BIOLOGICAL RESOURCE REPORT
FOR THE PROPOSED ENERGIA SIERRA JUAREZ U.S. GEN-TIE LINE PROJECT
COMMUNITY OF JACUMBA, MOUNTAIN EMPIRE COMMUNITY PLANNING AREA, SAN DIEGO COUNTY

(MUP 09-008)
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GLOSSARY OF TERMS AND ACRONYMS

AMSL	Above Mean Sea Level
APN	Assessor's Parcel Number
BGEPA	Bald and Golden Eagle Protection Act
BMO	Biological Mitigation Ordinance
BMP	best management practice
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CWA	Clean Water Act
CWC	California Water Code
ECMSCP	East County Multiple Species Conservation Program
ESA	Endangered Species Act
GPS	Global Positioning System
HLP	Habitat Loss Permit
IHMP	Integrated Habitat Management Plan
JDR	Jurisdictional Delineation Report
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Program
NCCP	Natural Communities Conservation Planning
RCA	Resource Conservation Area
RPO	Resource Protection Ordinance
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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SUMMARY

EDAW, Inc., on behalf of Energia Sierra Juarez (ESJ) U.S. Transmission, LLC, has prepared this biological resources technical report for the proposed Energia Sierra Juarez U.S. Gen-Tie Line Project (project site) near the unincorporated community of Jacumba, in southeastern San Diego County, California. (Figures 1, 2a, and 2b). The proposed project is the construction, operation and maintenance of a less than one-mile electric generator-tie line (Gen-Tie) from the Mexico border to a substation adjacent to the South West Power Link (SWPL) 500 kV gen-tie line in Eastern San Diego County. The proposed ESJ Gen-Tie Project consists of a single circuit 500 kV line (Route A1 or Route D1) or double-circuit 230 kV lines (Route A2 or Route D2) supported on three to five 150-foot steel lattice towers or up to 170-foot steel monopoles towers. The proposed Gen-Tie will have the capacity to interconnect up to 1250 MW of future renewable wind energy generators located in Northern Baja California, Mexico. Either route would connect to a proposed East County Substation (ECO Substation) to be proposed, permitted, constructed and operated by San Diego Gas and Electric (SDG&E) which in turn will connect to SWPL. The ECO Substation would be located approximately 0.65 miles north of the U.S. Mexico border and approximately 3.75 miles east of Jacumba in the southeast corner of San Diego County near the Imperial County Line. The purpose of this report is to identify the existing biological resources within and adjacent to the proposed project site, assess the potential impacts to these biological resources associated with the proposed project, and recommend mitigation for impacts that are considered significant under California Environmental Quality Act (CEQA) guidelines and County of San Diego (County) Significance Guidelines (County of San Diego 2008).

In August of 2009, SDG&E submitted a Proponents Environmental Assessment (PEA) with the proposed "ECO Substation" location. Subsequently, SDG&E proposed an "ECO Substation Alternative" that was located approximately 100 meters to the northeast. Therefore, two sets of gen-tie routes for the ESJ Gen-Tie Project are proposed within the survey area. The "ESJ Gen-Tie" route consists of Routes A1 and A2. The "ESJ Gen-tie Alternative" route consists of Routes D1 and D2. Each set consists of a single circuit 500 kV line (Route A1 or Route D1) or double-circuit 230 kV lines (Route A2 or Route D2) supported on three to five 150- to 170-foot steel monopoles or three to five 150-foot tall steel lattice towers (total line capacity would be 1,250 MW for either alternative). An additional overhead static ground wire running above the conductors would have a fiber optic core for communications between an ESJ Substation in Mexico and the proposed SDG&E ECO Substation north of the U.S. Mexico border. Route A1 or Route D1 would be constructed within a 214-foot wide right-of-way; Route A2 or Route D2 within a 130-foot wide right-of-way. Permanent construction impacts would be limited to a 28

foot wide property access road (within a 40 foot easement) a vehicle turnaround, a 12 foot wide Gen-tie access road and three to five tower bases.

The permanent tower pads will be 50 ft x 50 ft (0.06 acre) for Route A1 or Route D1, and 45 ft by 45 ft (0.05 acre) for Route A2 or Route D2. Additional impacts during construction include a laydown/ parking/stringing area (1.9 acres for Route A1, and 2.0 acres each for Route A2, Route D1, or Route D2) and three to five tower pads; non-construction impacts would occur from vegetation clearing within 30 feet of each tower and along the right-of-way, per the requirements of the Fire Protection Plan. The tower pads will be 150 ft x 200 ft (0.69 acre) for Route A1 or Route D1, and 120 ft x 160 ft (0.44 acre) for Route A2 or Route D2. Due to the restrictions of the Fire Protection Plan, no revegetation will occur in areas underneath and in the immediate vicinity of the proposed Gen-tie (Hunt Research Corporation 2009). The ground disturbance associated with the proposed project would not result in any bare slopes greater than 3 feet, and therefore, no revegetation for erosion control would be required. Therefore, the entire ground disturbance footprint is considered to be a permanent impact, and will be mitigated.

The proposed project will be constructed entirely on privately owned land in southeastern San Diego County, approximately 3.75 miles east of the unincorporated community of Jacumba. The project site is primarily undeveloped land adjacent to the U.S. Mexico International Border, and is composed of scrubby desert vegetation. Border Patrol activity in the area is common, and roadways utilized by the Patrol exist along and through the site. In accordance with County Guidelines (2008), the entire proposed project site plus 100 feet onto adjoining properties was surveyed to evaluate on-site and immediately adjacent off-site land.

Several sensitive biological resources are known to occur within and adjacent to the proposed project site based on direct or indirect observations made during the surveys and investigations that were conducted for the proposed project during 2008 and 2009. Other sensitive biological resources were determined to have the potential to occur within and adjacent to the proposed project site based on evaluations made during these surveys and investigations. The surveys and investigations that were conducted include a biological reconnaissance survey, vegetation mapping, jurisdictional waters investigation, focused rare plant surveys, and focused Quino checkerspot (*Euphydryas editha quino*; QCB) surveys. Detailed results of the QCB surveys and jurisdictional waters investigation are presented in survey reports included in Appendices F and G, respectively, within this document. Additional QCB surveys were conducted during the 2010 survey season and no QCB were observed. The final results will be incorporated into this document following completion of the QCB survey report. The sensitive vegetation communities

and species, and regulated waters that were detected within and adjacent to the proposed project site during these surveys are summarized below.

One sensitive vegetation community, Sonoran mixed woody scrub, occurs within and adjacent to the proposed project site.

No sensitive plant species were detected during sensitive plant surveys conducted for the proposed project site in January, March and April of 2008.

Several sensitive wildlife species have been directly observed and/or detected through sign or other evidence on or adjacent to the proposed project site during surveys conducted for the proposed project site in 2008 and 2009, including California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

An investigation for jurisdictional waters was conducted in 2009. No waters that would be regulated by the U.S. Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG), or Regional Water Quality Control Board (RWQCB) occur within the proposed project site or the surrounding 100-foot offsite buffer area.

Any impacts to the vegetation communities occurring within the project site that are considered sensitive by the County of San Diego or that are regulated by state or federal resource agencies would be considered significant, according to CEQA, the County, and the resource agencies; therefore, mitigation would be required. The project's proposed impacts to vegetation communities that would warrant mitigation are summarized in Tables S-1a and S-1b.

Table S-1a. Route A1 and A2 Direct Impacts to Vegetation Communities that Require Mitigation

Vegetation Communities	Route A1 (500 kV) Total Direct Impacts (Acres)[1]	Route A2 (230 kV) Total Direct Impacts (Acres)[1]	Property Access Road (Route PA) Option A (Acres)[2]	Property Access Road (Route PA) Option B (Acres)[2]
Uplands				
Sonoran Mixed Woody Scrub	6.07	5.06	0.55	1.14
Peninsular Juniper Woodland and Scrub	--	--	2.29	2.60
Total=	6.07	5.06	2.79	3.74

[1] Route A1 and Route A2 include impacts associated with structure and pad footprints, stringing/parking/laydown areas, and the Gen-Tie Access roads Routes A1 and A2 share a common overlap of approximately 0.48 acres.

[2] Route PA Options A and B include the proposed property access road options and associated 40-foot easement and turnaround. Portions of the land are previously disturbed and is excluded from mitigation.

Table S-1b. Route D1 and D2 Direct Impacts to Vegetation Communities that Require Mitigation

Vegetation Communities	Route D1 (500 kV) Total Direct Impacts (Acres)[1]	Route D2 (230 kV) Total Direct Impacts (Acres)[1]	Property Access Road (Route PA) Option A (Acres)[2]	Property Access Road (Route PA) Option B (Acres)[2]
Uplands				
Sonoran Mixed Woody Scrub	4.72	4.06	0.21	0.21
Peninsular Juniper Woodland and Scrub	--	--	2.23	2.44
Total=	4.72	4.06	2.44	2.65

[1] Route D1 and Route D2 include impacts associated with structure and pad footprints, stringing/parking/laydown areas, and the Gen-Tie Access roads. Routes D1 and D2 share a common overlap of approximately 2.73 acres.

[2] Route PA Options A and B include the proposed property access road options and associated 40-foot easement and turnaround. Portions of the land are previously disturbed and is excluded from mitigation.

Project design features and mitigation would reduce significant impacts to below a level of significance. Project design features include, and are not limited to, diversion of nighttime lighting, noise attenuation, and construction BMPs. Mitigation measures would include the preservation and management of compensation habitat. This habitat will be provided to compensate for unavoidable impacts to sensitive biological resources that are approved by the County and the resource agencies. Additional mitigation measures would include construction fencing, and nest avoidance measures.

CHAPTER 1
INTRODUCTION

1.1 PURPOSE OF REPORT

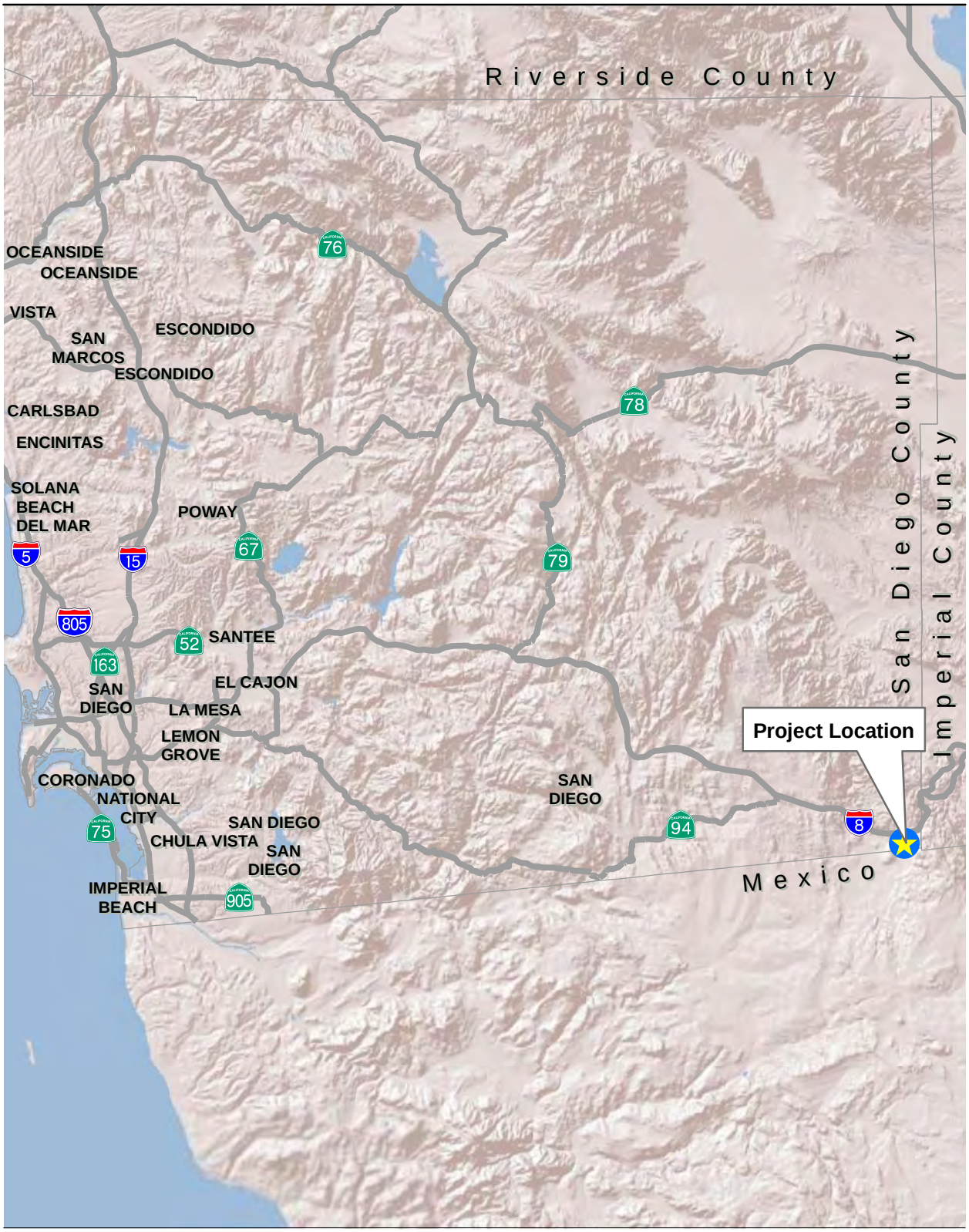
EDAW, Inc. (EDAW), on behalf of Energia Sierra Juarez (ESJ) U.S. Transmission, LLC, have prepared this biological resources technical report for the proposed project within and adjacent to the proposed Energia Sierra Juarez U.S. Gen-Tie Project site (project site) in the community of Jacumba, Mountain Empire Planning Area, San Diego County, California (Figures 1, 2a, and 2b). Several sensitive biological resources are known to occur or have the potential to occur within and adjacent to the proposed project site as identified and/or detected during biological studies and surveys that were conducted for the proposed project during 2008 and 2009. Several of these sensitive biological resources have potential to be impacted by the proposed project. Therefore, the purpose of this report is to describe the existing biological resources within and adjacent to the proposed project site, assess the potential impacts to these biological resources associated with the proposed project, and recommend mitigation for impacts that are considered significant under California Environmental Quality Act (CEQA) guidelines and County of San Diego (County) Significance Guidelines (County of San Diego 2008).

1.2 PROJECT LOCATION AND DESCRIPTION

1.2.1 Project Location

The proposed project site is located in the southeast corner of San Diego County, along the U.S. Mexico international border (Figure 1). It is situated approximately 60 miles southeast of San Diego, and 3.75 miles east of the unincorporated community of Jacumba. The site occurs at an elevation between 3,300-3,400 feet above mean sea level and is within Range 8 East, Township 18 South, Section 12 of the U.S. Geological Survey (USGS) In-Ko-Pah Gorge Quadrangle (USGS 1954; Figures 2a and 2b). The proposed project site is surrounded by undeveloped land and is located south of Interstate 8 and Old Highway 80, which provide access to the site.

The site is situated on a gently sloping hillside containing loose, sandy soil. The land in the project area is privately owned and is designated Rural Lands (RL-80) under the County of San Diego General Plan 2020 (County of San Diego 2006). It supports Sonoran Mixed Woody Scrub and Peninsular juniper woodland and scrub. Species onsite include: Creosote Bush (*Larrea*



Source: SANGIS 2008, ESRI 2009

11 5.5 0 11 Miles

Scale: 1 = 696,960; 1 inch = 11 mile(s)

Figure 1
Regional Location Map

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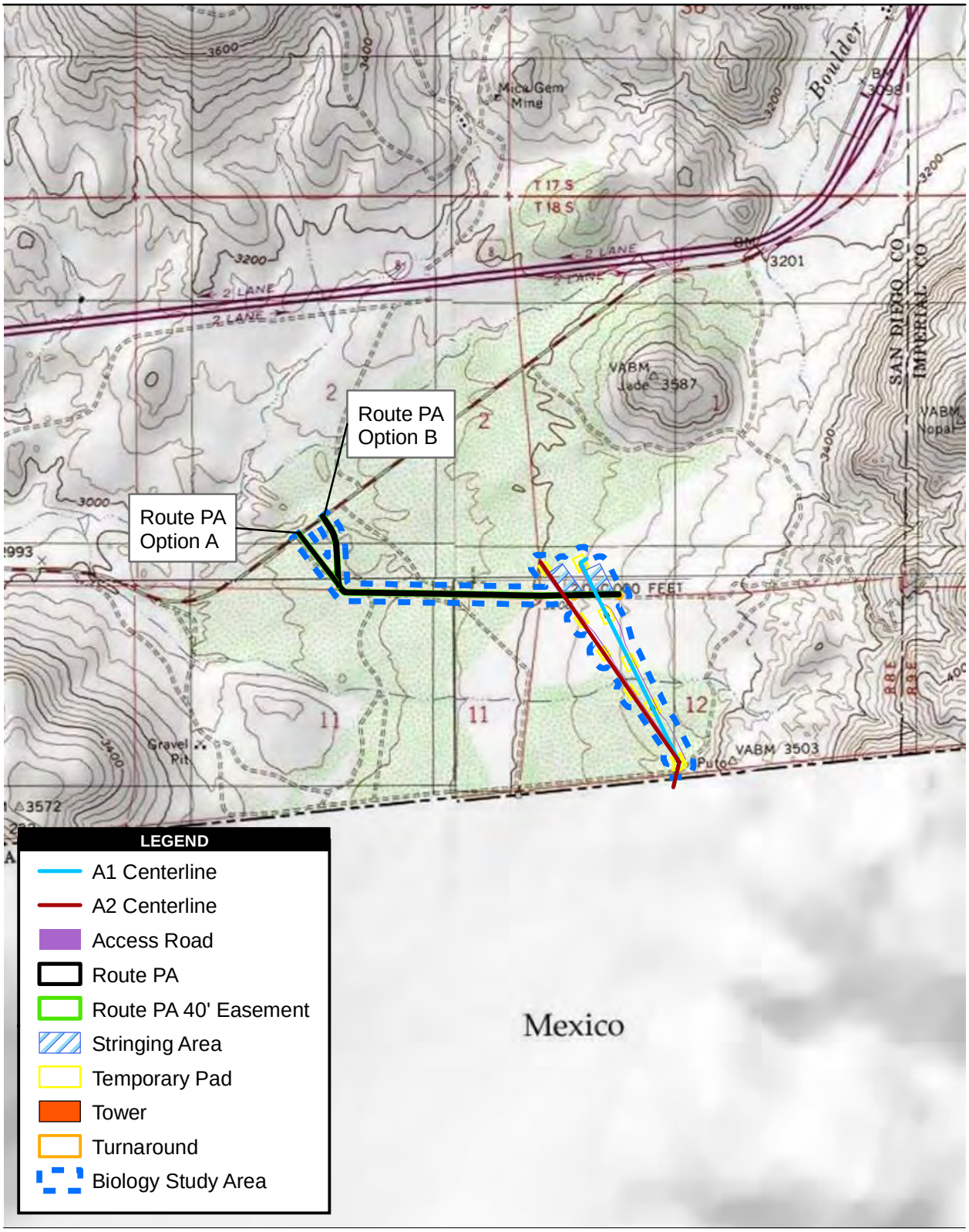

Source: ESRI 2009, USGS Topographic Quadrangle In-Ko-Pah Gorge 1975, Jacumba 1975

2,000 1,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2a
Project Vicinity
ESJ Gen-Tie Routes A1 and A2

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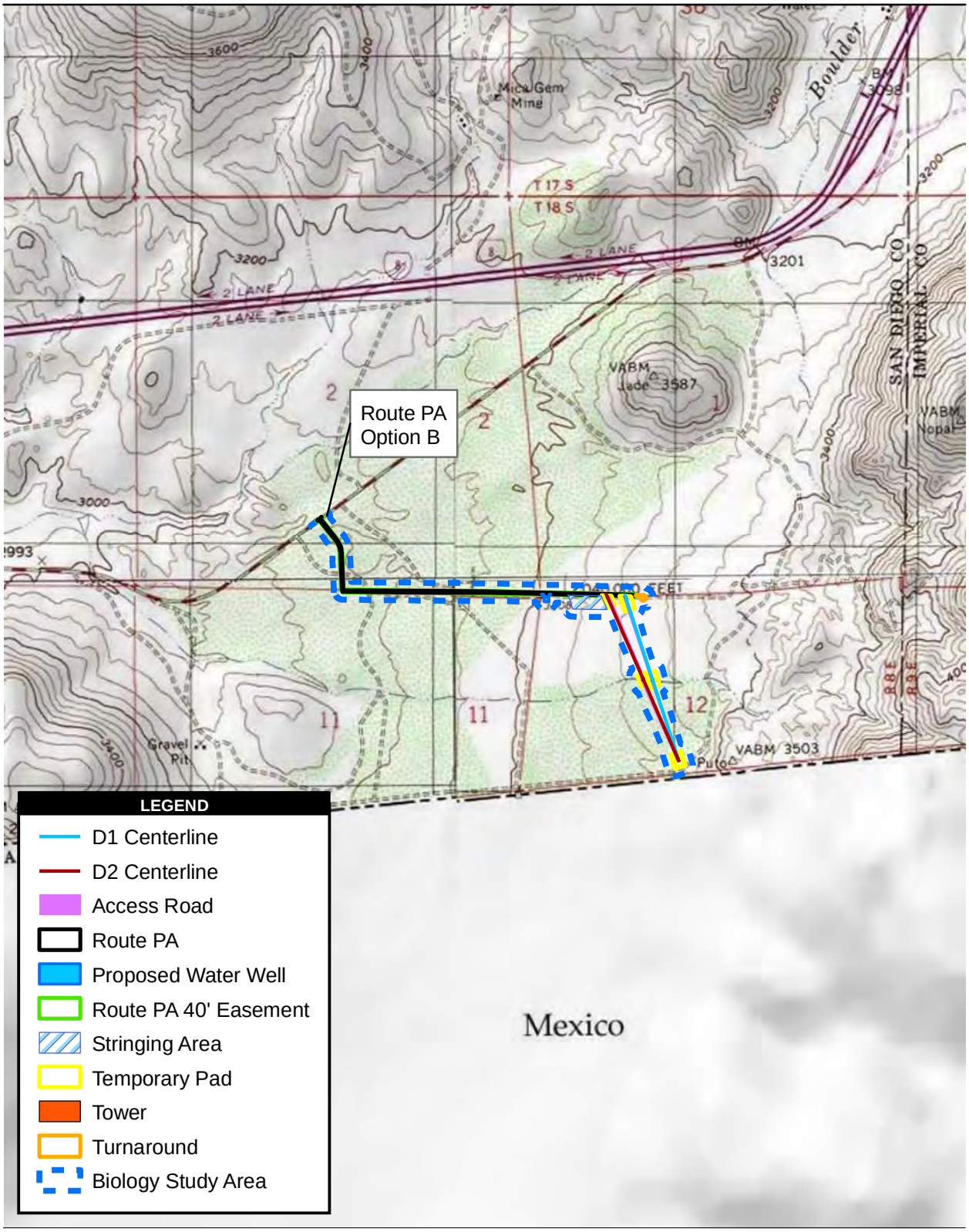

Source: ESRI 2009, USGS Topographic Quadrangle In-Ko-Pah Gorge 1975, Jacumba 1975

2,000 1,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2b
Project Vicinity
ESJ Gen-Tie Alternative Route D1 and D2

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tridentata), Jojoba (*Simmondsia chinensis*), Lotebush (*Ziziphus parryi*), Ephedra (*Ephedra californica*), yucca (*Yucca schidigera*), Gander's Cholla (*Cylindropuntia gander*), and California juniper (*Juniperus californica*). These species uniformly covered the survey area. Annuals were more common in the southern portion of the site, and included: Common Goldfields (*Lasthenia gracilis*), Filaree (*Erodium cicutarium*), Wild Heliotrope (*Phacelia distans*), Hydra Stick-Leaf (*Mentzelia affinis*), and Rancher's Fiddleneck (*Amsinckia menziesii* var. *intermedia*). (Appendix A; Figures 3a and 3b). Two sensitive vegetation communities, Sonoran mixed woody scrub and Peninsular juniper woodland and scrub, occur within and adjacent to the proposed project site.

