

FINDING OF NO SIGNIFICANT IMPACT
PROPOSED BRUSH AND SMALL TREE THINNING OPERATION NEAR
JACUMBA, CA

PURPOSE AND OBJECTIVE: The primary purpose of the proposed action is provide USBP agents an unobstructed view of the border area, thereby enhancing their capability of successfully detecting and safely apprehending illegal aliens and smugglers.

PROPOSED ACTION: The proposed action consists of thinning of brush and some small trees on 18 acres of privately-owned land located approximately 0.75 miles west of Jacumba. The area to be thinned is along Boundary Creek, between the International border and US Highway 80. The USBP proposes to thin the brush and small trees by hand using chainsaws and other hand tools.

ALTERNATIVES: Alternatives carried forward for analysis in the EA include the No Action and the Proposed Action described above. The No Action Alternative would continue the USBP patrol efforts as they currently exist at the project site. Illegal alien traffic and drug smuggling activities would continue due to the obstructed view of the border from the thick vegetation in the Boundary Creek area. Of the alternatives considered, the Proposed Action is considered the best approach, with the least environmental impacts, to providing increased visibility in the Boundary Creek area. Other alternatives considered but eliminated from further evaluation included clearing of all vegetation and mechanical excavation of roots and stumps.

ENVIRONMENTAL CONSEQUENCES: The proposed action would involve hand-clearing brush and tree thinning within an 18 acre site within Boundary Creek. To ensure minimal environmental impacts associated with this project, the following environmental design measures will be incorporated within the proposed brush and tree thinning operation: a) thinning activities will be conducted on an annual or as needed basis, with the written approval of the landowner, as specified in this Environmental Assessment; b) thinning activities will not be conducted between March 1 and September 1; and c) no heavy equipment would be utilized to cut, or remove brush or small trees or excavate stumps within the project site. Large trees, as requested by the landowner, would remain on the site. Although the habitat would be altered, no significant adverse effects to the natural or human environment are expected. The area would still provide habitat for wildlife. No cultural resource sites would be affected by the proposed action. Increased or enhanced interdiction of illegal entry and drug smuggling activities would have positive, indirect socioeconomic benefits including reduction of enforcement costs, losses to personal properties, violent crimes, and entitlement programs.

Based upon the results of the EA, I have concluded that the Proposed Action would not have a significant adverse effect on the environment and no further NEPA documentation is warranted.



Russ Johnson
Acting Director, Office of Administration
Headquarters Facilities and Engineering Division

10/11/01

Date

FINAL
ENVIRONMENTAL ASSESSMENT
IMMIGRATION AND NATURALIZATION SERVICE
BRUSH AND SMALL TREE THINNING OPERATION NEAR
JACUMBA, CA

NOVEMBER 2001

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EXECUTIVE SUMMARY

- PROPOSED ACTION:** This Environmental Assessment (EA) addresses the potential effects, beneficial and adverse, of the proposed brush and small tree thinning operation near Jacumba, California.
- PURPOSE AND NEED:** The proposed project site, which is located on the U.S.-Mexico border, experiences a high amount of illegal traffic and drug smuggling activities. This high level of activity is due to the proximity of Highway 80, as well as the cover provided by the thick brush and trees within Boundary Creek. The USBP maintains a telescope on the ridges north of the site for viewing of the border; however, the view is severely hindered by the thick brush and trees at this location. The USBP is then forced to patrol this area several times daily on horse and with foot patrols to detect and prevent the unlawful entry of aliens and smuggling in this area. Moreover, the thickness of the vegetation in this area creates an unsafe environment for agents and horses. The thinning of brush and small trees would allow USBP agents to maintain an unobstructed view of this area which would facilitate detection and apprehension capabilities and decrease foot and horse patrol efforts.
- ALTERNATIVES ADDRESSED:** The No Action Alternative would continue the USBP patrol efforts as they currently exist in the proposed project area. The illegal traffic and drug smuggling activities would continue due to the obstructed view of the border from the thick vegetation in the Boundary Creek area. Two other alternatives, clearing of all vegetation and mechanical excavation of roots and stumps, were considered but eliminated from further discussion.
- ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION:** The proposed action would involve hand-clearing brush within an 18 acre site within Boundary Creek. Large trees, as requested by the landowner, would remain on the site. Mitigation measures regarding schedule, frequency, and method of clearing/thinning have been incorporated to ensure no significant effects occur. No significant adverse effects to air quality, water quality, cultural resources, unique areas, soils, protected species, or land use are expected as a result of the proposed action. Riparian habitat would be thinned within the proposed project area.
- CONCLUSIONS:** Based on the findings of this analysis, no significant adverse impacts would occur from the proposed action. However, increased or enhanced interdiction of illegal and drug entry and activities would have positive, indirect socioeconomic benefits including reduction of enforcement costs, losses to personal properties, violent crimes, and entitlement programs.

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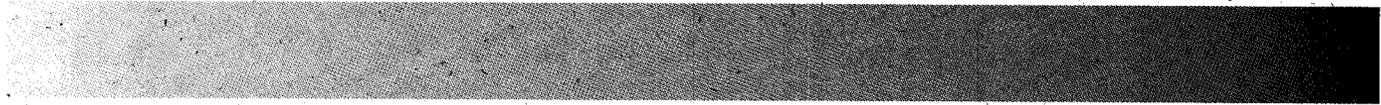
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SECTION 1.0
INTRODUCTION



1.0 INTRODUCTION

This Environmental Assessment (EA) addresses the potential effects, beneficial and adverse, of the proposed brush and small tree thinning on 18 acres of land near Jacumba, California (CA). The proposed brush and small tree thinning operation would enhance border enforcement activities near the Jacumba area.

1.1 BACKGROUND

The U.S. Immigration and Naturalization Service (INS) has the responsibility to regulate and control immigration into the United States. The INS has four major areas of responsibility: 1) facilitate entry of persons legally admissible to the United States, 2) grant benefits under the Immigration and Nationality Act (INA), including assistance to persons seeking permanent resident status or naturalization, 3) prevent unlawful entry, employment or receipt of benefits, and 4) apprehend or remove aliens who enter or remain illegally in the United States. In regards to the latter responsibility, the U.S. Congress in 1924 created the U.S. Border Patrol (USBP) to be the law enforcement arm of the INS. The USBP's primary function is to detect and deter the unlawful entry of aliens and smuggling along the nation's land borders and ports-of-entry (POE). With the increase in illegal drug trafficking, the USBP also has become the leader for drug interdiction between POEs.

Since 1980, an average of 150,000 immigrants have been naturalized every year. At the same time, however, illegal aliens have become a significant issue. INS apprehension rates are currently averaging more than 1.5 million illegal aliens throughout the country. The INS estimates that there are currently from three to six million illegal aliens in the United States. Other studies have indicated higher numbers, closer to 10 million. The USBP field activities are administered under the Field Operations Division. In fiscal year (FY) 1999, the USBP made almost one million apprehensions of illegal immigrants and seized more than 1.1 million pounds of marijuana and over 29,000 pounds of cocaine (USBP 2000a).

Still, the United States is also experiencing epidemic levels of drug use and drug-related crimes as reported by the Office of National Drug Control Policy (1998 and 1999):

- illegal drugs cost our society approximately \$110 billion annually;
- 1.5 million Americans were arrested in 1997 for violating drug laws;
- 819 persons per 100,000 population were murdered during drug related offenses;
- 322,000 Americans are casual heroin users and over 800,000 are heavy users;
- 1.5 to 3 million Americans are casual cocaine users and over 800,000 are heavy users;
- state and Federal prison populations (drug-related crimes) doubled between 1989 and 1996; and,
- over 10 % of Americans used some form of illicit drug in 1998.

Table 1-1 below includes the Boulevard Station's Apprehensions and Drug Seizures from 1999 to present. As can be seen from this table, the apprehension and drug seizure rate has significantly increased thus far this year.

**Table 1-1
Apprehension and Drug Seizures for the
USBP Boulevard Station 1999 to May 2001**

Year	Apprehensions	Drug Seizures
1999	19,169	19
2000	19,105	4
January 2001 to May 2001	14,938	9

Source: USBP, 2001

1.2 REGULATORY AUTHORITY

The mission of the INS includes the enforcement of the INA and the performance of a uniformed, Federal law enforcement agency with authority delegated by the U.S. Attorney General. The primary sources of authority granted to officers of the INS are the INA, found in Title 8 of the United States Code (8 U.S.C.), and other statutes relating to the immigration and naturalization of aliens. The secondary sources of authority are administrative regulations implementing those statutes, primarily those found in Title 8 of the Code of Federal Regulations (8 C.F.R. Section 287), judicial decisions, and administrative decisions of the Board of Immigration Appeals. In addition, the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) of 1996 mandates INS to

acquire and/or improve equipment and technology along the border, hire and train new agents for the border region, and develop effective border enforcement strategies.

Subject to constitutional limitations, INS officers may exercise the authority granted to them in the INA. The statutory provisions related to enforcement authority are found in Sections 287(a), 287(b), 287(c), and 287(e) [8 U.S.C. § 1357(a,b,c,e)]; Section 235(a) [8 U.S.C. § 1225]; Sections 274(b) and 274(c) [8 U.S.C. § 1324(b,c)]; Section 274(a) [8 U.S.C. § 1324(a)]; and Section 274(c) [8 U.S.C. § 1324(c)] of the INA. Other statutory sources of authority are Title 18 of the United States Code (18 U.S.C.), which has several provisions that specifically relate to enforcement of the immigration and nationality laws; Title 19 [19 U.S.C. § 1401(i)], relating to US Customs Service cross-designation of INS officers; and Title 21 [21 U.S.C. § 878], relating to Drug Enforcement Agency cross-designation of INS officers.

1.3 LOCATION OF PROPOSED ACTION

The proposed project is located in San Diego County near Jacumba, CA (Figure 1-1). Jacumba is located approximately 70 miles east of San Diego. The site of the proposed brush and small tree thinning is located approximately 0.75 miles west of Jacumba between Highway 80 and the international border (Figure 1-2).

1.4 PURPOSE AND NEED

The U.S.-Mexico border experiences a high amount of illegal traffic and drug smuggling activities. The proposed project site, in particular, is vulnerable to illegal border crossings due to the proximity of Highway 80, as well as the cover provided by the thick brush within Boundary Creek. The USBP maintains a telescope on the ridge north of the site for viewing of the border; however, the view is severely hindered by the thick brush at this location. Due to the limited visibility of the area, the USBP is then forced to patrol this area several times daily on horse and with foot patrols to detect and prevent the unlawful entry of aliens and smuggling along the border. Moreover, the thickness of the vegetation in this area creates an extremely unsafe environment for agents and horses. The thinning of brush and small trees would allow USBP agents to maintain an

