wetlands is the National Wetlands Initiative (NWI) (USFS 2007). There are no NWI wetlands in Sections A-1 or A-2. Approximately 2.4 acres of riverine wetlands are estimated by aerial photography review. This information will be confirmed by the field delineation.

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5.5 Wildlife Observed

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Forty-one species of vertebrates were recorded during the October and December 2007 surveys, including 2 reptiles, 33 birds, and 6 mammals. In addition, a total of 32 insects were observed and identified during the surveys. Section A-1, as with vegetation, was the most species-rich, with 29 wildlife species recorded.

12

13

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16

Although one larva of the state-listed species of concern Harbison dun skipper was observed, there is potential for the following to occur:

17

18

- Harbison's dun skipper (*Euphyes vestris harbisoni*) (SC)

19

- Hermes copper butterfly (*Lycaena hermes*) (SC)

20

- Thorne's hairstreak (*Callophrys thornei*) (SC, MSCP, BLM)

21

- Quino checkerspot butterfly (*Euphydryas editha quino*) (FE, SC).

1 **Harbison dun skipper (SC).** The larva of a Harbison's dun skipper was
2 observed during the survey of the Puebla Tree access road on December 3,
3 2007. Host plants of the Harbison dun skipper (San Diego Sedge [*Carex spisa*])
4 were observed within the canyon bottom of the Puebla Tree access road. The
5 sedge observed was clearly defoliated by grazing; therefore, any potential
6 occupation by caterpillars could not be assessed.

7 Several sedge plants and indications of one larval feeding were observed within
8 Copper Canyon (the first canyon the Pack Trail crosses from west to east). Butte-
9 wig Canyon also had recovering sedge, but in this canyon it showed signs of
10 drought stress and did not appear as robust as would be expected (Klein 2007).

11 **Hermes copper (SC).** Because the 2003 Otay Fire burned the area of A-1 and
12 associated access roads, it is currently too soon for adults to recolonize this area.
13 Many recovering redberry shrubs, which are their host plant (*Rhamnus crocea*),
14 were observed throughout the Pak Trail. None of the host plants are currently
15 occupied; however, the adult flight season occurs mid-May through early July,
16 which would be the best time to assess their presence in the area.

17 **Thorne's hairstreak (SC, MSCP, BLM).** The only host plant of Thorne's
18 hairstreak is the Tecate cypress (*Cupressus forbesii*), and prior to the Otay Fire
19 of 2003, Otay Mountain contained the largest stand of Tecate cypress in the
20 world. The Otay Fire in October 2003 burned nearly 90 percent of the cypress on
21 Otay Mountain. The tree is a closed-cone conifer, meaning that viable seeds will
22 disperse when the cones open in response to a catastrophic event, such as fire.
23 Fire is the typical dispersal mechanism; however, old age and warm
24 temperatures can also cause the cones to open. Reproductive maturity of Tecate
25 cypress occurs sometime after the tree is 20 years old. Of the nearly 500 acres
26 of cypress remaining on the mountain after 2003, only about 180 acres are
27 mature enough to reproduce. Several Tecate cypress were found within each of
28 the three drainages (Mine, Copper, and Buttewig Canyons), in Wild Bill's Canyon
29 near the beginning of the Pack Trail, and along the BLM access road from the
30 Puebla Tree to approximately one-half mile northwest.

31 Since the 2003 Fire it has been observed that adults are mating on Cypress trees
32 between 6 and 7 years old (Klein 2007). If mating is occurring on young trees,
33 the usual biology for the Thorne's hairstreak is that the female will lay eggs on
34 the tree where mating happens. So even though the tree is not at reproductive
35 maturity, it appears that a six or seven year old tree is mature enough for egg
36 laying.

37 The hairstreak occurs along the Otay Mountain Truck Trail on the west side of
38 the mountain only. There are no confirmed records that it occurred along the
39 Puebla Pak Trail but the position which has been taken by many Lepidopteran
40 experts is that if a host is mature for egg laying it is usually occupied (Klein
41 2007). There was evidence of reproductively mature trees within the Puebla Tree
42 access road, Copper Canyon, Buttewig Canyon and the drainage near Mine
43 Canyon which accesses the Monument 250 Truck Trail. In all locations saplings

1 were observed that may serve as host plants if they reach the age of 6 to 7
2 years.

3 **Quino checkerspot butterfly (FE, SC).** The host plants of Quino are dwarf
4 plantain (*Plantago erecta*), purple owl's clover (*Castilleja exserta*), white
5 snapdragon (*Antirrhinum coulterianum*), woolly plantain (*Plantago patagonica*),
6 and bird's beak (*Cordylanthus rigidus*). The plants are annuals that occur in clay
7 soils as well as other soil types; however, these plants appear to thrive in clay
8 soils.

9 Three of the host plants occur along Section A-1. Suitable habitat occurs
10 throughout the entire Otay Mountain. In addition, adult Quino were observed in
11 March 2005, March 2007, and an undated recent occurrence in the general
12 project area. Additional occurrences have been documented on the mountain.

13 The butterfly's biology is somewhat unique for butterflies in general, in that the
14 third or fourth larval growth (instar) will enter into its winter stasis (diapause)
15 sometime in May. It remains this way until sufficient winter rains stimulate plant
16 growth. If sufficient plant growth occurs, then the caterpillars come out diapause
17 and continue feeding until they reach larval maturity, pupate, and then finally
18 emerge as adults. If the winter rains are appropriate, caterpillars could emerge
19 from diapause sometime in January. Pupation occurs sometime in February, and
20 adults emerge in March. Once adults emerge, the cycle begins all over. Adults
21 also will disperse to suitable habitat and are known to disperse anywhere from 1
22 to 3 kilometers a year. Dispersal distance can be greater if it is wind-assisted.

23 **Table 5-3** lists wildlife observed during the field surveys. The table provides a
24 general indication of species richness in each section.

25 **Table 5-3. Wildlife Observed During Natural Resources Surveys**
26 **Conducted October 11, 12, 15, and 17, and December 3–5, 2007**

Common Name/Scientific Name	Status	BLM Access Road	A-1	A-2
Insects				
Ant Lion/Family: Myrmeleontoidea	C			X
Band-Wing Grasshopper/ <i>Camnula pellucida</i>	C		X	X
Bee Fly/Family: Bombyliidae	C			X
Behr's Metalmark/ <i>Apodemia virgulti</i>	C		X	X
Blister Beetle/Family: Meloidae	C		X	
Blue Mud Wasp/ <i>Chalybion californicum</i>	C		X	
Cactus Fly/Family: Neriidae	C		X	
California Dancer/ <i>Argia agrioides</i>	C		X	
California Harvester Ant/ <i>Pogonomyrmex californicus</i>	C		X	X
Cardinal Meadowhawk/ <i>Sympetrum illotum</i>	C		X	
Drone Fly/ <i>Eristalis tenax</i>	C		X	

Common Name/Scientific Name	Status	BLM Access Road	A-1	A-2
Insects (continued)				
Field Cricket/ <i>Gryllus</i> sp.	C		X	
Fiery Skipper/ <i>Hylephila phyleus</i>	C		X	
Flesh Fly/Family: Sarcophagidae	C		X	X
Forktail Damselfly <i>Ischnura barberi</i>	C		X	
Gall Midge/Family: Cecidomyiidae	C		X	
Harbison dun skipper (larva)/ <i>Euphyes vestris harbisoni</i>	SC	X		
Harlequin Bug/ <i>Murgantia histrionic</i>	C		X	
Honey Bee/ <i>Apis mellifera</i>	C		X	X
Horse Fly/Family: Tabanidae	C		X	
Monarch/ <i>Danaus plexippus</i>	C			X
Muscid Fly/Family: Muscidae	C		X	
Painted Lady/ <i>Vanessa cardui</i>	C	X	X	X
Seven Spotted Ladybird Beetle/ <i>Coccinella septempunctata</i>	C		X	
Spittle Bug/ <i>Aphrophora</i> sp.	C		X	
Stink Beetle/ <i>Eleodes</i> sp.	C		X	X
Thread-Waisted Wasp/ <i>Ammophila</i> sp.	C		X	X
Tiger Moth/ <i>Cisthene</i> sp.	C		X	
Variegated Meadowhawk/ <i>Sympetrum corruptum</i>	C		X	
Velvet Ant/ <i>Dasymutilla</i> sp	C		X	X
Vivid Dancer/ <i>Argia vivida</i>	C		X	
Wasp/ <i>Pepsis</i> sp	C		X	
Wasp/ <i>Polistes</i> sp	C		X	
Reptiles				
Coast Patch-Nosed Snake/ <i>Salvadora hexalepis virgultea</i>	SC		X	X
Orange-Throated Whiptail Lizard/ <i>Cnemidophorus hyperythrus beldingi</i>	SC		X	X
Birds				
Acorn Woodpecker/ <i>Melanerpes formicivorus</i>	C			X
American Kestrel/ <i>Falco sparverius</i>	C		X	
Anna's Hummingbird/ <i>Calypte anna</i>	C		X	
Black-Headed Grosbeak/ <i>Pheucticus melanocephalus</i>	C		X	
Black Phoebe/ <i>Sayornis nigricans</i>	C		X	
Bewick's Wren/ <i>Thryomanes bewickii</i>	C		X	
California Towhee/ <i>Pipilo crissalis</i>	C		X	
California Quail/ <i>Callipepla californica</i>	C		X	
Common Raven/ <i>Corvus corax</i>	C		X	X
Copper's Hawk/ <i>Accipiter cooperii</i>	SC		X	
Dark-Eyed Junco/ <i>Junco hyemalis</i>	C		X	

Common Name/Scientific Name	Status	BLM Access Road	A-1	A-2
Birds (continued)				
European Starling/ <i>Sturnus vulgaris</i>	C		X	
Fox Sparrow/ <i>Passerella iliaca</i>	C			X
House Finch/ <i>Carpodacus mexicanus</i>	C			X
Golden Eagle/ <i>Aquila chrysaetos</i>	BEPA/FP/SC		X	
Lesser Goldfinch/ <i>Carduelis psaltria</i>	C			X
Mourning Dove/ <i>Zenaidura macroura</i>	C		X	
Northern Harrier/ <i>Circus cyaneus</i>	SC		X	
Northern Flicker/ <i>Colaptes auratus</i>	C		X	X
Nuttall's Woodpecker/ <i>Picoides nuttallii</i>	C		X	
Pacific-Slope Flycatcher/ <i>Empidonax difficilis</i>	C			X
Plain Titmouse/ <i>Baeolophus inornatus</i>	C			X
Red-tailed Hawk/ <i>Buteo jamaicensis</i>	C		X	X
Rock Wren/ <i>Salpinctes obsoletus</i>	C		X	X
Ruby-Crowned Kinglet/ <i>Regulus calendula</i>	C		X	
Rufous-Crowned Sparrow/ <i>Aimophila ruficeps</i>	SC		X	X
Say's Phoebe/ <i>Sayornis saya</i>	C		X	
Scrub Jay/ <i>Aphelocoma californica</i>	C		X	X
Spotted Towhee/ <i>Pipilo maculatus</i>	C		X	X
Western Bluebird/ <i>Sialia mexicana</i>	C			X
White-Crowned Sparrow/ <i>Zonotrichia leucophrys</i>	C		X	X
Wrentit/ <i>Chamaea fasciata</i>	C			X
Yellow-Rumped Warbler/ <i>Dendroica coronata</i>	C		X	
Mammals				
Coyote/ <i>Canis latrans</i>	C			X
Desert Woodrat/ <i>Neotoma lepida</i>	C			X
Gray Fox/ <i>Urocyon cinereoargenteus</i>	C			X
Mule Deer/ <i>Odocoileus hemionus</i>	C		X	
San Diego Black-Tailed Jackrabbit/ <i>Lepus californicus bennettii</i>	SC		X	
Striped Skunk/ <i>Mephitis mephitis</i>	C			X
	Total # Species Per Section:	2	58	34

- 1 Note: C = Common; FP = Federally Protected; SC = Special concern (State Designation);
 2 BEPA = Bald Eagle Protection Act

1

6. Avoidance and Minimization Measures

2 As part of the coordination between USBP and USFWS, best management
 3 practices are under development for building, operating, and maintaining the
 4 proposed tactical infrastructure. The best management practices are designed to
 5 avoid and minimize impacts to biotic resources, specifically threatened and
 6 endangered resources. These measures will be presented in the final report.

7

8

7. Permits, Technical Studies, and Notifications

9 To comply with state and federal regulations, the following permits should be
 10 investigated or conducted to assess whether regulatory requirements have been
 11 met. Note that additional permits, studies, or notifications not listed herein may
 12 also be required.

Permits			
Permit Type	Issuing Agency	Reason	Legislation
404 Permit	USACE	Wetland and WOUS delineation	Section 404 of the Clean Water Act (CWA) authorizes the USACE to issue permits regulating the discharge of dredged or fill material into the waters of the United States, including wetlands. General permits are often issued by USACE for categories of activities that are similar in nature and would have only minimal individual or cumulative adverse environmental effects. A general permit can also be issued on a programmatic basis ("programmatic general permit") to avoid duplication of permits for state, local, or other federal agency programs.

Permits			
Permit Type	Issuing Agency	Reason	Legislation
401 Water Quality Certification	California Regional Water Quality Control Board	Wetland and WOUS delineation	Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity, including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters, shall provide the federal licensing or permitting agency a certification from the state in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act (SWRCB 2007).
Streambed Alteration Agreement	California Department of Fish and Game	Prevention of altering streamflow, changing bottom material, or depositing material in rivers, streams, or lakes in CA.	State of California Fish and Game (CFG) Code section 1602 requires any person, state or local governmental agency, or public utility to notify CFG before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state.
MSCP Compliance/ Boundary Line Adjustment	City of San Diego	Multiple Habitat Planning Area (MHPA) boundary adjustment may be required on city property.	Section 5.4.2 of the Regional MSCP Plan.

Permits			
Permit Type	Issuing Agency	Reason	Legislation
Section 7 (ESA) Consultation	USFWS	Allow the proposed action to proceed while avoiding impacts to listed species.	Section 7 of the ESA directs all federal agencies to use their existing authorities to conserve threatened and endangered species and, in consultation with USFWS, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. Section 7 applies to the management of federal lands as well as other federal actions that may affect listed species, such as federal approval of private activities through the issuance of federal funding, permits, licenses, or other actions.
Migratory Bird Treaty Act (MBTA) coordination (Migratory Bird Depredation Permit)	USFWS	Fence constructed during breeding season.	The MBTA established a federal prohibition, unless permitted by regulations, to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird ... or any part, nest, or egg of any such bird. The Migratory Bird Depredation Permit is USFWS Form 3-200-13.
Special Use Permits for access to Bureau of Land Management Wilderness Areas	BLM	If requested by BLM.	N/A
Take Permit	CDFG	California Department of Fish and Game Environmental Species Act compliance	Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (CDFG 2007).

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Notification	
Agency	Contact Information
USFWS	Kurt Roblek Fish and Wildlife Biologist Department of the Interior U.S. Fish & Wildlife Service 6010 Hidden Valley Road Carlsbad, California 92011 Office 760-431-9440 ext. 308 Fax 760-431-5902
BLM	Janaye Byergo San Diego Project Manager 10845 Rancho Bernardo Road, Suite 200 San Diego, California 92127 Office 858-451-1767 Fax 858-676-9934 Joyce Schlachter Biologist 10845 Rancho Bernardo Road, Suite 200 San Diego, California 92127 Office 619-468-3839 Fax 858-676-9934
USACE	Jeanine Divis Water Resources Planner U.S. Army Corps of Engineers 3636 N Central Ave, Suite 900 Phoenix, AZ 85012-1939 Phone 602-640-2004 ext 286 Fax: 602-640-5382
California Department of Fish and Game	No contact available at this time.
City of San Diego	No contact available at this time.