1.2.2 Project Description

For the purposes of this *Biological Technical Report*, the "project" refers to the Gen-Tie right-of way (ROW) (ESJ Gen-Tie Route A1, Route A2, and ESJ Gen-Tie Alternative Route D1, Route D2) and the property access road (Route PA Option A and B).

Energia Sierra Juarez (ESJ) U.S. Transmission, LLC, proposes the construction, operation and maintenance of a less than one-mile electric generator-tie line from the Mexico border to a substation adjacent to the Southwest Powerlink (SWPL) 500 kV transmission line in Eastern San Diego County. This project, known as Energia Sierra Juarez U.S. Gen-Tie project (ESJ Gen-Tie Project) is proposed by ESJ U.S. The proposed ESJ Gen-Tie Project proposes two sets of gen-tie routes based upon the East County Substation (ECO Substation) location and the ECO Substation Alternative location. The first set consists of the ESJ Gen-Tie Routes A1 and A2, and the second set consists of the ESJ Gen-Tie Alternative Routes D1 and D2. Each set consists of a single circuit 500 kV line (Route A1 or Route D1) or double-circuit 230 kV line (Route A2 or Route D2). The route that is ultimately selected would be supported on three to five 150 foot steel lattice towers or up to 170-foot steel monopoles. Currently, Routes A1 and A2 are proposed to be supported by five steel lattice towers or steel monopoles and Routes D1 and D2 are proposed to be supported by three steel lattice towers or steel monopoles. Figure 3a shows the alignments and project features for Routes A1 and A2 and Figure 3b shows the alignments and project features for Routes D1 and D2. The proposed Gen-Tie would have the capacity to interconnect up to 1250 MW of future renewable energy produced by generators located in Northern Baja California Mexico.

The ESJ Gen-Tie Routes would connect with the proposed ECO Substation and the ESJ Gen-Tie Alternative Routes would connect to the ECO Substation Alternative. The ECO substation is proposed by San Diego Gas and Electric (SDG&E) which in turn would interconnect to SWPL. The ECO Substation will be permitted by the California Public Utility Commission and will be

constructed and operated by SDG&E. The ECO Substation is located approximately 0.65 miles north of the U.S. Mexico border and approximately 3.75 miles east of Jacumba in the southeast corner of San Diego County near the Imperial County Line (see Figures 1, 2a, and 2b).

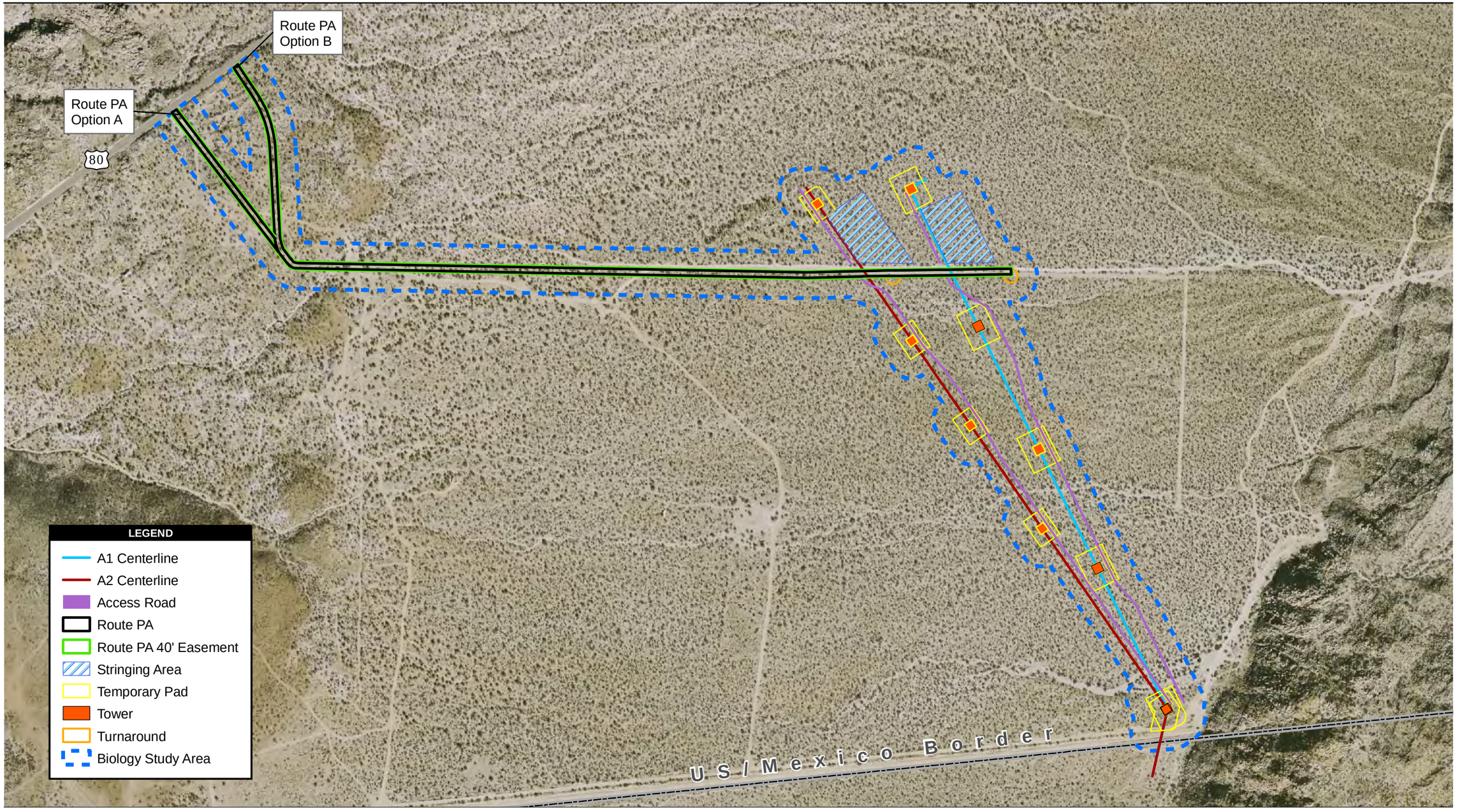
The total length of the generator tie line would be approximately two miles, with approximately one mile in the United States (ESJ Gen-Tie Project) and approximately one mile from the international border to the first point of interconnection in Mexico, at the ESJ Jacume substation in Mexico. An additional overhead static ground wire running above the conductors would have a fiber optic core for communications between the ESJ Jacume Substation in Mexico and the proposed SDG&E ECO Substation.

Access to the ESJ Gen-Tie Project area is provided by Old Highway 80. The proposed project has two property access (PA) road options, Option A and B. Option A is the historical property easement; however, the County of San Diego determined this easement did not satisfy the County's Site Distance requirements. Option B satisfies the County of San Diego Site Distance requirements. The locations and alignments for both PA options are shown in Figures 3a and 3b. Both options would require construction of a new 28 foot wide road and turnaround within a 40-foot wide easement, as required by the Rural Fire Protection District. It is possible that the entire 40-foot easement could be impacted during construction of the access road. Disturbed areas within the 40-foot easement, but beyond the 28-foot wide access road, would be revegetated with a native seed mix.

A new Gen-Tie tower access road would be constructed that would parallel the proposed Gen-Tie. The Gen Tie tower access road and foundations for the lattice towers or monopoles would be located entirely within the permanent right-of-way. The Gen-tie tower access road would be an approximately 12-foot wide graded dirt road. Both the property access road and Gen-Tie tower access road would be maintained periodically. This maintenance would include periodic grading and minor repairs.

As noted above, the Gen-Tie would consist of either a single circuit 500 kV line or double circuit 230 kV line. The key features and impacts of each of these alternatives are summarized in Table 1.

Route A1 or D1 (the 500 kV Gen-tie) would be constructed within a 214-foot wide permanent right-of-way. Route A2 or D2 (the 230 kV Gen-tie) would be constructed within a 130-foot



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 3a
Study Area and Site Plan
ESJ Gen-Tie Routes A1 and A2

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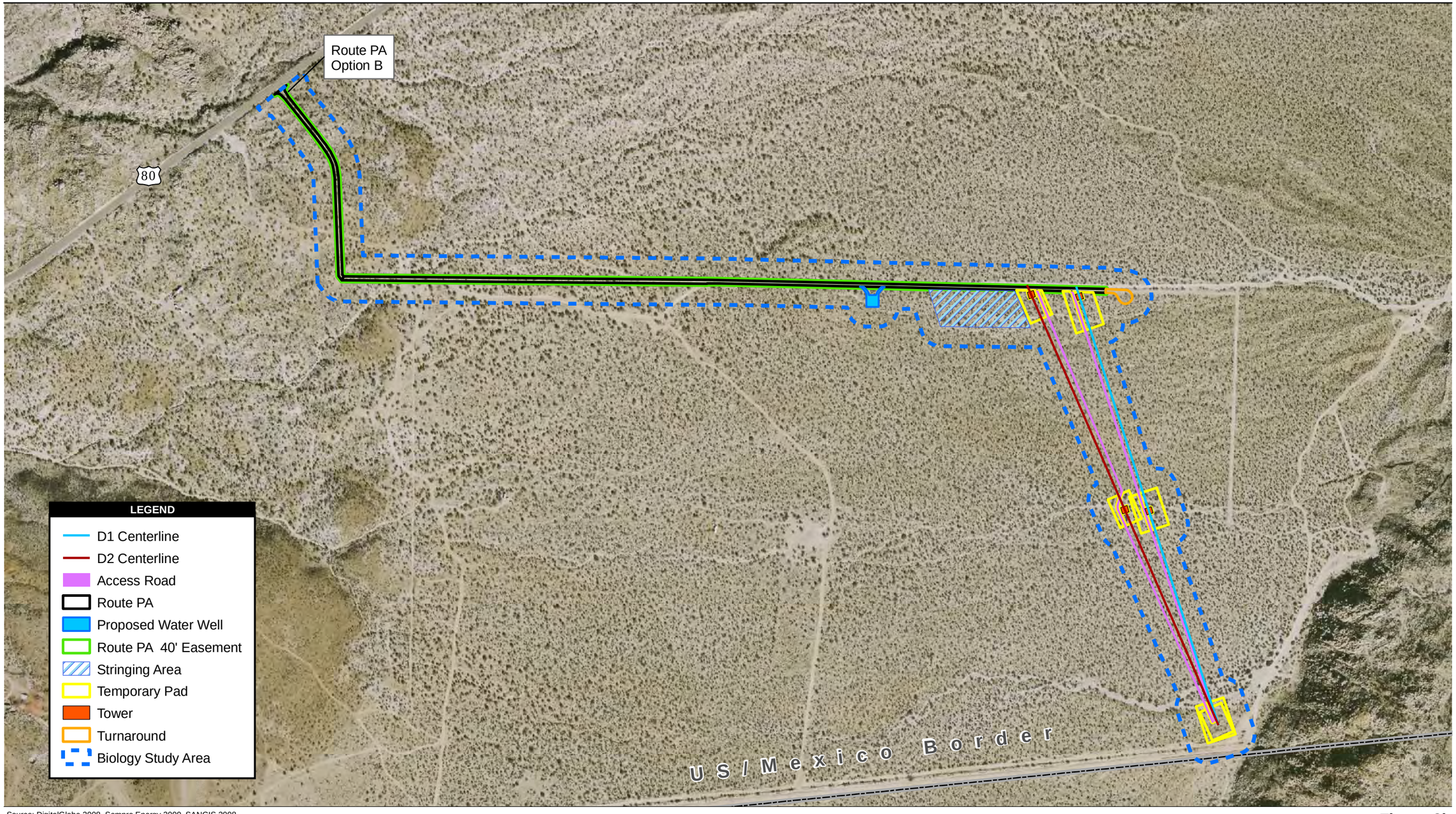

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 3b
Study Area and Site Plan
ESJ Gen-Tie Alternative Route D1 and D2

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permanent right-of way. A 100-foot and 70 foot wide temporary construction easement along the right-of-way was originally proposed for Route A1 and A2, respectively. The temporary easement has been eliminated to minimize disturbed areas.

In lieu of these 100-foot wide (7.72 acres) or 70-foot wide (5.64 acres) temporary easements, the wire stringing site proposed at the north end of the project site immediately adjacent to the property legal access road, and which was originally identified as having a disturbance of 0.69 acres, would instead be used as a wire stringing site and as a construction laydown and parking area. This consolidated construction laydown/parking/stringing disturbance area would be 1.88 acres for Route A1 and 1.98 acres for Route A2, which is a reduction in impacts in comparison to the 100-foot and 70-foot easements. Route D1 and Route D2 share a common 1.99 acre staging area south of common roadway of both Route PA options (Figures 3a and 3b).

Table 1. 500 kV and 230 kV Parameters

Parameter	500 kV (Route A1 or D1) Interconnection	230 kV (Route A2 or D2) Interconnection
Maximum Capacity	1250 MW	1250 MW
Number of Circuits	Single Circuit	Double Circuit
Minimum Ground Clearance	39 ft	34 ft
Permanent Right-of-Way	214 ft	130 ft
Number of Structures	3 to 5	3 to 5
Maximum Spacing Between Structures	1500 ft	1500 ft
Permanent Impacts at each structure	150 ft x 200 ft (0.69 acre)	120 ft x 160 ft (0.44 acre)
Permanent Impacts for all structures	3.45 acres (assuming 5 structures)	2.20 acres (assuming 5 structures)
Maximum Height of Lattice Towers	150 ft	150 ft
Maximum Base of Lattice Towers	34 ft x 34 ft	29 ft x 29 ft
Foundation of Lattice Tower at each corner	3-6 ft diameter	3-6 ft diameter
Maximum Height of Steel Monopoles	170 ft	150 ft
Foundation of Steel Monopoles	7-9 ft diameter	6-9 ft diameter

The monopoles or lattice towers would be located no more than 1,500 feet apart. The precise locations may be adjusted based on final design and, if necessary, to avoid sensitive cultural resources. There would be no poles placed within 150 feet of the international border. This type of Gen-Tie rarely causes interference to radio and television signals and there are no adjacent or nearby land uses where this could possibly be an issue.

Construction impacts would include:

- Clearing, grading, and grubbing;
- Access road and pad construction;
- Digging and drilling for tower foundations;
- Pouring concrete foundations for towers;
- Overhead electrical power system construction; and
- Final grading and site clean-up

Vegetation would be cleared and grubbed along the proposed access roads. Vegetation debris would be removed offsite and disposed of consistent with applicable requirements. Limited grading would be required for the tower/pole pads and the construction laydown/ parking/stringing site (construction staging and wire stringing site). Top soil removed during the grading of the tower areas and construction staging area would be stockpiled in the construction staging and wire stringing site, if necessary. This topsoil would be utilized during final grading of the road and tower areas. Based on preliminary engineering design, grading would require the export of soil. Vegetation debris would be removed offsite and disposed of properly.

Gen-Tie towers/poles would be supported on excavated, reinforced concrete foundations. The foundations would be excavated using a backhoe or similar excavation equipment. The maximum area of disturbance at each tower site would be approximately 150 feet by 200 feet, or 0.69 acre at each site, for a total of 3.45 acres of impacts if five structures are installed. This disturbed acreage is based on the 500 kV Route A1 and D1; impacts associated with the 230 kV Route A2 and D2 would be less. Tables 2a and 2b quantify the amounts of land disturbance for all project components associated with Routes A1 and A2, and Routes D1 and D2, respectively.

In addition to the permanent impact associated with each tower pad, fire protection guidelines require a defensible space of 30 feet on all sides of each tower, and recommend that no revegetation occur within, or 30 feet adjacent to, the right-of-way (ROW) (Hunt Research Corporation 2009). Therefore, for purposes of this technical report, the entire project ground disturbance is considered a permanent impact.

The proposed Project would include a Stormwater Pollution Prevention Plan (SWPPP) as required by the Clean Water Act (CWA) and the San Diego Regional Water Quality Control Board (RWQCB). The SWPPP would include options for standard sediment control devices such as silt fences, straw wattles, straw bales, netting, soil stabilizers, and check dams to minimize soil erosion during and after construction.

Table 2a. Land Disturbance (Routes A1 and A2)

Project Components	500 kV (Route A1) Interconnection	230 kV (Route A2) Interconnection
Construction lay-down/ parking/ stringing area	1.9 acres	2.0 acres
28-foot Property Access Road and Turn Around[1]	4.5 acres[2]	4.5 acres[2]
Gen-Tie Tower Access Road	0.8 acres	0.9 acres
Permanent Impacts (5 towers and 30-foot fire clearing)[3]	3.45 acres	2.2 acres
Totals	10.77 acres[4]	9.72 acres[4]

[1] The 28-foot Property Access Road is located within a 40-foot easement. The entire 40-foot easement could be impacted during construction. Therefore impacts to the entire 40-foot easement have been assumed for this calculation.

[2] Impacts associated with the Property Access Road include Option B in order to provide show the greatest amount of impact.

[3] Depending on final design 3-5 towers would be installed. Values are approximate.

[4] The total amount of land disturbance shown in this row is larger than the sum of the rows above due to rounding. Detailed land disturbance calculations are shown by vegetation community and cover type in Tables 3a, 3b, 4a, and 4b.

Table 2b. Land Disturbance (Routes D1 and D2)

Project Components	500 kV (Route D1) Interconnection	230 kV (Route D2) Interconnection
Construction lay-down/ parking/ stringing area	1.99 acres	1.99 acres
28-foot Property Access Road and Turn Around[1]	4.49 acres[2]	4.49 acres[2]
Gen-Tie Tower Access Road	0.65 acres	0.68 acres
Permanent Impacts (3 towers and 30-foot fire clearing)[3]	2.02 acres	1.32 acres
Totals	9.15 acres	8.48 acres

[1] The 28-foot Property Access Road is located within a 40-foot easement. The entire 40-foot easement could be impacted during construction. Therefore impacts to the entire 40-foot easement have been assumed for this calculation.

[2] Impacts associated with the Property Access Road include Option B in order to provide show the greatest amount of impact.

[3] Depending on final design 3-5 towers would be installed. Values are approximate.

All waste material generated during project construction would be deposited in dumpsters or covered bins that would be removed from the Project site by a licensed waste hauler for proper disposal. Portable toilets would also be provided for use by the construction workers. These facilities would be installed and removed from the site by a licensed portable sanitation company and the waste material would be disposed of at an approved facility. Onsite construction workers

would remove litter at the end of each day. A final site cleanup and inspection would be conducted at the completion of construction.

Project construction would require approximately 20 to 25 workers per day for up to six months. The bulk of the work would be completed in late 2011 or early 2012. There would be approximately 5 to 15 construction vehicles operating on-site during construction, with approximately 10 to 20 worker vehicles entering or leaving the site each day.

During operation of the facility, minimal personnel (1 or 2) would be required to patrol and visually inspect the Gen-Tie on a periodic basis. Operations and maintenance related traffic would consist of approximately two vehicles entering and leaving the site weekly.

Project construction would require approximately 780,000 gallons of water (assumes use of 2 – 2,500 gallon water trucks per day and a six day work week), for watering of roads and minimizing dust generated from traffic and excavation activities and for aid in soil compaction. It is anticipated that water would be trucked onto the site in tank trucks, although a temporary groundwater well could be drilled for use during construction. Very little water would be needed when the facilities are in operation, and would mainly consist of the occasional pressure washing of the insulators to remove dirt accumulation to minimize arcing.

Road maintenance activities are anticipated to occur no more than twice per year on average, but would be performed on an as-needed basis. No fencing is proposed. The Gen-Tie towers would be equipped with warning signs in English and Spanish that would alert the public to the electrical hazard. No lighting on the towers/poles is proposed, based on the Federal Aviation Administration (FAA) determination of no hazard to air navigation.

No fencing is proposed. However, the Gen-Tie towers would be equipped with devices to prevent climbing on the towers. Warning signs in English and Spanish would alert the public to the electrical hazard.

Project impacts can be summarized as follows. The total disturbance would encompass one of eight possibilities: 10.55 acres for Route A1 and PA Option A, 10.77 acres for Route A1 and PA Option B, 9.50 acres for Route A2 and PA Option A, or 9.72 acres for Route A2 and PA Option B; or 9.03 acres for Route D1 and PA Option A, 9.14 acres for Route D1 and PA Option B, 8.37 acres for Route D2 and PA Option A, or 8.48 acres for Route D2 and PA Option B.

1.3 SURVEY METHODS

In accordance with County Guidelines (2008), the entire proposed project site plus 100 feet beyond the proposed disturbance footprint was surveyed to evaluate on-site and immediately adjacent off-site land. This survey area includes the combined disturbance footprints of gen-tie Route A1, Route A2, Route D1, and Route D2; the 100-foot buffer surrounding the gen-tie routes; the access route alternative disturbance footprints; and the buffers surrounding the access routes.

A review of existing data sources was conducted prior to the site visit. They included: the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) database, and information provided by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), the U.S. Bureau of Land Management (BLM), and the County of San Diego, Department of Planning and Land Use (DPLU) pre-application meeting summary letter. These sources indicated that several sensitive biological resources are known to occur within the region, however, no sensitive species are documented for the project site by any of these informational databases.

Ecology & Environment (E&E) and Rocks Biological Consulting (RBC) conducted sensitive plant and wildlife surveys, a wetland assessment, and habitat assessments of the site in 2008 (Rocks Biological Consulting 2008, E&E 2009). In March of 2009, EDAW conducted a jurisdictional waters investigation of the site, as well as vegetation mapping, botanical surveys, and wildlife surveys to confirm the assessments conducted by E&E. RBC then conducted additional surveys in April of 2009. The 2008 and 2009 surveys conducted by RBC included protocol-level surveys for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*) (QCB). Additional QCB surveys will be conducted during the 2010 survey season, and the results will be incorporated into this document following completion of the surveys. Detailed results of the 2008 and 2009 QCB surveys, as well as the jurisdictional waters investigation, are presented in the survey reports included in Appendices F and G, respectively, within this document.

Two sensitive wildlife species, California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), were observed during the project surveys. Although the proposed project site occurs within a relatively undeveloped area in the extreme southeast portion of the County, existing linear development features, including Interstate 8 and Old Highway 80 to the north, and the U.S.-Mexico International Border fence to the south, limit the north-south movement of terrestrial wildlife species through the area. However, there are

suitable, unconstrained open space areas to the east and west of the project site that provide local and regional travel routes and linkage corridors for resident and transitory wildlife through the area. Therefore, the proposed project site provides forage and cover, as well as use as a wildlife movement corridor.