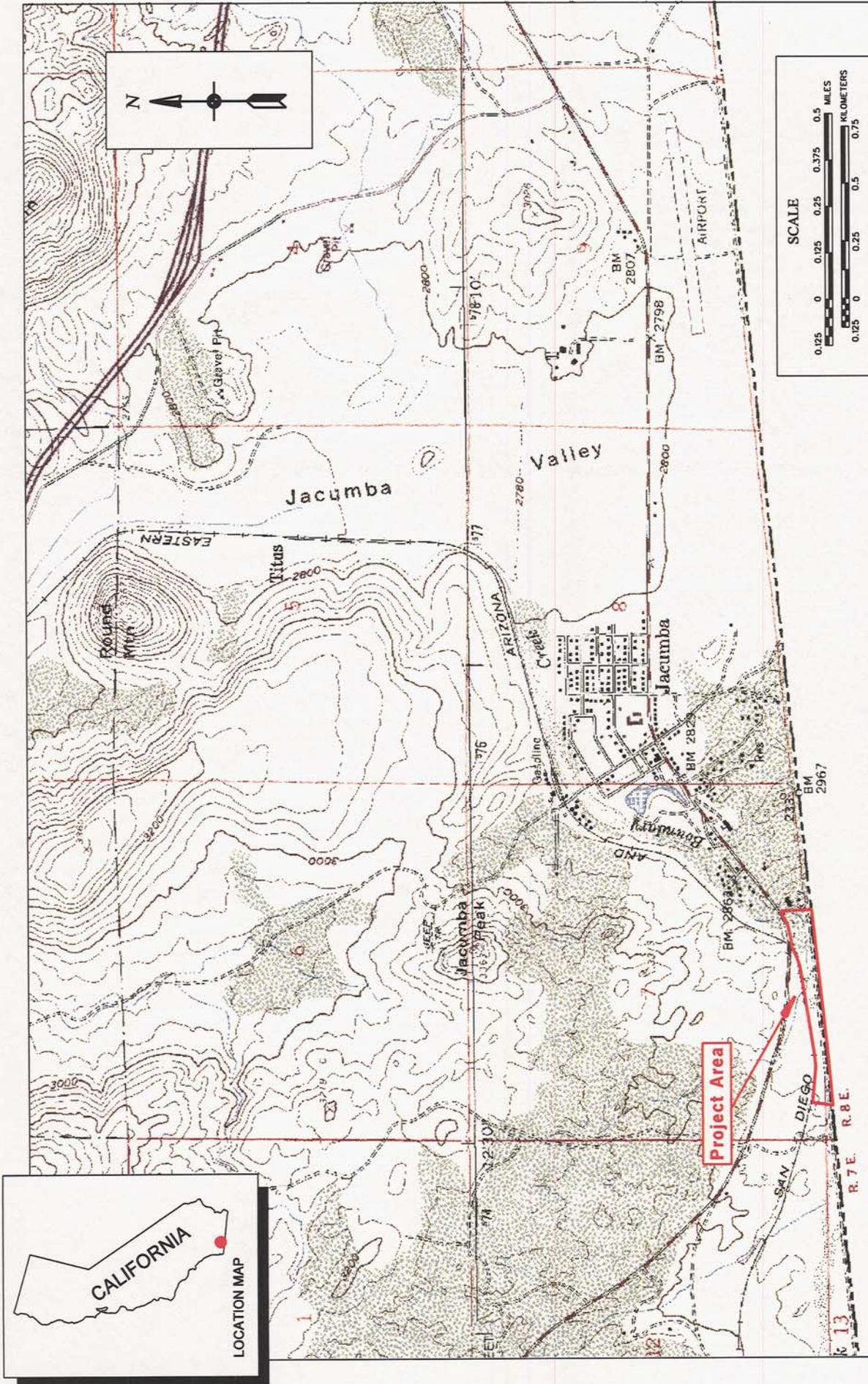


Figure 1-1: Project Vicinity

gsrc / GULF SOUTH RESEARCH CORPORATION

SCALE: NOT TO SCALE

DATE: NOVEMBER 2001



gersi GULF SOUTH RESEARCH CORPORATION
 SCALE: 1:24,000
 DATE: NOVEMBER 2001

Figure 1-2: Portion of Jacumba, California (1975) photorevised USGS quadrangle showing the location of proposed brush and small tree thinning

unobstructed view of the border area, thereby enhancing their capability of successfully detecting and safely apprehending illegal aliens and smugglers.

1.5 APPLICABLE ENVIRONMENTAL STATUTES AND REGULATIONS

This EA was prepared by the U.S. Army Corps of Engineers (USACE), INS Architect-Engineer Resource Center (AERC), Fort Worth District, in accordance with, but not limited to the National Environmental Policy Act of 1969 (NEPA); Endangered Species Act (ESA) of 1973, as amended; the National Historical Preservation Act of 1966, as amended; the Archaeological and Historical Preservation Act of 1974, as amended; Executive Order (E.O.) No. 11593, "Protection and Enhancement of the Cultural Environment"; E.O. No. 11988, "Floodplain Management"; E.O. No. 11990, "Protection of Wetlands"; and E.O. No. 12898 "Federal Actions to Address Environmental Justice." Table 1-2 summarizes the pertinent environmental requirements that guided the development of this EA.

**Table 1-2
Applicable Environmental Statutes and Regulations**

Federal Statutes	
Archaeological and Historical Preservation Act of 1974	
Clean Air Act of 1955, as amended	
Clean Water Act of 1977, as amended	
Endangered Species Act of 1973, as amended	
Migratory Bird Treaty Act of 1972	
National Historic Preservation Act of 1966, as amended	
National Environmental Policy Act of 1969, as amended	
Watershed Protection and Flood Prevention Act of 1954	
Wild and Scenic Rivers Act of 1968, as amended	
Farmland Protection Policy Act of 1980	
Native American Graves Protection and Repatriation Act of 1990	
Executive Orders, Memorandums, etc.	
Floodplain Management (E.O. 11988) of 1977	
Protection of Wetlands (E.O. 11990) of 1977	
Federal Actions to Address Environmental Justice to Minority Populations and Low-Income Populations (E.O. 12898) of 1994	
Protection of Migratory Birds & Game Mammals (E.O. 11629) of 2001	

SECTION 2.0
ALTERNATIVES

2.0 ALTERNATIVES

Alternatives that were identified and considered during the planning stages of the proposed project include the Proposed Action and the No Action Alternative. Other alternatives were considered but eliminated from further evaluation because they did not satisfy the purpose and need of the project. The following paragraphs describe each of the alternatives considered.

2.1 PROPOSED ACTION

The proposed action consists of thinning of brush and some small trees on 18 acres of privately-owned land located approximately 0.75 miles west of Jacumba. The corridor to be thinned is located along the U.S. border south of Highway 80 along Boundary Creek (see Figure 1-2). The proposed project site is approximately 1,800 feet long and averages 140 feet wide. Mature trees throughout the project site have been identified by the landowner and will not be removed. The USBP proposes to thin the brush and small trees by hand using chainsaws and other hand tools. Maintenance thinning would be completed as needed to maintain the desired level of visibility. The frequency of maintenance thinning would depend upon several biotic and abiotic variables including climate conditions, flooding frequencies, and continued use of the area by UDA's; however, maintenance activities are expected to be required. Thinning activities will be conducted on an annual or as needed basis, with the written approval of the landowner, as specified in this Environmental Assessment. Thinning activities will not be conducted between March 1 and September 1. In addition, no heavy equipment would be utilized to cut, remove brush, small trees, or excavate stumps within the project site. No ground disturbance will take place during this action.

2.2 NO ACTION ALTERNATIVE

The No Action Alternative would continue the USBP patrol efforts as they currently exist at the project site. Illegal traffic and drug smuggling activities would continue due to the obstructed view of the border from the thick vegetation in the Boundary Creek area. In addition, the frequency of horse and foot patrols would continue to increase in the area. Detection and prevention of unlawful entry of aliens and smuggling along the border

would be hindered under this alternative. Selection of the No Action Alternative, therefore, would not satisfy the purpose and need of the proposed project.

2.3 ALTERNATIVE CONSIDERED BUT ELIMINATED

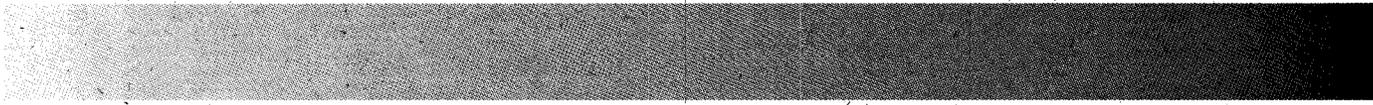
2.3.1 Clearing of All Vegetation

An alternative to remove all vegetation from the area so that it was completely void of surface vegetation was considered but eliminated as a viable alternative. Although this alternative would provide an unobstructed view of the border, the USBP deemed it unnecessary, cost-prohibitive, and potentially environmentally sensitive.

2.3.2 Mechanical Excavation of Roots and Stumps

An alternative to remove all roots and stumps using a mechanical excavator was considered but eliminated as a viable alternative. This alternative would have prevented new growth of woody vegetation, thus minimizing the need for future thinning activities. However, this alternative would have required significant ground disturbance to 15 of the 18 acres. This ground disturbance would have potentially impacted cultural resources, water quality, soils, and wildlife resources in the area.

SECTION 3.0
AFFECTED ENVIRONMENT



3.0 AFFECTED ENVIRONMENT

This section of the EA describes the natural and human environment that exists in the Jacumba, San Diego County region, as well as site-specific conditions, as appropriate. Only those parameters that have the potential to be affected by the proposed action are described.

3.1 LAND USE

In general, the land use is indicative of the land ownership. The major land uses in San Diego County include agriculture, rangeland, urban, forest, recreation/special use, and water. The total area of San Diego County is 4,255.0 square miles with a population of 2,820,844 (U.S. Bureau of the Census 2000). The major land use in San Diego County is special land use with 1,508,100 acres (70 percent). The special land use category consists of: national parks, state parks, wildlife management areas, military installations, and Native American lands. The State of California and National Park Service are the primary land holders in the county. The City of San Diego and surrounding communities are the primary urban center of the county. Agricultural land encompasses approximately 205,600 acres (nine percent) consisting of production of vegetables, fruits, flowers, eggs, and milk. Rangeland accounts for approximately 152,100 acres (seven percent) and is used primarily for grazing livestock. Water (one percent) encompasses approximately 13,800 acres of the county's total land area. The proposed project site and the surrounding area is privately-owned and undeveloped. Cattle from Mexico occasionally stray into the project site, but it is not used for rangeland. The land immediately south of the border is used for grazing free-ranging cattle.

3.2 SOILS

The National Resource Conservation Service (NRCS) soil survey information for the San Diego County area (NRCS 1973) was reviewed to determine general soil types found within the proposed project area. The Rositas-Carrizo Association is the soil type found in the proposed project area. This association occurs primarily in the desert at elevations ranging from 100 to 200 feet on 0 to 2 percent slopes. It consists of excessively drained loamy coarse sands on alluvial fans. Irrigated areas of Rositas soils

are used for citrus, alfalfa, and pasture. Carrizo soils are too coarse textured for irrigated farming, but provide a good source of sand and gravel for construction purposes. These soils are not considered either prime farmlands or hydric.

3.3 BIOLOGICAL RESOURCES

3.3.1 Provinces

Ten physiographic regions occur within the State of California: Mojave Desert, Transverse Range, Peninsular Ranges, Great Basin Valley, Modoc Plateau, Coast Range, Sierra Nevada, Colorado Desert, Cascade Range, and Klamath Mountains. The study area lies within the Peninsular Range. This province consists of northwest-southeast trending mountain range separated by long narrow valleys. The Peninsular Range Province lies within the Californian biotic province and is part of the warm-temperate scrublands biotic community. These scrublands are dominated by the California chaparral and coastal sage scrub communities (Dice 1943).

3.3.2 Vegetation Communities

The major vegetation communities along the U.S.-Mexico border in eastern San Diego County are chaparral, desert transition chaparral, and creosote bush scrub (Beauchamp 1986). The predominant plant species in the chaparral community are chamise (*Adenostoma fasciculatum*), manzanita (*Xylococcus bicolor*), and California lilac (*Ceanothus tomentosus*). The predominant plant species in the desert transition chaparral include acacia (*Acacia greggii*), rabbitbrush (*Chrysothamnus* sp.), cholla (*Opuntia* sp.), barrel cactus (*Ferocactus cylindraceus*), and telegraph weed (*Heterotheca grandiflora*), tumbleweed (*Salsola tragus*). Common associates of the creosotebush scrub community include creosotebush (*Larrea tridentata*), sage (*Salvia columbariae*), four winged saltbush (*Atriplex canescens*), and acacia (*Acacia* spp.). More detailed descriptions of the project site are presented in the following paragraphs.

3.3.2.1 Project Vegetation

The plant community within the project area consists of elements of chaparral and desert transition scrub and extends over terrain characterized by boulder outcroppings and an ephemeral stream, Boundary Creek (Figure 3-1). Vegetation cover is characterized by chaparral and desert scrub species including catclaw acacia (*Acacia greggii*),

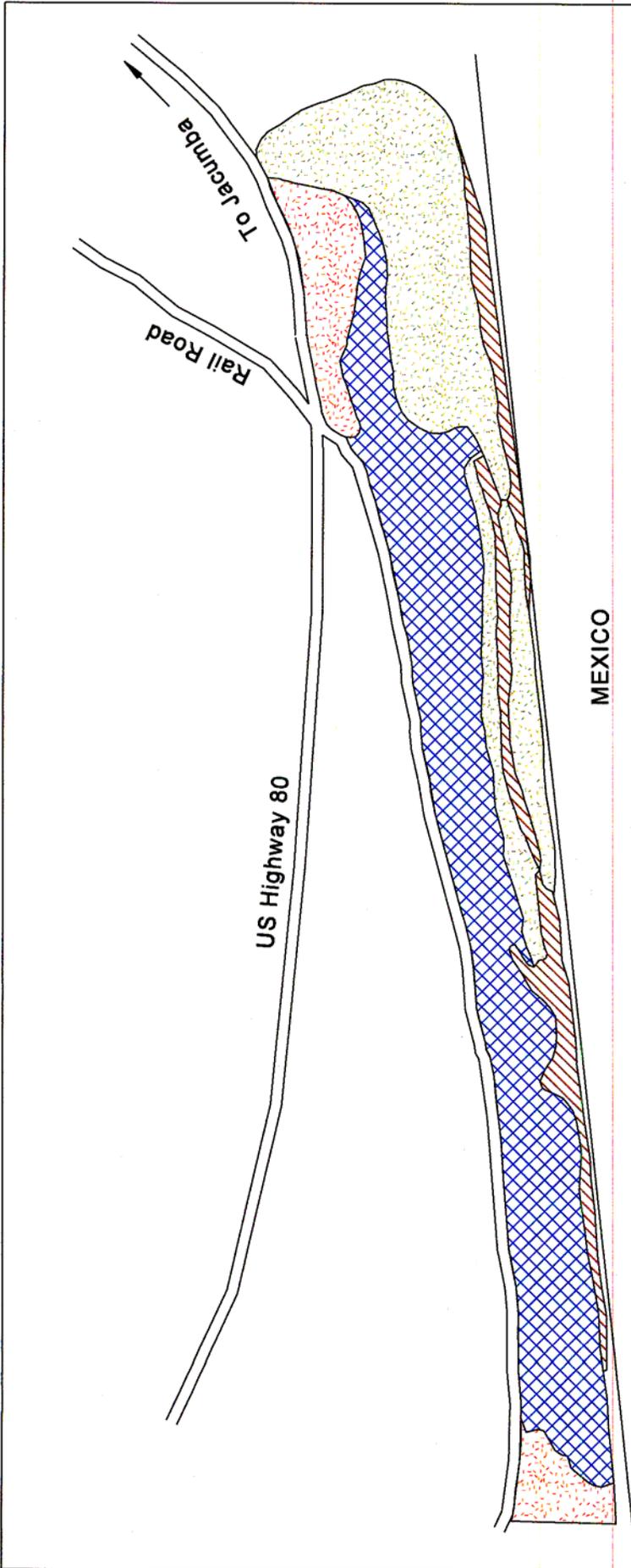


Figure 3-1: Breakdown of vegetation in project area.