2

Additional Studies	
Agency	Study
USACE	Wetland and WOUS Delineation and Determination

1

8. List of Preparers

- 2 **Domenick Alario**
3 B.A. Geography
4 Years of Experience: 2
- 5 **David Boyes, REM, CHMM**
6 M.S. Natural Resources
7 B.S. Applied Biology
8 Years of Experience: 31
- 9 **Kevin Clark**
10 B.S. Biology
11 Years of Experience: 12
- 12 **Rod Dossey**
13 B.S. Ecology
14 Year of Experience: 11
- 15 **A. Brent Eastty**
16 B.S. Biology
17 Years of Experience: 6
- 18 **Stuart Gottlieb**
19 B.A. Geography
20 GIS Professional Certificate
21 Years of Experience: 5
- 22 **Shawn Gravatt**
23 M.S. Environmental Studies
24 B.S. Earth Science and Geography
25 Years of Experience: 10
- 26 **Brian Hoppy**
27 B.S. Biology
28 Certified Environmental Manager
29 Years of Experience: 17
- 30 **Michael Klein**
31 B.B.A Biology
32 M.B.A.
33 Years of Experience: 24
- 34 **Ronald E. Lamb**
35 M.S. Environmental Science
36 M.A. Political Science/International
37 Economics
38 B.A. Political Science
39 Years of Experience: 22
- 40 **Cheryl Myers**
41 A.A.S. Nursing
42 Years of Experience: 17
- 43 **Cheryl Schmidt, Ph.D.**
44 B.S. Biology
45 M.S. Biology
46 Ph.D. Biology
47 Years of Experience: 22
- 48 **Sarah Spratlen**
49 Masters of Engineering
50 Years of Experience: 5
- 51 **Karen Stackpole**
52 B.S. Biology
53 M.S. Environmental Science and
54 Education
55 Years of Experience: 9
- 56 **Jim Von Loh**
57 B.S. Biology
58 M.S. Biology
59 Years of Experience: 32
- 60 **Lauri Watson**
61 B.S. Environmental Science
62 Years of Experience: 5
- 63 **Valerie Whalon**
64 M.S. Fisheries Science
65 B.S. Marine Science
66 Years of Experience: 12

67

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**BIOLOGICAL SURVEY
APPENDIX A**

DESCRIPTION OF FEDERALLY LISTED SPECIES

1 **California orcutt grass (*Orcuttia californica*)**

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3 California orcutt grass was listed as threatened on August 3, 1993.

4 **Distribution:** California orcutt grass is found in San Diego County in two vernal
5 pools located near the city of Carlsbad and in four pool complexes on Otay
6 Mesa. The grass also has been observed in Baja California, Mexico.

7 **Natural History:**

8 *Morphology:* California orcutt grass is a small annual grass that reaches about 10
9 centimeters in height with bright green blades that secrete sticky droplets. The
10 inflorescences, borne from May through July, consist of seven spikelets, with the
11 upper spikelets overlapping.

12 *Habitat:* California orcutt grass is an endemic species of vernal pools in Southern
13 California and northern Mexico. Vernal pools are seasonal depressional wetlands
14 where the proliferation of flora and fauna may be related to the Mediterranean
15 climate that prevails throughout their range.

16 **Threats:** Urban and agricultural development and invasion of weedy, non-native
17 species.

18 U.S. Fish and Wildlife Service. 1998. *Vernal Pools of Southern California*
19 *Recovery Plan*. U.S. Fish and Wildlife Service, Portland, Oregon. 113+ pp.

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1 **Coastal California gnatcatcher (*Polioptila californica californica*)**

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3 The coastal California gnatcatcher was listed as threatened on March 30, 1993.

4 **Distribution:** The coastal California gnatcatcher is a resident bird species found
5 from Los Angeles County southward to northwestern Baja California, Mexico,
6 extending south to the vicinity of El Rosario, Mexico, and eastward to the eastern
7 base of the Sierra San Pedro Martir. This species has been extirpated from
8 Ventura County.

9 **Natural History:**

10 *Habitat:* The coastal California gnatcatcher makes use of several distinctive
11 subassociations of the coastal sage scrub plant community, particularly
12 communities dominated by California sagebrush (*Artemisia californica*). It
13 generally avoids crossing areas of unsuitable habitat.

14 *Breeding:* This species breeds from February to mid July, with an average clutch
15 size of 3.8 and 3 to 4 clutches laid per year. Incubation is carried out by both
16 sexes and lasts about 14 days, with a 16-day nestling period. Nest is an open
17 cup style.

18 *Diet:* The coastal California gnatcatcher is a ground and shrub-foraging
19 insectivore.

20 **Threats:** The remaining populations of coastal California gnatcatchers are highly
21 fragmented by urban development and expanding transportation corridors. They
22 are also threatened by Brown-headed cowbird parasitism as a result of habitat
23 fragmentation. Wildfires may also have a significant impact.

24 NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web
25 application]. Version 6.2. NatureServe, Arlington, Virginia. Available
26 <http://www.natureserve.org/explorer>. (Accessed: November 30, 2007).

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Encinitas baccharis (*Baccharis vanessae*)

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The Encinitas baccharis was listed as threatened on October 7, 1996.

Distribution: The Encinitas baccharis is endemic to San Diego County, California, and known populations are found near Encinitas in central San Diego County and extend toward Mount Woodson and Poway. One population is found in the Santa Margarita Mountains of northern San Diego County.

Natural History:

Morphology: Encinitas baccharis is a dioecious broom-like shrub that grows from 0.5 to 1.3 meters tall. It has filiform leaves and delicate phyllaries that are reflexed.

Habitat: The Encinitas baccharis is restricted to the southern maritime chaparral, which is a low, fairly open chaparral community. Common species include *Ceanothus verrucosus*, *Xylococcus bicolor*, *Adenostoma fasciculatum* var. *obtusifolium*, *Quercus dumosa*, *Cneoridium dumosum*, *Rhamnus crocea*, *Yucca schidigera*, and occasionally *Dendromecon rigida*.

Threats: Urban and agricultural development.

U.S. Fish and Wildlife Service. 1993. "Endangered and threatened wildlife and plants; proposed rule for six southern maritime chaparral plant taxa from coastal Southern California and northwestern Baja California, Mexico." *Federal Register* 58: 51302–51311.

Least Bell's vireo (*Vireo bellii pusillus*)

The least Bell's vireo was listed as endangered on May 2, 1986.

Distribution: Breeding range was once widespread throughout the Central Valley of California to the Sierra Nevada foothills and Coast Ranges. The breeding range extended into northwestern Baja California, Mexico, and included populations in Death Valley and the Mojave Desert. By 1990, 80 percent of the U.S. population was found along only five drainages: Santa Margarita River, Sweetwater River, San Luis Rey River, San Diego River, and Santa Ana River. Winter range extends to the Cape region of Baja California, with some individuals remaining in Southern California.

Natural History:

Habitat: The least Bell's vireo uses dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak habitats in arid regions, but frequently near water. Moist woodland, bottomlands, woodland edge, scattered cover and hedgerows are used in cultivated areas, and willow-dominated woodlands are used in riparian areas. Open woodland and brush are used in winter.

Breeding: Migration into the breeding range occurs near the end of March. Nests are constructed in shrubs or low trees about 1 meter above the ground in a horizontal or downsloping twig fork, often near the edge of a thicket. Nesting vegetation in California is frequently willow (*Salix* sp) or rose (*Rosa* sp.). Three to five eggs are laid in a clutch, and incubation lasts 14 days. Both adults tend the young, which fledge at 10 to 12 days. Some pairs may raise multiple broods annually in some areas. Migration out of breeding areas takes place in July to late September, but some individuals will overwinter in the United States.

Diet: Primarily insects, but will also take spiders, snails, and fruits. This species forages in dense brush and sometimes in treetops. They glean prey from leaves and bark but will also hover-hunt and hawk prey.

Threats: Least Bell's vireo has a limited range in Southern California and Baja California and is threatened by habitat loss and nest parasitism by cowbirds.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: November 30, 2007).

1 **Mexican flannelbush (*Fremontodendron mexicanum*)**

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Mexican flannelbush was listed as endangered on October 12, 1998.

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Distribution: The Mexican flannelbush is endemic to southern San Diego County and northern Baja California, Mexico, between 300 and 1,000 meters in elevation. The only known Californian population, located near Otay Mountain, has less than 100 individuals.

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Natural History:

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Morphology: The Mexican flannelbush, a member of the cacao family, is a small shrub with evergreen, palmately lobed leaves. The flowers are 2.4 inches wide and lack petals, but have showy orange sepals that distinguish the shrub from *Fremontodendron californicum*.

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Habitat: The flannelbush occurs primarily in closed-canopy coniferous forests dominated by Tecate cypress (*Cupressus forbesii*) and southern mixed chaparral, often on meta-volcanic soils. The chaparral that the flannelbush occupies has dense shrub cover of moderate height characterized by *Adenostoma fasciculatum*, *Ceanothus* sp., *Rhamnus ilicifolia*, *Arctostaphylos* sp., *Quercus berberidifolia*, *Rhus ovata*, *Malosma laurina*, *Heteromeles arbutifolia*, *Eriogonum fasciculatum*, and *Salvia mellifera*.

20

Threats: Urban and agricultural development.

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U.S. Fish and Wildlife Service. 1995. "Endangered and threatened wildlife and plants; proposed endangered and threatened status for four chaparral plants from southwestern California and northwestern Baja California, Mexico." *Federal Register* 60: 51443–51452.

25

1 **Otay Mesa mint (*Pogogyne nudiuscula*)**

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3 Otay Mesa mint was listed as endangered on August 3, 1993.

4 **Distribution:** Currently, the Otay Mesa mint is known to occur only in seven
5 vernal pool complexes on Otay Mesa located on the Mexican border in San
6 Diego County, California.

7 **Natural History:**

8 *Morphology:* The Otay Mesa mint is an annual herb of the mint family that
9 reaches 30 centimeters or more in height and blooms from May through early
10 June. The vegetative and floral portions give off a strong, turpentine mint odor.
11 The flowers are purple with a white throat, with six flowers per stem node.

12 *Habitat:* The Otay Mesa mint is an endemic species of vernal pools of Otay Mesa
13 in Southern California. Vernal pools are seasonal depressional wetlands where
14 the proliferation of flora and fauna may be related to the Mediterranean climate
15 that prevails throughout their range.

16 **Threats:** Urban and agricultural development, livestock grazing, off-road vehicle
17 use, trampling, and invasions of non-native plants.

18 U.S. Fish and Wildlife Service. 1998. *Vernal Pools of Southern California*
19 *Recovery Plan*. U.S. Fish and Wildlife Service, Portland, Oregon. 113+ pp.

20

1 **Quino checkerspot butterfly (*Euphydryas editha quino*)**

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3 The Quino checkerspot butterfly was listed as endangered on January 16, 1997.

4 **Distribution:** The historic distribution of the Quino checkerspot butterfly included
5 coastal California south of Ventura County and inland valleys south of the
6 Tehachapi Mountains. However, approximately 75 percent of the Quino
7 checkerspot butterfly's historic range has been lost, and it is currently only found
8 in western Riverside County, southern San Diego County, and northern Baja
9 California, Mexico.

10 **Natural History:**

11 *Habitat:* The Quino Checkerspot butterfly is found in several plant communities,
12 from scrub on coastal bluffs, coastal sage, chaparral, and oak woodlands to
13 desert pinyon-juniper woodlands. However, it is only found in openings within
14 these plant communities having a sufficient cover of larval food plants and annual
15 forbs that provide nectar for adults.

16 *Breeding:* Adults are flying from late February to April. Females lay egg masses
17 consisting of 120–180 eggs that hatch in 7–10 days. Total egg production ranges
18 from 400 to 800 eggs per female. Prediapause larvae undergo two or three molts
19 before entering diapauses as a third or fourth instar larvae. Prediapause larvae
20 are communal, while postdiapause larvae are solitary. Diapause breaks after
21 sufficient rain falls to establish food plants. The postdiapause larvae progress
22 through three to seven more instars before they pupate among low plants or
23 under rocks. Adults emerge in about 10 days.

24 *Diet:* Larvae feed on dwarf plantain (*Plantago erecta*) and purple owl's clover
25 (*Castilleja exserta*), White snapdragon (*Antirrhinum coulterianum*), woolly
26 plantain (*Plantago patagonica*), and bird's beak (*Cordylanthus rigidus*).

27 **Threats:** This species is threatened by agricultural and urban development and
28 other land use changes, habitat fragmentation, invasive non-native plant species,
29 and disrupted fire regimes.

30 Mattoni, R., G.F. Pratt, T.R. Longcore, J.F. Emmel, and J.N. George. 1997. "The
31 endangered quino checkerspot butterfly, *Euphydryas editha quino* (Lepidoptera:
32 Nymphalidae)." *Journal of Research on Lepidoptera*. 34:99–118.

33

Riverside fairy shrimp (*Streptocephalus woottoni*)

The Riverside fairy shrimp was listed as endangered on August 3, 1993.

Distribution: Originally thought to be restricted to five vernal pools in a 13-by-7-kilometer area of Western Riverside County. Additional locations now include vernal pools in Los Angeles, Orange, Ventura, and San Diego counties. Total range for this species is now considered to extend from coastal Southern California, south to northwestern Baja California, Mexico.

Natural History:

Habitat: The Riverside fairy shrimp is found in seasonal pools filled by spring and winter rains. These vernal pools are generally located in earth slump basins or tectonic swales in grasslands and agricultural areas interspersed with coastal sage scrub. Minimum habitat size was 750 square meters at the original five sites, with a minimum water depth of 30 centimeters at maximum pool filling. The Riverside fairy shrimp can be found in turbid or clear water, in partially vegetated pools, and has been found to co-occur with the Versatile fairy shrimp (*Branchinecta lindahli*). The Riverside fairy shrimp is found in deeper water around loose emergent vegetation. This species appears late in the season and is considered a warm-water species.

Breeding: The Riverside fairy shrimp has a seasonal cycle that varies with the water level and water temperature. Mature individuals were not found until late March in type localities. Hatching of cysts has been observed from January to March, and early or late season rains may expand the hatching period. Riverside fairy shrimp mature in 48 to 56 days, depending on a variety of environmental factors. Cysts can survive extreme temperatures and extended dry periods. Not all eggs hatch during pool-filling events, creating an egg structure in the egg bank that is key to species persistence.

Diet: Adults feed on detritus and small invertebrates.

Threats: Agricultural and urban development.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: November 30, 2007).

1 **San Diego ambrosia (*Ambrosia pumila*)**

2
3 The San Diego ambrosia was listed as endangered on August 3, 1993.

4 **Distribution:** The San Diego ambrosia is an endemic species of San Diego and
5 Riverside Counties, California. 12 of the 15 known populations reside in San
6 Diego County. The populations are found in the watersheds of the San Diego,
7 San Luis Rey, Sweetwater, and San Dieguito Rivers. Populations have also been
8 observed in Baja California, Mexico.

9 **Natural History:**

10 *Morphology:* The San Diego ambrosia is a herbaceous perennial plant that
11 spreads vegetatively by means of slender, underground rhizome-like roots from
12 which aerial stems arise. The stems are 5–30 centimeters in height and are
13 densely covered with short hairs. The leaves are two to four times pinnately
14 divided and are covered with gray-white, appressed hairs. The ambrosia flowers
15 from May through October.

16 *Habitat:* San Diego ambrosia primarily occupies the upper terraces of rivers and
17 drainages, as well as open grasslands, openings in coastal sage scrub, and
18 occasionally in the areas adjacent to vernal pools. Species found near the San
19 Diego ambrosia include *Distichlis spicata*, *Baccharis salicifolia*, *Baccharis*
20 *sarathroides*, *Eriogonum fasciculatum*, and *Eremocarpus setigerus*.