One sensitive vegetation community occurs within and adjacent to the proposed project site, Sonoran mixed woody scrub. No sensitive plant species were found during rare plant surveys conducted for the proposed project site in 2008 and 2009.

1.3.1 Vegetation Mapping

The 2008 and 2009 biological reconnaissance surveys and vegetation mapping were conducted on foot within the entire proposed project site, property access road alternative, and associated County-required buffers. Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted. All plant species observed in the study area were also noted, and plants that could not be identified in the field were collected and identified later using taxonomic keys. The *Biological Resource Mapping Requirements* established by the County were used to assess and map the vegetation communities within and adjacent to the proposed project site (County of San Diego 2002, and as revised 2008). Vegetation communities were classified using the Holland (1986) classification system, as modified by Thomas Oberbauer (1996) and the County of San Diego (2008), and mapped by hand in the field on a 1 inch equals 200 feet aerial photograph, and later screen-digitized in the office using ArcGIS software.

1.3.2 Rare Plant Surveys

Focused rare plant surveys were conducted for the proposed project by Ecology and Environment, Inc. (E&E) on January 16 and 17, March 24, and April 21, 2008. The entire site and a 100-foot area extending onto adjacent properties were surveyed by E&E for all potential sensitive plant species and for the potential of their habitat on-site. Rare plant surveys were conducted on foot using meandering transects to cover the entire proposed project site. All plant species observed in the survey area were also noted, and plants that could not be identified in the field were collected and identified later using taxonomic keys. No rare plants were detected during surveys.

1.3.3 Quino Checkerspot Butterfly Surveys

A QCB habitat assessment and survey were conducted for the proposed project by Rocks Biological Consulting biologists, Jim Rocks and Cynthia Jones Daverin, for two consecutive seasons (Rocks Biological Consulting 2008, 2009). The 2008 survey effort included a habitat assessment conducted on March 6, 2008, and the subsequent six focused protocol-level surveys for the species were conducted between March 24 and April 28, 2008. In 2009, a second habitat assessment was conducted on March 10, 2009, followed by a series of six focused protocol-level surveys conducted between March 23 and April 24, 2009. All of the protocol-level surveys were conducted by Mr. Rocks (Endangered Species Act [ESA] permit number TE-063230-3) and Ms. Jones Daverin (ESA permit number TE-811615-4) over a much larger area that the current project limits (see Figure 2 of the 2008 and 2009 Quino Checkerspot Butterfly Reports in Appendix F). However, the current project area is completely within the area surveyed for QCB. Surveys were performed in accordance with the USFWS's "*Quino Checkerspot Butterfly (Euphydryas editha quino) Survey Protocol Information*" dated February 2002. Additional QCB surveys will be conducted during the 2010 survey season, and the results will be incorporated into this document following completion of the surveys. The surveys will note the presence of any QCB host plants, including Chinese houses (*Collinsia concolor*).

Following the rains of late February 2008, a site check for presence of conditions that indicate QCB flight season is imminent or has started was conducted. These conditions include the presence of certain blooming annuals that could potentially be nectar sources, and larval host plants to support caterpillars. Conditions were not ready for surveys on March 6, 2008 as development of annual plants was not sufficient.

Mr. Rocks visited the USFWS Jacumba "reference site" on March 29 and April 16, 2008 to compare the phenology of host plants and nectar sources between the reference site and the survey area to best assess the appropriate survey commencement and duration to maximize the likelihood of observing QCB. In addition, the USFWS's "2008 Season Quino Checkerspot Butterfly (*Euphydryas editha quino*) Monitored Reference Site Information" website was frequently monitored to obtain information on 2008 QCB observations and locations. On March 24, 2008, the site area conditions were deemed to be acceptable to initiate QCB protocol level surveys.

Subsequent to the 2009 winter rains, a site assessment was conducted on April 10, 2009, which indicated that the QCB flight season was imminent. Additionally, the USFWS's "2009 Season Quino Checkerspot Butterfly (Euphydryas editha quino) Monitored Reference Site Information" website was monitored, and on March 13, 2009, the website announced that QCB were

documented flying at the Jacumba Peak reference site. Therefore, protocol-level QCB surveys were initiated on March 23, 2009, and were completed on April 22, 2009. No QCB or larval host plants were documented during the 2009 season project surveys.

Rocks Biological Consulting has completed QCB surveys for the project during the 2010 survey season and no QCB were observed. The results of the surveys will be provided to the County, following completion of the survey report.

1.3.4 Jurisdictional Waters Determinations

Prior to conducting the field survey, an aerial and USGS topographic map of the survey area was examined to determine the potential presence (type, area, and extent) or absence of jurisdictional waters of the U.S. and state. Based on the map assessment, the survey area had the potential for the presence of regulated water resource, in the form of desert washes and/or swales visible on aerial, and an intermittent stream, as indicated on the In-Ko-Pah Gorge Quadrangle. Indications of such features on the aerial warranted a field assessment. An investigation of field indicators for jurisdictional waters or wetlands was made on March 26, 2009. An investigation was also made for indicators of an ordinary high water mark (OHWM). The features that were investigated were located in the field with GPS equipment. Based on the field examination, no formal delineation was warranted. A detailed summary of the findings from this site investigation regarding jurisdictional waters is provided in Appendix G.

1.3.5 Survey Limitations

A significantly lower than average amount of precipitation fell in the Jacumba area in the six month period (October 2008 to March 2009) prior to the site investigation; 6.18 inches of rain fell, compared to the 6-month total average of 13.05 inches during previous years (www.wunderground.com). The lower than average amount of rainfall for the project site can limit the number, size, diversity, chances of survival, and opportunities for germination of the flora community. In particular, reduced blooming periods and germination rates would affect the identification of desert annuals and bulbs.

Although survey periods did not encompass all of the blooming periods for target sensitive plant species (Appendix D), the blooming periods of the majority of the target species were captured during the project surveys. Of the few species where blooming periods did not coincide with site surveys, either no habitat was documented within the study area, or those species were likely identifiable outside of their respective blooming periods.

No live trapping studies were conducted for small mammals; however, the majority of the documentation of small mammals was through the detection of their sign (scat, tracks, and burrows). Wildlife surveys conducted during 2008 and 2009 were potentially limited by temporal factors. All wildlife surveys were conducted during periods of daylight, precluding the direct observation of any nocturnal animals. However, no highly sensitive wildlife species potentially occurring within the project site would have been only detectable at night.

1.4 ENVIRONMENTAL SETTING

This section describes the existing environmental setting of the proposed project site, including the regional context of the site, soil types, vegetation communities, plant species, wildlife species, rare and sensitive plant and wildlife species either known or potentially occurring in the proposed project site, jurisdictional waters, and wildlife corridors. The information provided in the following sections is based upon biological surveys conducted within the proposed project site by EDAW in March 2009, as well as Ecology & Environment (E&E) and Rocks Biological Consulting (Rocks Biological Consulting) over the past year.

The proposed project site lies within the Jacumba mountain range in the southeastern corner of San Diego County, immediately along the U.S.-Mexico international border. The range is characterized by granite ridges, separated by scrubby desert-like valleys. The elevation of these ridges begins to descend as you move east further into the Sonoran Desert. The project site lies within at an elevation between 3,300-3,400 feet above mean sea level, with a gentle slope from east to west. As a high-elevation, desert like environment, it is generally warmer than coastal areas to the west, but cooler than lower deserts to the east. Average high temperatures range between 62°F in January and 94°F in August, with lows averaging between 34°F and 52°F during the same months. Precipitation averages 15.58 inches per year, with more than half of that amount (9.36 inches) occurring in the winter months of January and March. Monthly averages range between 0.09 inches in June and 3.30 inches in January (www.weather.com).

The project site is composed of Rositas (RsC) soils, which are very deep, loamy course sands, with 2-9 percent slopes. These deep, somewhat excessively drained soils originated from eroding granite ridges. This soil type has rapid permeability, slow to medium runoff, a slight hazard for erosion, and is used primarily as desert range. Three additional soil types exist along the intersection of Old Highway 80 and the access road into the site, or within close proximity of the survey area. Rough Broken Land (RuG) is well-drained to excessively drained, steep to very steep mountain or mountain flank landforms, that have either exposed or a shallow depth to well-weathered bedrock. Mecca soil (MnB) is very deep, well-drained course sandy loam, which is

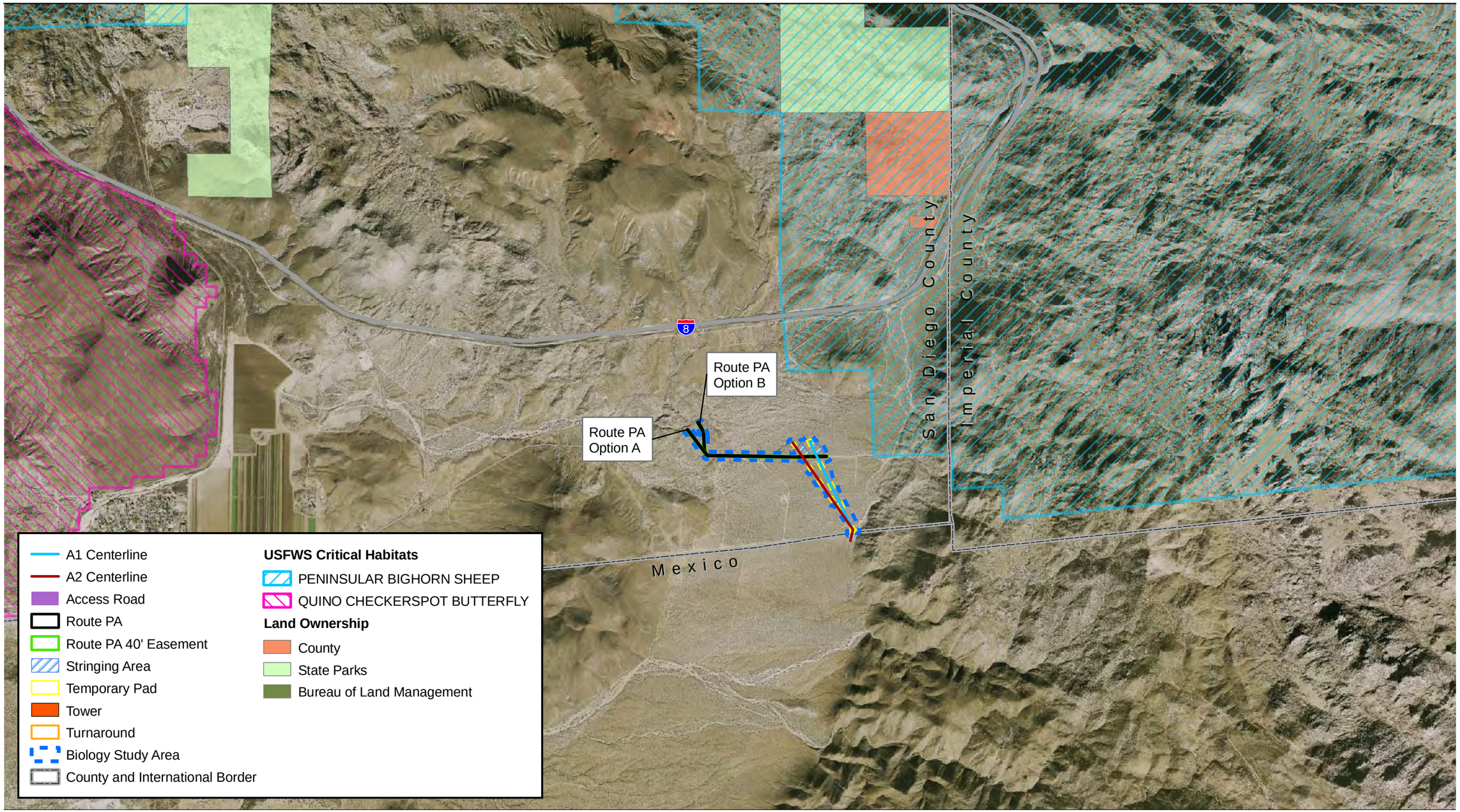
also derived from granite alluvium. Acid Igneous Rock Land (AcG) is rough broken terrain of low hills to very steep mountains, 50-90 percent of which is covered by large mineral boulders and rocks, with remaining consisting of soils that have a loam to loamy course sand texture, and is very shallow over decomposing granite or basic igneous rock (USDA, 1973). None of these soils appear on the National Hydric Soil List (USDA 1992).

The well-drained nature of the on-site soils, combined with low rainfall amounts, results in ephemeral surface water resources that are primarily evident during the three wet months of the year. These resources are manifest by the presence of erosive and swale features. They are generally the result of two circumstances: (1) runoff from existing roadways has created erosive features that drain into the surrounding landscape, and (2) naturally occurring drainage and swale features that convey runoff through the landscape. All of these features eventually disappear from the landscape or are cut off by a roadway; they are short, isolated surface waters that lose their flow.

1.4.1 Regional Context

The proposed project site falls within the County of San Diego's East County Multiple Species Conservation Program (ECMSCP) area, which is currently in development. This subarea study plan covers nearly 1.6 million-acres of unincorporated communities that make up the eastern portion of the county. The ECMSCP Plan currently proposes to cover up to 254 species. As of June 2008, the Department of Planning and Land Use is considering the entry into a joint Planning Agreement for both the North and East County subarea plans under the Natural Communities Conservation Planning Act with the U.S. Fish and Wildlife Service. Based on a draft map of the East County plan, the project site falls within an "Agriculture or Natural Upland" area, which is outside of a Focused Conservation Area of the plan (http://www.co.san-diego.ca.us/dplu/mscp/ec.html).

The Bureau of Land Management (BLM) owns two tracts of land within close proximity of the project site. They include: Jacumba National Cooperative Land and Wildlife Management Area to the north, and the 31,237 acre Jacumba Wilderness two miles to the east of the site. Three miles to the north is the southern boundary of Anza Borrego State Park, which at 600,000 acres is the largest state park in California. These lands preserve a significant amount of desert habitat in eastern San Diego County, providing forage, cover, water resources, and travel routes and linkage corridors for resident and transitory wildlife. In addition, two county parks, In-Ko-Pah and Mountain Springs, lie within close proximity, along the southeastern boundary of the Anza Borrego (Figures 4a and 4b).



Source: USFWS 2008, SANGIS 2009, DigitalGlobe 2008, Sempra 2009; BLM 2009

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Scale: 1 = 36,000; 1 inch = 3,000 feet

Figure 4a
Regional Conservation and Land Ownership
ESJ Gen-Tie Routes A1 and A2

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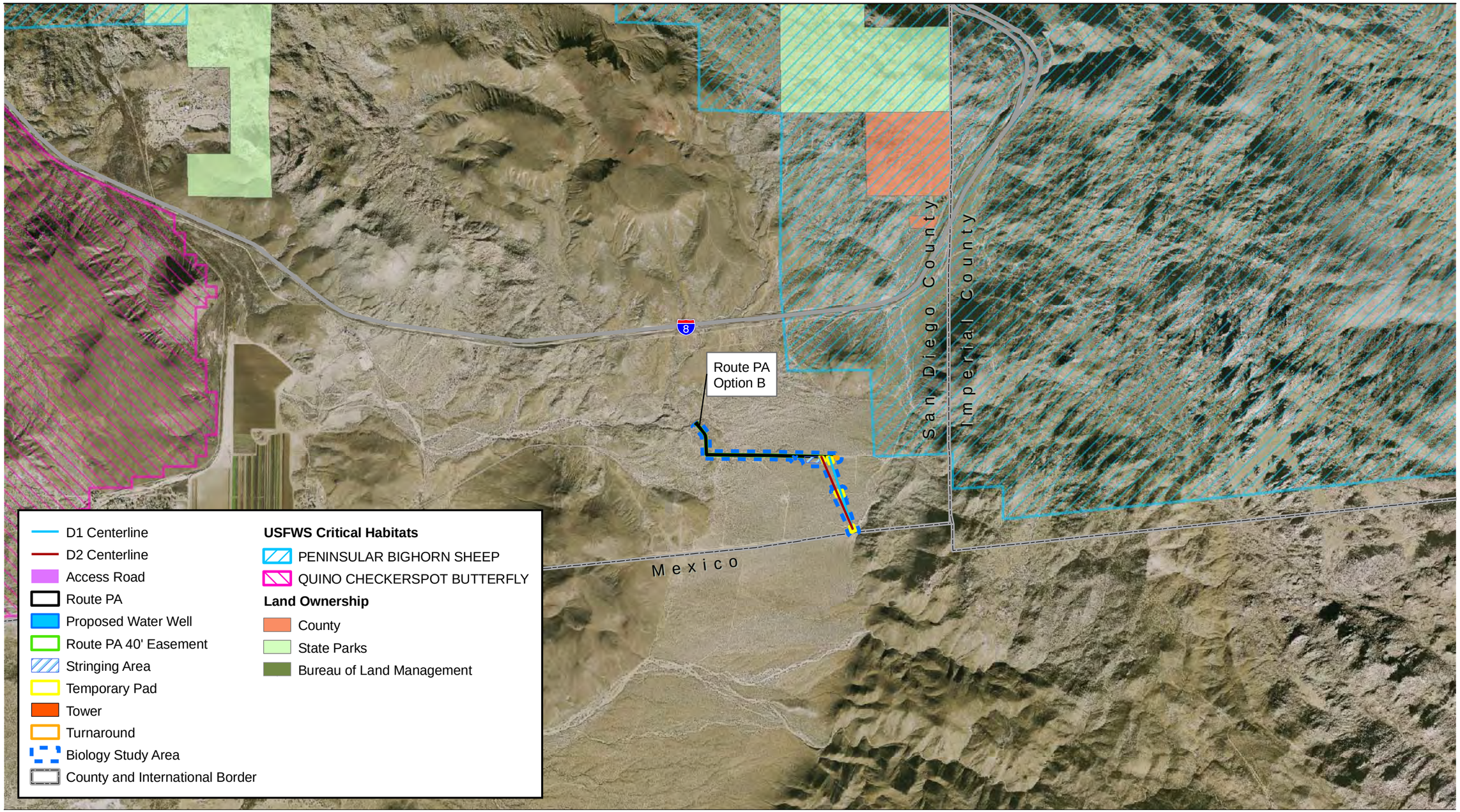

Source: USFWS 2008, SANGIS 2009, DigitalGlobe 2008, Sempra 2009; BLM 2009

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Scale: 1 = 36,000; 1 inch = 3,000 feet

Figure 4b
Regional Conservation and Land Ownership
ESJ Gen-Tie Alternative Routes D1 and D2

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Although nearby BLM and State Park lands are located within the East County Study Area, the County does not have land use authority over them. As a result, it cannot rely upon these preserved areas for conserving and gaining coverage for species under the East County Plan, unless mutually agreed upon. The County can however, coordinate with these entities and they can participate on a voluntary basis.

1.4.2 Habitat Types/Vegetation Communities

Two vegetation communities occur within the proposed project site and/or the surrounding 100-foot survey area, road alignment, and associated buffers: Sonoran mixed woody scrub and Peninsular juniper woodland and scrub. The vegetation on-site was originally classified as semi-desert chaparral (E&E 2009). However, based on additional vegetation data collected and/or observed by EDAW biologists on subsequent site visits in March 2009, the vegetation community on-site was determined to more definitively correspond with the descriptions of Sonoran mixed woody scrub and Peninsular juniper woodland and scrub per the Holland (1986) classification system, as modified by Thomas Oberbauer (1996). In addition to these vegetation communities, disturbed habitat characterizes the dirt roads and immediate adjoining areas. The vegetation communities and one other cover type are described below, summarized in Tables 3a and 3b, and depicted in Figures 5a and 5b. The Holland (1986) system (as modified by Thomas Oberbauer 1996 and the County of San Diego 2008) of classifying vegetation communities is used in Tables 3a and 3b.

Sonoran Mixed Woody Scrub (Holland Code 33210)

Sonoran mixed woody scrub is characterized by a mixture of three or more woody species. Characteristic species include creosote bush (*Larrea tridentata*), burro weed (*Ambrosia dumosa*), and brittlebush (*Encelia farinosa*). The community typically occurs on rocky, well-drained slopes and alluvial fans, often at the base of mountains. This vegetation community is considered sensitive by CDFG and the County (see Section 1.4.6.1).

Approximately 46.38 acres of Sonoran mixed woody scrub occurs within the focused survey area associated with Route A1 and Route A2, including 6.07 acres along the Route A1 footprint and 5.06 acres along the Route A2 footprint. This vegetation community also occurs within the 100-foot gen-tie corridor survey buffer area (32.48 acres), Property Access Road (Route PA Option A is 0.55 acres, and Option B is 1.14 acres with a 2.77 acre 100-foot buffer) (Figure 5a). Approximately 31.18 acres of Sonoran mixed woody scrub occurs within the focused survey area associated with Route D1 and Route D2, including 4.72 acres along the Route D1 footprint and

Table 3a. Vegetation Communities and Cover Types (Route A1 and Route A2)

Vegetation Communities and Cover Types (Holland Code[1])	Focused Survey Area[2] (Acres)	Route A1 (Acres)	Route A2 (Acres)	100-foot Buffer to Gen-Tie Line Route Corridors (Acres)	Property Access Route PA Option A (Acres)	Property Access Route PA Option B (Acres)	100-foot Buffer to Property Access Road (Acres)
Uplands							
Sonoran mixed woody scrub	46.38	6.07	5.06	32.48	0.55	1.14	2.77
Peninsular Juniper Woodland and Scrub	14.85	--	--	--	2.29	2.60	12.29
Other Cover Types							
Disturbed	3.97	0.16	0.12	1.82	1.56	0.80	1.15
Total =	65.20	6.23	5.18	34.30	4.40	4.54	16.21

[1] Based on Holland (1986) and Oberbauer (1996) as revised by the County of San Diego (2008).