rabbitbrush, cholla, barrel cactus, telegraph weed, broombrush (*Baccharis sarothroides*), buckwheat (*Erigonum fasciculatum*), tumbleweed, cudweed (*Gnaphalium californicum*), star thistle (*Centaurea melitensis*), deerweed (*Lotus scoparius*), California sagebrush (*Artemisia californica*), scrub oak (*Quercus berberidifolia*), yerba santa (*Eriodictyon crassifolium*), and poison oak (*Toxicodendron diversilobum*). Chaparral/desert scrub transitional communities comprise eight acres of the proposed project site while desert scrub communities comprise two acres.

The vegetation in or on the edges of Boundary Creek is characterized by ephemeral riparian species including black cottonwood (*Populus balsamifera* spp. *trichocarpa*), arroyo willow (*Salix lasiolepis*), salt cedar (*Tamarix ramosissima*), mulefat (*Baccharis salicifolia*), and holly-leaf cherry (*Prunus ilicifolia*). Other vegetation within the proposed project area include ragweed (*Ambrosia* sp.), stinging nettle (*Urtica dioica*), Mormon's tea (*Ephedra* sp.), and California juniper (*Juniperus californica*). Six acres of the proposed project site consists of riparian habitat.

Bare ground encompasses two acres of the proposed project site. The bareground is due in part to road construction, sedimentation, and fires.

3.3.3 Fish and Wildlife Resources

California is one of the most biologically diverse areas in North America. Within its 160,000 square miles, California harbors more unique animals than any other state (Steinhart 1990). The proposed project site supports numerous species, both plant and animal, and are described below.

3.3.3.1 Wildlife

The native faunal components of the Peninsular Range support 432 species of birds which are dominated by woodwarblers (40 species), swans, geese, and ducks (34 species), sandpipers and phalaropes (30 species), gulls and terns (20 species), sparrows and towhees (20 species), and tyrant flycatchers (22 species). The majority of these species occur in spring and fall when neotropical migrants (e.g., flycatchers and warblers) pass through on their way to either summer breeding or wintering grounds and during winter when summer resident birds (i.e., robins, kinglets, and sparrows) from the north arrive to spend the winter. The majority of the 94 mammalian species found in the

Peninsular Range are evening bats and rodents, with rodents being the most common. Only 17 species of amphibians are found within this Range with frogs being the most abundant and common. A total of 54 species of reptiles inhabit the Peninsular Range, with the iguanid lizards and colubrid snakes being the most dominant (Ingles 1957; Stebbins 1985; Holt 1990).

During field surveys on 6 and 7 November 2000, Gambel's quails (*Lophortyx gambelii*), common ravens (*Corvus corax*), barn swallows (*Hirundo rustica*), desert wood rat (*Neotoma lepida*) nests and western whiptails (*Cnemidophorus tigris*) were the only wildlife observed.

3.3.3.2 Fish

No permanent waterbodies are present at the proposed brush and small tree thinning site which could support fish species.

3.3.4 Threatened and Endangered Species

A total of 37 Federal endangered, threatened, or candidate species occur or potentially occur within San Diego County. Of these, 28 species are listed as endangered, seven as threatened, and two are proposed to be listed as threatened. Information pertaining to the distribution and habitat requirements for the endangered, threatened, and candidate species are listed in Table 3-1.

The California Department of Fish and Game (CDFG) maintains lists of special status species. These species are not necessarily the same as those protected by the Federal government under the Endangered Species Act (ESA). Information pertaining to these species potentially occurring in San Diego County is presented in Appendix A.

No Federal or state listed species were observed at the proposed site during a field survey conducted on 6 and 7 November 2000. Although the southwestern willow flycatcher and least Bell's vireo are found in riparian habitats, the riparian habitat within the proposed project site would not support this species due to the dry conditions of Boundary Creek and its isolation from other potential habitat (Unitt 2001). The Boundary Creek riparian community appears to provide potential suitable habitat for the southwestern arroyo toad; however, according to Gilbert (2001) and Doyle (2001), the

**Table 3-1
Federally Listed Species of Potential Occurrence
In the Project Vicinity San Diego County, California**

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
AMPHIBIANS				
Arroyo toad <i>Bufo microscaphus californicus</i>	E	12/16/94 59 CFR 64859	Proposed 6/8/00 65 CFR 63511	Found exclusively in streams in southern California and northern Baja California
California red-legged frog <i>Rana aurora draytoni</i>	T	5/23/96 61 CFR 25813	3/13/2001 66 CFR 14625	occurs in aquatic habitats and riparian habitats
BIRDS				
California brown pelican <i>Pelecanus occidentalis californicus</i>	E	10/13/70 35 CFR 16047	No	Found in coastal areas; on rocky shores and cliffs, in sloughs, and coastal river deltas.
California least tern <i>Sterna antillarum browni</i>	E	10/13/70 35 CFR 16048	No	nest in colonies on sandy beaches that are usually associated with river mouths or estuaries
California coastal gnatcatcher <i>Polioptila californica californica</i>	T	3/30/93 58 CFR 16742	10/24/00 65 CFR 63679	Commonly occurs in coastal sage scrub
Least Bell's vireo <i>Vireo bellii pusillus</i>	E	5/2/86 51 CFR 16482	2/2/94 59 CFR 4845	Occurs in riparian habitats with well-developed overstories and understories
Light-footed clapper rail <i>Rallus longirostris levipes</i>	E	10/13/70 35 CFR 16048	No	Found in dense vegetation within coastal salt and brackish marshes
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	E	2/27/95 60 CFR 10693	7/22/97 62 CFR 93129	Occurs in riparian habitats
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T	4/5/93 58 CFR 12864	12/7/99 64 CFR 68507	Occurs on coastal beaches for nesting and wintering
FISH				
Desert pupfish <i>Cyprinodon macularius</i>	E	3/31/86 51 CFR 10842	3/31/86 51 CFR 10842	Found in warm desert pools, marshes, streams and springs

Table 3-1
 Federally Listed Species of Potential Occurrence
 In the Project Vicinity San Diego County, California
 (continued)

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
FISH (cont.)				
Mohave tui chub <i>Gila bicolor mohavensis</i>	E	10/13/70 35 CFR 16048	No	Streams and lakes
Tidewater goby <i>Eucyclogobius newberryi</i>	E	2/4/97 59 CFR 5494	11/20/00 65 CFR 69693	Endemic to California, and is unique in that it is restricted to coastal brackish water habitats.
Unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	E	10/13/70 35 CFR 16048	Proposed 11/17/80 45 CFR 76012	Prefers slow moving reaches or quiet water microhabitats of streams and rivers
INVERTEBRATES				
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	E	1/16/97 62 CFR 2313	No	Found on open grasslands near meadows, vernal pools, or lakes; also coastal sage scrub
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	E	8/3/93 58 CFR 41834	8/21/00 65 CFR 57136	Occurs in vernal pools
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	E	2/3/97 62 CFR 4925	10/23/00 65 CFR 63437	Occurs in vernal pools
MAMMALS				
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	E	8/26/94 59 CFR 4972	No	Fine-grain, sandy substrates near Pacific Ocean
Stephen's kangaroo rat <i>Dipodomys stephensi</i>	E	9/30/88 53 CFR 38465	No	Restricted to dry grasslands and scrub of Southern California
PLANTS				
California Orcutt grass <i>Orcuttia californica</i>	E	8/3/93 58 CFR 41834	No	Occurs in vernal pools
Coastal dunes milk-vetch <i>Astragalus tener var. fitii</i>	E	8/12/98 63 CFR 43100	No	Occurs on a relatively flat coastal terrace within 100 feet of the ocean beach

**Table 3-1
Federally Listed Species of Potential Occurrence
In the Project Vicinity San Diego County, California
(continued)**

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
PLANTS (cont.)				
Del Mar manzanita <i>Arctostaphylos glandulosa</i> spp. <i>crassifolia</i>	E	10/7/96 61 CFR 52370	No	Occurs in southern maritime chaparral and dense southern mixed chaparral
Encinitas baccharis <i>Baccharis vanessae</i>	T	10/7/96 61 CFR 52370	No	Occurs in southern maritime chaparral and dense southern mixed chaparral
Gambel's water cress <i>Rorippa gambelii</i>	E	8/8/93 58 CFR 41378	No	Marshes, swamps, and the borders of lakes
Mexican flannelbush <i>Fremontodendron mexicanum</i>	E	10/13/98 63 CFR 54956	No	Found in coniferous forests
Nevin's barberry <i>Berberis nevinii</i>	E	10/13/98 63 CFR 54956	No	Found in chaparral and alluvial scrub associated with rocky slopes and sediments and sandy washes
Orcutt's spineflower <i>Chorizanthe orcuttiana</i>	E	10/7/96 61 CFR 52370	No	Found in coastal chaparral openings in chamise
Olay mesa mint <i>Pogogyne nudiuscula</i>	E	8/3/93 58 CFR 41834	No	Occurs in vernal pools
Olay tarplant <i>Hemizonia conjugens</i>	T	10/13/93 63 CFR 54937	No	Typically found in grassland or coastal sage scrub
Salt marsh bird's beak <i>Cordylanthus maritimus maritimus</i>	E	9/28/78 43 CFR 44812	No	Found exclusively in coastal salt marshes
San Bernardino blue grass <i>Poa atropurpurea</i>	E	9/14/98 63 CFR 49006	No	Found in meadow habitats
San Diego ambrosia <i>Ambrosia pumila</i>	PE	Proposed 12/29/99 64 CFR 72993	No	Restricted to flat or sloping grasslands, often along valley bottoms or areas adjacent to vernal pools
San Diego button-celery <i>Eryngium aristulatum parishii</i>	E	8/3/93 58 CFR 41834	No	Occurs in vernal pools

**Table 3-1
Federally Listed Species of Potential Occurrence
In the Project Vicinity San Diego County, California
(continued)**

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
PLANTS (cont.)				
San Diego mesa mint	E	9/28/78 43 CFR 44810	No	Occurs in vernal pools
<i>Pogogyne abramsii</i>				
San Diego thornmint	T	10/13/98 63 CFR 54937	No	Occurs in coastal sage scrub, chaparral, and native grassland
<i>Acanthomintha ilicifolia</i>				
Spreading navarretia	T	10/13/98 63 CFR 54975	No	Occurs in vernal pools
<i>Navarretia fossalis</i>				
Thread-leaved brodiaea	T	10/13/98 63 CFR 54975	No	Vernally moist grasslands and the periphery of vernal pools
<i>Brodiaea filifolia</i>				
Willow monardella	E	10/13/98 63 CFR 54975	No	Riparian scrub, usually at sandy locales in seasonally dry washes
<i>Monardella linooides</i> spp. <i>viminea</i>				

Source: CDFG 2001 and USFWS 2001

P=Proposed

T=Threatened

E=Endangered

species has not been recorded from this area. No habitat exists for the Quino checkerspot butterfly within the project area.

3.3.5 Unique and Environmentally Sensitive Areas

San Diego County contains numerous unique and environmentally sensitive areas. Ongoing efforts by many government agencies, as well as private entities, have set aside these areas for preservation. There is only one unique and/or sensitive area found in the region of the project area, the Jacumba Wilderness Area. This sensitive area is approximately five miles northeast of the proposed project area.