21 **Threats:** Urban and agricultural development.

22 U.S. Fish and Wildlife Service. 2002. "Endangered and Threatened Wildlife and
23 Plants; Determination of Endangered Status for *Ambrosia Pumila* (San Diego
24 Ambrosia) From Southern California." *Federal Register* 67: 44372–44382.

25

1 **San Diego button-celery (*Eryngium aristulatum* var. *parishii*)**

2
3 San Diego button-celery was listed as endangered on August 3, 1993.

4 **Distribution:** The San Diego button-celery's range extends from Santa Rosa
5 Plateau in Riverside County, California, to the mesas north of Ensenada, Mesa
6 de Colonet, and San Quintin in Baja California, Mexico. In San Diego County, it is
7 found on Otay Mesa, near lower Otay Reservoir, and in Proctor Valley.

8 **Natural History:**

9 *Morphology:* The San Diego button-celery is a perennial herb with a persistent
10 tap root that is a member of the carrot family. It has a spreading to erect habit
11 and reaches heights of 41 centimeters or more. The stems and toothed leaves
12 are gray-green with spinose lobes. The flowers form on short peduncles with few
13 to many heads.

14 *Habitat:* The San Diego button-celery is an endemic species of vernal pools of
15 Southern California and northern Mexico. Vernal pools are seasonal
16 depressional wetlands where the proliferation of flora and fauna may be related
17 to the Mediterranean climate that prevails throughout their range.

18 **Threats:** Urban and agricultural development.

19 U.S. Fish and Wildlife Service. 1998. *Vernal Pools of Southern California*
20 *Recovery Plan*. U.S. Fish and Wildlife Service, Portland, Oregon. 113+ pp.

21

1 **San Diego fairy shrimp (*Branchinecta sandiegonensis*)**

2

3 The San Diego fairy shrimp was listed as endangered on February 3, 1997.

4 **Distribution:** San Diego fairy shrimp are found in vernal pools from San Marcos
5 and Ramona south to Otay Mesa and northwestern Baja California. Also found
6 recently in shallow vernal pools in Orange County.

7 **Natural History:**

8 *Habitat:* The San Diego fairy shrimp is a vernal pool habitat specialist. It prefers
9 smaller, shallower vernal pools and ephemeral basins, generally less than 30
10 centimeters deep and often on chaparral-covered mesas.

11 *Breeding:* Adult San Diego fairy shrimp are observed from January to March, but
12 the hatching period may vary with the winter rains. They hatch and mature in 7 to
13 14 days, depending on water temperature. Eggs may be dropped to the pool
14 bottom or retained in the female's brood sack until she dies and settles. The eggs
15 or "cysts" can survive extended dry periods and high temperatures as they wait
16 for the vernal pool to fill again. Not all eggs hatch during a pool filling event,
17 resulting in an egg bank consisting of eggs from several breeding seasons. This
18 age structuring within the egg bank is important for population persistence in
19 unpredictably favorable or unfavorable environmental conditions.

20 *Diet:* The San Diego fairy shrimp is believed to feed on protozoa, rotifers,
21 bacteria, and organic matter.

22 **Threats:** This species is threatened by habitat loss through urbanization and the
23 conversion of habitat to agriculture.

24 NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web
25 application]. Version 6.2. NatureServe, Arlington, Virginia. Available
26 <http://www.natureserve.org/explorer>. (Accessed: November 30, 2007).

27

Southwestern willow flycatcher (*Empidonax trailii extimus*)

The southwestern willow flycatcher was listed as endangered on February 27, 1995.

Distribution: Breeding range extends from Southern California north to Independence, AZ, southwestern New Mexico, and southern Utah, and formerly southern Nevada. Migrates to winter ranges in central Mexico to northwestern Colombia. Migration occurs through the desert regions in Southern California and sometimes along the coast and onto the Channel Islands.

Natural History:

Habitat: Present in California from late April to September and can be found in thickets, scrubby and brushy areas, open secondary growth, swamps, and open woodlands. They are also known to nest in tamarisk (*Tamarix* sp.) thickets.

Breeding: Nesting occurs in June through late July, with nests constructed in a fork or horizontal limb of a small tree, vine, or shrub, 2 to 3 meters high in dense vegetation. Three to 4 eggs are laid per clutch and hatch after 12 to 15 days. Incubation is conducted by the female, and chicks are tended by both parents. Fledging occurs after 12 to 15 days, generally in early to mid July. A pair will typically raise one brood per year.

Diet: Eats primarily insects caught on the wing, but will glean prey from foliage. They occasionally will also consume berries. In the breeding range, they forage within and sometimes above dense riparian vegetation.

Threats: This species is threatened by the loss and degradation of cottonwood-willow and structurally similar riparian habitats. Increased irrigated agriculture and livestock grazing have aided Brown-headed cowbird populations that in turn impact the southwestern willow flycatcher. The current population exists in small, fragmented populations, which increases the risk of local extirpation.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: November 30, 2007).

Spreading navarretia (*Navarretia fossalis*)

Spreading navarretia was listed as threatened on December 15, 1994.

Distribution: Spreading navarretia is distributed from western Riverside County through coastal San Diego County, California, to northwestern Baja California, Mexico. The majority of species in the United States occur on Otay Mesa in San Diego County and along the San Jacinto River and near Hemet in Riverside County.

Natural History:

Morphology: Spreading navarretia is a low, mostly spreading or ascending annual herb that is 10–15 centimeters tall. The leaves are soft and finely divided, and become spine-tipped when dry. The flowers are white to lavender and are arranged in flat-topped, compact, leafy heads.

Habitat: Spreading navarretia is an endemic species of vernal pools in Southern California. It occasionally occupies ditches and depressions that are the result of degraded vernal pool habitat.

Threats: Urban and agricultural development.

U.S. Fish and Wildlife Service. 1994. Endangered and threatened wildlife and plants; proposed rule to list four southwestern California plants as endangered or threatened. *Federal Register* 59: 64812–624823.

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APPENDIX I

Draft Cultural Resources Survey Report



DRAFT

**CULTURAL RESOURCES SURVEY
SUPPORTING THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
PROPOSED CONSTRUCTION, OPERATION, AND
MAINTENANCE OF TACTICAL INFRASTRUCTURE
U.S. BORDER PATROL SAN DIEGO SECTOR,
CALIFORNIA**

Prepared for:

U.S. Customs and Border Patrol

Prepared by:



NOVEMBER 2007

ABBREVIATIONS AND ACRONYMS

APE	Area of Potential Effect
ARMR	Archaeological Resource Management Reports
ARPA	Archaeological Resources Protection Act
BLM	Bureau of Land Management
CBP	U.S. Customs and Border Protection
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHSC	California Health and Safety Code
cm	centimeter
CRHR	California Register of Historical Resources
CRTP	Cultural Resources Treatment Plan
CSHPO	State Historic Preservation Office
DHS	U.S. Department of Homeland Security
DPR	Department of Parks and Recreation (archaeological site form)
e ² M	engineering-environmental Management, Inc.
GPS	Global Positioning System
m	meter
NADB	National Archaeological Database
NAGPRA	Native American Graves Protection and Repatriation Act
NHPA	National Historic Preservation Act
OMW	Otay Mountain Wilderness
OWA	Otay Wilderness Area
PRC	Public Resources Code
SBI	Secure Border Initiative
TCP	Traditional Cultural Property
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator

1 **NATIONAL ARCHAEOLOGICAL**
2 **DATA BASE INFORMATION**

3 **Report Author:** Dayle M. Cheever, Judy A. Berryman, and Jim Whitaker
4 **Consulting Firm:** engineering-environmental Management, Inc. (e²M)
5 **Report Date:** November 2007
6 **Report Title:** Cultural Resources Survey Supporting the Environmental
7 Impact Statement for the Proposed Construction, Operation,
8 and Maintenance of Tactical Infrastructure U.S. Border Patrol
9 San Diego Sector, California
10 **Submitted to:** U.S. Army Corps of Engineers, Fort Worth
11 **Contract Number:** DACA63-03-D-0009
12 **USGS Quadrangle**
13 **Maps:** Otay Mountain and Tecate USGS 7.5 Quads
14
15 **Acreage:** Linear proposed project corridor: approximately 5 miles by
16 300 feet
17 **Keywords:** Southern California, Prehistoric, Historic, Linear Survey,
18 Positive, Flaked Stone Artifacts, Disturbed, International
19 Boundary, Pack Trail, Traditional Cultural Property,
20 Kuchumaa, Tecate Peak

21

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EXECUTIVE SUMMARY

1
2 This report presents the cultural resources management activities conducted in
3 support of the Environmental Impact Statement addressing the proposed
4 construction, operation, and maintenance of approximately 5 miles of tactical
5 infrastructure in San Diego County, California for the U.S. Border Patrol (USBP)
6 San Diego Sector of the U.S. Customs and Border Protection (CBP). The Area
7 of Potential Effect (APE) for the proposed project includes lands owned or
8 managed by the Bureau of Land Management (BLM) and private property. The
9 results of cultural resources activities conducted in support of the proposed
10 project are presented in accordance with the National Historic Preservation Act of
11 1966 - Section 106 and 36 Code of Federal Regulations (CFR) Part 800,
12 Protection of Historic Properties, revised 2000. All cultural resources activities
13 performed in support of the proposed project meet the requirements of the
14 Archaeological Resources Protection Act (ARPA) of 1979, as amended (16
15 United States Code [U.S.C.] 470aa – 470mm), as defined in Section 36 CFR
16 60.4, and are presented in the format stipulated in *Archaeological Resource*
17 *Management Reports (ARMR) Recommended Contents and Format* (California
18 Office of Historic Preservation 2000). All engineering-environmental
19 Management, Inc. (e²M) personnel performing cultural resources activities in
20 support of the proposed project meet or exceed the requirements for professional
21 education and experience as defined in 36 CFR Part 800 (National Historic
22 Preservation Act [NHPA]), the Secretary of the Interior's Professional
23 Qualifications Standards (Federal Register Notice, Vol. 48, No. 190, pp. 44738-
24 44739, 1983), and ARPA standards (43 CFR Part 7).

25 USBP proposes to construct, maintain, and operate tactical infrastructure
26 consisting of pedestrian fence, patrol roads, and access roads along the
27 U.S./Mexico international border in the San Diego Sector, Brown Field Station.
28 The proposed tactical infrastructure would be constructed in two sections along
29 the U.S./Mexico international border within USBP San Diego Sector, in San
30 Diego County, California. Section A-1 is approximately 3.6 miles in length and
31 would start at Puebla Tree and end at Boundary Monument 250. The proposed
32 section would be on and adjacent to the Otay Mountain Wilderness (OMW),
33 would follow the Pack Trail, and would not connect to any existing fence. Section
34 A-2 would be approximately 0.8 miles in length and would connect with existing
35 border fence west of Tecate, California. This fence section would be an
36 extension of an existing fence on Tecate Peak

37 There is one known traditional cultural property (TCP) in the Section A-2
38 proposed project corridor. The landform known as Tecate Peak or Kuchumaa
39 has been identified as a TCP and is on the National Register of Historic Places
40 (Register #92001268).

41 A letter initiating consultation with associated Native American groups was sent
42 to 18 tribal groups with cultural links to the proposed project corridor by the U.S.

1 Army Corps of Engineers (USACE), Fort Worth District (see **Appendix A**). The
2 concerns of these groups is considered during the preparation of this document,
3 and information regarding resources of traditional, cultural, or religious
4 significance to Native American people has been considered as part of the
5 impact analysis.

6 Although the proposed project represents a potential impact on five cultural
7 resources sites for Section A-1 and one site on Section A-2, implementation of
8 the stated cultural resources management recommendations and protocols,
9 including archaeological monitoring and the development and implementation of
10 a CRTP for the treatment of any inadvertently discovered cultural resources,
11 would reduce potential project impacts on cultural resources to a level that is less
12 than significant.

13 The impacts on Kuchumaa have not been defined and the development of
14 protective measures has not been accomplished. Consultation with associated
15 tribal groups has been initiated and ongoing and additional consultation would be
16 necessary to arrive at appropriate project protocols. Additional information
17 regarding design and project limits should be developed to facilitate the
18 presentation of this project to concerned parties with respect to TCP issues.

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DRAFT
CULTURAL RESOURCES SURVEY SUPPORTING THE
ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED CONSTRUCTION,
OPERATION, AND MAINTENANCE OF TACTICAL INFRASTRUCTURE
U.S. BORDER PATROL SAN DIEGO SECTOR, CALIFORNIA

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The U.S. Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP), U.S. Border Patrol proposes to construct, operate, and maintain approximately 5 miles of tactical infrastructure along the U.S./Mexico international border near the Otoy Mountain Wilderness (OMW), San Diego County, California. Tactical infrastructure would consist of primary pedestrian fence, construction and patrol roads, and access roads in two sections along the U.S./Mexico international border within USBP's San Diego Sector. Proposed tactical infrastructure includes the installation of fence sections in areas of the border that are not currently fenced. The first section is approximately 3.6 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.8 miles in length and would connect with existing border fence west of Tecate, California (see **Figure 1-1**). The proposed fence and tactical infrastructure could encroach on both public lands managed by the Bureau of Land Management (BLM) and privately owned land parcels.

The mission of CBP is to prevent terrorists and terrorist weapons from entering the United States, while also facilitating the flow of legitimate trade and travel. In supporting CBP's mission, USBP is charged with establishing and maintaining effective control of the border of the United States. USBP's mission strategy consists of the following five main objectives:

- Establish substantial probability of apprehending terrorists and their weapons as they attempt to enter illegally between the Ports of Entry (POEs)
- Deter illegal entries through improved enforcement
- Detect, apprehend, and deter smugglers of humans, drugs, and other contraband
- Leverage "smart border" technology to multiply the effect of enforcement personnel
- Reduce crime in border communities and consequently improve quality of life and economic vitality of targeted areas.

USBP has nine administrative sectors along the U.S./Mexico international border. USBP San Diego Sector is responsible for 7,000 square miles of Southern California and 66 miles of the U.S./Mexico international border. USBP San Diego Sector is responsible for the entire county of San Diego, California (CBP 2007).

The Brown Field Station has responsibility for approximately 11.5 miles of the border within USBP San Diego Sector. During the 2006 calendar year, the Brown Field Station was responsible for 46,213 apprehensions, or 34 percent of

1 all apprehensions within USBP San Diego Sector. The Brown Field Station is the
2 fifth busiest station (in terms of apprehensions) in USBP (CBP 2007).

3 Approximately half of the Brown Field Station area of responsibility has tactical
4 infrastructure in place. The region without infrastructure is rugged mountainous
5 terrain that is currently difficult to access and patrol. The majority of this
6 unsecured area is to the south of BLM's OMW and has become a focal point of
7 illegal immigrant traffic, where traffickers are well-funded and organized.

8 **Figure 1-1** illustrates the proposed location of the new tactical infrastructure
9 generally using the path known as the Pack Trail with access from the west along
10 an existing dirt road. Construction of other tactical infrastructure might be
11 required in the future as mission and operational requirements are continually
12 being reassessed. **Figure 1-2** provides the location of the west of Tecate section
13 and the proposed access route from the east.