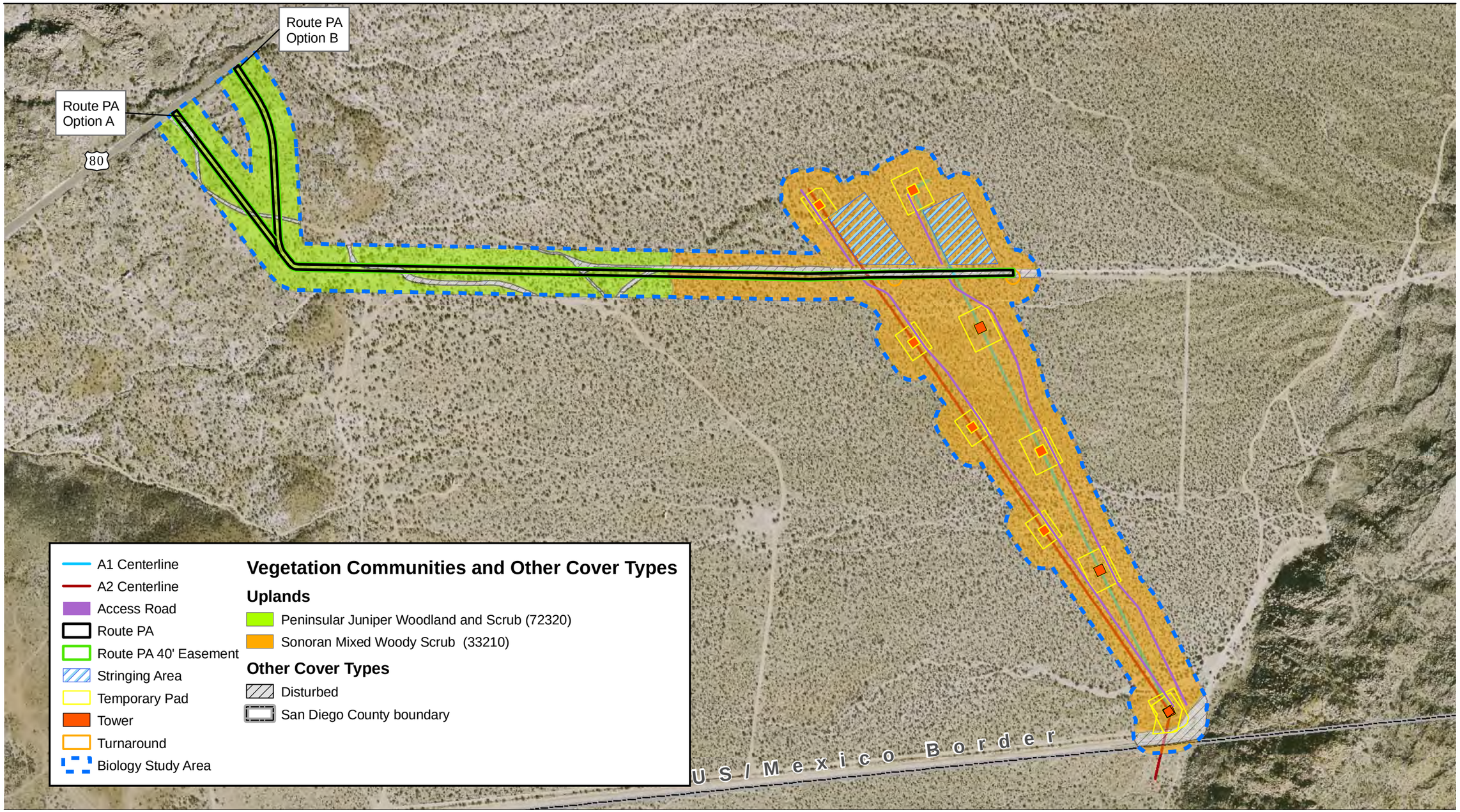
[2] The Focused Survey Area includes the A1 and A2 gen-tie line corridors, property access road (Route PA), and the County-required 100-foot buffer surrounding the perimeter of the disturbance footprints of the gen-tie line alternatives, as well as the alternative access routes. The Focused Survey Area acreage is smaller than the sum of the component parts of Table 3a, due to an approximately 0.48-acre overlap of features associated with A1 and A2.

Table 3b. Vegetation Communities and Cover Types (Route D1 and Route D2)

Vegetation Communities and Cover Types (Holland Code[1])	Focused Survey Area[2] (Acres)	Route D1 (Acres)	Route D2 (Acres)	100-foot Buffer to Gen-Tie Line Route Corridors (Acres)	Property Access Route PA Option A (Acres)	Property Access Route PA Option B (Acres)	100-foot Buffer to Property Access Road (Acres)
Uplands							
Sonoran mixed woody scrub	31.18	4.72	4.06	28.41	0.21	0.21	2.56
Peninsular Juniper Woodland and Scrub	19.30	--	--	--	2.23	2.44	16.12
Other Cover Types							
Disturbed	4.17	0.07	0.07	2.26	1.80	1.70	1.15
Total =	54.65	4.79	4.13	29.56	4.24	4.35	19.83

[1] Based on Holland (1986) and Oberbauer (1996) as revised by the County of San Diego (2008).

[2] The Focused Survey Area includes the D1 and D2 gen-tie line corridors, property access road (Route PA), and the County-required 100-foot buffer surrounding the perimeter of the disturbance footprints of the gen-tie line alternatives, as well as the alternative access routes. The Focused Survey Area acreage is smaller than the sum of the component parts of Table 3b, due to an approximately 3.39-acre overlap of features associated with D1 and D2.



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 5a
Vegetation Cover Types
ESJ Gen-Tie Route A1 and A2

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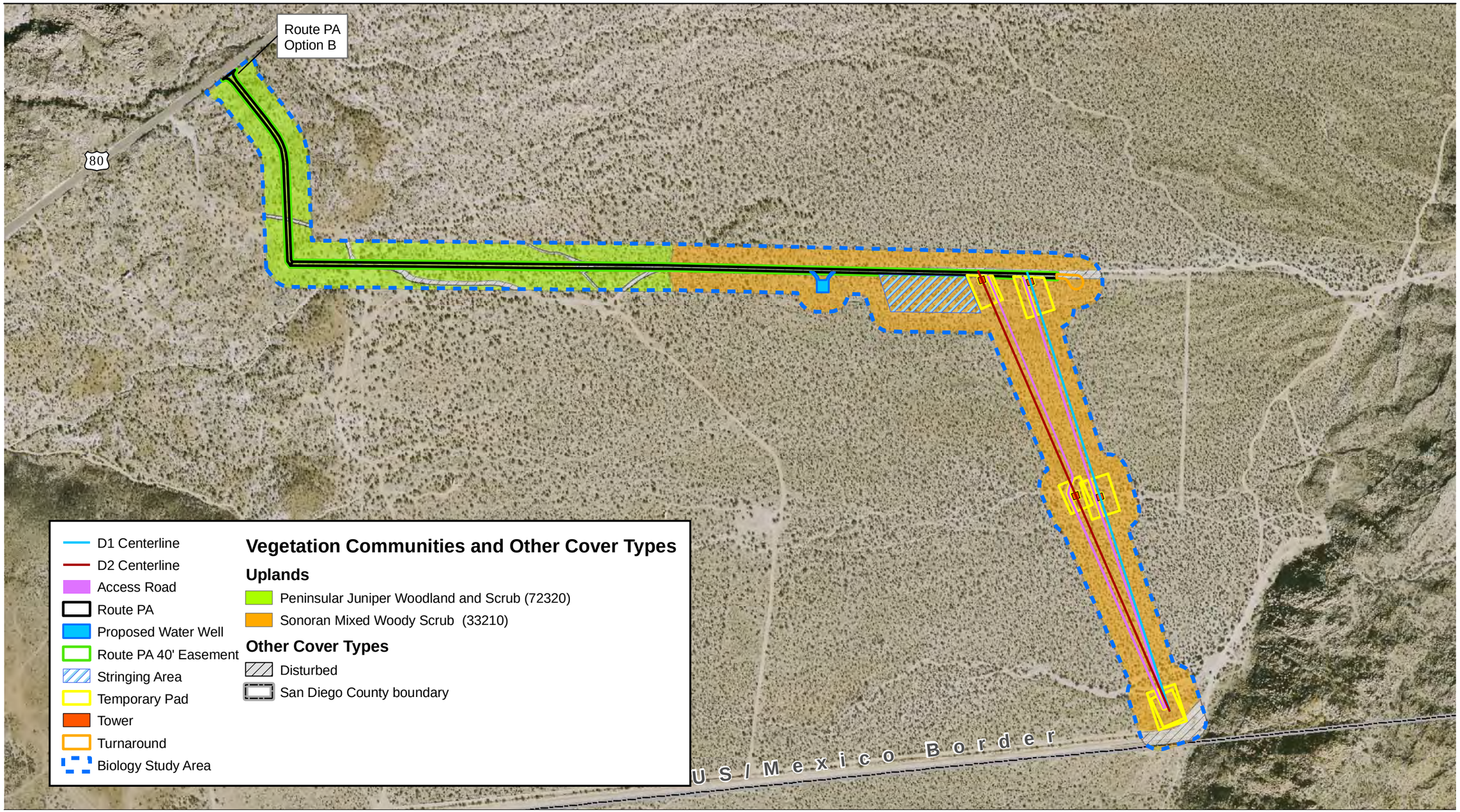

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 5b
Vegetation Cover Types
ESJ Gen-Tie Alternative Routes D1 and D2

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4.06 acres along the Route D2 footprint. This vegetation community also occurs within the 100-foot gen-tie corridor survey buffer area (28.41 acres), Property Access Road (Route PA Option A and B are both 0.21 acres with a 2.56 acre 100-foot buffer) (Figure 5b). This community on-site is characterized by 15 to 75 percent shrub cover, the low end applying to washes, which are essentially devoid of vegetation. The common shrub species observed include creosote bush, ephedra (*Ephedra* spp.), jojoba (*Simmondsia chinensis*), Gander's cholla (*Cylindropuntia ganderi*), yucca (*Yucca schidigera*), and lotebush (*Ziziphus parryi*), with an herbaceous layer of forbs that includes wild heliotrope (*Phacelia distans*), common goldfields (*Lasthenia gracilis*), fiddlenecks (*Amsinkia* sp.), filaree (*Erodium cicutarium*), and hydra stick-leaf (*Mentzelia affinis*).

Peninsular Juniper Woodland and Scrub (Holland Code 72320)

Peninsular juniper woodland and scrub onsite only occurs within Route PA Option A on the order of 2.29 acres, and 2.60 acres within Route PA Option B, as well as the associated 100-foot buffer adjacent to the access road (12.29 acres) for Route A1 and A2 (Appendix A: Photograph 1; Figure 5a). This vegetation community consists of 2.23 acres for Route PA Option A, and 2.44 acres for Route PA Option B, with 16.12 acres in the 100-foot buffer, under Route D1 and Route D2 (Figure 5b). In addition to California juniper, commonly occurring plant species within this community include Parry's nolina (*Nolina parryi*), Parry piñon pine, grey oak (*Quercus turbinella*) and big sagebrush (*Artemisia tridentata*).

Disturbed Habitat (Holland Code 11300)

Disturbed habitat is generally defined as any land on which the native vegetation has been significantly altered by agriculture, grazing, existing roads, or other land-clearing activities, resulting in species composition and site conditions that favor invasive species. Such land typically is found in vacant lots, dirt roads, roadsides, construction staging areas, or abandoned fields and is dominated by bare ground and/or nonnative annual species and perennial broad-leafed species. The level of soil disturbance is such that only the most ruderal plant species would be expected such as Russian thistle, sweet fennel (*Foeniculum vulgare*), horseweed (*Conyza* spp.), black mustard, lamb's quarters (*Chenopodium album*), fountain grass (*Pennisetum setaceum*), and/or castor bean (*Ricinus communis*).

Approximately 3.97 acres of disturbed land occurs on private parcels within the focused survey area, consisting of 0.16 acre along the proposed gen-tie Route A1, and 0.12 acre along Route A2. Additionally, there are 1.82 acres of disturbed land within the 100-foot gen-tie corridor survey buffer area; 1.56 acres along Route PA Option A (Appendix A: Photograph 7; Figures 5a and

5b). Under Route PA Option B, there is 0.80 acre of disturbed land along Route PA Option 2. 1.15 acres of disturbed land occurs along the access road 100-foot buffer. The disturbed land within the proposed project site is composed of dirt roads.

Flora

A total of 69 plant species has been recorded within the proposed project site, with 66 species (98 percent) encountered considered native and the remaining 3 species (2 percent) considered nonnative and/or naturalized into the area (Appendix B). Native Sonoran mixed woody scrub occurs throughout the majority (96.8 percent) of the proposed project site, followed by disturbed habitat (3.2 percent) (see Tables 3a and 3b).

Sensitive plant species observed or potentially occurring in the proposed project site are discussed in Section 1.4.6.2.

Fauna

The majority of the proposed project site is of moderate value for wildlife species. Vegetation within the project area potentially provides suitable protective cover, foraging, migration, and breeding habitat for a variety of animals. Burrows onsite are suitable for a variety of small mammals and reptiles. A complete list of the wildlife species detected is provided in Appendix C. Two sensitive wildlife species, the California horned lark, and the San Diego black-tailed jackrabbit, were observed during surveys of the project area. Sensitive wildlife species potentially occurring in the proposed project site are discussed in Section 1.4.6.3.

Invertebrates

The distribution of invertebrates is generally defined by the distribution of their larval food plants and habitats. The proposed project site is adjacent to boulders and hills that could be used as hill topping areas for certain butterfly species to search for mates. A total of 11 butterfly species were documented within and adjacent to the 2008 and 2009 QCB surveys, including species such as painted lady (*Vanessa cardui*), red admiral (*Vanessa atalanta rubria*), Ceraunus blue (*Hemiargus ceraunus*), and Chalcedon checkerspot (*Euphydryas chalcedona*). The 2009 survey conducted by EDAW documented the presence of the black harvester ant (*Pogonomyrex californicus*), the preferred food item of the San Diego horned lizard (*Phrynosoma coronatum blainvillei*).

Fish

Many creeks and waterways in southern California are perennial and subject to periods of high water flow in winter and spring with little to no water flow in late summer and fall. Fish species that potentially inhabit this environment have adapted to living in these naturally fluctuating conditions. However, natural causes such as drought and man-made causes such as alteration of habitat and introduction of nonnative species often cause reduction in native fish populations in southern California.

The proposed project site does not contain any waterways that would support any fish species. In arid southeast San Diego County, the local creeks are dry except during periods of precipitation. The nearest creeks are Boulder Creek and Carrizo Creek, both running generally in an east-west orientation, approximately one mile north of the proposed project site.

Amphibians

All amphibians require moisture for at least a portion of their life cycle, with many requiring a permanent water source for habitat and reproduction. However, terrestrial amphibian species have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season, and emerging only when temperatures are low and humidity is high. Many of these species' habitats are associated with water, and they emerge to breed once the rainy season begins. Because of the arid conditions within the region, limited availability of suitable vegetation, leaf litter, and perennial water sources, amphibian species are not expected to occur in the proposed project site.

Reptiles

The diversity and abundance of reptile species typically vary with vegetation community and character. Many reptiles are restricted to certain vegetation communities and soil types, although some of these species will also forage in a variety of vegetation communities. Other species are more ubiquitous, using a variety of vegetation types for foraging and shelter. Most species occurring in open areas use rodent burrows for cover and protection from predators and extreme weather conditions. Rock outcroppings provide cover and foraging opportunities for reptiles.

The onsite desert scrub vegetation, as well as the rock outcroppings immediately to the east of the site, has the potential to support a moderate variety of reptiles. Two reptile species were

observed within the proposed project site: side-blotched lizard (*Uta stansburiana*), and tiger whiptail (*Aspidoscelis tigris*). Other common reptiles with the potential to occur within the proposed project site or nearby rock outcroppings include rattlesnake (*Crotalus* spp.), gopher snake (*Pituophis melanoleucus*), and western banded gecko (*Coleonyx variegatus*).

Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities. The site would be expected to support a moderate diversity of bird species, due to the relatively low diversity of vegetation communities associated with the site. However, the rock outcroppings immediately to the east of the site provide additional diversity of habitat types within the local vicinity, by providing cover and foraging opportunities for birds. During the surveys conducted to date, 12 bird species were detected within and adjacent to the proposed project site (Appendix C).

The desert scrub vegetation community provides important habitat for a number of resident and migratory species, such as black-throated sparrow (*Amphispiza bilineata*), western scrub jay (*Aphelocoma californica*), ash-throated flycatcher (*Myiarchus cinerascens*), and western kingbird (*Tyrannus verticalis*). The site also provides foraging habitat for raptors such as the red-tailed hawk (*Buteo jamaicensis*), which would be expected to use the adjacent rock outcroppings as a perch location.

Birds observed within and adjacent to the proposed project site include western northern mockingbird (*Mimus polyglottos*), black-throated sparrow, and California horned lark (*Eremophilia alpestris actia*). Two bird species, common to the region, were observed flying over the proposed project site during surveys, including red-tailed hawk and common raven (*Corvus corax*).

Mammals

The desert scrub vegetation community would be expected to provide protective cover and foraging opportunities for a variety of mammal species. In addition, offsite rock outcroppings provide cover, nesting, and denning sites and foraging opportunities for mammals. Most mammal species are nocturnal and must be detected either during daytime surveys by observing their signs, such as tracks, scat, and burrows, or during nighttime trapping surveys.

The onsite desert scrub and offsite rock outcroppings provide low to moderate value of habitat and have potential to support a variety of mammals. White-tailed antelope ground squirrel (*Ammospermophilus leucurus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), coyote (*Canis latrans*), and bobcat (*Felis rufus*) were observed or detected during the surveys conducted for the proposed project. The ground squirrel and jackrabbit were confirmed through direct observation, while the coyote was detected through documentation of tracks and four medium-sized burrows (approximately 1 foot in diameter). The bobcat was detected through the documentation of tracks.

Bats occur throughout most of southern California and may use any portion of the proposed project site as foraging habitat. The Mexican long-tongued bat (*Choeronycteris Mexicana*), Mexican free-tailed bat (*Tadarida brasiliensis*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis californicus*), and pocketed free-tailed bat (*Nyctinomops femorosacca*) have a moderate potential to occur within the proposed project site based on available foraging habitat.

1.4.3 Sensitive Biological Resources

One sensitive vegetation community and sensitive wildlife species are known to occur or have the potential to occur within the proposed project site, as identified and/or detected during biological studies and surveys that were conducted for the proposed project during 2008 and 2009. Local, state, and federal agencies regulate these sensitive biological resources and require an assessment of their presence or potential presence to be conducted in the proposed project site prior to the approval of the proposed project. In general, the principal reason an individual taxon (species, subspecies, or variety) is considered sensitive is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution resulting in most cases from habitat loss. In addition, wildlife movement corridors or linkages are considered sensitive by local, state, and federal resource and conservation agencies because these corridors allow wildlife to move between adjoining open space areas that are becoming increasingly isolated as open space becomes increasingly fragmented from urbanization, rugged terrain, or changes in vegetation (Beier and Loe 1992).

The following sections present the sensitive vegetation community, wildlife species, and wildlife corridors that are either known to occur or potentially occur in the proposed project site or in the immediate vicinity based on query of the CNDDB or the presence of suitable habitat and/or other requisite components (Figures 4a, 4b, 5a, 5b, 6a, 6b, 7a, 7b, 8a, and 8b). In addition, these sections indicate the local, state, and/or federal regulations or guidelines that protect these

resources. Definitions for these sensitive biological resources are provided and discussed in the following sections.

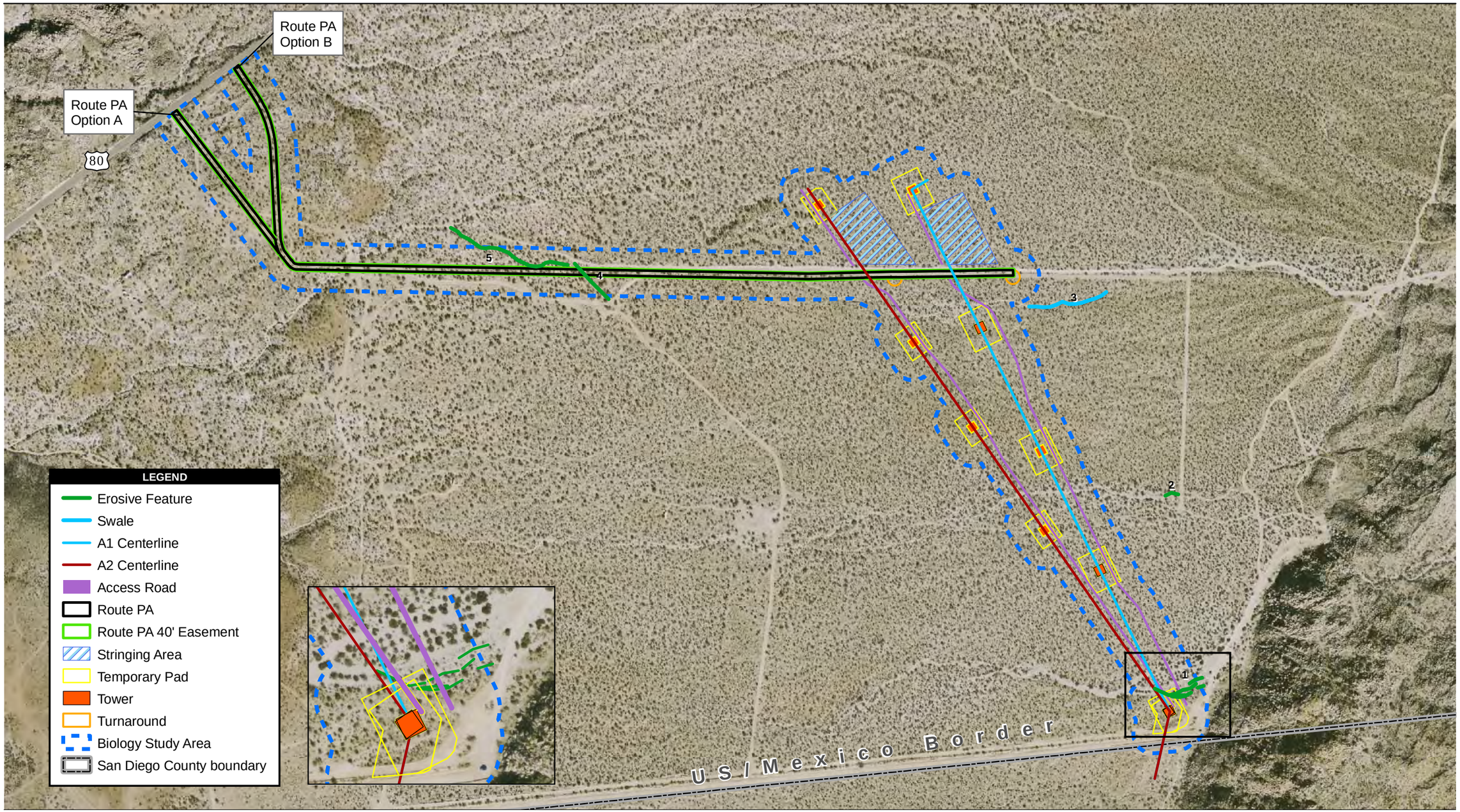
Sensitive Vegetation Communities

Sensitive vegetation communities are vegetation assemblages, associations, or subassociations that support or potentially support sensitive plant or wildlife species, have significant cumulative losses throughout the region, have relatively limited distribution, or have particular value to wildlife. Typically, sensitive vegetation communities are considered sensitive whether or not they have been disturbed. Sensitive vegetation communities are regulated by various local, state, and federal resource agencies. The CNDDB provides an inventory of vegetation communities that are considered sensitive by state and federal resource agencies, academic institutions, and conservation groups such as the CNPS. Determination of the level of sensitivity is based on the Nature Conservancy Heritage Program Status Ranks that rank both species and plant communities on a global and statewide basis according to the number and size of remaining occurrences as well as recognized threats such as proposed development, habitat degradation, and invasion by nonnative species.

Approximately 46.38 acres of Sonoran mixed woody scrub occurs within the proposed project site and associated buffers for Route A1 and Route A2, and the associated access road options. With Route D1 and Route D2, and the access road options, there is approximately 31.18 acres of Sonoran mixed woody scrub. This vegetation community is classified with a S3.2 sensitivity ranking by CDFG indicating it is considered a "threatened" natural plant community. The County of San Diego's Guidelines for Determining Significance list sensitive or naturalized habitat that would warrant mitigation if affected by project activities. Sonoran mixed woody scrub is noted as requiring mitigation, if impacted (County of San Diego 2008).