This wilderness area was designated in 1994 and encompasses a total of 33,670 acres (NWPS 2000). It is managed by the California Desert District of the Bureau of Land Management (BLM). The Jacumba Mountains are located on the eastern edge of California's coastal peninsular range and extend into Mexico. The U.S.-Mexico border is the southern boundary of the wilderness area. Mule deer (*Odocoileus hemionus*), bighorn sheep (*Ovis canadensis*), golden eagles (*Aquila chrysaetos*), kangaroo rats (*Dipodomys* sp.), and California fan palms (*Washingtonia filifera*) are commonly found throughout this area.

3.4 AIR QUALITY

3.4.1 Federal, State, Rural, and Wilderness Standards

The State of California air quality standards differ from the National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50). California has adopted more stringent standards for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter, and lead. The NAAQS and California's air quality standards are listed in Table 3-2. The California Air Resources Board (CARB) gathers air quality data for the State of California, ensures the quality of this data, designs and implements air models, and sets ambient air quality standards for the state. Primary standards are established to protect public health while secondary standards provide protection for the public's welfare including wildlife, climate, recreation, transportation, and economic values.

Regulations under the Clean Air Act Prevention of Significant Deterioration (PSD) provisions (40 CFR Part 52 - PSD of Air Quality) were enacted in order to maintain or

Table 3-2

California and National Ambient Air Quality Standards

POLLUTANT	National Standards		
	California Standards CONCENTRATION	CONCENTRATION	
STANDARD TYPE			
Carbon Monoxide (CO) 1-hour average 8-hour average	9 ppm (10 mg/m ³)* 20 ppm (23 mg/m ³)*	9 ppm (10 mg/m ³)* 35 ppm (40 mg/m ³)*	None
	0.25 ppm (470 ug/m ³)*	0.053 ppm (100 ug/m ³)*	Same as Primary
Nitrogen Dioxide (NO ₂) Annual arithmetic mean 1-hour average	0.09 ppm (180 ug/m ³)*	0.12 ppm (235 ug/m ³)* 0.08 ppm (157 ug/m ³)*	Same as Primary
	1.5 ug/m ³	1.5 ug/m ³	Same as Primary
Lead (Pb) 30 days average Quarterly average	30 ug/m ³	50 ug/m ³ 150 ug/m ³	Same as Primary
	50 ug/m ³	65 ug/m ³ 15 ug/m ³	Same as Primary
Particulate Matter <10 micrometers (PM ₁₀) Annual geometric mean Annual arithmetic mean 24-hour average	Same Same		No Federal Standards
	25 ug/m ³		
Particulate Matter <2.5 micrometers (PM _{2.5}) Annual arithmetic mean 24-hour average	0.03 ppm (42 ug/m ³)*		
Sulfates 24-hour average			
Hydrogen sulfide 1-hour average			

Source: California Air Resources Board (CARB) 1999b

Legend

- ppm = parts per million
- mg/m³ = milligrams per cubic meter
- ug/m³ = micrograms per cubic meter
- * Parenthetical value is an approximate equivalent concentration

improve the existing air quality in all Intrastate Air Quality Control Regions (IAQCR) and National Rural and Wilderness Areas by creating various classifications using the existing NAAQS pollutants. These classifications relate to the available increment above an established baseline concentration of a pollutant within which some increase will be allowed, with Class I being the most restrictive (smallest available increment) and Class III being the least restrictive (largest available increment). The PSD provisions were designated to assure that areas with air quality much better than the NAAQS would not be allowed to degrade up to standards levels, but would be allowed some limited degradation to accommodate development within an area.

3.4.2 Potential Sources of Air Pollutants

This segment of the U.S.-Mexico border study area consists of a mixture of rural, sparsely populated areas, U.S.-Mexico border communities, and the San Diego metropolitan area. Air quality degradation problems exist primarily in the heavily populated areas due to the usual urban air pollution sources (predominantly mobile sources) and in the urban/industrial communities that exist on the border.

3.4.3 Ambient Air Quality

The total emissions of all criteria pollutants for San Diego County in 2000 was 3,102 tons per day (USEPA 2000a). Under state standards, San Diego County is classified as non-attainment for ozone and particulate matter less than 10 micrometers (PM_{10}) and classified in attainment for other criteria pollutants. Under Federal standards, San Diego County is classified as non-attainment for ozone and in attainment for other criteria pollutants.

The air quality monitoring station nearest the project area is located at Alpine, approximately 40 miles northwest of Jacumba and is separated from Jacumba by the 4,000 foot high mountains within the Cleveland National Forest. During 1999, CARB (1999a) reports that ozone levels at Alpine did not exceed Federal standards and exceeded state standards 21 days. No other pollutants are reported in excess of either Federal or state standards at Alpine.

3.5 WATER RESOURCES

3.5.1 Watersheds

There are two basins found in or near Jacumba: the Flat Creek watershed and the Jacumba Valley Proper watershed. The Flat Creek watershed runs west to east through Boulevard and Jacumba, covering approximately 35 square miles. The Jacumba Valley Proper runs north to south extending into Mexico, and encompasses approximately 100 square miles (Peters, 2001).

3.5.2 Water Quality

The State Water Resources Control Board (SWRCB), which is part of the California EPA, is the regulatory body in the state that is in charge of surface water quality and designation of uses. The project area is located in the Flat Creek and Jacumba Valley Proper watersheds. The Flat Creek watershed is classified as having aquatic conditions well below State or Tribal water quality goals. The Jacumba Valley Proper is classified as having water quality of a potable state (Peters, 2001). Boundary Creek is an ephemeral stream; thus, no water quality data are available for the specific project site.

3.5.3 Waters of the U.S. and Wetland

Section 404 of the Clean Water Act (CWA) of 1977 (P.L. 95-217) authorizes the Secretary of the Army, acting through the USACE, to issue permits for the discharge of dredged or fill material into Waters of the United States, including wetlands. Waters of the United States (Section 328.3[2] of the CWA) are those waters used in interstate or foreign commerce, subject to ebb and flow of tide, and all interstate waters including interstate wetlands. Waters of the United States are further defined as all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, or impoundments of waters, tributaries of waters, and territorial seas. Jurisdictional boundaries for Waters of the U.S. are defined in the field as the ordinary high water mark (OHWM) which is that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and

duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USACE 1987).

Boundary Creek would be considered as a jurisdictional Waters of the U.S. and the project site contains potential jurisdictional wetlands. The streambed itself is approximately 10 feet wide, although size will vary with the amount of water flowing through the stream. Photographs 1 and 2 in Appendix B portray the streambed, as well as some of the riparian vegetation on the site.

3.6 NOISE

Noise is generally described as unwanted sound, which can be based either on objective effects (hearing loss, damage to structures, etc.) or subjective judgments (community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as a sound level. The threshold of human hearing is approximately 0 dB, and the threshold of discomfort or pain is around 120 dB.

Noise levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL). DNL is the community noise metric recommended by the USEPA (USEPA 1972) and has been adopted by most Federal agencies (Federal Interagency Committee on Noise [FICON] 1992).

A DNL of 65 dB is the level most commonly used for noise planning purposes and represents a compromise between community impact and the need for activities like construction which do cause noise. Areas exposed to DNL above 65 dB are generally not considered suitable for residential use. A DNL of 55 dB was identified by USEPA as a level below which there is effectively no adverse impact (USEPA 1972). This is the lowest level at which adverse health effects could be credible in a DNL of 75 dB (USEPA 1972). The very high annoyance levels make such areas unsuitable for residential land use. The only significant source of noise at the proposed site is traffic along U.S. Highway 80. There are no sensitive receptors located near the proposed project site.

3.7 CULTURAL RESOURCES

3.7.1 Cultural Overview

A full prehistory of the project area is presented in both Townsend (1986) and Wade (1995). The earliest period of occupation is the *San Dieguito Complex*, which dates from 10,000 to 11,000 years ago. It is distinguished by a preponderance of scrapers combined with leaf-shaped points, crescents, graters, choppers and hammerstones. The Milling Stone Horizon or *La Jolla Complex* began approximately 7,500 years ago. This period is distinguished primarily by the presence of milling tools-manos and metates. The *Late Prehistoric* period began approximately 1,200 to 600 years ago with the migration of the Shoshone and Yuman peoples into the area. This period is characterized by small triangular points, imported lithic materials, and pottery. Large village sites occurred and were usually associated with smaller hunting and gathering campsites. During the Protohistoric period (1700's-1800's) ethnohistoric sources indicate that the Jacumba valley was occupied by a clan that primarily lived in Mexico and whose large village sites are primarily in Mexico. However there were village sites in the valley, including *Hakum* located near a hot spring. All sites appear to be occupied seasonally, with sites in some areas being occupied over and over again during the same season every year. This historic period occupation of the Jacumba Valley began in 1849 with the use of the Jacumba Hot Springs as a water supply station between San Diego and the Colorado River. In 1853 a fort was built to protect mail carriers, and farmers and ranchers moved into the area during the 1860s. The San Diego and Arizona Railway was constructed in the Jacumba Valley in 1918 and a railroad station established in 1919. The Hot Springs was also central to development in the 1920s through 1940s with the advent of tourism and the establishment of resorts. Tourism declined in the 1950s and the area was bypassed with the construction of Interstate 8 in 1967.

3.7.2 Past Investigations

A literature search conducted at the South Coastal Information Center, California State Office of Historic Preservation, at San Diego State University showed that seven surveys have been conducted within one mile of the project area. No sites have been recorded within the project area, but 47 sites have been recorded within one mile of the project area. The cultural resources sites consisted of 40 prehistoric, eight historic, and four multi-component sites that have both prehistoric and historic deposits.

3.7.3 Current Investigations

A total of 18 acres was intensively surveyed for cultural resources within the Jacumba project area. Survey transects began along the east boundary of the project area in the drainage bottom and proceeded west paralleling the railroad tracks. Four additional transects spaced no more than 15 meters apart were completed in an east-west direction ending on the border patrol road. One area measuring 40 by 40 meters, which had been previously disturbed was examined closely for any potential subsurface cultural remains that may have been exposed. In addition, the terrace above the boundary of the project was examined in order to determine the extent of the remains of a 20th century mining site. Surface visibility ranged between less than five percent to approximately 80 percent. Visibility was poorest (<20%) in the eastern two-thirds of the project area where dense stands of willow, cottonwood, and low lying brush along with associative fall obscured most of the ground surface.

As a result of the surveys no prehistoric, historic, or architectural resources were identified within the project boundaries. The structural debris of a 20th century mining operation was located outside the project area, but was found not to extend within the project area. Although no sites were found, visibility in the eastern portion of the project area was generally below 20 percent. Under Section 106 procedures it has been determined that the undertaking does not have the potential to cause an effect on historic properties.

3.7.4 Tribal Concerns

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and defines procedures governing how Federal agencies statutory responsibilities. The Advisory Council on Historic Preservation (ACHP) codified these compliance procedures as 36 CFR Part 800. Revisions to this these procedures emphasized consultation with Native American tribes as part of the section 106 process. In particular Sec. 800.2(c)(3) of the revised regulations states that Federal agencies are required to consult not only with the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO), but also with relevant tribes that might claim cultural affinity in the area of the undertaking. Such consultations should occur on all Federal undertakings subject to Section 106 review, regardless of whether or not the undertaking is on tribal land. As a

result the tribes must be given a reasonable opportunity to identify their concerns, advise on potential resources within the study area, including eligibility and provide input on project effects. The Kumeyaay Cultural Repatriation Committee is comprised of participating tribes that claim cultural affinity to this area. The 12 participating tribes are: Barona Band of Mission Indians, Campo Band of Mission Indians, Ewiiapaayp Band of Mission Indians, Inaja Band of Mission Indians, Jamul Indian Village, LaPosta Band of Mission Indians, Manzanita Band of Mission Indians, Mesa Grande Band of Mission Indians, San Pasqual Band of Mission Indians, Santa Ysabel Band of Diegueno Indians, Sycuan Band of Mission Indians, and Viejas Banc of Kumeyaay Indians. Consultation will take place at all levels of the Section 106 and NEPA process with these tribes.

3.8 SOCIOECONOMICS

3.8.1 Population

The Region of Influence (ROI) for the proposed brush and small tree thinning is San Diego County, which contains the San Diego Metropolitan area. The 1999 population of San Diego County was estimated to be 2,820,844 which ranked second in the state of California (U.S. Bureau of the Census 2000). This is an increase of 12.9 percent over the revised 1990 census population of 2,498,016. The racial mix of the San Diego County is mainly comprised of Caucasians (82 percent) and Asian and Pacific Islanders (11 percent). The remaining seven percent is split among African-Americans, Native Americans and other races. Less than half of the total population (26 percent) claim to be of Hispanic origin. This has changed slightly from the 1990 racial mix mainly comprised of Caucasians (84 percent) and Asian and Pacific Islanders (eight percent) with the remaining eight percent split among African-Americans, Native Americans, and other races (U.S. Bureau of the Census 2000).