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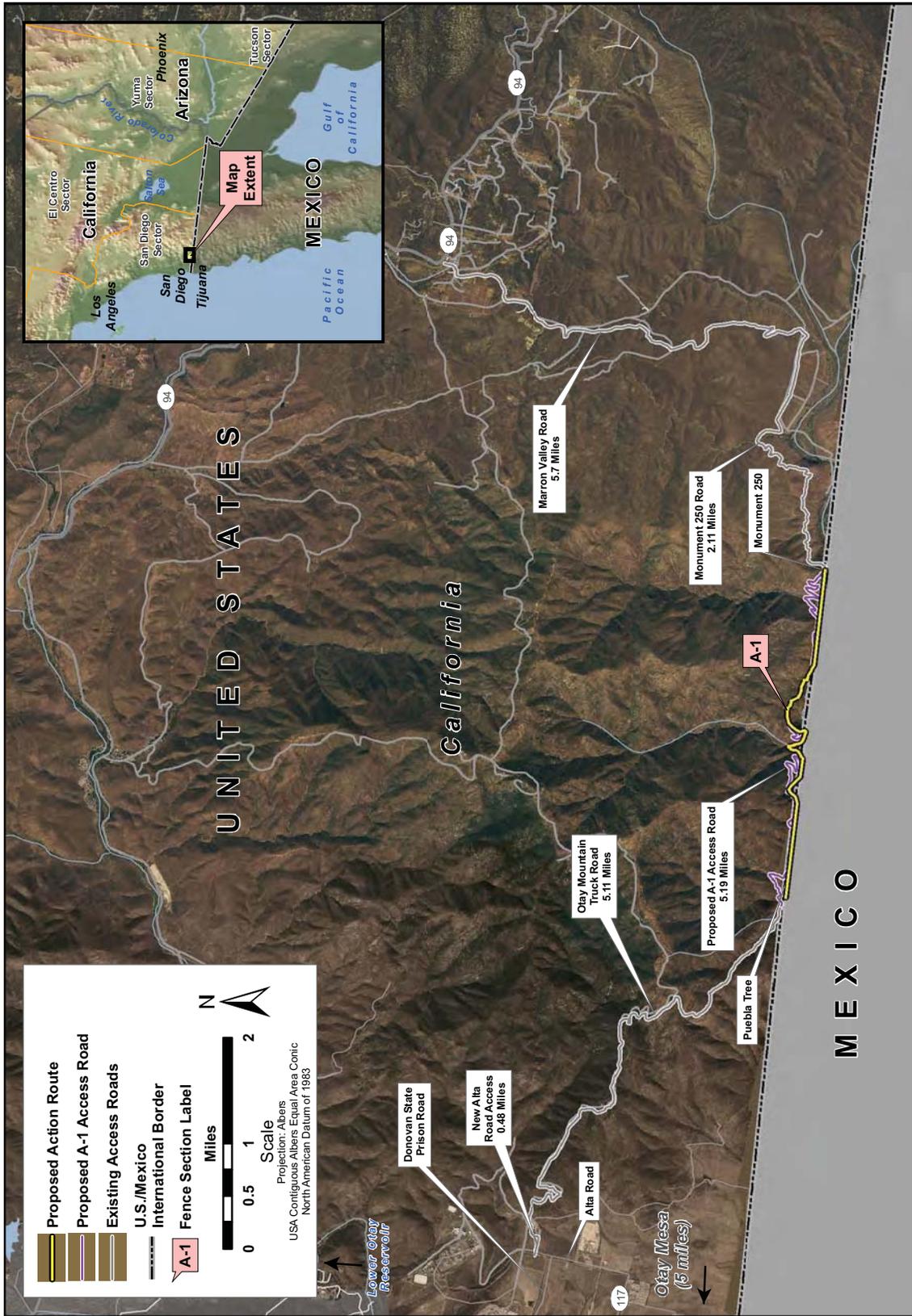


Figure 1-1. Section A-1 and Access Roads

Source: ESRI StreetMap, USA, 2005

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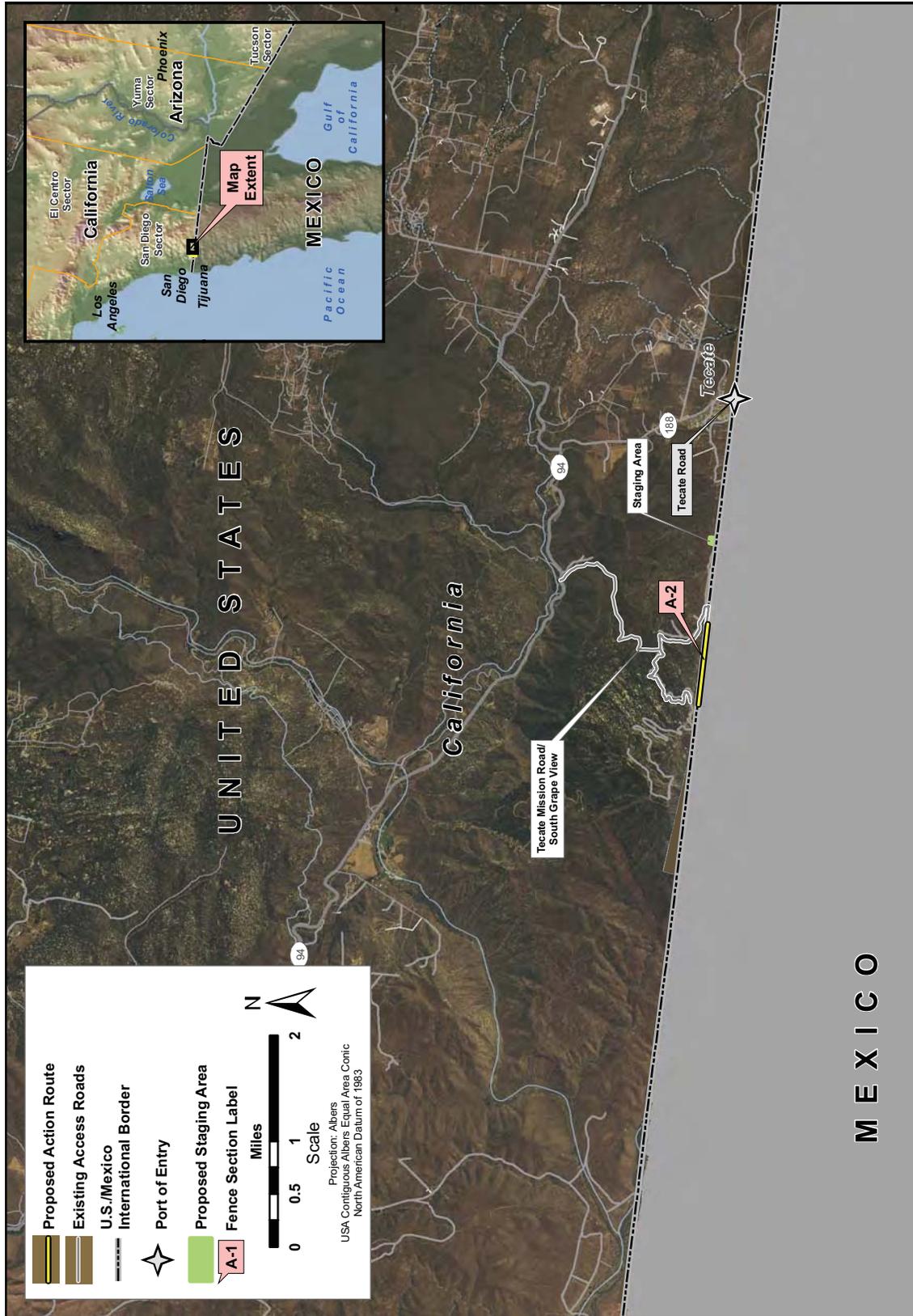


Figure 1-2 Section A-2 and Access Roads

2. SETTING

2.1 ENVIRONMENTAL SETTING

The proposed project corridor lies within the Peninsular Range province, a well-defined geologic and physiographic unit that occupies the southwestern corner of California, as well as the Baja California peninsula. This province is characterized by northwesterly trending ranges and valleys that abruptly terminate on the north at the east-west-oriented Transverse Ranges. A large part of the province is submerged beneath the Pacific Ocean where it is represented by several of the southern Channel Islands. The rocks of the Peninsular Range province consist of a range of sedimentary, volcanic, and metamorphic rock types. The sedimentary strata are highly clastic, containing a wide range of rock inclusions. Volcanic rocks include the Santiago Peak volcanics and rocks of the southern California batholith, among others.

This topographic diversity is also reflected in the biological communities present. Vegetation in the project vicinity is varied, reflecting a complex interaction of soils, geology, topography, and hydrology. Plants typical of the coastal sage scrub and chaparral plant communities blanket many of the slopes, whereas riparian species grow along the floors of the larger drainage channels. These plant communities provide habitat for a range of small- to medium-sized animals.

Natural habitats in the project vicinity have undergone significant alteration as a result of modern encroachment. Livestock grazing and other agricultural activities have altered the native plant communities. Quarrying and other mining activities, as well as modern development have disturbed large areas. Extensive areas of native landscape remain in the more rugged portions of the project vicinity.

2.2 ETHNOGRAPHIC BACKGROUND

The proposed project corridor is in the southern portion of San Diego County within the historical territory of the Kumeyaay people. Kumeyaay is a native term referring to all Yuman-speaking peoples living in the region from the San Dieguito River south to the Sierra Juarez in Baja California and roughly west of present-day Salton Sea. Prior to European contact, Kumeyaay territory might have extended as far north as the San Luis Rey River. To the north of the Kumeyaay live the Takic-speaking Luiseño and Cahuilla. To the east and south are other peoples who speak a variety of distinct languages belonging to the Yuman language family.

The Kumeyaay have been referred to by a confusing array of names. The standard practice during the Spanish colonial era in California was to name all native peoples within the sphere of influence of a particular mission district after that mission; hence, the native people living around mission San Diego de Alcalá came to be known as Diegueño. Because this nomenclature generally ignored traditional sociopolitical divisions, anthropologists later began to apply the terms Tipai and Ipai to distinguish between two culturally and linguistically distinct

1 groups. More recent ethnographic data and historic records indicate that the
2 native people refer to themselves as Kumeyaay, and this is now the most widely
3 accepted name.

4 On the basis of linguistic and archaeological evidence, it has been suggested
5 that the ancestors of the present-day Kumeyaay arrived in this part of California
6 sometime between 1000 B.C. and A.D. 1000. Adding new cultural traditions to
7 earlier patterns, the ancestral Kumeyaay seem to have assimilated with the
8 earlier human inhabitants rather than displacing them.

9 The Kumeyaay were organized sociopolitically into autonomous bands, each
10 controlling an area measuring approximately 10 to 30 miles, around a water
11 source, typically a perennial drainage or occasionally a spring (Shipek 1982).
12 Each band usually occupied a main village and several satellite living areas.
13 These settlements were temporary, as the community would fission seasonally
14 into smaller groups, which would establish camps to gather, process, and cache
15 seasonally available resources. Seasonal movements were geared toward
16 following the ripening of major plants dispersed from canyon floor to the higher
17 mountain slopes. During the winter months, a band would typically aggregate
18 back to the main village.

19 The complexity of Kumeyaay residential structures varied according to locality
20 and need. In summer camps, for instance, a windbreak or rock-shelter might be
21 sufficient protection from the elements. In winter, however, more substantial
22 structures might be needed, in which case the Kumeyaay built a thatch-covered
23 dome or gable house.

24 Leadership of each band was invested in a clan chief and at least one assistant.
25 Positions were generally inherited, although a chief could be selected by
26 consensus. Chiefs typically derived their authority through strength of personality
27 and social skills rather than by force, as they had no real coercive powers. The
28 duties of the chief included resolving disputes, advising about marriages,
29 appointing leaders for important gathering expeditions, and directing clan and
30 interclan ceremonies.

31 The Kumeyaay practiced a fairly typical California hunting and gathering
32 subsistence regime based on a variety of locally abundant terrestrial and aquatic
33 resources. The Kumeyaay diet was heavily dependent on harvesting wild plant
34 foods, with a strong emphasis on acorns and pinion. An abundance of other plant
35 food, including many different kinds of seeds, bulbs, and other plants, rounded
36 out the diet. Meat was procured through hunting of small game, including rabbits,
37 squirrels, and various reptiles. Many of these animals were captured with nets or
38 by hand. Larger game, such as deer, was taken with bow and arrow, but
39 probably did not figure prominently in the diet. Besides abundant plants, the
40 inhabitants living in the coastal zone had access to rich marine environments,
41 which provided abundant shellfish, fish, and sea birds and sea mammals.

1 Interaction with neighboring tribes was maintained through extensive trade
2 networks involving the movement of goods and information across diverse
3 ecological zones. The San Diego-area Kumeyaay appear to have maintained
4 stronger trade relationships with their neighbors to the east than with groups to
5 the north and south, as evidenced by a lively trade between the seacoast and
6 inland areas as far east as the Colorado River (Luomala 1978). Acorns, dried
7 seafood, ornamental marine shell, and other materials moved eastward from the
8 coast and uplands, and salt, gourd seeds, and mesquite beans moved in the
9 opposite direction.

10 Contact between the Kumeyaay and Europeans began in 1542 when Juan
11 Rodríguez Cabrillo landed the first Spanish expedition in San Diego. Sustained
12 cultural interaction did not develop, however, until the founding of Mission San
13 Diego de Alcalá in 1769. Although the Kumeyaay culture was not as severely
14 impacted by Spanish colonization as some other California tribes, its
15 sociopolitical structure was drastically disrupted during the Mission period and
16 later. Those Kumeyaay living closest to the mission were hardest hit by
17 European civilization, whereas groups living in the mountains were less
18 traumatized by cultural interaction and preserved more of their culture longer.

19 By the end of the 19th century, most Kumeyaay had been disenfranchised from
20 their lands and relegated either to reservations or, in some cases, acculturated
21 into mainstream Euro-american society in rural areas or at the edges of small
22 towns on land that immigrants did not want. Employment opportunities were few.
23 Most were poorly paid and labored in mines, on ranches, or in town, although
24 some still supplemented their income with traditional subsistence activities
25 (Chartkoff and Chartkoff 1984).

26 Throughout the 20th century, the Kumeyaay have struggled and worked toward
27 maintaining their autonomy and sovereignty. Today their culture is thriving and
28 the Kumeyaay are represented by federally recognized tribes with reservations
29 throughout San Diego County. At present, about 20,000 Kumeyaay descendants
30 live in San Diego County, with approximately 10 percent of the total population
31 living on the 18 established Kumeyaay reservations.

32 **2.2.1 Prehistoric Background**

33 Southern San Diego County contains archaeological evidence of human use and
34 occupation that spans thousands of years of prehistory. The earliest sites date to
35 the early Holocene (9,000–7,500 years ago) and are known as the San Dieguito
36 complex, so-named because the culture was first defined through the
37 investigation of a site along the San Dieguito River, about 30 miles north of the
38 current proposed project corridor. The archaeological remains of this period
39 consist of large, stemmed projectile points and finely made scraping and
40 chopping tools, which were used for hunting and processing large game animals
41 (Moratto 1984). San Dieguito stone tools generally exhibit a high degree of
42 workmanship and careful raw material selection. Leaf-shaped blades,
43 occasionally with wide-stemmed hafting elements, are common point or knife

1 forms in this material culture. The hafting and delivery systems associated with
2 these artifacts are widely debated but probably included hardened foreshafts
3 fastened to atlatl darts and lances. Bows might have been used, but the mass
4 (weight) of many of the projectiles associated with this cultural tradition implies
5 that it was rare, if in fact present at all.

6 The La Jolla complex (i.e., 7,500–2,000 years ago) followed the San Dieguito
7 complex. La Jolla Period sites are recognized by the presence of abundant
8 milling stone implements and shell middens near lagoons and sloughs. This
9 period brought a shift from hunting to a more generalized subsistence strategy
10 relying on a broader range of resources, including plant, shellfish, and small
11 game. During this period, the number of sites increased from the earlier San
12 Dieguito, and sites are found across a greater range of environmental zones.