Sensitive Plants

For purposes of this report, plant species will be considered sensitive if they are (1) listed or proposed for listing by state or federal agencies as threatened or endangered; (2) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2007); or (3) considered rare, endangered, or threatened by the State of California (2007a) or other local conservation organizations or specialists. Noteworthy plant species are considered to be those on List 3 (more information about the plant distribution and



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 6a
Potential Jurisdictional Waters
ESJ Gen-Tie Routes A1 and A2

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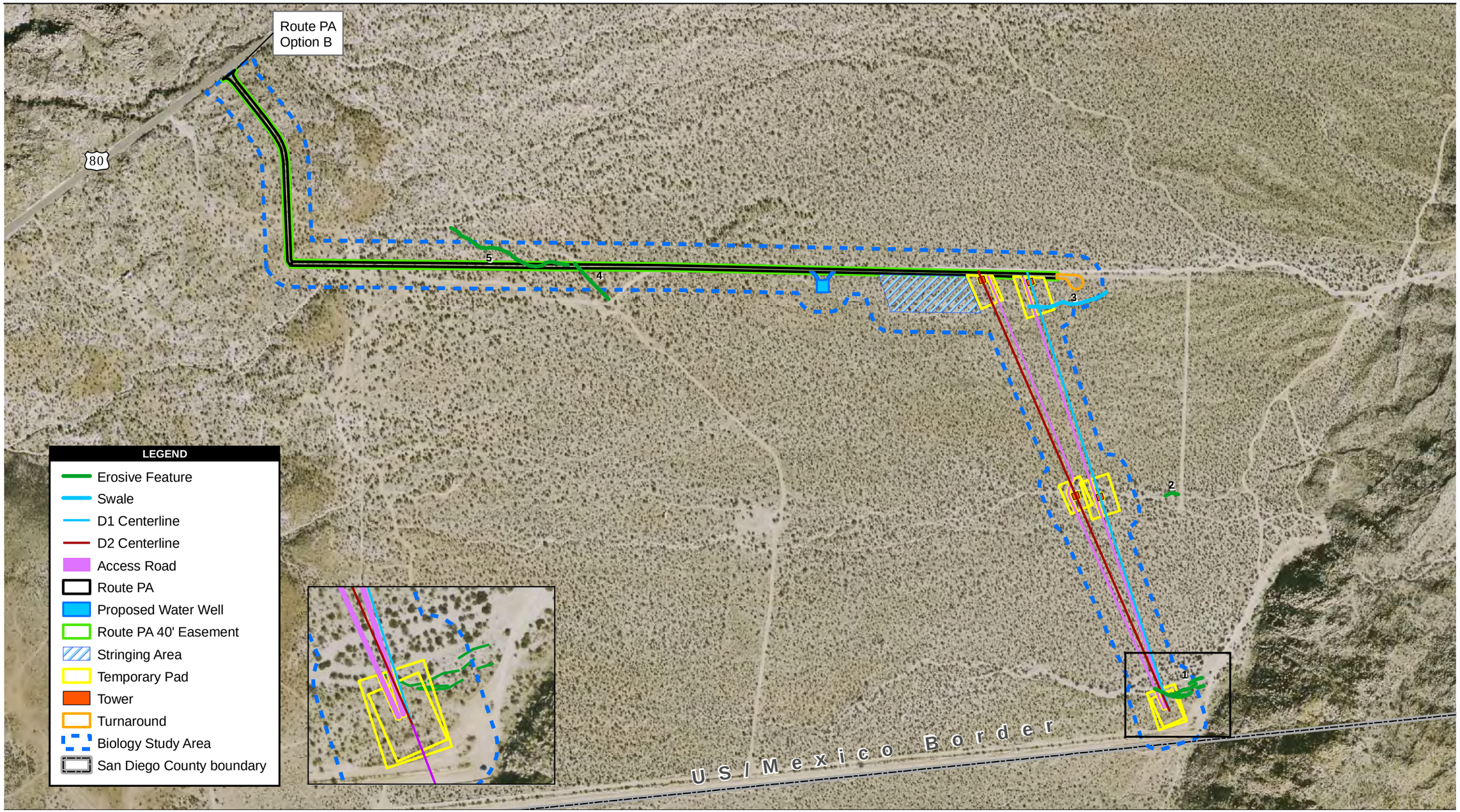

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 6b
Potential Jurisdictional Waters
ESJ Gen-Tie Alternative Routes D1 and D2

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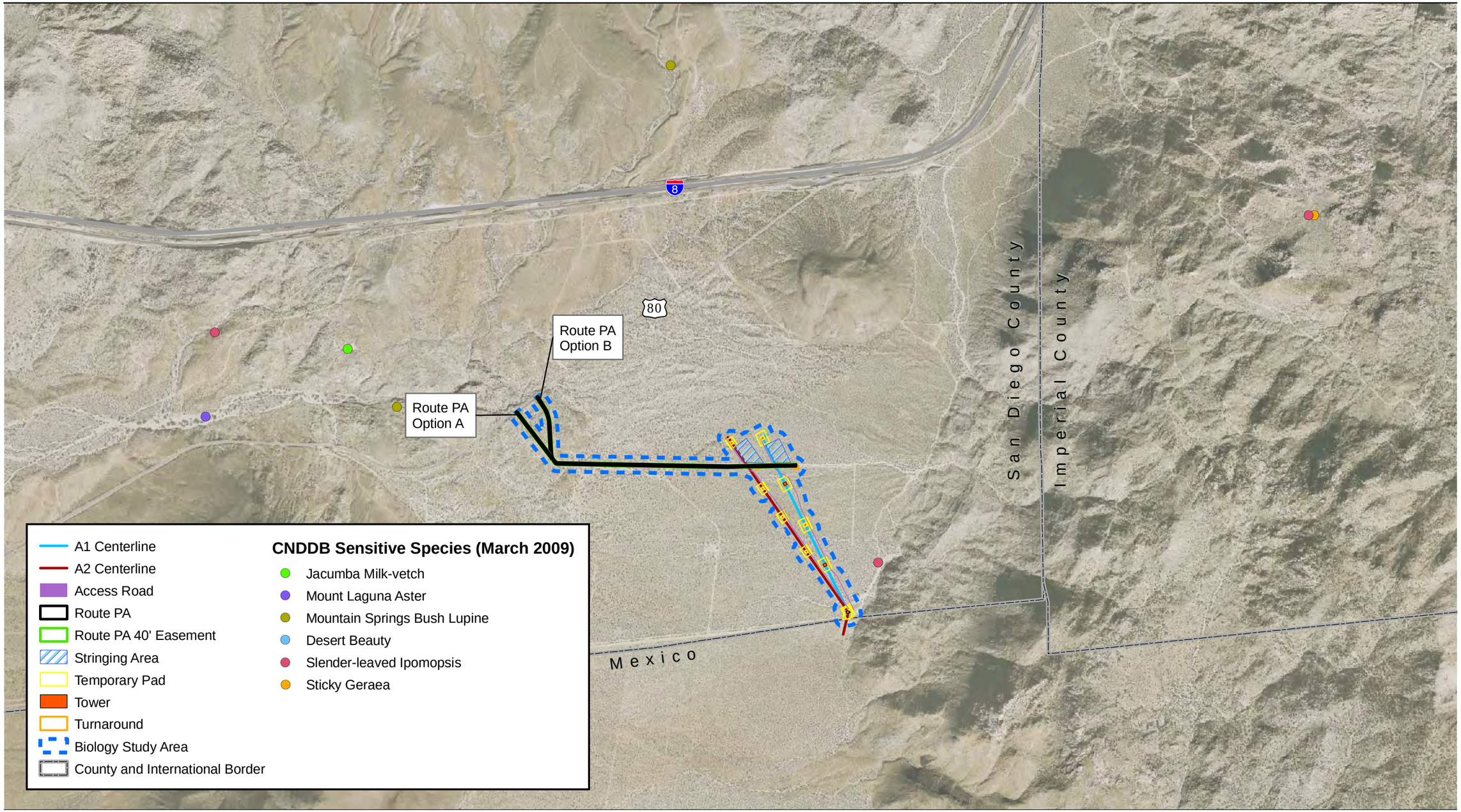

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Scale: 1 = 18,000; 1 inch = 1,500 feet

Figure 7a
Sensitive Plants
ESJ Gen-Tie Routes A1 and A2

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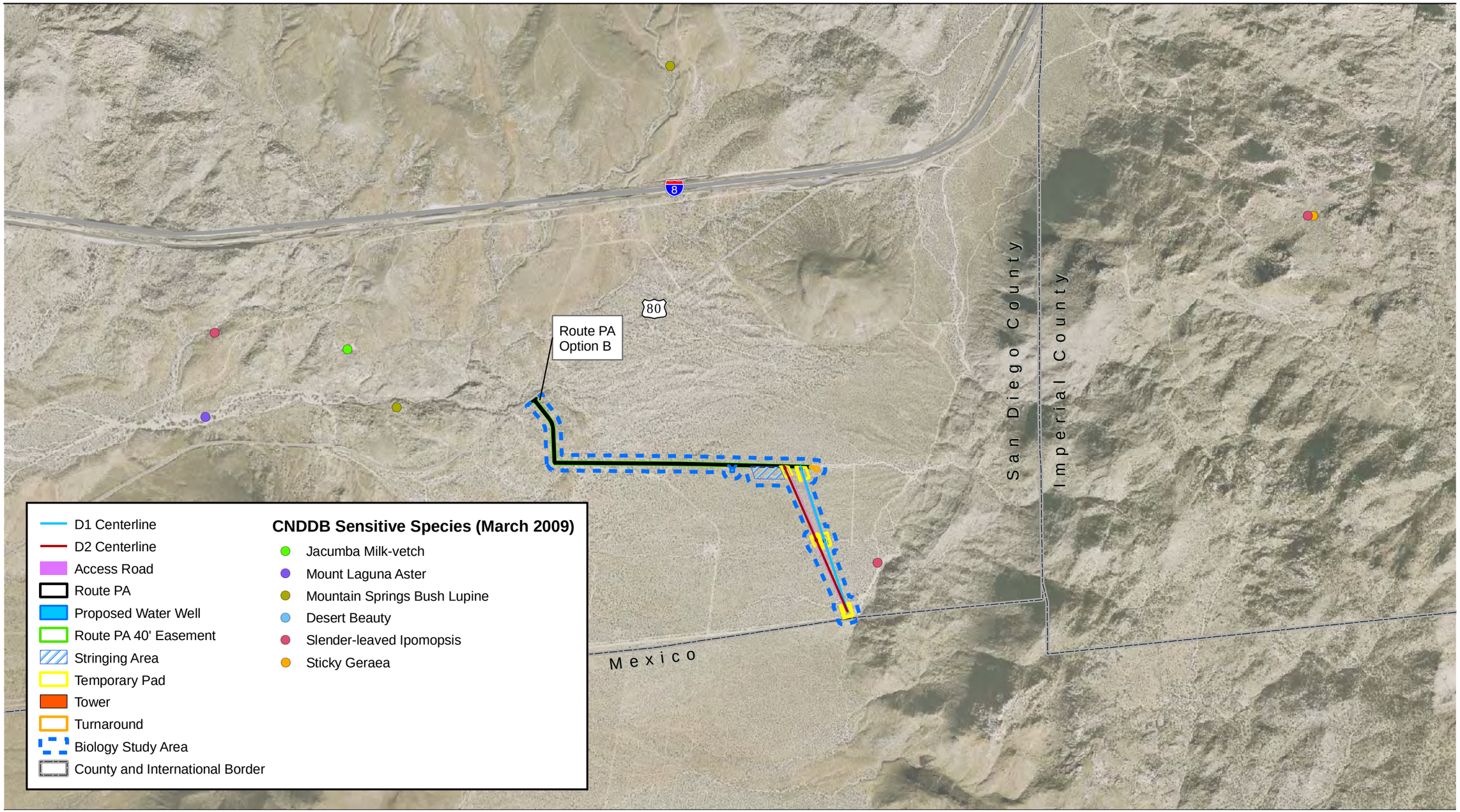

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Scale: 1 = 18,000; 1 inch = 1,500 feet

Figure 7b
Sensitive Plants
ESJ Gen-Tie Alternative Routes D1 and D2

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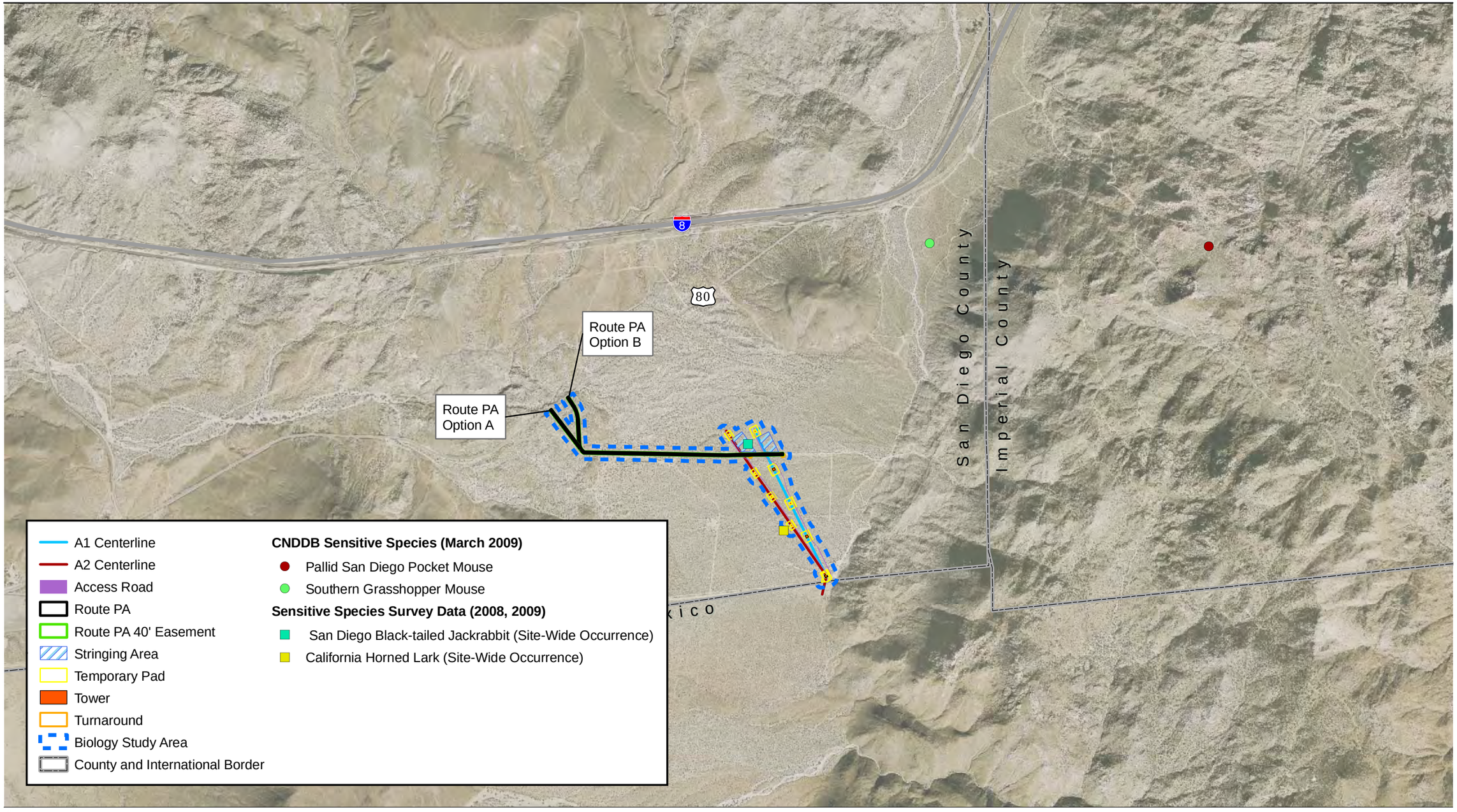

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Scale: 1 = 21,596; 1 inch = 1,800 feet

Figure 8a
Sensitive Animals
ESJ Gen-Tie Routes A1 and A2

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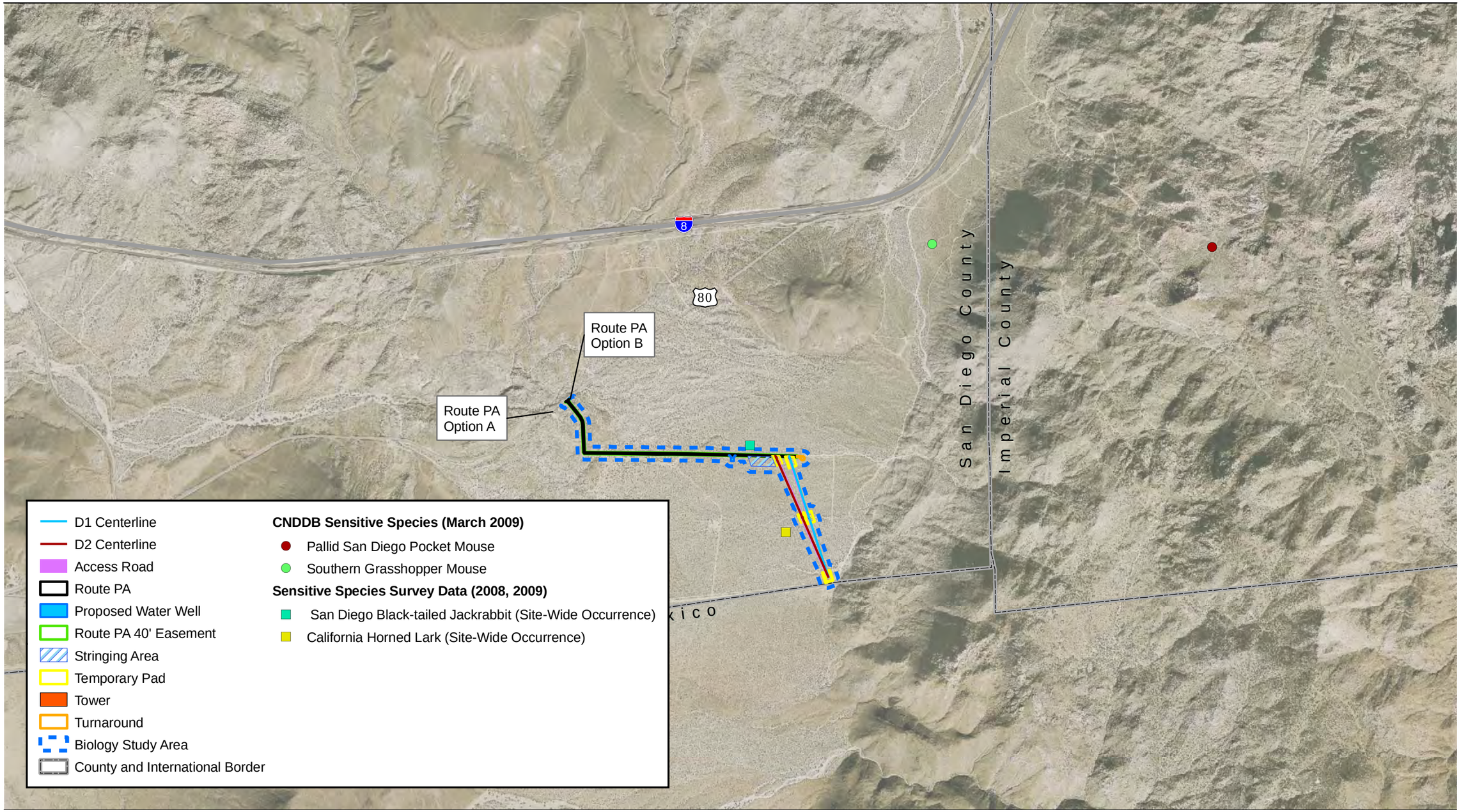

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Scale: 1 = 21,596; 1 inch = 1,800 feet

Figure 8b
Sensitive Animals
ESJ Gen-Tie Alternative Routes D1 and D2

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rarity needed) and List 4 (plants of limited distribution) of the CNPS Inventory. The CNPS is a statewide resource conservation organization that has developed an inventory of California's sensitive plant species. The CNPS Listing is sanctioned by the CDFG and essentially serves as an early warning list of potential candidate species for threatened or endangered status.

A federally endangered species is defined as a species facing extinction throughout all or a significant portion of its geographic range, and a federally threatened species is defined as a species that is likely to become endangered within the foreseeable future throughout all or a significant part of its range. The State of California defines an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy, a threatened species as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management, and a rare species as one present in such small numbers throughout its range that it may become endangered if its present environment worsens.

Species that are federally or state-listed threatened or endangered species and/or are designated as CNPS List 1B or 2 species are afforded a degree of protection that entails a permitting process, including specific mitigation measures to compensate for impacts to the species. Species proposed to be listed by the USFWS are treated similarly to listed species by that agency. Recommendations of the USFWS, however, are advisory rather than mandatory in the case of proposed species. Although plant species classified as List 3 or 4 species by CNPS are not provided legal protection, this designation is used to identify declining plant species that are considered sensitive by the CNPS but are not considered threatened or endangered.

The County has divided sensitive species into groups based on their level of sensitivity. Plant species are divided into the following four groups as shown in the County Rare Plant List: Group A, Group B, Group C, and Group D (County of San Diego 2008). Group A plants are species that are rare, threatened, or endangered in California and elsewhere. Group B plants are species that are rare, threatened, or endangered in California but more common elsewhere. Group C plants are species that may be quite rare, but need more information to determine true rarity status. Group D plants are species that are limited in distribution and uncommon but not presently rare or endangered (County of San Diego 2008). Typically, impacts to 5 percent or more of a population of a species listed in Group A, Group B, Group C, or Group D are considered significant.

Appendix D summarizes all sensitive plant species that have or were analyzed to have the potential to occur within or adjacent to the proposed project site. This table also includes species

that are known historically from the region but are not expected to occur within the proposed project site based on a lack of suitable habitat. According to CNDDB (State of California 2007b) and historical occurrence data, there are no known occurrences of plants listed as federally threatened or endangered within the project area.

Sensitive Plant Species Known to Occur within the Proposed Project Site

Focused surveys for sensitive plants and suitable habitat for sensitive plant species were conducted for the proposed project on January 16 and 17, March 24, and April 21, 2008, by E&E. No sensitive plant species were detected during the rare plant surveys.

Sensitive Plant Species with a Potential to Occur within the Proposed Project Site

Following the surveys by E&E noted above, most of the target species were considered unlikely to be present in the project area due to lack of suitable habitat and/or distance from known species range. As previously stated, Appendix D summarizes all other sensitive plant species that have or were analyzed to have the potential to occur within the proposed project site. Of those species, none have a high potential to occur on-site based on a lack of suitable habitat and/or lack of presence during surveys, ten species have a moderate potential to occur, and eight have a low potential to occur (Appendix D).

Sensitive Wildlife

For purposes of this report, wildlife species will be considered sensitive if they are (1) listed or proposed for listing as threatened or endangered by the USFWS or CDFG; (2) designated as California Fully Protected by the CDFG; and/or (3) included on the County's Group 1 or 2 lists of sensitive animal species. In addition, raptors (birds of prey) and active raptor nests are protected by California Fish and Game Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (CDFG 1991). The federal Migratory Bird Treaty Act (MBTA), which restricts the killing, taking, collecting, selling, or purchasing of native bird species or their parts, nests, or eggs, also provides legal protection for almost all breeding bird species occurring in the United States. Noteworthy wildlife species are those given the informal designation of California species of special concern by the CDFG. This designation applies to animals not listed under the federal ESA or the California Endangered Species Act (CESA), but which nonetheless (1) are declining at a rate that could result in listing, or (2) historically occurred in low numbers and known threats to their persistence currently exist.