3.8.2 Employment, Poverty Levels, and Income

The total number of jobs in the study area was 1,543,307 in 1997, which was an increase of 20 percent over the 1987 number of jobs of 1,285,112 (Regional Economic Information System 2000). The services industry provided the most jobs followed by the government sector and the retail trade industry. The 1997 unemployment rate for San Diego County was 4.2 percent. This is lower than the January unemployment rate for

the state of California of 6.3 percent (California Employment Development Department 2000).

The 1997 annual total personal income (TPI) for the ROI was \$67,997,758 (in thousands of dollars). This TPI ranked third in the state of California and accounted for eight percent of the state total (Regional Economic Information System 2000). This was a 72 percent increase over the 1987 TPI of \$39,596,890. Over the past 10 years the average annual growth rate of TPI was 5.6 percent. This is higher than the annual growth rate for the state of 5.3 and only slightly lower than that for the nation of 5.8 percent. Per capita personal income (PCPI) for San Diego County was \$24,965 in 1997. This PCPI ranked 17th in the state, and was 95 percent of the state average, \$26,314, and 99 percent of the national average, \$25,288. This represents a 43 percent increase over the 1987 PCPI of \$17,403. The average annual growth rate of PCPI over the past 10 years was 3.7 percent, which was slightly lower than the state's growth rate of 3.8 percent and lower than the national growth rate of 4.7 percent. The estimated number of people of all ages in poverty for San Diego County was 386,232. This represented 14.2 percent of the County, which is lower than the estimated 16.5 percent of the state population that lives in poverty.

3.8.3 Housing

The total number of housing units in the ROI was 946,240 in 1990 (U.S. Bureau of the Census 2000). This represents eight percent of the total housing units reported for the state of California. Of the housing units within San Diego County, 887,403 (94 percent) are occupied and the remaining 58,837 (six percent) are vacant. Approximately 54 percent (477,579) of the occupied housing units are owner occupied, while 46 percent (409,824) are renter occupied (U.S. Bureau of the Census 1991). Housing units authorized by new building permits was 16,295 for San Diego County in 1999, which represents 12 percent of the 138,039 housing units authorized by new building permits for the whole state of California.

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 LAND USE

4.1.1 Proposed Action

Land use in the proposed project area would not be affected by the Proposed Action. The proposed area is currently undeveloped and would remain undeveloped after the brush and thinning activities.

4.1.2 No Action Alternative

Implementation of the No Action Alternative would have no effect upon the proposed project area's current land use.

4.2 SOILS

4.2.1 Proposed Action

Implementation of the Proposed Action would have no impact on soils within the proposed site because there is no ground disturbance by the hand-thinning operation. The soils are not considered prime farmland.

4.2.2 No Action Alternative

Soils would remain in the existing condition under the No Action Alternative and no impacts would occur.

4.3 BIOLOGICAL RESOURCES

4.3.1 Vegetation

4.3.1.1 Proposed Action

Under the Proposed Action, eight acres of chaparral and desert scrub, two acres of desert scrub, and six acres of riparian communities within Boundary Creek would be impacted. The Proposed Action consists of hand-thinning of selected brush and small trees; thus, not all vegetation within this 16 acres would be impacted. The remaining two acres within the project site consists of bare ground and, thus, would not require thinning activities. Combustible fuels that have the potential to create a fire hazard would also be

reduced. Some mature trees within the project site would remain on site at the request of the landowner.

4.3.1.2 No Action Alternative

Implementation of the No Action Alternative would have no direct effect upon the site vegetation. Vegetation throughout the area would continue to be impacted by horse and foot patrols, as well as by illegal traffic if the No Action Alternative is implemented.

4.3.2 Wildlife

4.3.2.1 Proposed Action

Impacts to wildlife would be minimal under the Proposed Action. These impacts would occur primarily during the actual brush and small tree thinning actions. The types of impacts would be temporary displacement as people traversed through the area with hand-clearing equipment, temporary increases in ambient noise levels due to the motor of the chainsaw, and loss of some brush/small tree habitat. Upon completion of the brush and small tree thinning, wildlife would be able to return to their habitat. However, long-term alteration of the habitat would occur since future maintenance would be required to ensure the USBP's continued observation capabilities. Recent developments associated with the Migrating Bird Treaty Act (MBTA) require that Federal agencies, such as the USBP, document any activity that would result in the take of a migratory bird. Therefore, thinning activities will not be conducted between March 1 and September 1. In addition, no heavy equipment would be utilized to cut, remove brush, small trees, or excavate stumps within the project site. No ground disturbance would take place during this action. Disturbance from horse and foot patrols would decrease under the Proposed Action.

4.3.2.2 No Action Alternative

No direct impacts, beneficial or adverse, would occur to wildlife populations as a result of the No Action Alternative. However, illegal traffic throughout the area would continue to increase, as well as foot and horse patrols, which could indirectly affect wildlife in the area.

4.3.3 Fish

4.3.3.1 Proposed Action

No permanent surface waters are present within the proposed project area; therefore, no fish or other aquatic assemblages would be impacted by the Proposed Action.

4.3.3.2 No Action Alternative

Implementation of this alternative would have no effects, adverse or beneficial, upon the fish or other aquatic species.

4.3.4 Threatened or Endangered Species

4.3.4.1 Proposed Action

Under the proposed action, there would be no impacts to any of the Federally protected species. During the surveys conducted on 6 and 7 November 2000, there were no protected species observed. The proposed project area contains riparian habitat, the preferred habitat of the southwestern willow flycatcher and least Bell's vireo; however, this area would not support these species due to the area's dryness and its isolation from other riparian habitats (Unitt 2001). The project site also contains habitat that is potentially suitable to the southwestern arroyo toad. However, the arroyo toad has not been reported from this drainage system and no ground disturbance would be associated with the hand clearing and thinning activities. No habitat capable of supporting the Quino checkerspot butterfly is located at the project site. Therefore, there would be no effects on protected species by the Proposed Action.

4.3.4.2 No Action Alternative

The No Action Alternative would produce no beneficial or adverse impact on Federal or state listed species.

4.3.5 Unique and Environmentally Sensitive Areas

4.3.5.1 Proposed Action

The only unique or environmentally sensitive area near the proposed project area is the Jacumba Wilderness Area. This area is approximately five miles northeast of the proposed project site and would not be affected by the Proposed Action.

4.3.5.2 No Action Alternative

The No Action Alternative would result in no change to the unique and environmentally sensitive areas in the project region.

4.4 AIR QUALITY

4.4.1 Proposed Action

San Diego County is located within EPA's Region 9 and is currently in nonattainment for ozone and particulates (PM₁₀) (USEPA 2000a). Short-term degradation in local air quality may be experienced during the thinning activities of the proposed project site. Emission sources would be limited primarily to the thinning equipment and vehicles used to transport the field crews and materials to the site. Emissions from the motorized vehicles would contribute only a small amount of pollutants for a short duration of time; therefore impacts would be insignificant. Dust emissions would be localized and short-term.

4.4.2 No Action Alternative

The No Action Alternative would have no impact, either beneficial or adverse, on the region's air quality.

4.5 WATER RESOURCES

4.5.1 Proposed Action

The proposed brush and small tree thinning would have little or no effect on the water supply in that region. Since there is no ground disturbance by the Proposed Action, water flow would not be affected. The thinning of brush in the area may reduce the filtering/trapping capabilities of the riparian community of Boundary Creek. Accidental spills of fuel used for the chainsaws would potentially have an impact on water quality; however, care would be taken to immediately clean the spill, if it occurred.

4.5.2 No Action Alternative

The No Action Alternative would have no direct impacts on either the water quality or supply in the proposed project area.

4.5.3 Waters of the U.S. and Wetlands

4.5.3.1 Proposed Action

The Proposed Action would not result in a dredge or fill activity within Waters of the U.S. or jurisdictional wetlands, since ground disturbance would not occur under this action. Therefore, a Section 404 permit would not be needed. The California Fish and Game Department requires that any projects occurring in a stream obtain a Streambed Alteration Agreement; however, as a Federal agency the U.S. Border Patrol is exempt from this requirement (Fritz, 2001). To minimize impacts to the streambed any debris resulting from the thinning operations will be removed immediately by hand.

4.5.3.2 No Action Alternative

The No Action Alternative would have no impact on either jurisdictional wetlands or Waters of the U.S.

4.6 NOISE

4.6.1 Proposed Action

Implementation of the Proposed Action would result in temporary increases in ambient noise levels due to thinning activities, primarily from the chainsaws. These effects are temporary and would not affect long-term ambient noise levels in the proposed project area. The temporary increase in ambient noise levels may impact wildlife in the area; however, these impacts are temporary and negligible.

4.6.2 No Action Alternative

Implementation of the No Action Alternative would result in no increases in ambient noise levels within the proposed project area.

4.7 CULTURAL RESOURCES

4.7.1 Proposed Action

As a result of the surveys conducted on 7 November 2000, no prehistoric, historic, or architectural resources were identified within the project boundaries. The structural debris of a 20th century mining operation was located outside the project area, and did not extend into the project area. Although no cultural resource sites were found, visibility in the eastern portion of the proposed project area was generally below 20 percent. There is a moderate to low probability of lithic or trash scatters occurring in this area, and if present, they could be affected by mechanical tree removal. Under the Proposed Action, no mechanical removal of trees or underbrush is planned and therefore no effect to any cultural resources is expected. If it is decided at some time in the future that trees would be removed mechanically then the area of tree removal should be examined prior to disturbance in order to ensure that significant archaeological remains are not present.

4.7.2 No Action Alternative

No direct impacts to cultural resources would occur upon implementation of the No Action Alternative.

4.8 SOCIOECONOMICS

4.8.1 Proposed Action

The proposed vegetation clearing activities would result in no direct economic benefits to local businesses. Long-term population levels would not be affected by the Proposed Action. There would be no impacts to housing by the Proposed Action. No housing units would be eliminated because none exist on the proposed project areas.

Although impacts from the proposed brush and small tree thinning operation are temporary in nature, the effects associated with implementation of the Proposed Action is expected to benefit overall socioeconomics in the region from increased detection, deterrence, and interdiction of undocumented aliens (UDAs) and illegal drug smuggling activities. The benefits include reduction of enforcement costs, losses to personal properties, violent crimes, and entitlement programs.

4.8.2 No Action Alternative

Implementation of the No Action Alternative would have no impact on the housing and income in the region. The USBP's effectiveness in apprehending UDAs and stopping illegal drug smuggling activities would remain at current levels as a result of this alternative. The negative impacts of widespread drug use on society would continue to affect the work force, educational system, and general law and order (Office of National Drug Control Policy, 1998 and 1999).

4.8.3 Environmental Justice/Protection of Children from Health and Safety Risks

Executive Order 12898 of February 11, 1994, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires each Federal agency to identify and address, as appropriate, disproportionate adverse effects of its proposed actions on minority populations and low-income communities. No residences or commercial structures would be displaced as a result of the Proposed Action; therefore, implementation of this alternative would not disproportionately affect minority or low-income populations in the area. The project would beneficially effect the entire ROI regardless of race and/or income level. The actions proposed in this EA would not result in disproportionately high or adverse environmental health or safety impacts to minority or low-income populations or children (E.O. 13045). This conclusion is based on the fact that no significant adverse environmental effects have been identified for any resource area or population (minority, low-income, children, or otherwise) analyzed in this EA.

4.9 CUMULATIVE IMPACTS

Cumulative impacts are impacts on the environment resulting from incremental impacts of the proposed action added to other past, present, and reasonably foreseeable future actions. Cumulative impacts associated with the proposed action are discussed in the following paragraphs.

In order to evaluate cumulative effects of the past and present projects in the region, EAs from previous and current operations in the region, a Programmatic Environmental Impact Statement (USACE 1994), and a Revised Supplemental Draft Programmatic Environmental Impact Statement (USACE 2000) developed for all Joint Task Force Six

(JTF-6) activities in support of INS/USBP activities along the U.S.-Mexico border were reviewed.

The primary cumulative effect of the past and proposed projects is permanent loss of vegetation and associated wildlife habitat. Throughout the entire U.S.-Mexico Border (California to Texas), a total of 3,750 acres of vegetation, mostly semidesert grassland and desert scrub communities, has been removed by JTF-6 road, range, fence, and helipad repair and construction activities (USACE 2000). This represents less than 0.01 percent of the total land area within the area along the entire U.S.-Mexico border. Air emissions

have been produced by vehicles, aircraft, and heavy equipment; however, these have not resulted in significant cumulative impacts due to the short duration of the activities, the dispersion capabilities of the region, and the remote locations of most of the operations.