13 In addition to the presence of ground stone tools, La Jolla period sites are
14 typically associated with flexed human burials with grave offerings and shell
15 middens. Occasionally cog stones and discoidals are found in these
16 assemblages. The flaked stone assemblages from these sites generally contain
17 higher percentages of battering and crushing implements, with less emphasis on
18 tools with a finely worked cutting edge, and collections with significantly lower
19 percentages of large bifacially worked knives and unifacially worked
20 scraper/cores.

21 The origin of the La Jolla cultural complex is unclear. Some researchers believe
22 that it developed out of the earlier San Dieguito complex, whereas others feel
23 that it might have coexisted with the San Dieguito, and merely represents use of
24 distinct environments by the same culture. Regardless of the origins, the
25 archaeological remains of these two complexes indicate very different
26 subsistence strategies, with the San Dieguito complex focusing on hunting and
27 the La Jolla complex based on a broader-based foraging strategy. Regional
28 variants of the San Dieguito and La Jolla complexes are found in interior regions
29 of San Diego County. The Pauma complex, originally believed to be a distinct
30 archaeological culture, is more likely a regional variant of the better-known La
31 Jolla complex.

32 As elsewhere during the late prehistory in southern California, the Yuman
33 complex (i.e., 1,300–200 years ago) or Late Period was a time of cultural
34 transformation. Beginning about 1,000 years ago, Yuman-speaking groups
35 moved into the San Diego area. These later populations are identified by
36 distinctive, small projectile points, ceramic vessels, and an increase in the use of
37 mortars. The acorn became an increasingly important component of the diet,
38 although subsistence pursuits from earlier periods continued.

39 Although there are differences in the settlement patterns noted for each
40 successive prehistoric period, habitation sites from all periods are most
41 commonly found near lagoons and the open coast, or along inland valley stream-
42 channels and rivers. The study area is within a semi-arid climate with a distinct
43 seasonal pattern to rain and relatively few reliable sources of potable water. In

1 general, the coastal zone and mouth of canyons or the confluence of streams are
2 considered to be archaeologically sensitive and the most likely places to support
3 archaeological sites ranging from small activity areas to habitation sites. Smaller
4 special-use or satellite sites are found scattered across all environmental zones,
5 particularly near water sources. Extensive prehistoric quarries are known from
6 the general region, and milling features on bedrock outcrops are common in the
7 inland portions of the county.

8 **2.2.2 Historic Background**

9 The historic period began in the San Diego area with the voyage of Juan
10 Rodríguez Cabrillo, who landed near Point Loma on September 28, 1542.
11 Although several expeditions were later sent to explore the Alta California coast,
12 for nearly two centuries following Cabrillo's voyage the Spanish government
13 showed little interest in the region, focusing instead on the Mexican mainland and
14 on Baja California. In the 1760s, however, spurred on by the threat to Spanish
15 holdings in Alta California by southward expansion of the Russian sphere of
16 influence, the Spanish government began planning for the colonization of Alta
17 California (Rolle 1978).

18 The Spanish originally planned to establish their first settlement in Alta California
19 at San Diego using a four-pronged expedition. Two groups would arrive by sea
20 and two over land. The various expeditions departed from their respective
21 locations throughout the first half of 1769. The two ships and both overland
22 parties eventually reached San Diego. A third supply ship was dispatched to join
23 the expedition, but it was apparently lost at sea. Meeting in San Diego, the
24 colonists succeeded in establishing Mission San Diego de Alcalá on July 16,
25 1769 at the present-day location of Presidio Park. The Mission was moved inland
26 to its present location after the original setting proved unsatisfactory. The
27 Presidio remained on the hillside overlooking present-day Old Town and the
28 mouth of the San Diego River and gradually fell to disrepair.

29 For the next 50 years, mission influence grew in southern California: Mission San
30 Luis Rey de Francia, north of San Diego in present-day Oceanside, was
31 established on June 13, 1798 (James 1912), and the assistance of Santa Ysabel
32 and a dam and flume in Mission Gorge constructed around 1818 (Collett and
33 Cheever 2002, Luomala 1978). The mission economy was based on farming and
34 open-range ranching over vast expanses of territory.

35 As part of their colonization goals, the church hierarchy felt an obligation to
36 convert the native people to Christianity, and the church worked diligently at
37 converting the local populations. The mission priests gathered as many
38 Kumeyaay into the mission as possible. Once there, the neophytes essentially
39 were held captive while they received religious instructions and provided free
40 labor for the mission, often forcibly. The effects of mission influence upon the
41 local native population were devastating. The reorganization of their traditional
42 lifestyle alienated them from their previous subsistence patterns and social

1 customs. European diseases for which the Kumeyaay had no immunities
2 reached epidemic proportions and many died.

3 Mexican independence from Spain in 1821 was followed by secularization of the
4 California missions in 1832. Between 1833 and 1845, the newly formed Mexican
5 government began to divide up the immense church holdings into land grants. By
6 the 1840s, ranches, farms, and dairies were being established throughout the El
7 Cajon Valley, along the Sweetwater River, and in nearby areas.

8 The rancho era in California was short-lived and in 1848 Mexico ceded California
9 to the United States under the Treaty of Guadalupe Hidalgo. Growth of the region
10 was comparatively rapid after succession. Subsequent gold rushes, land booms,
11 and transportation development all played a part in attracting settlers to the area.
12 San Diego County was created in 1850, the same year that the City of San Diego
13 was incorporated. Over the next 20 years the county's population increased six-
14 fold and the city population more than tripled. By the late 1800s, the county was
15 still growing and a number of outlying communities developed around the old
16 ranchos and land grants, in particular, areas in the southern limits of the county
17 (Collett and Cheever 2002).

18 Throughout the early 20th century most of San Diego County remained rural.
19 Like most of southern California, this region changed rapidly following World War
20 II when the pace of migration and growth quickened. Today, southern San Diego
21 County has transformed into a burgeoning metropolis with unprecedented urban
22 expansion.

23 The remoteness of the proposed project corridor has resulted in a generally
24 undeveloped appearance with the exception of access roads, heavily used
25 footpaths, and the accumulation of modern trash.

26

3. METHODS

3.1 RECORD SEARCH AND ARCHIVAL RESEARCH

An archaeological site record and archival search was conducted at the South Coastal Information Center in accord with the requirements of the National Historic Preservation Act (NHPA) Section 106 (Code of Federal Regulations [CFR] 800.4 [2, 3, and 4]). The archaeological site record and archival search were completed to identify and collect data related to cultural resources sites and isolates recorded within a 0.5-mile radius of the proposed project corridor of Potential Effect (APE) as shown on **Figures 1-1** and **1-2**. Pertinent site records were identified and collected and supporting cultural resources management reports were collected, reviewed, and evaluated. A search of the National Archaeological DataBase (NADB) was also completed in an effort to identify cultural resources management reports for previously completed cultural resources management activities (archaeological survey or evaluation excavations) in the study area and in the immediate vicinity. The National Register of Historic Places was reviewed for information on properties that are or have the potential to be listed.

A letter initiating consultation with local Native American groups was sent by the U.S. Army Corps of Engineers (USACE), Fort Worth District to 14 tribal groups with cultural links to the proposed project corridor (see **Appendix A**). This letter was prepared to initiate consultation and comment on TCPs and areas of concern to these affiliated groups. The concerns of these groups were considered during the preparation of this document and information regarding resources of traditional, religious, or cultural significance to Native American tribes will be considered throughout the planning process.

3.2 FIELD WORK

An intensive pedestrian survey of the entire project alignment was completed in November 2007 by archaeologists from engineering-environmental Management, Inc. (e²M). The survey was designed as a pedestrian coverage with transects spaced at an interval that did not exceed 15 meters between team members. The area of survey was established as a corridor between the boundary of the OWA and the U.S./Mexico international border and included potential access routes. The area surveyed was larger than the area necessary to construct the proposed barrier and improve the existing trail to a drivable road as a designed project was not finalized at the time of the cultural resources survey. The proposed access route, barrier alignment, and construction-related corridors were determined prior to the survey and a buffer of 300 feet around the identified areas was surveyed.

The alignment and identified access and potential construction lay down and staging areas were examined for surface evidence of cultural resources sites, features, or isolated finds. Aerial and topographic maps were used for orientation and coverage guides and all discovered cultural resource sites, features, and

1 isolates were plotted in the field using a Trimble global positioning system (GPS)
2 field unit with submeter accuracy.

3 All of the locations of previously recorded sites or isolates within and in close
4 proximity to the proposed project corridor were revisited to determine the
5 accuracy of the original recording and to assess the current conditions. The
6 Universal Transverse Mercator (UTM) information was downloaded to the field
7 GPS and used to navigate to the recorded locations. The plotted locations on the
8 U.S. Geological Survey (USGS) site location maps were also employed as a
9 means of relocating previously recorded sites, as UTM data are not always 100
10 percent reliable.

11 Access to the proposed project corridor was gained through coordination with the
12 USBP San Diego Sector and the BLM, Palm Springs/Bakersfield Field Office
13 under a Fieldwork Authorization Permit. The survey team was escorted by a
14 representative of the USBP and the fieldwork was completed in October 2007
15 under Fieldwork Authorization Permit No. CA-08-03.

16 The conditions at the time of the survey were dry and ground surface visibility
17 was excellent. Vegetation in the area has burned in recent years, though there
18 are still areas of dense vegetation, in particular in the drainages. In addition to
19 the extensive and regular foot traffic, the Section A-1 proposed project corridor
20 demonstrates evidence of human and large domestic animal activity. Cattle and
21 horses from south of the border regularly graze the proposed project corridor and
22 modern trash in the form of paper, plastic water containers, and miscellaneous
23 personal items is scattered across the study area and in some areas is
24 particularly heavy. The establishment of the OWA has created a buffer to access
25 and development to the north; access from the south is not as restricted resulting
26 in notable evidence of human and domestic animal presence. The proposed
27 project corridor is extremely rugged and the topography is challenging with
28 relatively few areas that can be classified as flat or level.

29 Section A-2 burned in October 2007 and the proposed project corridor was
30 generally clear of vegetation. The access road is a well-established and well-
31 used dirt road that has sufficient width for one vehicle. This road is referred to as
32 Tecate Mission Road (also known as South Grape View). The area designated
33 for barrier placement is on the flanks of Tecate Peak and had recently burned
34 such that there was no vegetation masking the ground surface.

35

4. RECORD SEARCH RESULTS

1
2 A review of the archaeological site records and archival information, including
3 site (CA-SDI) and Primary (P-37) plot USGS maps (Otay Mountain and Tecate,
4 California quads) and the NADB, indicates that portions of the study areas and
5 vicinity have been previously surveyed or subjected to archaeological excavation.
6 Reports listed in the NADB documenting previously completed cultural resources
7 management projects in and within the vicinity of the study area are summarized
8 below. A review of the National Register provided information on one sacred site
9 that is within the project vicinity. **Confidential Attachment 1** provides the results
10 of the record search with site location information for Sections A-1 and A-2.

4.1 PREVIOUS STUDIES

11
12 There are records for seven cultural resources studies in the study area
13 (**Confidential Attachment 1**). These work efforts include survey coverage of
14 large areas associated with the Pack Trail also known as the Border Pack Trail.

15 The following reports are on file with the South Coastal Information Center for the
16 proposed project corridor:

- 17 • Cultural Resources Report-Mission Park R&PP Application 1981
- 18 • Mission Park R&PP Application 1981
- 19 • Survey of the California Department of Forestry Evans-Wentz Property
20 1984
- 21 • Otay Mesa OHV Park Environmental Impact Report 1986
- 22 • Appendixes for the Environmental Impact Report for Otay Valley Water
23 Reclamation Facility for the Clean Water Program for Greater San Diego
24 1990
- 25 • Historical and Architectural Assessment of Six Timber Box Flumes on the
26 Delzura Conduit 1990
- 27 • National Register of Historic Places Registration for Kuchumaa (Tecate
28 Peak) 1992
- 29 • National Register Application Form for Kuchumaa (Tecate Peak)
- 30 • Archaeological Survey for the Joint Task Force-Six Border Road Repair
31 Project 1996
- 32 • A Cultural Resources Inventory of the Proposed Otay Mountain Horse
33 Trail 1997
- 34 • Cultural Resource Survey: Tecate Trail and Puebla Tree Road 2002
- 35 • Final Cultural Resources Inventory of the Border Pack Trail, San Diego
36 County, California 2002.

1 4.2 RECORDED SITE INFORMATION

2 The record search results indicate that there are four sites and five isolates
3 recorded along the Pack Trail (see **Table 4-1**).

4 **Table 4-1. Recorded Sites within the Project APE**

Site Number	Section	Site Number	Section
CA-SDI-16368	A-1	P-37-015716	A-1
CA-SDI-16369	A-1	P-37-024688	A-1
CA-SDI-16370	A-1	P-37-024689	A-1
CA-SDI-16371	A-1	P-37-024691	A-1
P-37-015715	A-1		

5
6
7 **Table 4-2** provides a summary of the recorded sites by project section within 0.5
8 miles of the project right-of-way. The site descriptions and recorders were
9 derived from the site records.

10 **Table 4-2. Recorded Sites by Section within 0.5 Miles of the Project**

Site Number	Site Description	Reference and Date Recorded	Section
CA-SDI-190	Unknown	Alan Treganza Date Unknown	A-1
CA-SDI-9101	Sparse lithic scatter with bedrock milling	Pat Welch 1981	A-2
CA-SDI-9102	Sparse flaked lithic scatter	Pat Welch 1981	A-2
CA-SDI-9968	Extensive bedrock milling features with sparse flaked lithic scatter	Dan Foster and Rich Jenkins 1984	A-2
CA-SDI-16300	Lithic procurement and moderate flaked lithic scatter	Greig Parker 2002	A-1
CA-SDI-16368	Sparse flaked lithic scatter	Cary Cotterman and Maria Espinoza 2002	A-1
CA-SDI-16369	Small flaked lithic and prehistoric ceramic scatter	Cary Cotterman and Maria Espinoza 2002	A-1
CA-SDI-16370	Seasonal camp with two milling features and a sparse flaked lithic scatter	Cary Cotterman and Maria Espinoza 2002	A-1
CA-SDI-16371	Sparse flaked lithic scatter	Cary Cotterman and Maria Espinoza 2002	A-1
CA-SDI-16372	Dense flaked lithic scatter	Cary Cotterman and Maria Espinoza 2002	A-1

Site Number	Site Description	Reference and Date Recorded	Section
P-37-015715	Isolate-Interior dacite flake	Mike Mitchell 1997	A-1
P-37-015716	Border Pack Trail	Cary Cotterman and Maria Espinoza 2002	A-1
P-37-024688	Isolate-Dark gray basalt flake	Cary Cotterman and Maria Espinoza 2002	A-1
P-37-024689	Isolate- Light brown dacite core and light brown dacite flake	Cary Cotterman and Maria Espinoza 2002	A-1
P-37-024690	Isolate-Brown dacite flake	Cary Cotterman and Maria Espinoza 2002	A-1
P-37-024691	Isolate-Gray basaltic flake	Cary Cotterman and Maria Espinoza 2002	A-1

1

2 Traditional Cultural Properties

3 There is one known TCP in the proposed project corridor. The landform known
 4 as Tecate Peak or Kuchumaa has been identified as a TCP and is on the
 5 National Register of Historic Places (Register #92001268). The following is a
 6 presentation of the importance and definition of this area as a TCP from the
 7 *National Register Bulletin 38: Guidelines for Evaluating and Documenting*
 8 *Traditional Cultural Properties*.