A federally endangered species is defined as a species facing extinction throughout all or a significant part of its geographic range, and a federally threatened species is defined as a species that is likely to become endangered within the foreseeable future throughout all or a significant part of its range. The State of California defines an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy, a threatened species as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management, a fully protected species as one that is rare or faces possible extinction, and a California species of special concern as one that is declining in numbers.

Federally or state-listed threatened or endangered species are afforded a degree of protection that entails a permitting process, including specific mitigation measures to compensate for impacts to the species. Species that are proposed to be listed by the USFWS are treated similarly to listed species by that agency. Recommendations of the USFWS, however, are advisory rather than mandatory in the case of proposed species. As regulated by the CDFG, fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Wildlife species classified as California species of special concern by the CDFG are not typically provided legal protection; however, there are exceptions for some species such as burrowing owl.

The County has divided sensitive wildlife into groups based on their level of sensitivity. Wildlife species are divided into two groups—Group 1 and Group 2—as shown in the County Sensitive Animal List (County of San Diego 2008). Group 1 animals are species with a high level of sensitivity, either because they are threatened or endangered or because they have very specific natural history requirements that must be met. Group 2 animals are species that are becoming less common but are not yet so rare that extirpation or extinction is imminent without immediate action. Typically, impacts to 5 percent or more of a population of a species listed in Groups 1 or 2 are considered significant.

Sensitive Wildlife Species Known to Occur within the Proposed Project Site

Appendix E summarizes all sensitive wildlife species that were detected within or immediately adjacent to the proposed project site during the biological reconnaissance surveys and focused surveys for QCB that were conducted in 2008 and 2009 for this proposed project. The 2 sensitive

wildlife species found or detected within and adjacent to the proposed project site are described below (Figures 8a and 8b).

California Horned Lark (*Eremophila alpestris actia*)

The California horned lark is on the CDFG List of Species to Watch (State of California 2006), and is also included on the County's list of sensitive animals, Group 2. Its range is limited to the coastal slopes of California, from Sonoma County to San Diego County, and includes most of the San Joaquin Valley. In San Diego County, the California horned lark typically inhabits areas with sparse vegetation, including sandy shores, grasslands, mesas, and agricultural lands. Breeding occurs between the months of March through July with peak activity occurring in May. California horned larks forage by walking and running on the ground and consume a diet of spiders; insects; insect larvae; snails; buds; berries; waste grains; and seeds from grasses, weeds, and forbs. Horned larks usually forage in flocks except during nesting. Decline of this species is generally attributed to loss of habitat, urbanization, and human disturbance.

California horned lark was observed foraging in the open areas between shrubs onsite, during the 2008 and 2009 surveys.

San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*)

The San Diego black-tailed jackrabbit is a CDFG species of special concern (State of California 2006). This species is also included on the County's list of sensitive animals, Group 2. It ranges from near Mt. Pinos (at the Kern-Ventura County line) southward and west of the Peninsular Range into Baja California, Mexico (Hall 1981). This species can be found throughout southern California, with the exception of high-altitude mountains. It occupies open or semiopen scrub habitats. The San Diego black-tailed jackrabbit breeds throughout the year, with the greatest number of births occurring from April through May. The black-tailed jackrabbit is strictly herbivorous, preferring habitat with ample forage such as grasses and forbs. Declines in San Diego black-tailed jackrabbit populations are due to a decline in suitable habitat as a result of urban development.

A San Diego black-tailed jackrabbit was observed onsite and the surrounding vicinity in 2008.

Sensitive Wildlife Species with a Potential to Occur within the Proposed Project Site

Appendix E summarizes all sensitive wildlife species that have the potential to occur within the proposed project site based on observations during the biological reconnaissance survey,

historical occurrence data, and the presence of suitable habitat in the vicinity of the proposed project site. This table also includes species that are known historically from the region but are not expected to occur within the proposed project site based on a lack of suitable habitat. Of those species potentially present, the 14 species that have a potential to occur, although only two of these species, loggerhead shrike (*Lanius ludovicianus*) and red diamond rattlesnake (*Crotalus ruber ruber*), have a high potential for occurring onsite. The loggerhead shrike, red diamond rattlesnake, and those animals which are federally and/or state-listed and/or California protected species are discussed in more detail below.

Quino Checkerspot Butterfly *(Euphydryas editha quino)*

The Quino checkerspot butterfly, a subspecies of Edith's checkerspot butterfly (*Euphydryas editha*), is a federally listed endangered species. Critical habitat has been designated, and a recovery plan has been issued for this species. This species is included on the County's list of sensitive animals, Group 1. The current distribution of the species is limited to western Riverside County, southern San Diego County, and northern Baja California, Mexico. Distribution of this subspecies is driven by metapopulation dynamics involving local extinctions and population explosions, which lead to recolonization of habitat. The Quino checkerspot butterfly is generally found in native and nonnative grasslands, coastal sage scrub, open chaparral, and other open plant community types where high densities of host plant species occur (USFWS 1997). The primary larval host plant species for the Quino is dwarf plantain *(Plantago erecta)* (Mattoni et al. 1997). Field observations and laboratory studies indicate several other host plants may be used for egg deposit and larval feeding including owl's clover (*Castilleja exserta*), southern Chinese houses (*Collinsia concolor*), and bird's beak (*Cordylanthus rigidus*).

Adults have one flight period per year, which generally occurs between late January and mid-May, with peak activity between March and April. Adult males patrol suitable habitat for females, perching intermittently on the ground or vegetation. They also engage in hill-topping activity, during which hilltops or ridges are guarded against other males. Females lay egg masses on host plants, typically between mid-February and April. Eggs hatch in about 10 days, and the larvae begin to feed immediately. Substantial population decline has been observed after extended periods of drought. There is evidence to indicate that the species can undergo multiple-year diapause during drought, lasting up to 5 or 6 years.

The project area lies within the QCB survey area as designated by the USFWS. The project area does not contain habitat excluded from survey (agricultural lands, dense chaparral) and,

therefore, must be surveyed by a permitted biologist according to USFWS protocol. The project area is less than 4 miles east of designated QCB critical habitat (USFWS 2002).

Rocks Biological Consulting conducted the required surveys for QCB in 2008, and again in 2009, both of which did not result in the detection or observation of the species. Rocks Biological Consulting conducted QCB surveys of the project site during the 2010 survey season and did not detect any QCB.

Peninsular Bighorn Sheep *(Ovis canadensis cremnobates)*

The Peninsular bighorn sheep was listed by the USFWS on 18 March 1998 (Federal Register 63 FR 13134). This listing status applies to the United States population of *O. c. cremnobates*. The state listed the Peninsular bighorn sheep as threatened on June 27, 1971. This species is included on the County's list of sensitive animals, Group 1. The Peninsular bighorn sheep occurs in the San Jacinto Mountains of southern California into the Volcan Tres Virgenes Mountains of Baja California, Mexico. Habitat for this subspecies includes dry mountain slopes, washes, and canyons of the desert region, sparsely vegetated, with rocky terrain. Peninsular bighorn sheep utilize alluvial fan habitat for breeding and forage. During the summer and fall (May through October), the subspecies is dependent on permanent water sources, and tend to congregate during this time of year. It is during this period that breeding occurs. There are several factors contributing to the decline of the Peninsular bighorn sheep, including disease, low recruitment, habitat loss, and predation by the mountain lion.

No Peninsular bighorn sheep, tracks, or droppings were seen during site visits. Several forage plant species were identified in the area, including acacia, ephedra, California buckwheat, jojoba, California juniper, agave, and yucca. The project area is outside of the USFWS-designated critical habitat for the Peninsular bighorn sheep, which is located immediately to the east of the site (USFWS 2001). Permanent Peninsular bighorn sheep occupation within the region includes a subpopulation of the subspecies in Carrizo Canyon (USFWS 2000), west of the project site. Transient use of the In-Ko-Pah Gorge/Interstate 8 "island" has also been documented to the west of the site, although this does not represent a permanently occupied area (BLM 2008).

During discussions with the USFWS, the USFWS indicated that, based on tracked sheep locations, there is a very low probability of finding bighorns in the area (USFWS 2008). Bighorn surveys were therefore not recommended for the project area.

Barefoot Gecko *(Coleonyx switaki)*

The project area lies within the range of the barefoot gecko as described by Zeiner et al. (1988, 1990). This species occupies a very limited range in eastern San Diego County overlapping into western Imperial County. Its habitat includes arroyos and rocky hillsides, especially near large boulders or rocky outcrops. The project area does not contain the preferred rocky habitat; however, the ridge immediately adjacent and to the east of the project area contains boulders and rocky outcrops where this species could occur. This species is state-listed as a threatened species, and is included on the County's list of sensitive animals, Group 2.

Red Diamond Rattlesnake *(Crotalus ruber ruber)*

The red diamond rattlesnake is a CDFG species of special concern (State of California 2006), and is also included on the County's list of sensitive animals, Group 2. This subspecies is restricted to southern California and Baja California from Morongo Pass to the tip of the Baja Peninsula, with the majority of its California range occurring in San Diego County. It occurs there from sea level to 3000 feet (Stebbins 1985). It is often found in chaparral, coastal sage scrub, along creek banks, and in granite rock outcrops or piles of debris. When inactive the northern red diamond rattlesnake occurs in rock crevices, animal burrows, brush piles, or similar micro-habitats. The project area does not contain the preferred sage brush, chaparral, or rocky habitat; however, the ridge immediately adjacent and to the east of the project area contains boulders and rocky outcrops where this species could occur.

Burrowing Owl (*Athene cunicularia*)

The western burrowing owl is a CDFG species of special concern (State of California 2006). This species is also included on the County's list of sensitive animals, Group 1, and is a BLM sensitive species. It is primarily restricted to the western United States and Mexico. Habitat for the western burrowing owl includes dry, open, short-grass areas often associated with burrowing mammals (Haug et al. 1993). A year-round resident in San Diego County, the burrowing owl ranges throughout the coastal lowlands in grasslands, agricultural areas, and coastal dunes (Unitt 1984). In Imperial County, it can be found in desert scrub, grassland, and agricultural areas, where it digs its own burrows or occupies existing burrows. The burrowing owl is diurnal and perches during daylight at the entrance to its burrow or on low posts. Nesting occurs from March through August. Burrowing owls form a pair-bond for more than 1 year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al. 1993). The female remains inside the burrow during most of the egg laying and incubation period and is fed by the male throughout brooding. Western burrowing owls are opportunistic feeders, consuming a diet that

includes arthropods, small mammals, and birds, and occasionally amphibians and reptiles (Haug et al. 1993). Urbanization has greatly reduced the amount of suitable habitat for this species. Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs and collisions with automobiles.

During site surveys, burrows of approximately 1-foot diameter were encountered on about four occasions. The burrows were likely constructed by a medium to large sized mammal such as a coyote and were larger in size than is often preferred by burrowing owls. Burrowing owls often inhabit abandoned burrows that were constructed by other species. Presence of burrows at a site is a defining habitat requirement for burrowing owls; therefore, the potential presence of burrowing owls was further examined at the site and eventually ruled out. The Jacumba area is on the periphery of the burrowing owl's current range and represents part of its historical breeding range. However, there hasn't been a record of this species breeding in the Jacumba area since 1894. No evidence of burrowing owl presence was observed at the burrows or in the entire project area during any of the three site surveys conducted by E & E in 2008, the 2009 site visit conducted by EDAW, or the fourteen site visits conducted by the QCB biologists. One site survey occurred during the winter resident season, four of the QCB site visits occurred prior to the breeding season, and all other site surveys occurred during burrowing owl breeding season with several site visits during the peak breeding season between April 15 and July 15. Based on the lack of any indication of burrowing owl habitation of the burrows at the site, it was determined that burrowing owls are not present in the project area, and no further surveys were deemed necessary by the CDFG (CDFG 2008).

Loggerhead Shrike (*Lanius ludovicianus*)

The loggerhead shrike is a CDFG species of special concern (State of California 2006). This species is also included on the County's list of sensitive animals, Group 1. It is a common resident and winter visitor in lowlands and foothills throughout California. Within San Diego County, this is a fairly common breeding species. The loggerhead shrike occupies a variety of habitats, occurring wherever bushes or trees are scattered on open ground, and is found in all but the mountain areas of San Diego County. Although not observed or detected during any of the project surveys, the presence of suitable habitat and the relatively common occurrence of the species throughout the County, the loggerhead shrike has a high probability of occurring onsite.

Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors or linkages are considered sensitive by local, state, and federal resource and conservation agencies because these corridors allow wildlife to move between adjoining open space areas that are becoming increasingly isolated as open space becomes increasingly fragmented from urbanization, rugged terrain, or changes in vegetation (Beier and Loe 1992). Numerous studies have concluded that many wildlife species would not likely persist over time because isolation through fragmentation would prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallagher 1989; Bennett 1990). However, corridors mitigate the effects of this fragmentation by (1) allowing wildlife to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983; Farhig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities typically fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as “travel route,” “wildlife corridor,” and “wildlife crossing,” to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this analysis, these terms are defined below.

Travel route – A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, or den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas. In terms of avian movement corridors, a travel route is synonymous with a major flight corridor along migration routes, typically between important resources such as large bodies of water.

Wildlife corridor – A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife crossing – A small, narrow area, relatively short in length and generally constricted in nature that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are man-made and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These wildlife crossings are often areas with reduced width along a movement corridor.

Large open space areas that have few or no man-made or naturally occurring physical constraints to wildlife movement may not have wildlife corridors and may be large enough to maintain viable populations of species; provide adequate food, water, and cover; and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others) without the movement of wildlife into other large open space areas. However, once an open space area becomes constrained and/or fragmented as a result of urban encroachment, the remaining linkage area that connects the larger open space areas can act as a corridor as long as it provides adequate space, cover, food, and water and does not contain obstacles or distractions (e.g., man-made noise, lighting) that would generally hinder wildlife movement.

Avian migration typically follows riparian corridors in the western U.S. during the spring. The major spring avian migration corridor identified for the western U.S. is along a relatively narrow area west of the Continental Divide and east of the Gulf of California (Skagen et al. 2004). Avian movement would still be expected to occur outside of this concentrated migration corridor, but to a lesser degree, and would likely be associated with well-established riparian corridors. In terms of the project, no known avian migration corridors or riparian corridors are associated with the ESJ Gen-Tie site or the surrounding vicinity.

The proposed project site occurs immediately north of the U.S.-Mexico international border fence, and is bounded to the west and east by open space, and to the north by Old Highway 80 and Interstate 8. Further north are several dedicated and protected open space areas, including the BLM's Jacumba National Cooperative Land and Wildlife Management Area, Anza Borrego State Park, In-Ko-Pah County Park, and Mountain Springs County Park; and to the east is the

BLM's Jacumba Wilderness Area, in Imperial County (Figures 4a and 4b). The U.S. Border Patrol uses two primary access roads across the site in order to patrol the international border in the vicinity of the site. Therefore, deterrents to wildlife movement currently exist at the international border fence to the south, and to a lesser extent along the major paved roads (Old Highway 80 and Interstate 8) to the north. These existing features fragment this portion of the landscape and limit and/or deter wildlife movement through the proposed project site in a direct north-south orientation. Because the site is adjacent to undeveloped, natural areas to the east and west, and there are relatively large areas of protected open space that are used for local and regional wildlife movement to the north of the site, wildlife are expected to use the proposed project site for forage and cover, as well as a connection to adjacent local and regional movement corridors. However, in the more immediate vicinity of the project site, wildlife are expected to use the BLM area east of the project site as a wildlife corridor since this area is not affected by to the deterrents to wildlife movement described above.

Wetlands/Jurisdictional Waters

Jurisdictional waters (including wetland and other aquatic environments/habitats) occurring within California are regulated under the federal and state laws.

Under Section 404 of the Clean Water Act (CWA), the USACE regulates the discharge of dredged or fill material into jurisdictional "waters of the U.S." Under Section 401 of the CWA the RWQCB requires a water quality certification from the state for all permits issued by the USACE under Section 404 of the CWA.

Under Section 1600 et seq., of the California Fish and Game Code (CFGC) the CDFG regulates activities that would substantially alter the channel, bed, or bank, of a lake, river, or stream.

Under Section 13000 et seq., of the Porter-Cologne Water Quality Control Act (Porter-Cologne) the RWQCB is the agency that regulates discharges of waste and fill material within any region that could affect a water of the state (Water Code 13260[a]), (including wetlands and isolated waters) as defined by the California Water Code (CWC) Section 13050(e).

Evaluation of Waters within the Proposed Project Area

Erosive features and a swale were observed in the survey area during the site visit, as shown on Figures 6a and 6b.

Erosive feature (1) was observed approximately 225 feet north of the border fence, just to the east of where proposed 500kV and 230 kV lines begin to split. Evidence of water runoff during rain events along a roadway utilized by the Border Patrol was noted that created eroded surface features generally 3-6 inches deep a few feet wide (see photographs 1 and 2 in Appendix A). These features converge to create a wider erosive feature, which becomes indiscernible and diffuse into sheet flow at the point where the two proposed gen-tie line alternatives split from each other. The total length of this eroded surface feature is approximately 335 feet. Tire tracks are evident within the drainage feature, and travel through the area may increase erosion from water runoff. Travel further to the west along this route accounts for the lack of vegetation visible on the aerial.

A second feature (2) was observed approximately 1,260 feet north of the border fence, and originates outside of the project area and 100 foot buffer, to the east. It is a similar erosive feature (see photograph 3 in Appendix A) that is approximately 100 feet long, and again appears to be associated with runoff from a roadway utilized by the Border Patrol. At a point just outside the buffer and project area, it also becomes indiscernible and diffuses into sheet flow. As with the feature discussed above, tire tracks are evident through portions of this area as well; travel through the feature to the west accounts for the lack of vegetation visible on the aerial. The USGS In-Ko-Pah Gorge topographic map (Figures 2a and 2b) depicts a dashed blue-line through this area. The current field assessment, however, indicates that the blue-line may be a map artifact, as any type of drainage is no longer present through the survey area.

The third feature (3) is a swale that lies approximately 150 feet southeast of the property access road into the site, and originates to the east of the project area and buffer. This approximately 3-foot-wide swale runs roughly perpendicular to the access road for approximately 400 feet. This slightly concave portion of the landscape would concentrate and convey surface storm water runoff in the area; however, no evidence of a bed or bank or an ordinary high water mark (OHWM) was noted (see photograph 4 in Appendix A). The swale also becomes indiscernible and diffuses into sheet flow approximately 100 feet into the survey area.

The fourth (4) and fifth (5) features were observed along existing access roads in the northwest portion of the survey area. Both of these features are associated with runoff from roadways, which has created erosive features that convey storm water into the surrounding landscape. These features disappear when they are intersected by other roadways. Vehicle travel along them appears common and provides shortcuts between roads; such activity may increase their erosive nature.

Jurisdictional Evaluation

Prior to conducting the field survey, an aerial map (DigitalGlobe 2008) of the survey area and vicinity was examined to determine the potential for jurisdictional waters to occur. Based on the aerial assessment no wetlands were likely to occur within the survey area; however, indications of potential drainage features warranted a field assessment.

The site assessment verified the absence of hydrophytic vegetation and any field indicators of wetland hydrology; therefore, a formal wetland delineation was not warranted. In addition, no evidence of jurisdictional waters was observed [i.e., "other waters" as indicated by an ordinary high water mark (OHWM)] or channel bed or bank. Therefore, based on regulatory guidance the erosive features and the swale are not considered waters of the U.S. or state under Section 404 of Clean Water Act (CWA) or Section 1600 *et seq.* of the California Fish and Game Code, respectively.

In addition, these features (i.e., isolated erosive or concave areas that convey runoff for short distances and of short duration and do not support onsite or offsite "beneficial uses," e.g., enhancement of fish, wildlife, and other aquatic resources) are not considered "waters" under California Water Code Section 13050(e) that would be regulated under Porter-Cologne.

1.5 APPLICABLE REGULATIONS

Several federal, state, and local regulations have been established to protect and conserve biological resources. The descriptions below provide a brief overview of the regulations applicable to the resources that occur within or adjacent to the proposed project site, and their respective requirements. Permits or other authorizations that could be required under these regulations if impacts would occur are noted where applicable. The final determination of whether permits are required is made by the regulating agencies.

1.5.1 Federal Regulations and Standards

Federal Endangered Species Act[1]

Enacted in 1973, the federal ESA provides for the conservation of threatened and endangered species and their ecosystems. The Act prohibits the "take" of threatened and endangered species except under certain circumstances and only with authorization from the USFWS through a

permit under Section 4(d), 7 or 10(a) of the Act. Under the ESA, "take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Formal consultation under Section 7 of the ESA would be required if the proposed project had the potential to affect the federally listed species that have been detected within or adjacent to the proposed project site.

Migratory Bird Treaty Act[2]

Congress passed the MBTA in 1918 to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the United States and Great Britain, the United States and Mexico, the United States and Japan, and the United States and Russia.

No permit is issued under the MBTA; however, the proposed project would need to comply with the measures that would avoid or minimize effects on migratory birds.

1.5.2 State Regulations and Standards

California Environmental Quality Act[3]

CEQA requires that biological resources be considered when assessing the environmental impacts resulting from proposed actions. CEQA does not specifically define what constitutes an "adverse effect" on a biological resource. Instead, lead agencies are charged with determining what specifically should be considered an impact.

An environmental document will be prepared for the proposed project in accordance with CEQA. The effects of the project on biological resources will be evaluated therein, in accordance with County guidelines.

[1] U.S.C. Title 16, Chapter 35, Sections 1531-1544.
[2] U.S.C. Title 16, Chapter 7, Subchapter II, Sections 703-712.
[3] PRC, § 21000 et seq. and the State CEQA Guidelines, CCR, §15000 et seq.

California Fish and Game Code

The CFGC regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes CESA (Sections 2050-2115) and a Streambed Alternation Agreement regulations (Sections 1600-1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife.

Natural Community Conservation Planning (NCCP) Act of 1991[4]

The NCCP Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFG is the principal state agency implementing the NCCP Act Program. Conservation plans developed in accordance with the Act (i.e., NCCP plans) provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or areawide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth.

Project-specific permits under the NCCP are not issued; however, proposed County-authorized projects must comply with the state's NCCP Act Program.

1.5.3 Local Regulations and Standards

San Diego County General Plan – Open Space Element (Part I), Conservation Element (Part X), and Community and Subregional Plans

The Open Space Element and the Conservation Element of the General Plan provide guiding principles for the conservation of biological resources. The Open Space Element outlines the goals and policies pertaining to each type of open space, not all of which are for the preservation of biological resources. The Conservation Element, specifically Chapters 3 and 4, addresses County policies relating to water, vegetation, and wildlife habitat. Appendix K of the Conservation Element outlines the County's Resource Conservation Areas (RCAs), which are further described and delineated in each of the Community and Subregional Plans. Each RCA has been designated as such for a purpose specific to that area. When a site is located within a mapped RCA, the project must comply with the relevant policies for that RCA (i.e., avoidance of oaks, etc.).