Since 1994, INS activities were expected to impact approximately 2,054 acres primarily due to construction of road and fence projects (USACE 2000). These effects combined with the area anticipated to be disturbed over the next five years and the amount altered previous to 1994, would amount to approximately 10,700 acres during the period 1989 to 2004. Most of the past and potential future effects have occurred in Texas, as would be expected since it is the largest state within the study area. If the proposed brush and small tree thinning activities discussed in this EA occur, an additional 18 acres of chaparral and scrub vegetation would be removed.

According to the USACE (2000) Revised Supplemental Draft Programmatic Environmental Impact Statement, the total amount of wetlands and waters of the U.S. that have been impacted by INS since 1994 has been less than five acres. Impacts to these valuable habitats have been avoided, wherever practicable, resulting in the low acreage figure. Each project that cannot avoid wetland effects, however, is coordinated through the Section 404 permit process with the appropriate regulatory agencies. The proposed project discussed in this EA would not impact any wetland area or Waters of the U.S.

Many positive cumulative impacts have occurred throughout the border region and the nation through reductions in illegal drug smuggling activities. In addition, by strengthening the ability of agents to perform their law enforcement duties, these actions can have

cumulative positive socioeconomic impacts through reductions in illegal immigration, though the levels of these benefits are, at this point, unquantifiable.

A private company was installing fiber optic cable in the ground along U.S. Highway 80 at the time of the 6 and 7 November 2000 surveys. Vegetation within the State Right-of-Way (ROW) was probably cleared by this activity. However, no clearing occurred within the proposed project site. It is not known if any other cable installation is planned in the area in the near future. The San Diego and Arizona Eastern Railroad is not planning any maintenance activities on the railroad in the project area. INS is not aware of any other planned projects in the area that would cause additional cumulative impacts on the environment.

SECTION 5.0
ENVIRONMENTAL DESIGN MEASURES



5.0 ENVIRONMENTAL DESIGN MEASURES

This chapter describes environmental design measures that would be implemented as part of the proposed brush and small tree thinning operations near Jacumba. Therefore, mitigation measures are only described for those resources with potential for impacts.

5.1 BIOLOGICAL RESOURCES

Some large trees will remain, as required by the landowner, and they would still provide some habitat suitable for wildlife. Thinning activities shall not be conducted between March 1 and September 1 to avoid impacts to migratory birds. In addition, no heavy equipment would be utilized to cut, remove brush, small trees, or excavate stumps within the project site. No ground disturbance will take place during this action.

5.2 AIR QUALITY

Proper and routine maintenance of all vehicles and other equipment used during and after the brush and small tree thinning would be implemented to ensure that air emissions are within the design standards of the piece of equipment.

5.3 WATER RESOURCES

No heavy equipment would be utilized to cut, or remove bush/small trees or excavate stumps within the project site. Thus, ground disturbances, and potential concomitant effects to water quality would be eliminated. Spill containment and countermeasure equipment would be maintained onsite. In the event of an accidental spill, the appropriate actions would be immediately implemented and the proper authorities notified.

5.4 CULTURAL RESOURCES

If ground disturbance does occur, then the area should be examined prior to disturbance in order to ensure that significant archaeological remains are not present. If any cultural

remains are uncovered during construction, activities should stop and the California State Historic Preservation Office (SHPO) should be notified immediately.

The revised 36 CFR part 800 has been broadened to emphasize more strongly the roles of tribes as consulting parties. According to Sec. 800.2(c)(3) of the revised regulations, Federal agencies are required to consult not only with the SHPO and/or the Tribal Historic Preservation Officer (THPO), but also with relevant tribes that might claim cultural affinity in the area of the undertaking. Such consultation would take place on all Federal undertakings subject to Section 106 review, regardless of whether or not the undertaking is on tribal lands. Such consultation will take place at all levels of the section 106 and NEPA compliance process with the tribal entities outlined in Section 3.7.4.

SECTION 6.0
PUBLIC INVOLVEMENT



6.0 PUBLIC INVOLVEMENT

6.1 AGENCY COORDINATION

This chapter discusses consultation and coordination that will occur during preparation of the draft and final versions of this document. This will include contacts that are made during the development of the proposed action and writing of the EA. Formal and/or informal coordination were conducted with the following agencies:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Forest Service (USFS)
- Bureau of Land Management (BLM)
- U.S. Environmental Protection Agency (USEPA)
- Natural Resource Conservation Service (NRCS)
- California State Historic Preservation Office
- California Fish and Game Department
- City of Jacumba

6.2 PUBLIC REVIEW

The draft EA was made available for public review for a period of 30 days. A Notice of Availability (NOA) was published in the *San Diego Union-Tribune*. Exhibit 1 is a copy of the NOA that was published. All correspondence sent or received during the preparation of this EA is included as Appendix C.

Only one comment letter was received concerning the Draft EA. This letter was from the USFWS and was received after the close of the public comment period. However, INS elected to include the letter and respond to the comments. The USFWS offered four general comments.

The first comment iterated a request for a programmatic Biological Assessment (BA) for INS operations within the San Diego County. The USFWS is aware that INS and the USFWS has entered into informal consultation on this issue and that INS is in the process of initiating of these efforts. However, such an endeavor will require two or

more years to complete; thus, daily operations would continue during the development of the BA. The action proposed herein, however, is not a daily operation issue and would not necessarily be addressed by a programmatic BA.

The second comment requested quantification of the habitat types to be altered. The EA has been revised to delineate and quantify the various habitat types.

The third comment expressed concern about the survey season and requested surveys for additional species. Of the additional species requested by the USFWS to be evaluated, the following species are not afforded Federal protection under the ESA: mountain lion (*Felis concolor*), spotted bat (*Euderma maculatum*), golden eagle (*Aquila chrysaetos*), Jacumba milk vetch (*Astragalus douglasii* var. *perstrictus*), Parry's tetracoccus (*Tetracoccus dioicus*), sticky geraea (*Geraea viscida*), slender-leaved ipomopsis (*Ipomopsis tenuifolia*), Tecate tarplant (*Deinandra floribunda*) and blue steamwort (*Stemodia durantifolia*). Thus, no additional surveys are warranted. Furthermore, INS requested a list of protected species of concern from the USFWS; no response was ever received regarding this request. Information regarding the least Bell's vireo, arroyo toad, Quino checkerspot butterfly, and southwestern willow flycatcher has been revised and expanded in the Final EA.

The fourth comment identified the potential effects to the hydrological regime of Boundary Creek. The Final EA has been revised to address these potential effects.

Exhibit 1

NOTICE OF AVAILABILITY

**DRAFT ENVIRONMENTAL ASSESSMENT
IMMIGRATION AND NATURALIZATION SERVICE
BRUSH AND SMALL TREE THINNING OPERATION,
NEAR JACUMBA, CA**

The public is invited to comment on the Draft Environmental Assessment (EA) for the Immigration and Naturalization Service's proposed Brush and Small Tree Thinning Operation, Near Jacumba, CA.. The Draft EA will be available at the Jacumba Public Library --- 44605 Old Highway 80 Jacumba, CA 91934, (619) 766-4608. Send written comments to Mr. Eric Verwers, U.S. Army Corps of Engineers, Fort Worth District, 819 Taylor Street, Room 3A28, Fort Worth, Texas 76012 or call Mr. Verwers at (817) 978-0202. Written comments will be received July 7, 2001.

Affidavit of Publication

GULF SOUTH RESEARCH CORP

P.O. BOX 83564

BATON ROUGE, LA 70884-3564

STATE OF CALIFORNIA) ss.
County of San Diego)

The Undersigned, being duly sworn, deposes and says: That....She is a resident of the County of San Diego. THAT....She is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and thatShe is not a party to, nor interested in the above entitled matter; thatShe is..... Chief Clerk for the publisher of

The San Diego Union-Tribune

a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following date, to-wit: JUNE 7, 2001

Gwendolyn Watson
Chief Clerk for the Publisher

Subscribed and Sworn to before me this

June 14, 2001

Beverly Lomax
Notary Public in and for the said County and State

Affidavit of Publication of

Legal Classified Advertisement

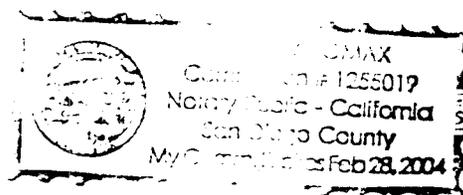
AD #6976073

Ordered by: DONNA BANKSTON

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SECTION 7.0
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SECTION 8.0
LIST OF ACRONYMS/ABBREVIATIONS

8.0 LIST OF ACRONYMS/ABBREVIATIONS

AERC	Architect-Engineer Resource Center
BLM	Bureau of Land Management
BMP	Best Management Practice
CFR	Code of Federal Regulations
CWA	Clean Water Act
dB	decibel
DNL	Day-night average sound level
EA	Environmental Assessment
E.O.	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FICON	Federal Interagency Committee on Noise
FY	Fiscal Year
GIS	Geographic Information System
GSRC	Gulf South Research Corporation
INA	Immigration and Nationality Act
INS	Immigration and Naturalization Service
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
JTF-6	Joint Task Force Six
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
mg/m^3	Milligrams per cubic meter
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NOA	Notice of Availability
NO_2	Nitrogen Dioxide
NRCS	Natural Resources Conservation Service (formerly Soil Conservation Service)
NWP	Nationwide Permit
O_3	Ozone
OHWM	ordinary high water mark
PM_{10}	Particulate matter
PCPI	Per Capita Personal Income
Pb	Lead
POE	Port of Entry
ppm	Parts per million
ROI	Region of Influence
ROW	Right-of-way
SHPO	State Historic Preservation Office
TPI	Total Personal Income
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

SECTION 9.0
LIST OF PREPARERS

9.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this Environmental Assessment.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Eric Verwers	INS A-E Resource Center	Biology	14 years in NEPA and related studies	Program Manager and EA review and coordination
Sheyna Wisdom	Gulf South Research Corporation	Biology	4 years Natural Resources and NEPA studies	Project Manager; field surveys; report preparation
Chris Ingram	Gulf South Research Corporation	Biology/Ecology	22 years NEPA and related studies	EA Review; field surveys
John Lindemuth	Gulf South Research Corporation	Archaeology/Project Archaeologist	8 years archaeological studies	Cultural resources and socioeconomics
Sharon Newman	Gulf South Research Corporation	GIS/Graphics	7 years GIS analysis	Graphics and GIS
Patience Patterson	USACE Fort Worth District	Archaeology	25 years Archeological investigations and administration	USACE Technical Representative/Project Manager
Suna Knaus	Gulf South Research Corporation	Forestry and Wildlife	14 years NEPA and related studies	EA review
Mike Schulze	Gulf South Research Corporation	Biology/Ecology	3 years NEPA and related studies	Project manager, alternative formulation, field surveys
John Lindemuth	Gulf South Research Corporation	Anthropology/Project Archaeologist	8 years archaeological studies	Cultural resources
Josh McEnany	Gulf South Research Corporation	Forest Management	1 year NEPA and related studies	Soils; Air quality; Wildlife
Donna Bankston	Gulf South Research Corporation	Forest Management	1 year NEPA and related studies	Land use; Vegetation; Socioeconomics

APPENDIX A
LIST OF SPECIAL STATUS
SPECIES FOR SAN DIEGO COUNTY

Appendix A
State Protected Species of Potential Occurrence in San Diego County, California

Common Name	Scientific Name	Federal Status	State Status
Mammals			
Peninsular bighorn sheep	<i>Ovis Canadensis cremnobates</i>	E	T
Stephens' kangaroo rat	<i>Dipodomys stephensi</i>	E	T
Birds			
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>		E
Willow flycatcher	<i>Empidonax traillii</i>		E
California black rail	<i>Laterallus jamaicensis coturniculus</i>		T
Belding's savannah sparrow	<i>Passerculus sandwichensis beldingi</i>		E
California brown pelican	<i>Pelecanus occidentalis californicus</i>	E	E
Light-footed clapper rail	<i>Pallus longirostris levipes</i>	E	E
Bank swallow	<i>Riparia riparia</i>		T
California least tern	<i>Sterna antillarum browni</i>	E	E
Least bell's vireo	<i>Vireo bellii pusillus</i>	E	E
Fish			
Desert pupfish	<i>Cyprinodon macularius</i>	E	E
Mohave tui chub	<i>Gila bicolor mohavensis</i>	E	E
Unarmored threespined stickleback	<i>Gasterosteus aculeatus williamsoni</i>	E	E
Reptiles			
Barefoot banded gecko	<i>Coleonyx switaki</i>		T
Vascular Plants			
Baja California birdbush	<i>Ornithostaphylos oppositifolia</i>		E
Borrego bedstraw	<i>Galium angustifolium ssp borregoense</i>		R
California orcutt grass	<i>Orcuttia californica</i>	E	E
Coastal dunes milk-vetch	<i>Astragalus tener var titi</i>	E	E
Cuyamaca lake downingia	<i>Downingia concolor var brevior</i>		E
Cuyamaca larkspur	<i>Delphinium hesperium ssp cuyamaca</i>		R
Dehesa nolina	<i>Nolina interrata</i>		E
Dunn's mariposa lily	<i>Calochortus dunnii</i>		R
Encinitas baccharis	<i>Baccharis vanessae</i>	T	E
Gambel's water cress	<i>Rorippa gambelii</i>	E	T
Gander's ragwort	<i>Senecio ganderi</i>		R
Mexican Flannelbush	<i>Fremontodendron mexicanum</i>	E	R
Mojave tarplant	<i>Deinandra nohavensis</i>		E