9 **Kuchumaa (Tecate Peak)**, Tecate, San Diego County, California,
 10 is a sacred mountain to the Kumeyaay Indians of southern
 11 California and northern Baja California, Mexico. Although there are
 12 modern intrusions (a road and communications facilities on the
 13 summit), the mountain is important to the Kumeyaay community's
 14 belief system. The peak is a special place, marking the location for
 15 the acquisition of knowledge and power by Kumeyaay shamans.
 16 Oral tradition records the use of Kuchumaa as the place where
 17 several important shamans instructed their initiates and the sacred
 18 place of vision quests and purification ceremonies. Contemporary
 19 Native Americans continue to use Kuchumaa during the full moon
 20 and at equinoxes, when they pray for renewal of Earth Mother and
 21 peace. Kuchumaa is significant under Criterion A for its association
 22 with Native American cultural history. A contour line and a legal
 23 boundary were used to define the National Register boundaries of
 24 the property. **Verbal boundary description:** Kuchumaa is 3,885
 25 feet above mean sea level. The nominated area includes all land
 26 from the 3,000-foot contour level up to and including the peak. On
 27 the north it drops abruptly to Highway 94. The western flank
 28 consists of several dissected subpeaks and the eastern aspect is
 29 an upland spine. The southern boundary conforms to the

1 international border [between the United States and Mexico]. This
2 is a total of 510 acres, 320 to the west and 190 to the east.
3 **Boundary justification:** Kuchumaa was and remains important to
4 southern California Native Americans as a structural unit. If the
5 mountain lacked its physical proportions and regional position, then
6 it is quite possible that the peak would not have been revered. The
7 physical stature of Kuchumaa constitutes one reason that it was
8 used as a place of spiritual learning and worship. During a visit to
9 Kuchumaa to evaluate a development proposal, Native Americans
10 identified a sphere of spiritual influence extending for several miles
11 from the mountain. This constitutes one zone of spirituality;
12 approachable by both Kwisiyai (shamans) and ordinary people.
13 Actual Native American use of Kuchumaa provides guidelines for
14 establishing boundaries. This nomination includes that portion of
15 the mountain located above an elevation of 3,000 feet above mean
16 sea level. According to current data, this area is considered
17 sacrosanct. In the ethnographic and prehistoric past, the summit
18 was used for arcane rituals and approached only by shamans and
19 their initiates. Cultural taboos prohibited common folk from
20 ascending beyond a spring known as God's Tear. The location of
21 God's Tear Spring has not been verified, but best estimates place it
22 as the spring located just above the 3,000-foot level. Finally,
23 according to Rosalie Pinto Roberston [granddaughter of the last
24 traditional chief of the Kumeyaay], the high mountain slopes hold
25 burials of cremated Kwisiyai. As with the spring, none of these have
26 been verified. Their presence above the 3,000-foot level requires
27 the use of the contour line as the boundary for the National
28 Register district. The nominated portion of Kuchumaa includes 510
29 acres, with the eastern section, consisting of public lands,
30 containing 190 acres. The western, state-owned parcel is
31 demarcated by north-south section lines. This area contains 320
32 acres. The southern boundary conforms to the international border.
33 Private lands occupy a large portion of the lower slopes of the
34 mountain below the 3,000-foot contour line.

35 The following section was taken from a report for the California Division of
36 Forestry report prepared by ASM Affiliates, Inc. (Hector and Garnsey 2006) for
37 Tecate Peak and land to the west. The following excerpt provides an excellent
38 summary of the known information on Tecate Peak or Kuchumaa and is repeated
39 here as emphasis of the importance of this landform and surrounding area.

40 Kuchumaa was first identified as a sacred site in ethnographic
41 literature by Shipek (Cuero 1970) during her study of the Kumeyaay
42 Indians. The site, commonly known as Tecate Peak, is located at
43 an elevation of 3,885 feet above sea level, adjacent to the
44 International Border and between the towns of Dulzura and Potrero
45 in San Diego County; the southern portion of the mountain lies
46 within Tecate, Mexico. To the Kumeyaay, the peak is one of

1 extreme religious and spiritual importance, as is denoted by the
2 various translations of Kuchumaa, meaning, “high, exalted place”
3 (Winkler 1980) and “the ones that cure” or “the ones that life up”
4 (Staniford 1977:44). Kuchumaa remains an extremely important
5 religious site to the Native Americans in the region and is also the
6 destination of followers of New Age religion. The mountain plays a
7 part in a creation myth of the Kumeyaay (Fenly 1982). According to
8 the Kumeyaay creation story, Kuchumaa became a sacred
9 mountain because it was selected as such by Maiha (Fenly 1982),
10 one of the “great creator gods” (Dubois 1908:223). The source of
11 Kuchumaa’s power is not known. Kumeyaay elder Rosalee
12 Robertson stated, “This is the hardest question. Its power comes
13 from the spirit. From God... In the creation myth of the Kumeyaay,
14 there was the prophecy of an all-powerful wise man who would
15 arrive to Earth to show Indians the way to peace. This man came to
16 be known as Kuchumaa....all Indians from as far south as central
17 Baja California and as far east as Yuma came to the mountain
18 centuries ago when they were called by the man.” (Fenly 1982).

19 Most of the evidence for the significance of Kuchumaa derives from
20 oral tradition rather than archaeological remains. To date, little
21 archaeological evidence has been identified to speak to the
22 importance of the site in the ritual activities of the Kumeyaay. One
23 small prehistoric temporary habitation or special use site (CA-SDI-
24 3488) has been recorded approximately 150 m northeast of the
25 peak itself (Foster and Jenkins 1984). The presence of rock art was
26 reported by Dutton in 1982 (National Park Service 1992), and stone
27 features and artifacts, including one projectile point and ceramic
28 sherds, have also been reported (Winkler 1980). One of
29 Hohenthal’s informants described finding a stone olla on the slopes
30 of Kuchumaa in the mid-1940s, about which he speculates that it
31 “may have actually been an example of the Chumash steatite bowls
32 which occasionally filtered south through native trade” (Hohenthal
33 2001:88). Hohenthal (2001:89) also reported that a Sr. Barrios, who
34 owned a ranch at the base of Kuchumaa, had also “collected
35 metates, manos and stone points and blades of various sorts.” No
36 systematic cultural resource surveys have been conducted on the
37 mountain to date, and only two surveys have been conducted at the
38 base of the mountain (Talley 1981, negative; and Welch 1981,
39 positive). Large village sites have been reported for the region
40 (Woods 1980), but none have been documented.

41 Knowledge of the peak and its importance was widespread among
42 the Luiseño, Juaneño, Paipai, Quechan, Mohave, and possibly the
43 Cahuilla, as well as the Kumeyaay (Fenly 1982). Traditionally, only
44 shamans, or *kwisiyai*, were allowed on Kuchumaa (National Park
45 Service 1992) and it was one of the few sites of *kwisiyai* initiation
46 rites. Tofflemeir and Luomala (1936:200) report that the initiation

1 ceremonies took place on Kuchumaa after one year of training in
2 "...diagnosis of disease, curing methods, dream interpretation,
3 tribal and professional ethics, star lore, spirit communication,
4 hunting secrets, witching sings, and how to prepare magic to insure
5 success at gambling and love." Initiates participated in a period of
6 fasting, purification, and meditation, an aspect of the shaman rites
7 occasionally assisted by the use of datura (jimson weed) to enter a
8 trance or hallucinogenic state. Shipek (1985:70) related that
9 Kuchumaa later forbade the use of datura. According to oral
10 tradition, *kwisiyai* learned healing from the mountain itself (Fenly
11 1982) after they had shown the capability to become shamans
12 through revelation of their dreams and had participated in initiation
13 rites; very few individuals were born into the position. One
14 especially famous shaman named Kuchumaa lived in the 1800s
15 and, according to McCain (1955:27), the mountain took its name
16 from this individual. More likely, the opposite is true and the man
17 was named for the mountain. Creation stories foretell the coming of
18 Kuchumaa, the man. Hohenthal (2001:83) noted that the "name
19 Cuchumá comes from a capitán grande after whom a large isolated
20 peak nearby, the Picacho de Cuchumá, was also named."

21 Historically, Kuchumaa was the site of a number of intertribal
22 battles, and when intertribal fighting became "...out of hand, the
23 *kwiyasi* were called to hear Kuchumaa's words of
24 peace...Unfortunately, the shamans were rarely able to hear his
25 words and fighting invariably brewed again" (Fenly 1982).
26 Kuchumaa was also the site of contests held between shamans
27 during which the strength of individual's powers were pitted against
28 one another. One story relates a battle between the shamans on
29 the peak of Kuchumaa that ended in the deaths of some of the
30 medicine men on the promontory below. During one such contest, a
31 group of Kumeyaay *kwisiyai* and Luiseño battled and caused the
32 mountain to split, opening a gorge on the east side of the mountain
33 (Fenly 1982).

34 A sacred spring named God's Tears by the Kumeyaay (National
35 Park Service 1992; Shipek 1985:70) is located around the 3,000-
36 foot contour level, an elevation that marks the transition from a
37 sphere of spiritual influence, accessible by ordinary people, to
38 sacrosanct ground, where only shaman were allowed. Sacred
39 dances such as the *horloi* (whirl dance) were performed on the
40 mountain by the *kwisiyai* (Shipek 1985:70; Spier 1923; Talley 1981;
41 Woods 1980). This dancing reportedly created a circular pit in the
42 promontory located below the mountain's summit; a radio
43 communications tower now stands here (Fenly 1982). *Kwisiyai* paid
44 visits, both physical and spiritual (by way of dreams and through
45 the use of datura), to Kuchumaa to increase their knowledge and
46 interact with the spiritual world. Finally, the mountain was used as a

1 burial place for special people; *kwisiyai* were cremated and their
2 ashes spread or placed on the slopes of Tecate Peak (Fenly 1982),
3 while ordinary citizens were interred in communal cemeteries
4 (Davis 1921).

5 The length of time that the Kumeyaay have been coming to Tecate
6 Peak for spiritual and religious rites is not known. As Kumeyaay
7 informants noted, it has been used for these purposes as long as
8 there have been Kumeyaay (Fenly 1982). There is no mention of
9 Kuchumaa in ethnographic accounts dating to the early 1900s.
10 Because of the sensitive nature of the place, and the tenuous
11 relationship between European and native people, it is likely that
12 Native American informants would not have spoken of its
13 importance to ethnographers. Even today, the Kumeyaay are
14 reticent on the subject of Kuchumaa: "All (informants) indicated that
15 it was forbidden to speak of the mountain or the beliefs associated
16 with it except on proper occasions. Death would follow improper
17 discussion of the mountain..." (Shipek 1985:68). The peak seems
18 to have ceased being used by the *kwisiyai* for initiation ceremonies
19 after Kuchumaa's death in the 1800s (Fenly 1982) and no *kwisiyai*
20 are living today (Shipek 1985:68). The last shaman contest took
21 place on Kuchumaa during the 1930s (National Park Service 1992).
22 The mountain remains an important religious site to Native
23 Americans, connecting the Kumeyaay and other Indians to their
24 ethnic and religious heritage; it is also recognized and used as a
25 spiritual destination by non-Native people.

26 In the early 1900s, Dr. Walter Evans-Wentz, an authority on
27 Tibetan Buddhism, inherited 5,000 acres of land on Kuchumaa
28 (Evans-Wentz 1981: xx). At his death, he willed 2,261 acres of the
29 ranch to the State of California with the requirements that the
30 property be "maintained forever as a mighty monument to
31 symbolize goodwill and fraternity between the races and faiths of
32 the Occident and the Orient across the wide ocean of peace over
33 which it looms" (Evans-Wentz 1981).

34 Walter Yeeling Evans-Wentz was born February 2, 1878, in New
35 Jersey, but followed his family to La Mesa, California (Peterson and
36 Clebsch 1970). He attended Stanford University, graduating in
37 1906. At Stanford, Wentz developed his beliefs in eastern
38 spirituality and Celtic religions. In his honor, Stanford has
39 established the Evans-Wentz Lectureship in Asian Philosophy,
40 Religion and Ethics in their Department of Religious Studies
41 (<http://arc.stanford.edu/archives/evans-wentz.html>). He added the
42 name Evans to his surname in recognition of his own Celtic
43 ancestry. He received an honorary doctorate in Comparative
44 Religion from Oxford University in 1931. He traveled widely,
45 studying Tibetan Buddhism, and translated many texts into English.

1 Between 1922 and 1965, he worked on several books, including
2 *The Sacred Mountains of the Western World*, which was finished by
3 others and published after his death (as *Cuchama and Sacred*
4 *Mountains*, W. Y. Evans-Wentz, edited by Frank Waters and
5 Charles L. Adams). One of the mountains described in the book is
6 Kuchumaa.

7 Dr. Evans-Wentz later bequeathed the land to the San Diego
8 County Council of Boy Scouts, the San Diego YMCA, and CDF with
9 the intention that the mountain would be preserved in perpetuity,
10 and not developed. The CDF was selected as owner of the property
11 because the agency has resource conservation as a primary part of
12 its mission. His book *Cuchama and Sacred Mountains*, a review of
13 Kuchumaa and other sacred mountains throughout the world, was
14 published by the University of Ohio in 1981. It was later criticized as
15 being “superficial and inaccurate” (Shipek 1983:279). A radio
16 communications station was built on the summit of Tecate Peak by
17 the U.S. Army Corps of Engineers in 1957 (Fenly 1982). A dirt road
18 constructed to provide access to the station remains as the only
19 access to the mountain’s peak. A locked gate was installed to
20 prevent unauthorized access to the radio facilities, but also cut off
21 Kumeyaay access to this sacred site. In 1965, the year of Dr.
22 Evans-Wentz’s death, a number of state and federal agencies
23 established other radio communications stations on the peak and a
24 number of proposals to develop the land on and surrounding the
25 peak and to place transmission lines across the mountain have
26 since been presented.

27 In 1981, a proposal to build a campground on the lower slopes of
28 Tecate Peak initiated the preparation of an Environmental Impact
29 Report by the BLM. As a result of research into ethnographic
30 literature and Native American consultation, BLM sought a
31 nomination of Kuchumaa as a National Register of Historic Places
32 (NRHP) district (National Park Service 1992). The Tecate Peak
33 District encompasses 510 acres of both state and federal lands.
34 The district was determined to be eligible for the National Register
35 based upon its uniqueness as a site of extreme religious
36 significance to the Kumeyaay and other Indians throughout
37 southern California. It should be noted that portions of Kuchumaa
38 are still privately owned. This creates a dilemma for the Kumeyaay,
39 who feel that they risk personal harm by divulging information about
40 their sacred mountain, but that, should portions of it be developed,
41 the power of the site will be diminished.

42

5. FIELDWORK RESULTS

The survey of Sections A-1 and A-2 was conducted in November 2007 by archaeological professionals of e²M. The survey team was accompanied by agents from the CBP and access was coordinated through the USBP San Diego Sector. The area of survey was defined based on the project maps dated November 2007 and included the identified sections for barrier construction and access roads that could be altered as part of the construction and by future patrol and maintenance efforts. All accessible areas were carefully inspected for evidence of early historic and prehistoric cultural activity using a transect interval that did not exceed 15 meters between team members. The terrain in the proposed project corridor presented some safety concerns resulting in spot checking in some areas of extreme topography. Several weeks prior to the survey a severe wildfire burned all of the vegetation in the West of Tecate proposed project corridor and affected smaller portions of the Pack Trail.

5.1 PREVIOUSLY RECORDED RESOURCES FOR SECTION A-1

5.1.1 The Pack Trail (P-37-015716)

The Pack Trail winds over chaparral-covered slopes on the flank of the San Ysidro Mountains. The conditions are rocky and generally sloped with a series of north/south-trending ridges cut by deep canyons created by run-off to the Tijuana River from the mountain. Some of the drainages contain riparian vegetation, with shrubs and chaparral comprising the most common vegetation types. The area was dry and the ground surface visibility was generally excellent. The elevation range along the trail is from between 440 and 1,330 feet above mean sea level.