[4] Section 2800 et seq. of the California Fish and Game Code, as amended January 1, 2003 (Chapter 4, sections 1 and 2 of California statutes 2002.

No permit is issued under these elements of the County's General Plan; however, the proposed project would need to comply with the relevant policies of the elements noted above.

County of San Diego Zoning Ordinance

Land may also have a zoning designation or Special Area Regulation with certain restrictions pursuant to the Zoning Ordinance. For instance, lands may have a zoning designation of S81 Ecological Resource Area Regulations. The few uses allowed on lands with this designation are subject to strict provisions and limitations. The Zoning Ordinance also applies to other Special Area Regulations with specific restrictions and provisions, including designator G (Sensitive Resource), R (Coastal Resource Protection Area), and/or V (Vernal Pool Area).

No permit is issued under this ordinance; however, the proposed project would need to comply with land use designations as noted above.

Resource Protection Ordinance[5]

The RPO was adopted in 1989 and amended in 1991 and 2007. The RPO restricts to varying degrees impacts to various natural resources including wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands, and historical sites. Certain permit types are subject to the requirement to prepare Resource Protection Studies under the RPO.

The RPO states that no impacts may occur to lands determined to be wetlands as defined by the ordinance, except those impacts related to aquaculture, scientific research, and/or wetland restoration projects. In addition, the ordinance requires that a wetland buffer be provided to further protect the wetland resources. Access paths, improvements necessary to protect the adjacent wetlands, and those uses allowed within the actual wetland are the only allowed uses within the buffer. No impacts caused by activities other than these specifically mentioned shall be allowed. For more explicit information on these requirements refer to the RPO.

The RPO also limits impacts to sensitive habitat lands. Sensitive habitat lands include unique vegetation communities and/or the habitat that is either necessary to support a viable population of sensitive species, is critical to the proper functioning of a balanced natural ecosystems, or that serves as a functioning wildlife corridor. Impacts shall only be allowed when (1) all feasible

[5] County of San Diego, Resource Protection Ordinance, 2007 (Ord. Nos. 9842, 7968, 7739, 7685 and 7631).

measures have been applied to reduce impacts; and (2) mitigation provides an equal or greater benefit to the affected species.

The ordinance includes the provision that when the extent of environmentally sensitive lands on a particular legal lot is such that no reasonable economic use of such lot would be permitted by these regulations, then an encroachment into such environmentally sensitive lands to the minimum extent necessary to provide for such reasonable use may be allowed.

The proposed project will be evaluated in accordance with the County's RPO.

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CHAPTER 2
PROJECT EFFECTS

2.1 APPROACH TO IMPACT ANALYSIS

The proposed project would result in both direct and indirect impacts to biological resources (Figures 9a, 9b, 10a, and 10b). Direct and indirect impacts are defined below.

Direct: Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct impact. Examples include clearing vegetation, encroaching into wetlands, diverting surface water flows, and the loss of individual species and/or their habitats.

Indirect: As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Examples include elevated noise and dust levels, soil compaction, increased human activity, decreased water quality, and the introduction of invasive wildlife (domestic cats and dogs) and plants.

Direct and indirect impacts can also be described as permanent or temporary. Permanent direct impacts to biological resources would result from a permanent loss of resources where an area is converted to another condition (e.g., developed, ornamental landscaping, agriculture, etc.). Permanent indirect impacts would result from a condition that would persist within a project site, thereby permanently affecting neighboring biological resources, e.g., edge effects or operational noise.

Direct impacts may be considered temporary when an area could be restored to its pre-impact condition thus providing habitat and wildlife functions and values effectively equal to the functions and values that existed before an area was impacted.

Significant biological impacts include, but are not limited to:

- All impacts to federally or state-listed species or sensitive habitats.
- Impacts to high-quality or undisturbed biological communities and vegetation associations that are restricted on a regional basis or serve as wildlife corridors.
- Impacts to habitats that serve as breeding, foraging, nesting, or migrating grounds that are limited in availability or serve as core habitats for regional plant and wildlife populations.

Adverse but not significant impacts would include:

- Impacts that adversely affect biological resources but would not significantly change or stress the resources on a long-term basis.
- Impacts to biological resources that are already disturbed or lack importance in the preservation of local or regional native biological diversity and productivity.

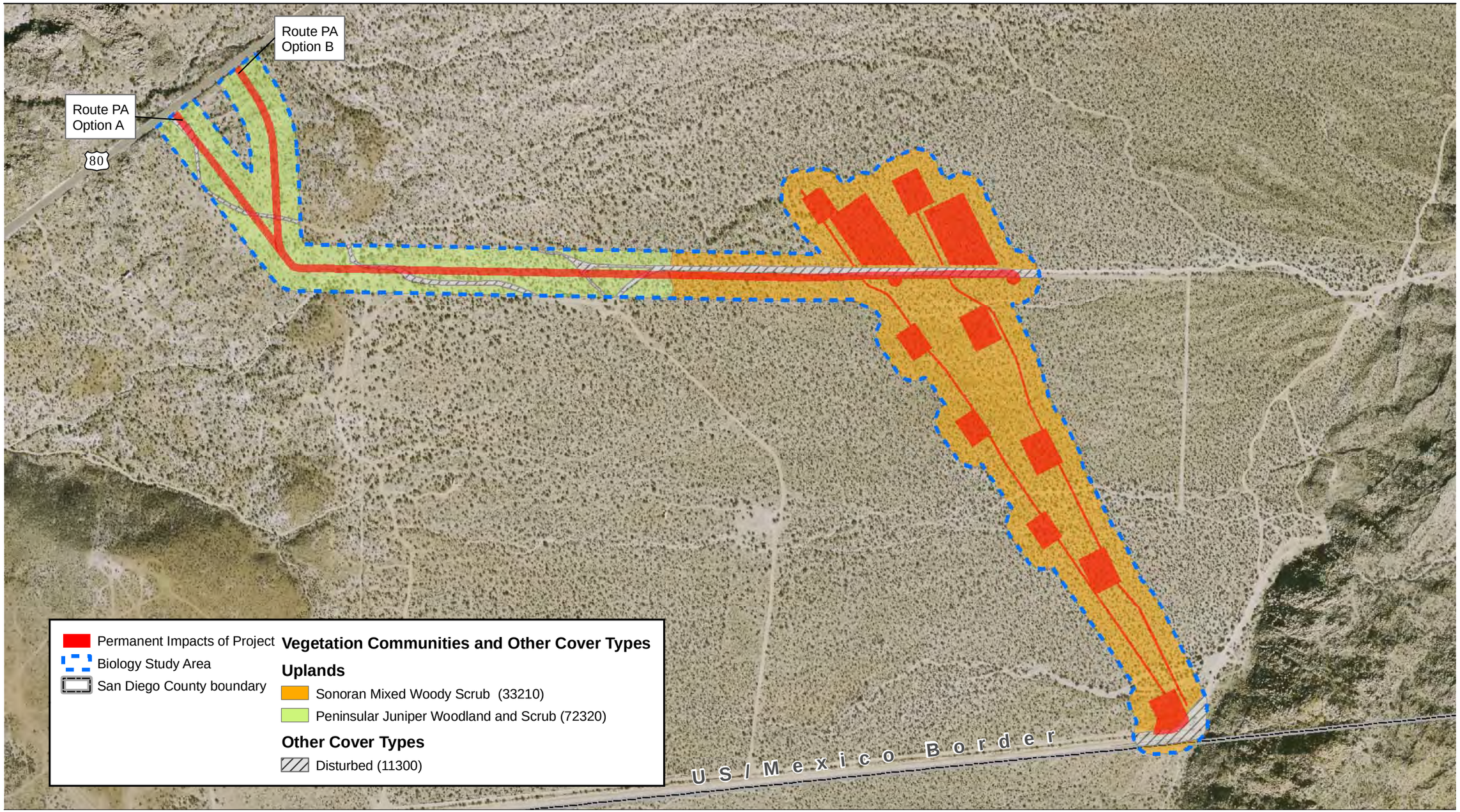
A detailed project description for the proposed project was provided in Section 1.2.2. The various project components (Routes A1 and A2, Routes D1 and D2, and site access route Options A and B) are depicted in Figures 11a and 11b. For the purposes of the following evaluation of the project's effect on biological resources, all Gen-Tie tower locations may be considered direct, permanent impact areas (Figures 9a, 9b, 10a, and 10b). Typically, the areas that will be used for laydown/parking/stringing and the disturbed areas between tower sites, would be considered temporarily impacted areas that could be restored with native vegetation. However, due to the restrictions of the project's Fire Protection Plan, these areas cannot be revegetated, and therefore are considered direct, permanent impact areas (Figures 9a, 9b, 10a, and 10b). Finally, the 100-foot area that was surveyed surrounding the site is considered an area that may experience indirect permanent effects after site development from ongoing facility operations. Where relevant to the surrounding biological resources, potential indirect effects beyond the adjacent 100-foot survey area are also noted.

2.2 OVERVIEW OF POTENTIAL IMPACTS

The removal of native or naturalized habitat through project-related grading and development activities would directly affect habitats and associated plant and animal species that occur therein, including sensitive species, and foraging, breeding, and movement habitat for local wildlife.

2.2.1 Potential Impacts to Vegetation Communities

Tables 4a and 4b provide a summary of the area of potential direct impacts that would occur to vegetation communities and other cover types coincident with each project component (property access road, Gen-Tie access road, tower construction areas, and laydown/parking/stringing areas) within the 65.20-acre survey area for Route A1 or Route A2 (54.65-acre survey area for Route D1 or Route D2). These potential direct impacts and potential indirect impacts that could occur to vegetation communities and other cover types that exist within the project site and associated buffers are summarized below and analyzed further in Chapter 3.



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 9a
Project Impacts to Vegetation Communities and Other Cover Types
ESJ Gen-Tie Routes A1 and A2

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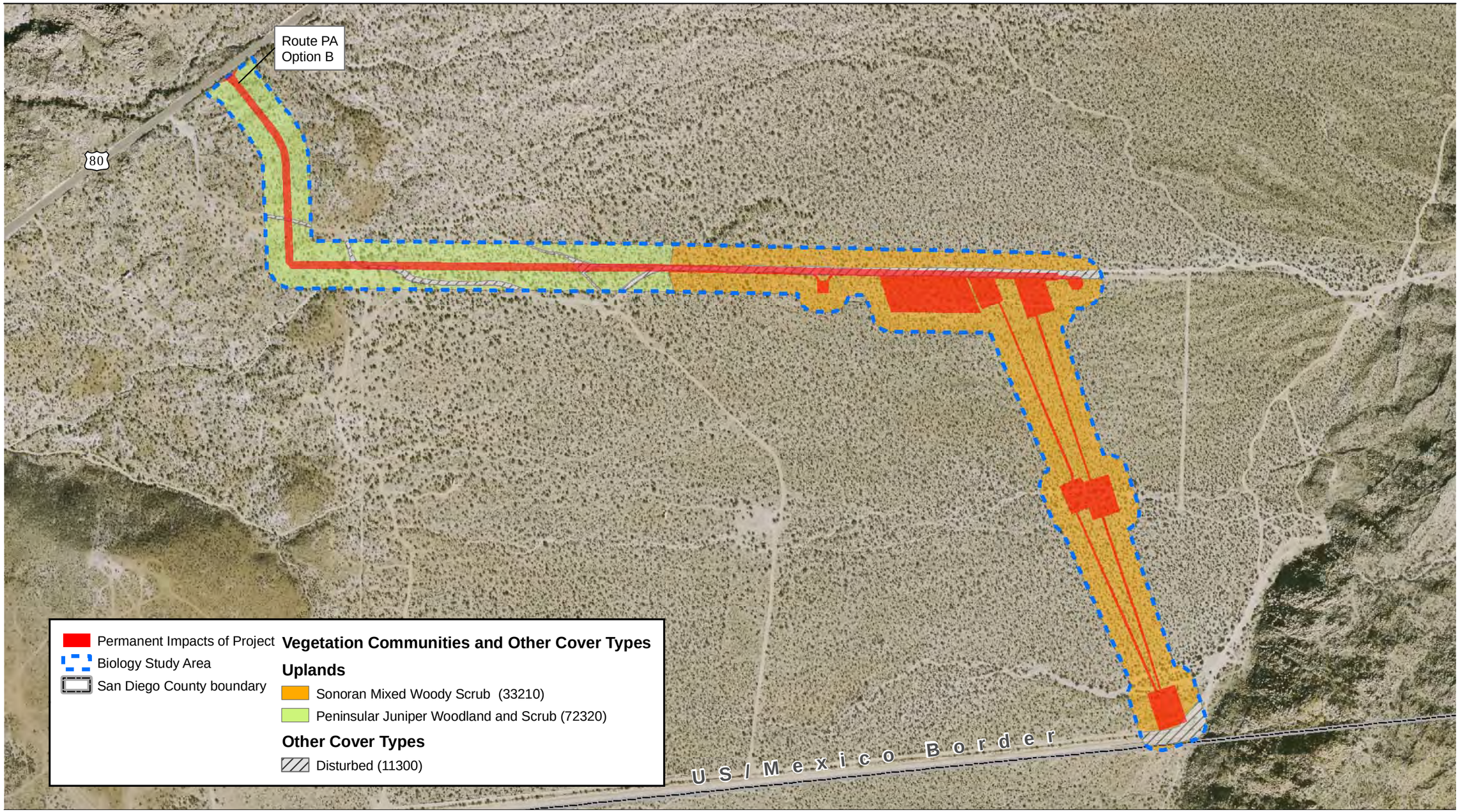

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 9b
Project Impacts to Vegetation Communities and Other Cover Types
ESJ Gen-Tie Alternative Routes D1 and D2

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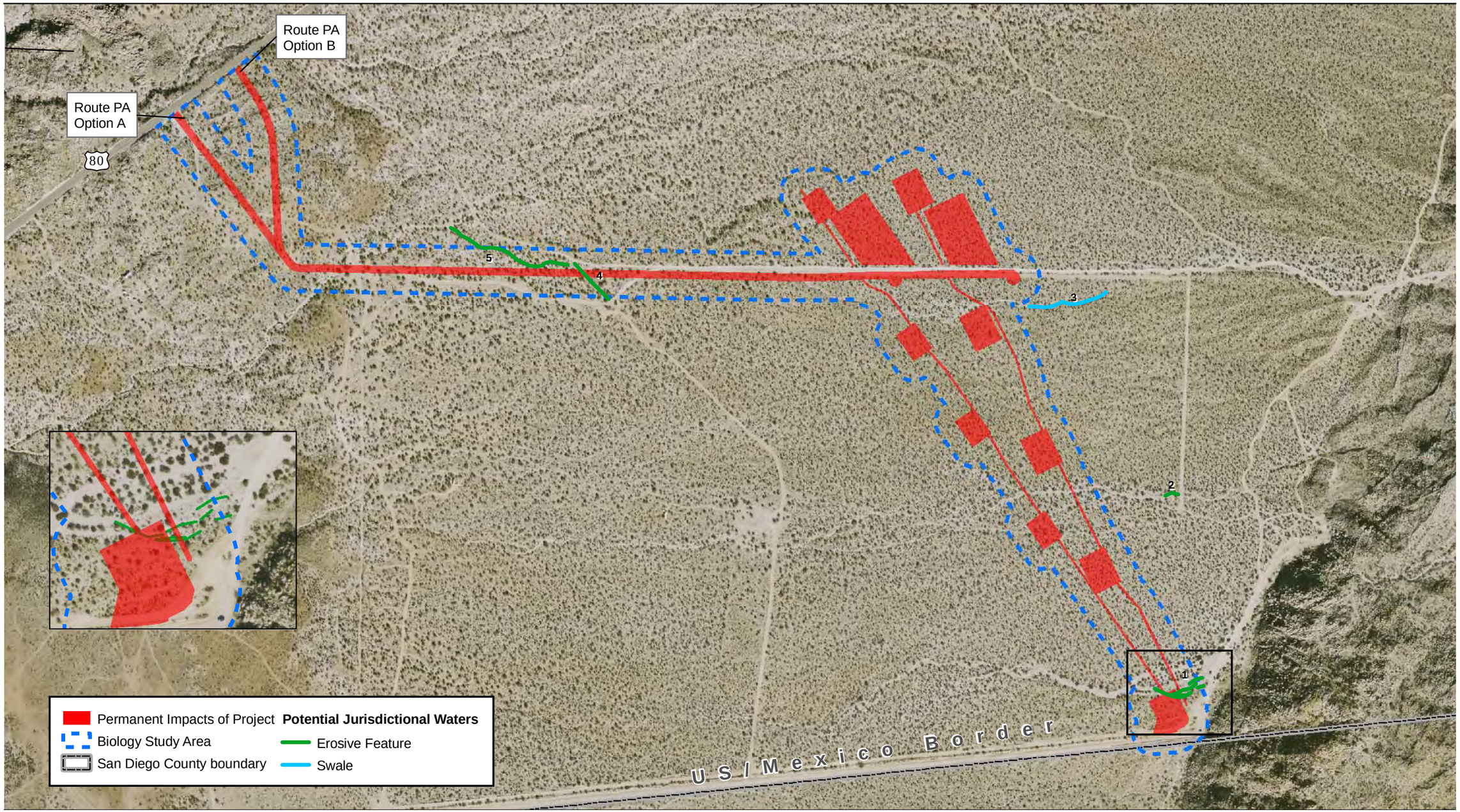

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 10a
Project Impacts to Jurisdictional Areas
ESJ Gen-Tie Routes A1 and A2

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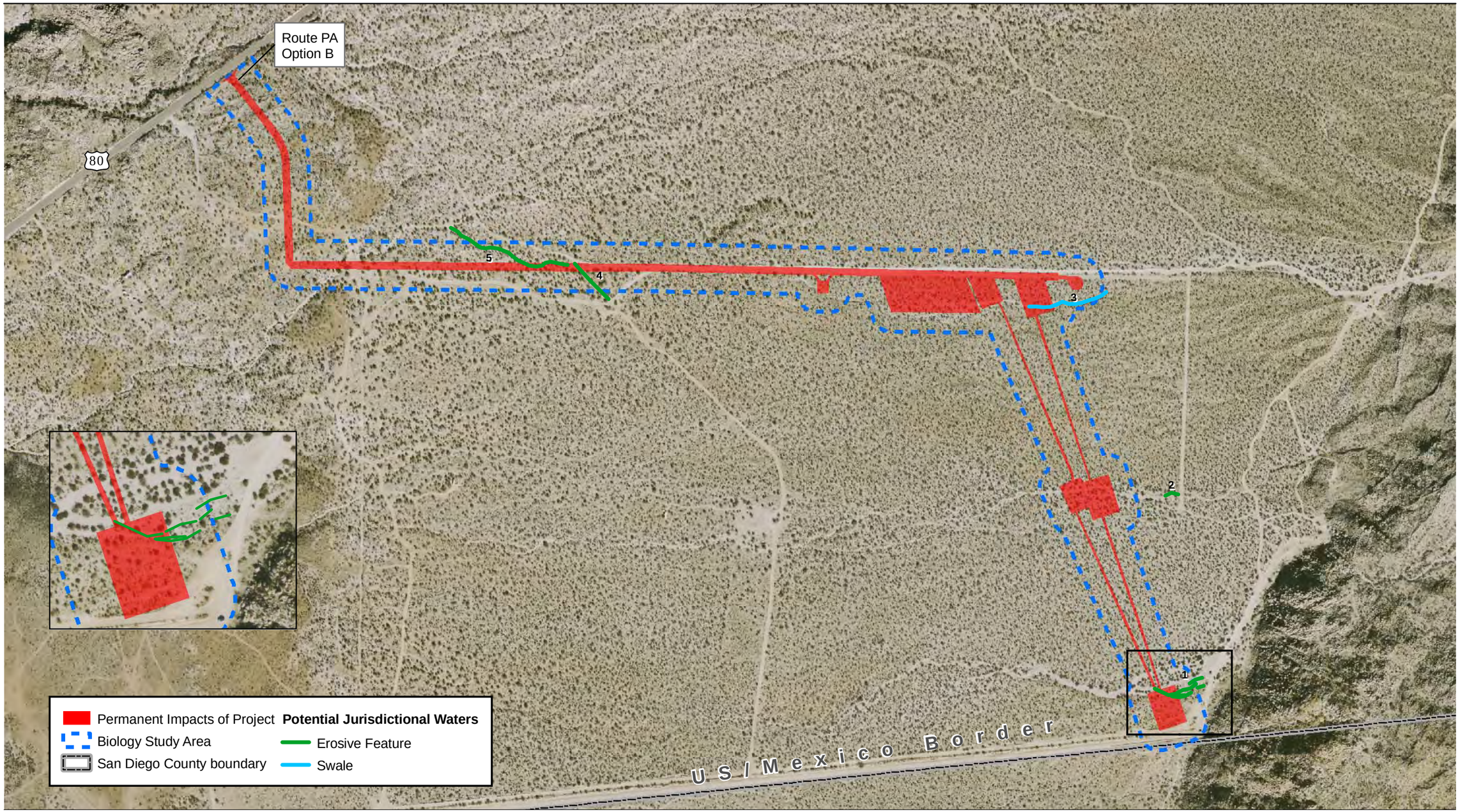

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 10b
Project Impacts to Jurisdictional Areas
ESJ Gen-Tie Alternative Routes D1 and D2

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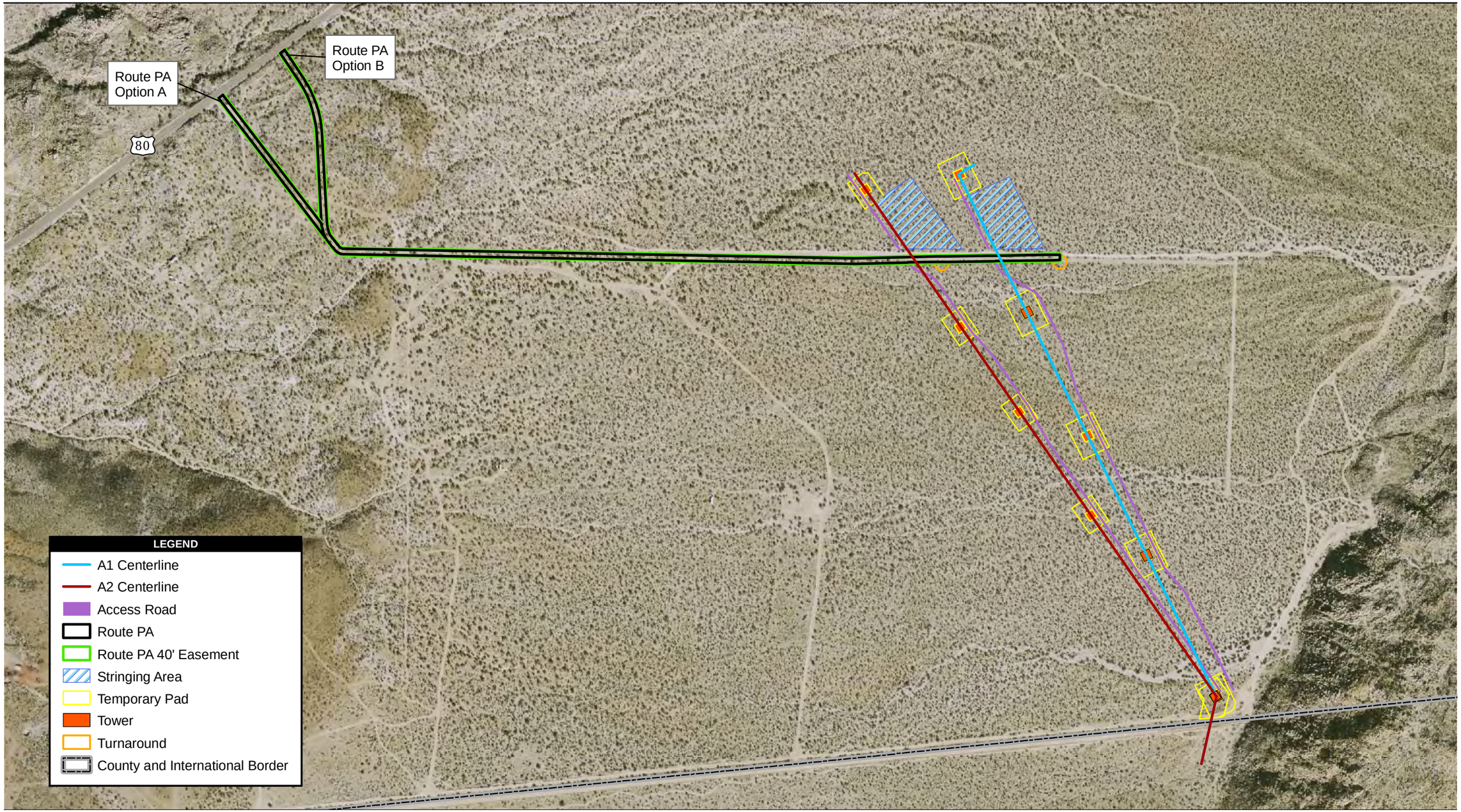