Appendix A cont.
State Protected Species of Potential Occurrence in San Diego County, California

Common Name	Scientific Name	Federal Status	State Status
Vascular Plants cont.			
Mount laguna aster	<i>Machaeranthera asteroides var lagunensis</i>		R
Nevin's barberry	<i>Berberis nevinii</i>	E	E
Orcutt's hazardia	<i>Hazardia orcuttii</i>		C
Orcutt's spineflower	<i>Chorizanthe orcuttiana</i>	E	E
Otay mesa mint	<i>Pogogyne nudiuscula</i>	E	E
Otay tarplant	<i>Deinandra conjugens</i>	T	E
Parish's meadowfoam	<i>Limnanthes gracilis ssp parishii</i>		E
Peirson's milk-vetch	<i>Astragalus Magdalenae var peirsonii</i>	T	E
Salt marsh bird's-beak	<i>Cordylanthus maritimus ssp maritimus</i>	E	E
San Diego button-celery	<i>Eryngium aristulatum var parishii</i>	E	E
San Diego mesa mint	<i>Pogogyne abramsii</i>	E	E
San Diego thorn-mint	<i>Acanthomintha ilicifolia</i>	T	E
Short-leaved dudleya	<i>Dudleya brevifolia</i>		E
Small-leaved rose	<i>Rosa minutifolia</i>		E
Thread-leaved brodiaea	<i>Brodiaea filifolia</i>	T	E
Willow monardella	<i>Monardella linoides ssp viminea</i>	E	E

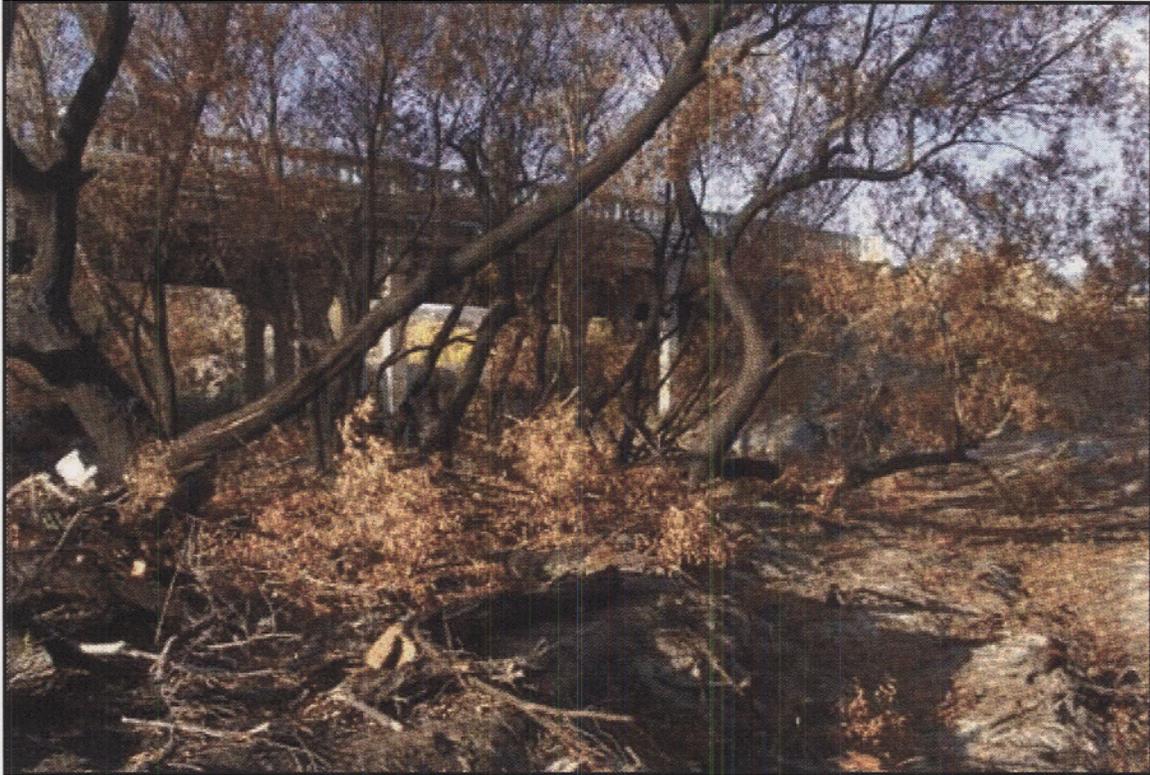
Legend: E = Endangered
Source: CAFG 2001.

T = Threatened

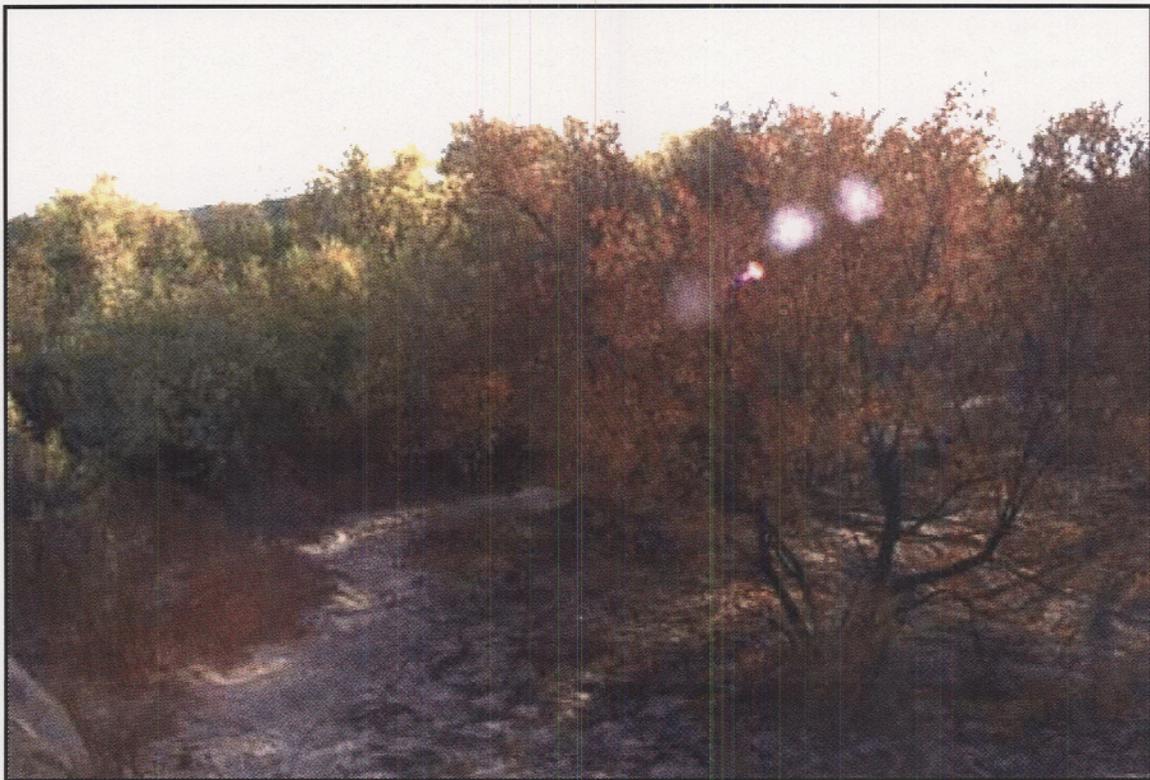
DL = Delisted

R = Rare

APPENDIX B
PHOTOGRAPHS



Photograph 1. View of streambed facing northeast, towards the bridge on U.S. Highway 80. Cottonwood and willow trees are present.



Photograph 2. View of streambed facing southeast. Cottonwood and willow trees are present.



Photograph 3. View from southeast corner overlooking proposed brush and small tree thinning site.



Photograph 4. View from southwest corner overlooking the proposed brush and small tree thinning site.



Photograph 5. View from northwest corner facing east from the railroad track. The vegetation community at this corner is desert transition scrub, riparian habitat can be seen in the distance.



Photograph 6. View of the proposed project site from U.S. Highway 80.

APPENDIX C
CORRESPONDENCE



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

January 11, 2001

California Department of Fish and Game
San Diego Office
4949 Viewridge Ave
San Diego, CA 92123

To Whom It May Concern:

The Immigration and Naturalization Service (INS) intends to prepare an Environmental Assessment (EA) addressing U.S. Border Patrol (USBP) activities along the U.S.-Mexico Border near Jacumba, San Diego County, California. This EA addresses the potential effects, beneficial and adverse, of the proposed brush clearing and tree thinning of 18 acres of privately-owned land near Jacumba.

The site of the proposed brush clearing is located approximately miles 0.75 miles west of Jacumba along Highway 80. Please refer to the enclosed map (Attachment A) for location of the project. The vegetation within the project area consists of elements of chaparral and desert transition scrub. The vegetation in or on the edges of Boundary Creek is characterized by ephemeral riparian species including black cottonwood (*Populus balsamifera* spp. *trichocarpa*), arroyo willow (*Salix lasiolepis*), and mulefat (*Baccharis salicifolia*). Based on a preliminary field survey, it was determined that this location is potential habitat for the southwestern willow flycatcher (*Empidonax traillii eximius*). We are currently in the process of gathering the most current information available regarding this and other Federally listed species potentially occurring within the project area.

INS would like to formally request a current list of Federally protected species potentially occurring in San Diego County. A current list of Federally threatened or endangered species that potentially occur in San Diego County is included as Attachment B. Please review this list for accuracy and completeness. To better assess potential impacts to these species, we would like to present as much data in a GIS format as possible. Any GIS information, or information sources, you could provide regarding current distribution of the protected species would also be very helpful.

If you have any questions, or require additional information, please contact me at (817) 978-0202. Thank you for your prompt attention and cooperation.

Sincerely,

Eric Verwers, Assistant Director
Immigration and Naturalization Service
A/E Resource Center

Attachment B
Federally Listed Species of Potential Occurrence
In San Diego County, California

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
AMPHIBIANS				
Arroyo toad <i>Bufo microscaphus californicus</i>	E	12/16/94 59 CFR 64859	Proposed 6/8/00 65 CFR 63511	Found exclusively in streams in southern California and northern Baja California
Mountain yellow-legged frog <i>Rana muscosa</i>	PE	Proposed 12/22/99 64 CFR 71714	No	Occupies rocky and shaded streams with cool waters originating from springs and snowmelt
BIRDS				
California brown pelican <i>Pelecanus occidentalis californicus</i>	E	10/13/70 35 CFR 16047	No	Found in coastal areas; on rocky shores and cliffs, in sloughs, and coastal river deltas
California least tern <i>Sterna antillarum browni</i>	E	10/13/70 35 CFR 16048	No	nest in colonies on sandy beaches that are usually associated with river mouths or estuaries
California coastal gnatcatcher <i>Poliopitila californica californica</i>	T	3/30/93 58 CFR 16742	10/24/00 65 CFR 63679	Commonly occurs in coastal sage scrub
Least Bell's vireo <i>Vireo bellii pusillus</i>	E	5/2/86 51 CFR 16482	2/2/94 59 CFR 4845	Occurs in riparian habitats with well-developed overstories and understories
Light-footed clapper rail <i>Rallus longirostris levipes</i>	E	10/13/70 35 CFR 16048	No	Found in dense vegetation within coastal salt and brackish marshes
Southwestern willow flycatcher <i>Empidonax traillii eximius</i>	E	2/27/95 60 CFR 10693	7/22/97 62 CFR 93129	Occurs in riparian habitats
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T	4/5/93 58 CFR 12864	12/7/99 64 CFR 68507	Occurs on coastal beaches for nesting and wintering
FISH				
Desert pupfish <i>Cyprinodon macularius</i>	E	3/31/86 51 CFR 10842	3/31/86 51 CFR 10842	Found in warm desert pools, marshes, streams and springs

Attachment B
Federally Listed Species of Potential Occurrence
In San Diego County, California
 (continued)