According to Mitchell (1997) the Pack Trail averaged approximately 20 inches in width and was formed by clearing brush and pushing "conspicuous" rocks to the side. The trail was difficult to follow in its entirety as heavy vegetation, topography, and "hundreds" of footpaths from migrant human groups as well as large livestock activity, obscure the primary path. Mitchell surveyed the trail in 1996, after a wildfire cleared vegetation from a large section of the trail. The trail was resurveyed in 2002 by Chambers Group, Inc. (2002) and found to be nearly 1 to 3 meters in width along its full length, brush-free, and easy to follow despite the many intersecting footpaths. Chambers noted the possibility that the trail had been altered through the use of picks and shovels to excavate a more suitable path along the steep ridge slopes and to form a more defined pathway. The path ranges from a surface manifestation to a path that is excavated as much as 60 centimeters (cm) into the hillsides. The path runs parallel to the international border and within 1 meter of the border in many sections and more than 550 meters from the border in other areas.

The research completed by Mitchell (1997) concluded that the trail was constructed in the 1930s or 1940s to bring fencing material up the steep mountain flanks, to construct a fence along the border. Mitchell (1997) presented the notion that the barbed wire fence was constructed to maintain a separation of

1 livestock and not as a means of controlling human population movement. Mitchell
2 (1997) and the Chambers Group both concluded that the Pack Trail is not
3 associated with any persons or events of particular importance in regional
4 transportation history and is not the work of a master and in Chambers view the
5 trail has been significantly modified from the original form and, as such, the trail
6 is not eligible for nomination to the National Register of Historic Places.

7 The survey along the Pack Trail for this report confirmed both the configuration
8 and condition of the trail. The inspection and survey followed the existing trail,
9 beginning at the western end. The conditions along the trail are extremely rough
10 with inclines in some portions of the trail in excess of 30 percent (see
11 **Photographs 5-1** through **5-3**). There were no associated historic or prehistoric
12 artifacts identified within the narrow confines of the trail.



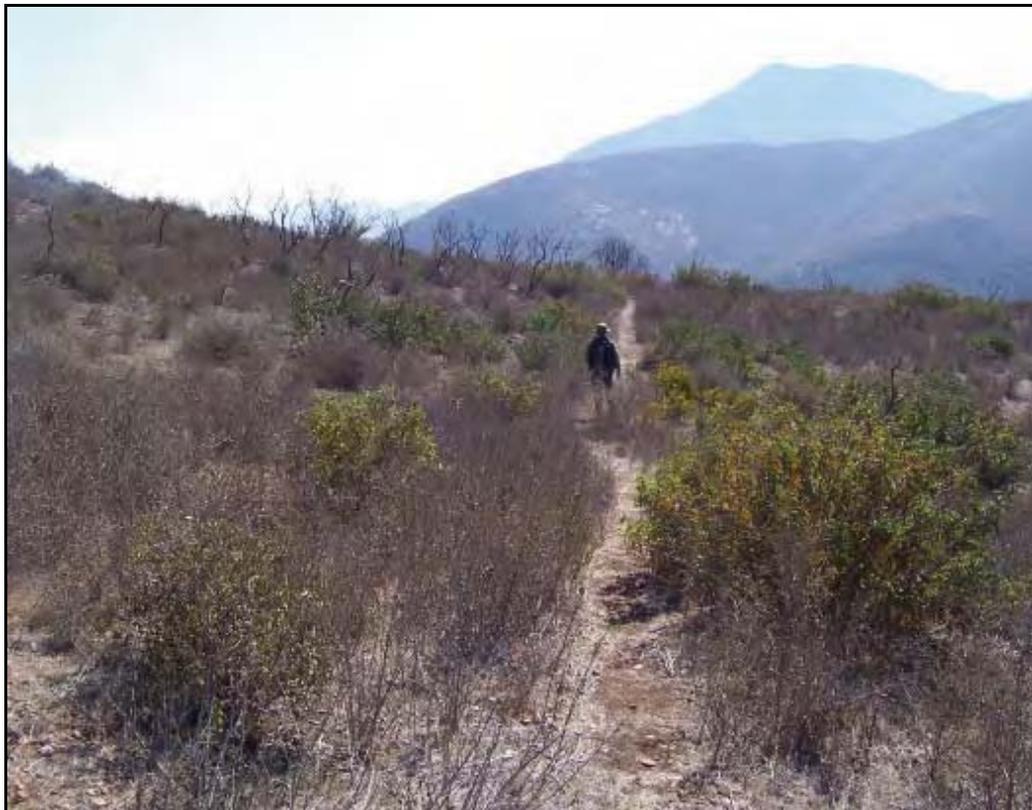
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Photograph 5-1. Example Showing Trail Condition and Width



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Photograph 5-2. Eastern End of Trail (Trail meanders over hill slope)



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Photograph 5-3. Example of Trail Width and General Condition

1 **5.1.2 CA-SDI-16368**

2 CA-SDI-16388 was recorded by the Chambers Group in 2002 and described as
3 a sparse lithic scatter approximately 18 meters north of the U.S./Mexico
4 international border. As defined by the California State Historic Preservation
5 Office (CSHPO), a sparse lithic scatter contains the following elements: “only
6 flaked-stone; lacks other classes of archaeological materials (ground stone, fire-
7 affected rock, bone or shellfish remains, pottery), lacks a substantial subsurface
8 deposit, and exhibits surface densities equal to or less than three flaked-stone
9 items per square meter” (CSHPO 1998). In most cases, sparse lithic scatters do
10 not meet the criteria for National Register eligibility.

11 CA-SDI-16368 is described as a single metavolcanic boulder measuring
12 approximately 1.1 by 0.85 meters with several pieces of rock chipped from the
13 surface of this boulder. Approximately 22 pieces of shatter were found scattered
14 over a 31-by-40 meter area surrounding the boulder. The Chambers Group
15 described the shatter as representing an opportunistic prehistoric quarry.

16 The UTM coordinates and the site area plotted on the USGS for this site were
17 examined during the current study. According to the Department of Parks and
18 Recreation (DPR) site record, the site is bisected by the Pack Trail. There was no
19 evidence of flakes or shatter found at the plotted or UTM-based location.

20 **5.1.3 CA-SDI-16369**

21 CA-SDI-16369 is recorded as a prehistoric ceramic and stone artifact scatter
22 approximately 8 meters north of the Pack Trail and 50 meters of the U.S./Mexico
23 international border. As plotted, the site is outside the project alignment. The site
24 is recorded as containing approximately 70 sherds of prehistoric pottery,
25 approximately 10 pieces of stone shatter, and a core. In addition to the artifacts,
26 a single granite outcrop was described as having a possible milling slick. The site
27 record indicates that a subsurface component to this resource was not expected.
28 As plotted, this site is on the Mexico side of the border and is outside the existing
29 project.

30 **5.1.4 CA-SDI-16370**

31 CA-SDI-16370 is a sparse lithic scatter with two associated milling slicks. This
32 site is recorded at the convergence of three tributaries of the Tijuana River, with
33 materials found in both the United States and Mexico. The site is reported to be
34 10 meters south of the Pack Trail. During the initial survey (Chambers Group
35 2002), approximately 16 pieces of debitage (shatter) were found scattered over
36 an area 18 meters by 10 meters. Two milling slicks were identified on a boulder
37 in Mexico. As plotted, this site is in Mexico and the stone artifacts were not
38 relocated during the current survey.

1 **5.1.5 CA-SDI-16371**

2 CA-SDI-16371 is categorized as a sparse lithic scatter with approximately 8
3 pieces of chipping waste and a single metavolcanic core scattered over an area
4 8 by 4 meters. As recorded, the site is plotted on a southeast-facing slope, 30
5 meters northwest of the bottom of Buttewig Canyon (Chambers Group 2002).
6 The site form indicated that a subsurface component to the site was not
7 expected. This site was not relocated during the current survey.

8 **5.1.6 CA-SDI-16300**

9 CA-SDI-16300 is a moderately dense stone artifact scatter at the intersection of
10 Puebla Tree and White Cross Road (see **Photograph 5-4**). This site is not within
11 the Pack Trail route, but along an access road to the proposed project. The site
12 is approximately 800 by 600 meters in size and is on the eastern side of a small
13 hill. Artifacts include approximately 300 pieces of chipping waste and several
14 cores.



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**Photograph 5-4. Puebla Tree Access Road
(CA-SDI-16300 is to the right side of the road along the ridge)**

18 The site was identified during the current survey at the location plotted on the site
19 record. Although the recorded information for this resource suggests that CA-
20 SDI-16300 is potentially eligible for National Register nomination, eligibility
21 evaluations have not been conducted. This site appears to be one of several

1 opportunistic quarries where available fine-grained metavolcanic stone was
2 tested for suitability for prehistoric tool manufacture. There was no evidence at
3 the site of a buried component or of formal tools such as blades, performs, or
4 hammerstones.

5 **5.1.7 Previously Recorded Isolates**

6 Four prehistoric isolates (P-37-15715, P-37-024688, P-37-024689, and
7 P-37-024691) were recorded by the Chambers Group in 2002. Each isolate is a
8 single piece of metavolcanic chipping waste (flake or shatter) with no other
9 associated artifacts or features. None of the isolates were relocated during the
10 current survey. As defined, isolates are not eligible for National Register
11 consideration since they do not contain the potential to address regional research
12 questions.

13 **5.2 NEWLY RECORDED RESOURCES**

14 During the course of the current survey, two newly discovered archaeological
15 sites and two isolated finds were identified and recorded by the e²M team. Both
16 archaeological sites are small, prehistoric quarries with a limited amount of
17 debitage scattered over the ground surface. These quarries represent
18 opportunistic extraction and sampling of the naturally occurring metavolcanic
19 stone to determine its overall suitability for creating flaked-stone implements. It
20 appears that these naturally occurring outcrops were examined for quality stone
21 material, which was reduced with the removal of cortex followed by the transport
22 of usable stone to various field camps and habitation areas for further reduction
23 and tool manufacture. The locations of these field camps and habitation areas
24 are not known, although it is likely there are a number of them in the project
25 vicinity.

26 The individual artifacts found at the newly discovered sites do not represent a
27 specific period of occupation other than an association with the broad prehistoric
28 past. The previously recorded site CA-SDI-16300 and the two newly discovered
29 sites CA-SDI-18578 and -18579 are representative of special use prehistoric
30 quarry areas. The study area contains a number of exposed Santiago Peak
31 metavolcanic cobbles or boulders that are suitable for making prehistoric tools.
32 This is a fine-grained stone, generally blue to blue-green in color which provides
33 a predictable fracture plane and is seen throughout the southern part of San
34 Diego County as a source stone for flaked stone tools. Based on the current
35 survey these small quarry locales do not include an associated buried deposit or
36 other evidence of prehistoric settlement or use.

37 The appropriate DPR forms have been completed and submitted to the South
38 Coastal Information Center for assignment of official trinomials and Primary
39 designations.

1 **5.2.1 Pack Trail- CA-SDI-18578**

2 Pack Trail CA-SDI-18578 represents a location where a limited number of flakes
3 were removed from small metavolcanic boulders (see **Photographs 5-5** through
4 **5-7**). This site is on a small plateau that is bisected by the Pack Trail. The site
5 assemblage consists of approximately 50 pieces of fine-grained metavolcanic
6 debitage. This material appears to have been removed from several moderately
7 sized metavolcanic cobbles. The site appears to have been created by “testing”
8 or extraction of usable stone material for making formal tools such as scrapers
9 and projectile points. With the exception of a few cores and the debitage, no
10 other artifacts were found.

11 Vegetation within the site area consists of burned scrub with little low growing
12 ground cover. Because of recent wildfires, the ground surface visibility was
13 excellent. The artifact scatter measures approximately 20 by 30 meters, with the
14 majority of the artifacts found on the north side of the Pack Trail. Given the soil
15 conditions and the geology of the area the potential for a subsurface deposit is
16 considered very low for this site.

17 Although CA-SDI-18578 is approximately 250 meters to the east of CA-SDI-
18 16370 and contains similar artifacts, this site is believed to be a new resource.
19 While it is possible that the plotted location of CA-SDI-16370 could be offset by
20 250 meters, this is not supported by the current work effort.



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Photograph 5-5. Pack Trail CA-SDI-18578 - View to the East



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Photograph 5-6. Pack Trail CA-SDI-18578 - View to the Southwest



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Photograph 5-7. Core and Chipping Waste at CA-SDI-18578

1 **5.2.2 Pack Trail- CA-SDI-18579**

2 Pack Trail CA-SDI-18579 is a small flake scatter with a scraper and a broken
3 mano. The site is at the east end of the Pack Trail, on a small plateau
4 overlooking the Tijuana River drainage. As with CA-SDI-18578, this site is
5 defined by a number of moderate sized metavolcanic cobbles that appear to
6 have been tested for suitability for the creation of flaked stone tools (see
7 **Photograph 5-8**). The resulting debitage and cores are what define this site
8 area.



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**Photograph 5-8. CA-SDI-18579 - View to the East
(Example of exposed cobbles tested for prehistoric tool use)**

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This site is on a small knoll with limited vegetation cover. The area is also used as a helicopter landing pad (Pad 33) by USBP. The Pack Trail passes approximately 20 meters to the north of the site. Surface artifacts consist of approximately 15 pieces of fine-grained metavolcanic chipping waste, a scraper, and a mano fragment, scattered over an area 20 by 30 meters.

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The two formal tools are a fine-grained metavolcanic scraper (see **Photograph 5-9**) and a granite mano fragment (see **Photograph 5-10**). The cobbles, debitage, and the scraper are all the same blue-green fine-grained stone material. The mano probably originated near the drainage and was brought to the site. Based on the geology and location of this site, a subsurface deposit is unlikely as there is generally no accumulated soil and no indications of darker, midden-like soil in the site area.



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Photograph 5-9. Stone Tool at CA-SDI-18579



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Photograph 5-10. Mano Fragment Found at CA-SDI-18579

1 **5.2.3 Newly Discovered Isolates**

2 Two isolated finds, both fine-grained metavolcanic flakes, were found along the
3 survey route. These items were not recorded but were noted on the project
4 maps. No additional artifacts or archaeological resources (prehistoric or historic)
5 were found during the survey.

6 **5.3 SECTION A-2 (WEST OF TECATE)**

7 **5.3.1 Previously Recorded Sites**

8 **CA-SDI-9101**

9 This two locus site is a bedrock milling complex with a scatter of flaked stone
10 artifacts and a second locus with a scatter of flaked stone and one ground stone
11 artifacts. This site was recorded in 1981 by the BLM as part of the Mission Park
12 R&RR application. The site is south of the access road (South Grape View) for
13 Section A-2 and outside of the proposed project corridor with a sufficient buffer.

14 **CA-SDI-9102**

15 This site is several thousand meters to the west of CA-SDI-9102 and is a small
16 scatter of flaked stone artifacts. This site was recorded in 1981 by the BLM
17 during the survey for the Mission Park application. The site is south of the access
18 road for Section A-2 (South Grape View) and is outside the proposed project
19 corridor with a sufficient buffer.

20 **CA-SDI-9968**

21 This site was recorded in 1984 and is known as the Heard Ranch site. The site
22 occupies land on both sides of the international border and surrounds an historic
23 residence that is currently occupied. The site is at the southern end of the access
24 road (South Grape View) for Section A-2 and is on private property. There is a
25 large grove of oak and a stream associated with the site area, though the oak
26 grove was burned in the October 2007 wildfire. There are numerous bedrock
27 milling features on the large granite boulders with a surface scatter of flaked and
28 ground stone artifacts as well as pockets of dark soil which could indicate
29 accumulated midden. Inspection of the site was limited during the survey
30 because of private property restrictions, though surface indications did not
31 demonstrate that this site extends to the access road.

32 **5.3.2 Newly Recorded Sites**

33 The survey of the Section A-2 proposed project corridor resulted in the recording
34 of one new cultural resource site. This site is referred to as GV-1 and was
35 identified along South Grape View Road (see **Figure 5-1**). The site is a bedrock
36 milling station with a light surface scatter of debitage. A total of three slicks were
37 recorded on a single, large granite boulder. The site is on the edge of the existing

1 road with no evidence that it continues into the road right-of-way. **Figure 5-1**
2 provides the location of this site relative to the access road.

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4 **Figure 5-1. Location of GV-1 on West of Tecate Access**
5 **(confidential information, not for public review)**

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1 **6. CULTURAL RESOURCES MANAGEMENT**
2 **RECOMMENDATIONS**

3 The proposed project corridors were surveyed and both previously recorded and
4 newly discovered resource areas were encountered. The following
5 recommendations apply to the project as proposed in November 2007. The
6 following information does not include feedback from the initiated consultation
7 with local tribal groups. The input from these groups is critical to the final
8 formulation of project design and implementation of mitigation and avoidance
9 measures and will be incorporated into the final report.

10 **6.1 RECOMMENDATIONS**

11 Potential impacts on cultural resources associated with the project are limited to
12 ground-disturbing construction and future maintenance and patrolling activities
13 and indirect impacts from increased access. Based on the results of a cultural
14 resources survey of the proposed project corridor and data provided on the site
15 records, archaeological monitoring is recommended at five specific locations
16 (CA-SDI-18578, CA-SDI-18579, CA-SDI-16300, CA-SDI-16388, and CA-SDI-
17 16371) during all ground-disturbing activities associated with the project. All
18 ground-disturbing activity within this portion of the study area should be
19 monitored by a professional archaeologist who meets the requirements for
20 archaeological monitors set by the reviewing agency.

21 Evaluations for eligibility to the National Register have not been conducted on
22 newly recorded sites CA-SDI-18578 and CA-SDI-18579, or for CA-SDI-16300, -
23 16388, or -16371 on Section A-1 or GV-1 on Section A-2. It is recommended that
24 prior to construction of the proposed fence or use of the Pack Trail and South
25 Grape View in the vicinity of these site areas, the boundaries of the sites should
26 be clearly marked with flagging and/or protective fencing to avoid inadvertent
27 impacts on the resources. Because each of the sites appears to have limited
28 potential for subsurface deposits, it is recommended that an evaluation program
29 be developed to determine their significance. The evaluation program would
30 include additional mapping and excavation of exploratory units to determine the
31 nature and character of any subsurface deposits. In addition, evaluation would
32 result in more accurate definitions of the extent and nature of these site areas. If
33 the individual sites are determined not to be eligible, monitoring would not be
34 required.

35 The Pack Trail (recorded as P37-015616) was recommended as not eligible for
36 National Register considerations as the result of previously completed study.
37 Impacts on this resource will not require a monitoring or mitigation program,
38 though additional documentation of the trail might be appropriate.

39 The objective of the evaluation program would be to gather sufficient data to
40 determine the potential National Register nomination eligibility of the five
41 archaeological sites recorded along the Pack Trail using the criteria set forth in

1 36 CFR Part 800. Eligibility determinations for each site under criterion D
2 (significance or scientific importance of the site) will be established by evaluating
3 each site's potential to contribute data that are meaningful for regional research
4 themes for southwestern California. If an evaluation program is developed, each
5 site will be evaluated for the integrity of the archaeological deposit, the
6 chronological and cultural affiliation of the deposit, site function and subsistence
7 behavior as expressed by the preserved artifacts and ecofacts, its place in the
8 regional settlement pattern, and the presence or absence of items or features
9 with Native American heritage value.

10 Based on the records and site visits, these resources represent homogeneous,
11 small artifact collections that are believed to have limited potential to provide
12 information that can be applied to regional questions pertaining to settlement
13 patterns, cultural affiliation, culture change, or subsistence. None of the sites
14 listed above are expected to meet National Register criteria.

15 Since no cemeteries, or isolated Native American or other human remains have
16 been documented within the study area, the potential for impacts on unrecorded
17 Native American or other human remains during proposed construction appears
18 to be relatively low. If Native American or other human remains are inadvertently
19 discovered during the course of project actions, there will be no further
20 excavation or disturbance of the remains or the vicinity until the remains and the
21 vicinity have been evaluated in accordance with California Environmental Quality
22 Act (CEQA) Section 10564.5, California Health and Safety Code (CHSC) Section
23 7050.5, Public Resources Code (PRC) Section 5097.98, and the Native
24 American Graves Protection and Repatriation Act (NAGPRA), as appropriate.

25 **6.2 PROTOCOLS**

26 Inadvertently discovered cultural resources will be immediately reported to the
27 previously designated environmental/cultural resources management point of
28 contact and will be evaluated by a qualified archaeologist who meets the
29 requirements of the SHPO. If preliminary evaluation indicates that the resource is
30 potentially significant or potentially eligible for nomination to the National
31 Register, a Cultural Resources Treatment Plan (CRTP) will be developed. The
32 CRTP will contain protocols for the treatment of the cultural resource, a detailed
33 description of report and documentation requirements, curation requirements for
34 any cultural materials collected during treatment, and the qualifications for
35 archaeologists involved in the proposed treatment activities, as mandated by the
36 SHPO.

37 If treatment activities provide information that results in the determination that the
38 resource is eligible for nomination to the California Register of Historical
39 Resources (CRHR) and cultural resources mitigation measures are necessary,
40 the results of such mitigation measures must be analyzed and the findings must
41 be submitted to the SHPO for concurrence. Work may not resume in the vicinity
42 of potentially eligible cultural resources until the SHPO has determined that
43 sufficient mitigation measures have been completed, and has concurred with the

1 findings and conclusions contained in the mitigation report, as stipulated in the
2 CRTP. Mitigation measures can include relocation of ground-disturbing project
3 activities that results in the avoidance of the resource. If avoidance is not
4 possible, data recovery excavation could be implemented to mitigate potential
5 project impacts on a potentially eligible resource that cannot be avoided.

6 **6.3 SUMMARY**

7 The cultural resources survey completed for this project resulted in the recording
8 of two newly discovered stone artifact scatters in Section A-1 (CA-SDI-18578 and
9 -18579) and one newly recorded site (GV-1) in Section A-2. In addition to these
10 sites, two previously recorded sites, CA-SDI-16388 and -16371 were identified in
11 the immediate vicinity of the Pack Trail and one previously recorded site (CA-
12 SDI-9968) and one TCP (Kuchumaa/Tecate Peak) are known to be associated
13 with Section A-2. The current survey did not identify artifacts associated with CA-
14 SDI-16388 and -16371 although it is possible that both resources were plotted
15 inaccurately. It is also possible that in the time since the original recording, the
16 noted surface items have become displaced and are no longer apparent.

17 The fifth previously recorded site in the study area, CA-SDI-16300, is plotted
18 near an access route that will be used for project implementation. Although this
19 site, a large stone tool scatter, appears to lack a subsurface deposit and has a
20 limited number and diversity of stone tools on the surface, it was proposed as
21 potentially eligible for National Register listing on the site record. Based on
22 preliminary design information, this site could be impacted if a staging area is
23 placed near its location. It is recommended that the perimeter of the site be
24 staked prior to initiation of construction and access to the area of the site should
25 be restricted for the duration of construction.

26 Although the proposed project represents a potential impact on five cultural
27 resources sites for Section A-1 and one site on Section A-2, implementation of
28 the stated cultural resources management recommendations and protocols,
29 including archaeological monitoring and the development and implementation of
30 a CRTP for the treatment of any inadvertently discovered cultural resources, will
31 reduce potential project impacts on cultural resources to a level that is less than
32 significant.

33 The impacts on Kuchumaa have not been defined and the development of
34 protective measures has not been accomplished. Consultation with associated
35 tribal groups has been initiated and ongoing and additional consultation will be
36 necessary to arrive at appropriate project protocols. Additional information
37 regarding design and project limits should be developed to facilitate the
38 presentation of this project to concerned parties with respect to TCP issues.

39

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**CULTURAL RESOURCES STUDY
APPENDIX A**

CONSULTATION LETTERS WITH ASSOCIATED NATIVE AMERICAN GROUPS

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U.S. Department of Homeland Security
Washington, DC 20529



U.S. Customs and
Border Protection

OCT 23 2007

Honorable H. Paul Cuero, Jr., Chairman
Campo Band of Kumeyaay Indians
36100 Church Road, Suite 1
Campo, California 91906

**Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance,
and Operation of Tactical Infrastructure, U.S. Department of Homeland
Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego
Sector**

Dear Mr. Cuero:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable H. Paul Cuero, Jr.
Page 2

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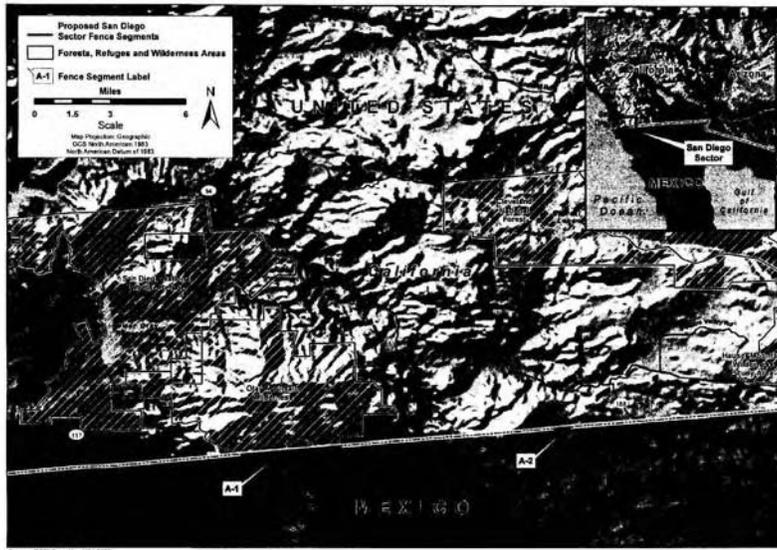
We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17390, Fort Worth, Texas 76102-0390 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

For: R. Janson
Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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U.S. Department of Homeland Security
Washington, DC 20229



U.S. Customs and
Border Protection

OCT 23 2007

Honorable Bobby L. Barrett, Chairman
Viejas Band of Mission Indians
P.O. Box 908
Alpine, California 91903

**Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance,
and Operation of Tactical Infrastructure, U.S. Department of Homeland
Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego
Sector**

Dear Mr. Barrett:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Bobby L. Barrett
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

RFJ
For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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Honorable Leroy Elliott
Page 2

A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on September 24, 2007. A copy of the NOI is enclosed, which provides additional information about the proposed project, background information, and the framework for Federal environmental review requirements under NEPA.

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

2

Honorable Leroy Elliott, Chairman
Manzanita Band of Mission Indians
P.O. Box 1302
Boulevard, California 91905

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Elliott:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Pueblo Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

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U.S. Department of Homeland Security
Washington, DC 20529



U.S. Customs and Border Protection

Honorable Johnny Hernandez, Spokesman
Santa Ysabel Band of Mission Indians
P.O. Box 130
Santa Ysabel, California 92070

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Hernandez:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Johnny Hernandez
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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U.S. Department of Homeland Security
Washington, DC 20129



U.S. Customs and
Border Protection

Honorable John James, Chairman
Cabazon Band of Mission Indians
84-245 Indio Springs Pkwy
Indio, California 92203

**Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance,
and Operation of Tactical Infrastructure, U.S. Department of Homeland
Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego
Sector**

Dear Mr. James:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable John James
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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U.S. Department of Homeland Security
Washington, DC 20529



U.S. Customs and Border Protection

Honorable Allen E. Lawson, Spokesman
San Pasqual Band of Mission Indians
27458 North Lake Wolford Rd., Level #3
Valley Center, CA 92082

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructures, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Lawson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Allen E. Lawson
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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U.S. Department of Homeland Security
Washington, DC 20279



U.S. Customs and
Border Protection

Honorable Howard Maxey, Chairman
Mesa Grande Band of Mission Indians
P.O. Box 270
Santa Ysabel, California 92070

**Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance,
and Operation of Tactical Infrastructure, U.S. Department of Homeland
Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego
Sector**

Dear Mr. Maxey:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Howard Maxey
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

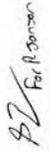
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Honorable Richard Milanovich
Page 2

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Sincerely,



Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

1

U.S. Department of Homeland Security
Washington, DC 20529



U.S. Customs and
Border Protection

Honorable Richard Milanovich, Chairperson
Agua Caliente Band of Cahuilla Indians
600 East Tahquitz Canyon Way
Palm Springs, CA 92262

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Milanovich:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

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U.S. Department of Homeland Security
Washington, DC 20329



U.S. Customs and
Border Protection

Honorable Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
1048 Crestwood Road
Bonlevard, California 92905

**Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance,
and Operation of Tactical Infrastructure, U.S. Department of Homeland
Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego
Sector**

Dear Ms. Parada:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Gwendolyn Parada
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P O Box 17300, Forth Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

2

U.S. Department of Homeland Security
Washington, DC 20529



U.S. Customs and
Border Protection

Honorable Harlan Pinto
Page 2

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Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

Honorable Harlan Pinto, Chairman
Cuyapaipe Band of Mission Indians
4054 Willovs Road
Alpine, California 91903-2250

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

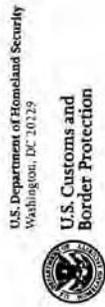
Dear Mr. Pinto:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S. Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

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Honorable Catherine Saubel
Page 2

A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on September 24, 2007. A copy of the NOI is enclosed, which provides additional information about the proposed project, background information, and the framework for Federal environmental review requirements under NEPA.

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

RFJ
For John

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

2

Honorable Catherine Saubel, Spokeswoman
Los Coyotes Band of Mission Indians
2300 Camino San Ignacio
Warner Springs, California 92086

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

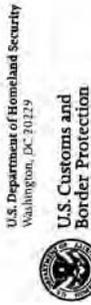
Dear Ms. Saubel:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebloa Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

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Honorable Rhonda Welch-Sealco, Chairwoman
Barona Band of Mission Indians
1095 Barona Road
Lakeside, CA 92040

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Welch-Sealco:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Pueblo, Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Rhonda Welch-Sealco
Page 2

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We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EIS for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office by mail at P.O. Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Supervising Patrol Agent Oscar Pena, USBP San Diego Sector at (619) 216-4028.

Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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OCT 2 3 2007

Honorable Daniel J. Tucker, Chairman
Sycuan Band of Mission Indians
5459 Dehesa Road
El Cajon, CA 92019

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Tucker:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Pueblo Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. Maps presenting the proposed project sites are enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Daniel J. Tucker
Page 2

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Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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U.S. Department of Homeland Security
Washington, DC 20529



U.S. Customs and
Border Protection

OCT 23 2007

Honorable Leon Acebedo, Chairman
Jamil Band of Mission Indians
13910 Lyons Valley Road
Jama, California 91935

Subject: Environmental Impact Statement (EIS) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Acebedo:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Impact Statement (EIS) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 5.6 miles within USBP San Diego Sector. In preparing the EIS, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure consisting of pedestrian fence, vehicle barriers, supporting patrol roads, and other infrastructure in 2 high priority segments along the U.S./Mexico international border. The first segment is approximately 4.9 miles in length and would start at Puebla Tree and end at Boundary Monument 250. The second would be approximately 0.7 miles in length and would connect with existing border fence west of Tecate. A map presenting the proposed project site is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EIS does not necessarily mean the 5.6 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Leon Acebedo
Page 2

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Sincerely,

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosures

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