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
FISH (cont.)				
Mohavee tui chub	E	10/13/70	No	Streams and lakes
<i>Gila bicolor mohavensis</i>		35 CFR 16048		
Tidewater goby	E	2/4/97	11/20/00	Endemic to California, and is unique in that it is restricted to coastal brackish water habitats.
<i>Eucyclogobius newberryi</i>		59 CFR 5494	Proposed	Prefers slow moving reaches or quiet water
Unarmored threespine stickleback	E	10/13/70	11/17/80	microhabitats of streams and rivers
<i>Gasterosteus aculeatus williamsoni</i>		35 CFR 16048	45 CFR 76012	
INVERTEBRATES				
Quino checkerspot butterfly	E	1/16/97	No	Found on open grasslands near meadows, vernal pools, or lakes; also coastal sage scrub
<i>Euphydryas editha quino</i>		62 CFR 2313		Occurs in vernal pools
Riverside fairy shrimp	E	8/3/93	8/21/00	
<i>Sireptocephalus wooltoni</i>		58 CFR 41834	65 CFR 57136	
San Diego fairy shrimp	E	2/3/97	10/23/00	Occurs in vernal pools
<i>Branchinecta sandiegonensis</i>		62 CFR 4925	65 CFR 63437	
MAMMALS				
Pacific pocket mouse	E	8/26/94	No	Fine-grain, sandy substrates near Pacific Ocean
<i>Perognathus longimembris pacificus</i>		59 CFR 4972		Restricted to dry grasslands and scrub of Southern California
Stephen's kangaroo rat	E	9/30/88	No	
<i>Dipodomys stephensi</i>		53 CFR 38465		
PLANTS				
California Orcutt grass	E	8/3/93	No	Occurs in vernal pools
<i>Orcuttia californica</i>		58 CFR 41834		
Coastal dunes milk-vetch	E	8/12/98	No	Occurs on a relatively flat coastal terrace within 100 feet of the ocean beach
<i>Astragalus tener var. tui</i>		63 CFR 43100		

Attachment B
Federally Listed Species of Potential Occurrence
In San Diego County, California
 (continued)

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
PLANTS (cont.)				
Del Mar manzanita <i>Arctostaphylos glandulosa</i> spp. <i>crassifolia</i>	E	10/7/96 61 CFR 52370	No	Occurs in southern maritime chaparral and dense southern mixed chaparral
<i>Encinitas baccharis</i>	T	10/7/96	No	Occurs in southern maritime chaparral and dense southern mixed chaparral
<i>Baccharis vanessae</i>	E	61 CFR 52370 8/8/93	No	Marshes, swamps, and the borders of lakes
Gambel's water cress <i>Rorippa gambelii</i>	E	58 CFR 41378	No	Found in coniferous forests
Mexican flannelbush <i>Fremontodendron mexicanum</i>	E	10/13/98 63 CFR 54956	No	Berberis nevini is found in chaparral and alluvial scrub associated with rocky slopes and sediments and sandy washes
Nevin's barberry <i>Berberis nevini</i>	E	10/13/98 63 CFR 54956	No	Found in coastal chaparral openings in chamise
Orcutt's spineflower <i>Chorizanthe orcuttiana</i>	E	10/7/96 61 CFR 52370	No	Occurs in vernal pools
Otay mesa mint <i>Pogogyne nudiuscula</i>	E	8/3/93 58 CFR 41834	No	Typically found in grassland or coastal sage scrub
Otay tarplant <i>Hemizonia conjugens</i>	T	10/13/93 63 CFR 54937	No	Found exclusively in coastal salt marshes
Salt marsh bird's beak <i>Cordylanthus maritimus maritimus</i>	E	9/28/78 43 CFR 44812	No	Found in meadow habitats
San Bernardino blue grass <i>Poa atropurpurea</i>	E	9/14/98 63 CFR 49006	No	Restricted to flat or sloping grasslands, often along valley bottoms or areas adjacent to vernal pools
San Diego ambrosia <i>Ambrosia pumila</i>	PE	Proposed 12/29/99 64 CFR 72993	No	Occurs in vernal pools
San Diego button-celery <i>Eryngium aristulatum parishii</i>	E	8/3/93 58 CFR 41834	No	

Attachment B
Federally Listed Species of Potential Occurrence
In San Diego County, California
 (continued)

COMMON NAME/ SCIENTIFIC NAME	FEDERAL STATUS	DATE LISTED	CRITICAL HABITAT	HABITAT
PLANTS (cont.)				
San Diego mesa mint	E	9/28/78	No	Occurs in vernal pools
<i>Pogogyne abramsii</i>		43 CFR 44810		
San Diego thormint	T	10/13/98	No	Occurs in coastal sage scrub, chaparral, and native grassland
<i>Acanthomintha ilicifolia</i>		63 CFR 54937		
Spreading navarretia	T	10/13/98	No	Occurs in vernal pools
<i>Navarretia fossalis</i>		63 CFR 54975		
Thread-leaved brodiaea	T	10/13/98	No	Vernally moist grasslands and the periphery of vernal pools
<i>Brodiaea filifolia</i>		63 CFR 54975		
Willow monardella	E	10/13/98	No	Riparian scrub, usually at sandy locales in seasonally dry washes
<i>Monardella linoides</i> spp. <i>viminea</i>		63 CFR 54975		

Source: USFWS 2000

P=Proposed

T=Threatened

E=Endangered



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

January 11, 2001

U.S. Fish & Wildlife Service
Carlsbad Field Office
2730 Loker Avenue, West
Carlsbad, California 92008

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A/E Resource Center

Attachment B
Federally Listed Species of Potential Occurrence
In San Diego County, California

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BIRDS				
California brown pelican <i>Pelecanus occidentalis californicus</i>	E	10/13/70 35 CFR 16047	No	Found in coastal areas; on rocky shores and cliffs, in sloughs, and coastal river deltas.
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<i>Orcuttia californica</i>		58 CFR 41834		
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(continued)

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<i>Encinitas baccharis</i>	T	10/7/96	No	Occurs in southern maritime chaparral and dense southern mixed chaparral
<i>Baccharis vanessae</i>	E	61 CFR 52370 8/8/93	No	Marshes, swamps, and the borders of lakes
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<i>Rorippa gambelii</i>	E	10/13/98	No	
Mexican flannelbush	E	63 CFR 54956	No	<i>Berberis nevadensis</i> is found in chaparral and alluvial scrub associated with rocky slopes and sediments and sandy washes
<i>Fremontodendron mexicanum</i>	E	10/13/98	No	
Nevin's barberry	E	63 CFR 54956	No	
<i>Berberis nevadensis</i>	E	10/7/96	No	Found in coastal chaparral openings in chamise
Orcutt's spineflower	E	61 CFR 52370	No	Occurs in vernal pools
<i>Chorizanthe orcuttiana</i>	E	8/3/93	No	
Olay mesa mint	T	58 CFR 41834	No	Typically found in grassland or coastal sage scrub
<i>Pogogyne nudiuscula</i>	T	10/13/93	No	
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<i>Poa atropurpurea</i>	PE	Proposed 12/29/99	No	
San Diego ambrosia	E	64 CFR 72993	No	Occurs in vernal pools
<i>Ambrosia pumila</i>	E	8/3/93	No	
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Federally Listed Species of Potential Occurrence
In San Diego County, California
 (continued)

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PLANTS (cont.)				
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San Diego thornmint <i>Acanthomintha ilicifolia</i>	T	10/13/98 63 CFR 54937	No	Occurs in coastal sage scrub, chaparral, and native grassland
Spreading navarretia <i>Navarretia fossalis</i>	T	10/13/98 63 CFR 54975	No	Occurs in vernal pools
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	T	10/13/98 63 CFR 54975	No	Vernally moist grasslands and the periphery of vernal pools
Willow monardella <i>Monardella inoides</i> spp. <i>virinea</i>	E	10/13/98 63 CFR 54975	No	Riparian scrub, usually at sandy locales in seasonally dry washes

P=Proposed
 T=Threatened
 E=Endangered



United States Department of the Interior

Fish and Wildlife Service
Ecological Services
Carlsbad Fish and Wildlife Office
2730 Laker Avenue West
Carlsbad, California 92008



In Reply Refer to: FWS-SDG-1953.1

JUL 11 2001

Mr. Eric Verwers, Assistant Director
INS A-E Resource Center
P.O. Box 17300
Fort Worth, Texas 76102

Re: Comments on the Draft Environmental Assessment Immigration and Naturalization Service Brush and Small Tree Thinning Operation Near Jacumba, California

Dear Mr. Verwers:

The United States Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (EA) Immigration and Naturalization Service (INS) Brush and Small Tree Thinning Operation (Proposed Action) and we have the following comments and recommendations. We provide these comments pursuant to our authority under the National Environmental Policy Act (NEPA) as amended (42 U.S.C. 4321-4347), the Fish and Wildlife Coordination Act as amended (16 U.S.C. 661-667), and the Endangered Species Act (ESA) as amended (16 U.S.C. 1531 et seq.).

The Proposed Action is the removal of vegetation from approximately 18 acres of Boundary Creek, southwest of Jacumba, in the southeastern portion of San Diego County. The Draft EA describes the Proposed Action as thinning of brush and small trees ... "to maintain an unobstructed view of the border area, thereby enhancing their capability of successfully detecting and safely apprehending illegal aliens and smugglers" (Page 1-3). The only alternatives proposed and considered during the planning stages of the proposed project include the Proposed Action and No Action.

General Comments

- 1) We have repeatedly requested the INS to address all operational impacts that may affect federally listed species and sensitive habitats in a programmatic section 7 consultation. The Proposed Action constitutes the type of operational impact which should be addressed and analyzed in light of other planned operational activities along the San Diego County/Baja Mexico Border. Immigration and Naturalization Service operational activities may effect federally listed species and/or fish and wildlife resources that are not being assessed when individual operations are analyzed independently. Examples of activities which could be included in the operational activities might be road

improvements and maintenance, fence repair, vegetation thinning, road dragging for track identification, and use of horse and foot trails.

- 2) The Draft EA does not assess impacts to specific habitat types or quantify the amount of vegetation that would be removed from the site. The EA should specify impacts expected to occur during the brush trimming and clearing. In addition, we recommend including a detailed map depicting the spatial distribution of vegetation communities in the Proposed Action area and the areas of proposed impacts. In conclusion, there is not sufficient information presented in the Draft EA to fully analyze environmental impacts and additional information is needed to fully assess whether or not the Proposed Action may have a significant effect to the environment.
- 3) The November 6 and 7, 2000, biological surveys were performed when most of the vegetation is dormant, amphibian and reptiles would not likely be active, and breeding birds may not be present. The Proposed Action area contains suitable habitat for the following species: mountain lion (*Felis concolor*), several bat species (including spotted bat, *Euderma maculatum*), southwestern willow flycatcher (*Empidonax trillii eximius*), least Bell's vireo (*Vireo bellii pusillus*), golden eagle (*Aquila chrysaetos*), arroyo toad (*Bufo californicus*), Quino checkerspot butterfly (*Euphydryas editha quino*), Jacumba milk vetch (*Astragalus douglasi* var. *perstrictus*), Parry's tetracoccus (*Tetracoccus dioicus*), sticky geranium (*Geraea viscida*), slender-leaved ipomopsis (*Ipomopsis tenuifolia*), and locote tarplant (*Desmodium floribunda*), and blue steamwort (*Stemodia durantifolia*). In order to fully assess the potential impacts from the Proposed Action the Draft EA should include: a) focused plant surveys during the appropriate season; b) bird surveys conducted during the breeding season; and c) arroyo toad surveys performed during the spring and summer. Please contact our office to receive survey protocols or reference methodology. We specifically request the INS to survey for federally threatened and endangered species that may be found within the Proposed Action area. This would include surveys for least Bell's vireo, arroyo toad, Quino checkerspot butterfly, and sensitive plants. Biologists contracted for assessment and survey work should be familiar with local habitats, flora, and fauna.
- 4) The Draft EA should address potential changes in the hydrological regime of Boundary Creek that may occur as a result of the Proposed Action. When the Proposed Action is defined to the point that the amount and type of vegetation planned for removal is explicit, then the resulting impacts to the stream system can be analyzed. In addition, the loss of vegetation may influence the behavior of flows by exposing more soil, thereby increasing erosion in the Proposed Action area and deposition down stream. Tamarisk, an invasive native tree that will displace native riparian species, should be targeted for removal.

Mr. Verwers (FWS-SDG-1953.1)

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When sufficient information has been provided we would be able to provide comments and guidance regarding a conclusion for either a Finding of No Significant Impact or the need to prepare an Environmental Impact Statement. Please contact Bill Osheimer of my staff at (760) 431-9440 if you have any questions regarding this project.

Sincerely,

Nancy Gilbert

Nancy Gilbert
Assistant Field Supervisor