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 11a
Proposed Project Plan
ESJ Gen-Tie Rotues A1 and A2

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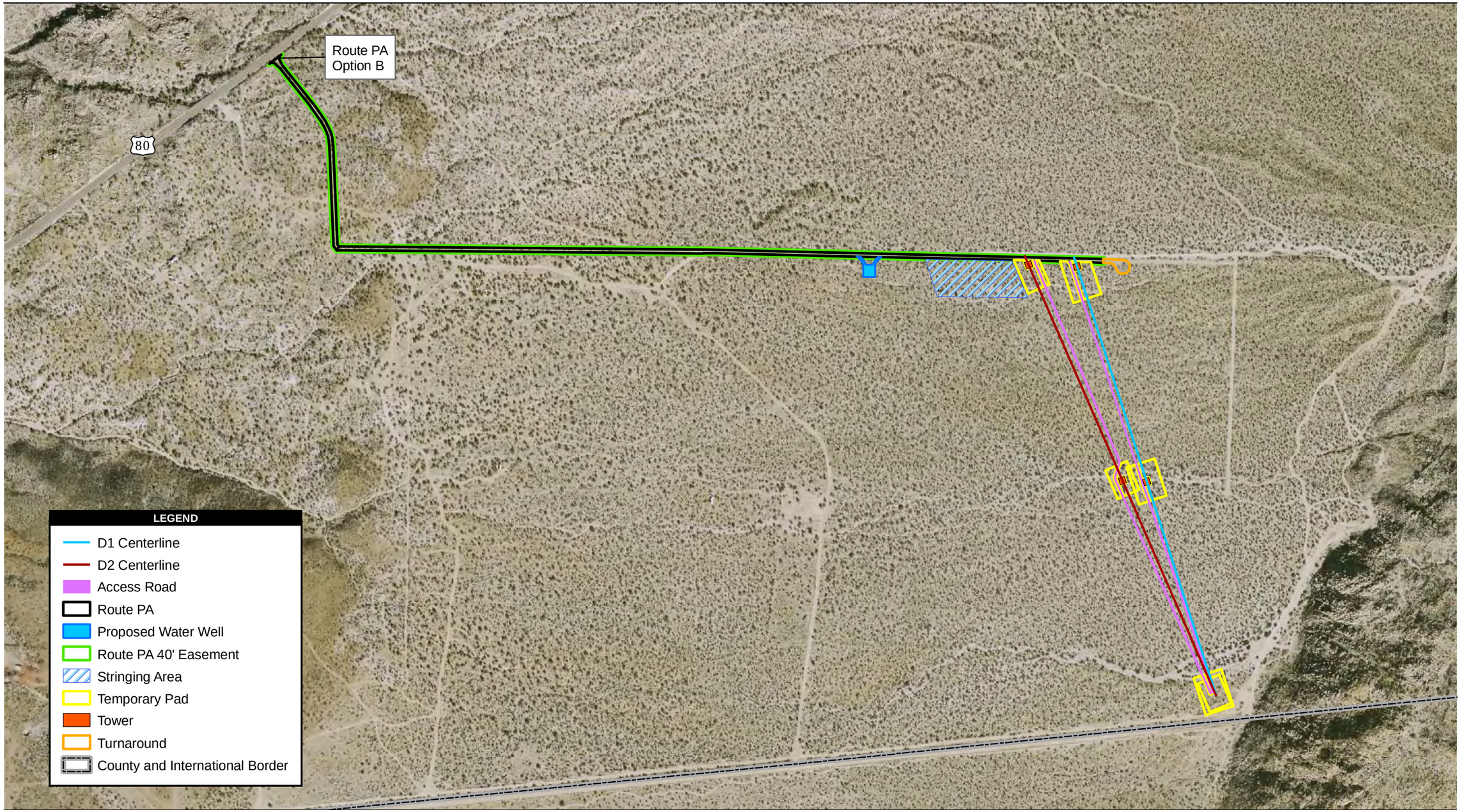

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 11b
Proposed Project Plan
ESJ Gen-Tie Alternative Routes D1 and D2

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Table 4a. Direct Impacts to Vegetation Communities and Cover Types (Route A1 and Route A2)

Vegetation Communities and Cover Types	Focused Survey Area (Acres)	Proposed Project (acres)			
		Alternative Route A1	Alternative Route A2	Property Access (Route PA) Option A	Property Access (Route PA) Option B
		Total Direct Permanent Impacts	Total Direct Permanent Impacts	Total Direct Permanent Impacts	Total Direct Permanent Impacts
Uplands					
Sonoran Mixed Woody Scrub	46.38	**6.07**	**5.06**	**0.55**	**1.14**
Peninsular Juniper Woodland and Scrub	14.85	**--**	**--**	**2.29**	**2.60**
Total Area Uplands =	*61.23*	***6.07***	***5.06***	***2.84***	***3.74***
Other Cover Types					
Disturbed Habitat	3.97	**0.16**	**0.12**	**1.56**	**0.80**
Total Area Other Cover Types =	*3.97*	***0.16***	***0.12***	***1.56***	***0.80***
Total:	**65.20**	**6.23**	**5.18**	**4.40**	**4.54**

Table 4b. Direct Impacts to Vegetation Communities and Cover Types (Route D1 and Route D2)

Vegetation Communities and Cover Types	Focused Survey Area (Acres)	Proposed Project (acres)			
		Alternative Route D1	Alternative Route D2	Property Access (Route PA) Option A	Property Access (Route PA) Option B
		Total Direct Permanent Impacts	Total Direct Permanent Impacts	Total Direct Permanent Impacts	Total Direct Permanent Impacts
Uplands					
Sonoran Mixed Woody Scrub	31.18	**4.72**	**4.06**	**0.21**	**0.21**
Peninsular Juniper Woodland and Scrub	19.30	**--**	**--**	**2.23**	**2.44**
Total Area Uplands =	*50.18*	***4.72***	***4.06***	***2.44***	***2.65***
Other Cover Types					
Disturbed Habitat	4.17	**0.07**	**0.07**	**1.80**	**1.70**
Total Area Other Cover Types =	*4.17*	***0.07***	***0.07***	***1.80***	***1.70***
Total:	**54.65**	**4.79**	**4.13**	**4.24**	**4.35**

Alternative Route A1

Direct permanent impacts from the proposed Route A1 would include development or land modification of existing habitats throughout the proposed project site. The tower bases and associated adjacent fire protection zones cleared of vegetation (including the ground disturbance associated with the laydown/parking/stringing area), and the Gen-Tie access road would permanently impact a total of 6.23 acres, of which the effects to 6.07 acres of impacts to Sonoran mixed woody scrub would warrant mitigation.

Typically, impacts to the proposed laydown/parking/stringing area would be considered temporary, and would be restored through onsite revegetation. However, due to the restrictions outlined in the Fire Protection Plan, all areas of construction-related ground disturbance within, and 30 feet adjacent to, the ROW cannot be revegetated. The only exception is slopes equal to, or greater than, 3 feet can be revegetated for erosion control purposes. However, since no slopes greater than 3feet would be created, no revegetation of bare ground disturbance areas would be conducted. Therefore, all ground disturbance impacts associated with the laydown/parking/ stringing area would be considered permanent.

Construction of the 4.40-acre property access road (Route PA Option A) would require that the associated permanent impacts to 0.55 acre of Sonoran mixed woody scrub, and 2.29 acres of Peninsular Juniper woodland and scrub be mitigated. Likewise, the 4.54-acre Route PA Option B would require that the associated permanent impacts to 1.14 acres of Sonoran mixed woody scrub, and 2.60 acres of Peninsular Juniper woodland and scrub be mitigated.

Alternative Route A2

Direct permanent impacts from the proposed Route A2 would include development or land modification of existing habitats throughout the proposed project site. The tower pads and associated adjacent fire protection zones cleared of vegetation (including the ground disturbance associated with the proposed laydown/parking/stringing area), and the Gen-Tie access road would permanently impact a total of 5.18 acres, of which the effects to 5.06 acres of impacts to Sonoran mixed woody scrub would warrant mitigation.

Construction of the 4.40-acre Route PA Option A would require that the associated permanent impacts to 0.55 acre of Sonoran mixed woody scrub, and 2.29 acres of Peninsular Juniper woodland and scrub be mitigated. Likewise, the 4.54-acre Route PA Option B would require that the associated permanent impacts to 1.14 acres of Sonoran mixed woody scrub, and 2.60 acres of Peninsular Juniper woodland and scrub be mitigated.

Alternative Route D1

Direct permanent impacts from the proposed Route D1 would include development or land modification of existing habitats throughout the proposed project site. The tower bases and associated adjacent fire protection zones cleared of vegetation (including the ground disturbance associated with the laydown/parking/stringing area), and the Gen-Tie access road would permanently impact a total of 4.79 acres, of which the effects to 4.72 acres of impacts to Sonoran mixed woody scrub would warrant mitigation.

Typically, impacts to the proposed laydown/parking/stringing area would be considered temporary, and would be restored through onsite revegetation. However, due to the restrictions outlined in the Fire Protection Plan, all areas of construction-related ground disturbance within, and 30 feet adjacent to, the ROW cannot be revegetated. The only exception is slopes equal to, or greater than, 3 feet can be revegetated for erosion control purposes. However, since no slopes greater than 3feet would be created, no revegetation of bare ground disturbance areas would be conducted. Therefore, all ground disturbance impacts associated with the laydown/parking/ stringing area would be considered permanent.

Construction of the 4.24-acre property access road (Route PA Option A) would require that the associated permanent impacts to 0.21 acre of Sonoran mixed woody scrub, and 2.23 acres of Peninsular Juniper woodland and scrub be mitigated. Likewise, the 4.35-acre Route PA Option B would require that the associated permanent impacts to 0.21 acre of Sonoran mixed woody scrub, and 2.44 acres of Peninsular Juniper woodland and scrub be mitigated.

Alternative Route D2

Direct permanent impacts from the proposed Route D2 would include development or land modification of existing habitats throughout the proposed project site. The tower pads and associated adjacent fire protection zones cleared of vegetation (including the ground disturbance associated with the proposed laydown/parking/stringing area), and the Gen-Tie access road would permanently impact a total of 4.13 acres, of which the effects to 4.06 acres of impacts to Sonoran mixed woody scrub would warrant mitigation.

Construction of the 4.24-acre Route PA Option A would require that the associated permanent impacts to 0.21 acre of Sonoran mixed woody scrub, and 2.23 acres of Peninsular Juniper woodland and scrub be mitigated. Likewise, the 4.35-acre Route PA Option B would require that the associated permanent impacts to 0.21 acre of Sonoran mixed woody scrub, and 2.44 acres of Peninsular Juniper woodland and scrub be mitigated.

2.2.2 Potential Impacts to Jurisdictional Wetlands and Waters

There are no jurisdictional waters or wetlands within the project area. Erosive feature 1, which coincides with the southern portion of the proposed project corridor, is not a jurisdictional feature. As a result, construction of the gen-tie line will not impact any water resources that are under federal or state agency jurisdiction. Erosive features 4 and 5 are not jurisdictional features either, and as a result construction of the access road will not impact any jurisdictional water resources.

Erosive feature 2 and swale feature 3 do not coincide with either of the proposed gen-tie line corridors or access road. Both lie to the east and out of the impact area.

CHAPTER 3
SPECIAL STATUS SPECIES

3.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the USFWS or CDFG?

Guidelines for the determination of significance include:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact the survival of a local population of any County Group A or B plant species, or a County Group 1 animal species, or a species listed as a state Species of Special Concern.

C. The project would impact the regional long-term survival of a County Group C or D plant species, or a County Group 2 animal species.

D. The project may impact arroyo toad aestivation or breeding habitat.

E. The project would impact golden eagle habitat.

F. The project would result in a loss of functional foraging habitat for raptors.

G. The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.

H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly vulnerable resources may also be considered a core wildlife area), that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.

I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.

J. The project would impact nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification, and/or noise-generating activities such as construction.

3.2 ANALYSIS OF PROJECT EFFECTS

3.2.1 Project Effects Relevant to Guideline 3.1.A

Surveys for federally and state listed endangered or threatened plant species were conducted in 2008. No federally or state listed endangered or threatened plant species were observed during those surveys. Furthermore, no federally or state listed endangered or threatened plant species are expected to occur within the project site.

Surveys for the federally listed endangered QCB have been conducted for the project site in 2008 and 2009. No QCB were documented during either of those surveys. Therefore, no impacts to QCB would occur through the construction of the proposed project. Additional QCB surveys were conducted during the 2010 survey season, and no QCB were observed. The results will be incorporated into this document following completion of the QCB survey report.

The state listed threatened barefoot banded gecko is known to occur within rock outcrop habitat within the region. However, since no rock outcrops occur within the project site, no impacts to this species would occur.

The federally listed endangered, and state listed threatened, Peninsular bighorn sheep is known to exist in the region, and critical habitat for the species occurs to the east of the project site. However, the species was not observed or detected on or adjacent to the site during any of the project surveys. Additionally, discussions with the USFWS concluded that focused surveys for the species onsite were not required. Therefore, it is assumed that the species does not occur within the project area, and no impacts would occur.

3.2.2 Project Effects Relevant to Guideline 3.1.B

The project would not impact the survival of a local population of any County Group A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern.

Two Group A plant species have a low potential to occur within the proposed project site, flat-seeded spurge and Munz's cholla. Flat-seeded spurge is known to occur in the Coachella Valley which is 23 miles away, northeast of the project site. This species was not in bloom at the time of surveys. Suitable habitat for Munz's cholla does occur onsite. However, the project site is well out of the species known elevation range. This species was not in bloom at the time of surveys. Neither of these species is federally or state listed; both are CNPS list 1B species.

Five Group B plant species have a moderate potential to occur within the proposed project site: elephant tree, curly herissania, hairy stickleaf, Cove's cassia and desert spikemoss. Suitable habitat for Elephant tree does occur onsite. However, the project site is out of the species known elevation range. This species was not in bloom at the time of surveys. Suitable habitat for curly herissantia does occur onsite. However, the project site is out of the species known elevation range. This species was not in bloom at the time of surveys. Suitable habitat for hairy stickleaf does occur onsite. However, the project site is out of the species known elevation range. This species was not in bloom at the time of surveys. Suitable habitat for desert spikemoss does occur onsite. However, the project site is out of the species known elevation range. This species may have been in bloom at the time of surveys, although, it would be considered uncommon. One Group B plant species has a low potential to occur within the proposed project site, Mexican hulsea. Limited suitable habitat does occur onsite. However, the volcanic substrate preferred by Mexican hulsea is lacking from the site. Therefore, the project would not impact the regional long-term survival of any Group A or B plant species.

Although 16 Group 1 wildlife species have the potential to occur within the region, none are known to occur within or adjacent to (within 100 feet of) the project site. Of the 16 Group 1 species, only the loggerhead shrike has a high potential to occur. However, this species was not detected during any of the project surveys. Therefore, development of this project would not impact the regional long-term survival of any Group 1 animal species.

3.2.3 Project Effects Relevant to Guideline 3.1.C

The project would not impact the regional long-term survival of a County Group C or D plant species, or a County Group 2 animal species.

Three Group D plant species have a moderate potential within the proposed project site, Utah vine milkweed, Colorado Desert larkspur and Thurber's beardtongue. Suitable habitat for Utah vine milkweed occurs onsite. One of the rare plant surveys was conducted in April, during the blooming period of the species. A CNDDB record search did not show known locations of Utah

vine milkweed within the vicinity of the project. Suitable habitat for Colorado Desert larkspur occurs onsite. A rare plant survey of the site was conducted in April, during the peak of the blooming period for this species. A CNDDB record search did not show known locations of Colorado Desert larkspur within the vicinity of the project. Suitable habitat for Thurber's beardtongue occurs onsite. Rare plant surveys for this perennial herb species did not document this species, or any other larkspur species, on or adjacent to the project site. A CNDDB record search did not show known locations of Thurber's beardtongue within the vicinity of the project.

One Group D plant species has a low-moderate potential to occur within the proposed project site, Payson's jewelflower. Limited suitable habitat does occur onsite. This species may not have been in bloom at the time of surveys. Therefore, a presence/absence determination could not be confirmed following special-status plant surveys. A CNDDB record search did not show known locations of Payson's jewelflower within the vicinity of the project.

Two Group D plant species have a low potential to occur within the proposed project site, Palmer's grappling hook and low bush monkeyflower. Marginal habitat for Palmer's grappling hook occurs onsite. This species may not have been in bloom at the time of surveys. Therefore, a presence/absence determination could not be confirmed following special-status plant surveys. A CNDDB record search did not show known locations of Palmer's grappling hook within the vicinity of the project. Marginal habitat for low bush monkeyflower occurs onsite. This species may not have been in bloom at the time of surveys. Therefore, a presence/absence determination could not be confirmed following special-status plant surveys. A CNDDB record search did not show known locations of low bush monkeyflower within the vicinity of the project. Therefore, the development of the project would not impact the regional long-term survival of any Group C or D plant species.

Group 2 wildlife species that have been detected within or adjacent to the project site include the horned lark, and black-tailed jackrabbit. Impacts to individuals of these species would be considered adverse, but not significant. The California horned lark may potentially nest on the project site and impacts to this species during the breeding season would be considered significant. However, implementation of mitigation measure D-2 would reduce this impact to below a level of significance. Although the construction of the gen-tie towers would increase the number of available raptor perches in the vicinity of the project, the incremental increase in predation on the black-tailed jackrabbit population would be relatively slight, and the impact would not be considered significant. Development of the project would not impact the regional long-term survival of any of the above animal species.

Additionally, if those sensitive animal species with a potential to occur onsite, but were not detected during surveys, were present, impacts to these species would be offset through habitat-based mitigation as discussed in Section 4.4. Thus, development of this project would not impact the regional long-term survival of these animal species.

3.2.4 Project Effects Relevant to Guideline 3.1.D

The project site does not currently contain habitat that supports arroyo toad, and no impacts would occur.

3.2.5 Project Effects Relevant to Guideline 3.1.E

The project site does not contain nesting habitat that supports golden eagle, and no impacts would occur.

3.2.6 Project Effects Relevant to Guideline 3.1.F

Only one raptor species, the red-tailed hawk, was observed flying over the site. Various other raptor species have a potential to occur on-site as foragers, such as the northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperi*), and Harris' hawk (*Parabuteo unicinctus*). Although the project would result in the minor loss of natural vegetation that could be used as foraging habitat for raptors. Therefore, impacts would be potentially significant.

3.2.7 Project Effects Relevant to Guideline 3.1.G

Construction activities associated with the proposed project would occur during daylight hours and would not involve nighttime lighting during project construction. Nighttime lighting is not expected to be used in project operation. Potential increases in ambient noise levels may result in temporary impacts to sensitive wildlife, such as nesting avian species, which would be considered potentially significant.

3.2.8 Project Effects Relevant to Guideline 3.1.H

Although the project site is less than 500 acres, there are various sensitive resources known for the site, including one sensitive bird species and one sensitive mammal species, and foraging habitat for raptors. However, it is not anticipated that the site would support viable populations of these species. Additionally, the relatively small impact acreage of the project would consist of

Gen-Tie tower footprints that are spatially distributed over the entire length of the A1, A2, D1, or D2 routes, and would not preclude the continued use of the area by any wildlife species. Thus, impacts would be considered less than significant.

3.2.9 Project Effects Relevant to Guideline 3.1.I

Project construction activities would be kept as clean of debris as possible and would not result in a significant increase of pests or exotic species beyond those already occurring in the area. However, project activities would clear existing vegetation and create areas where nonnative weed species could establish postconstruction. Similarly, project operations would increase human use in the area and could potentially increase pests or exotic species that would significantly impact neighboring sensitive species. Therefore, impacts are potentially significant.

3.2.10 Project Effects Relevant to Guideline 3.1.J

Suitable nesting habitat for the coastal cactus wren, coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, tree-nesting raptors, ground-nesting raptors, golden eagle, and light-footed clapper rail does not occur within the project site. However, site clearing for project construction activities would remove shrubs that could provide suitable nesting habitat for bird species protected by the MBTA, and impacts would be potentially significant.

3.3 CUMULATIVE IMPACT ANALYSIS

Based on discussions with the County, the following list of projects has been identified for consideration as part of the cumulative impact analysis.

- Ketchum Ranch: a proposed development of a master planned community on a 1,250-acre site adjacent to the town of Jacumba. Approximately 294 acres of the property support significant biological or cultural resources, and are proposed as permanent open space.
- Elder TPM 4+: a proposed minor residential subdivision within the Boulevard Community Planning Area.
- Iberdrola – Tule Wind Project: a proposed renewable energy development approximately 10 miles northwest of the ESJ Gen-Tie project.

- San Diego Gas & Electric East County Substation: a proposed substation, located immediately north of the ESJ Gen-Tie project.
- U.S.-Mexico International Border Fence: ongoing federal project to construct a single and double-layer hardened fence along the International Border.

The proposed ESJ Gen-Tie project would not result in any anticipated significant impacts to special status species. Therefore, it is not anticipated that the project would contribute to the cumulative effects of any of the current, proposed, or reasonably foreseeable projects in the region. Although the ESJ Gen-Tie project has the potential for significant impacts associated with the loss of raptor foraging, nesting avian species covered under the MBTA, an increase of invasive/pest species to the region, and an increase in the ambient noise levels, the project would implement design features (measures D-1 through D-4, and M-BI-1) that would avoid, minimize, and mitigate any potential impact.

3.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Project design considerations and mitigation measures will be implemented into the project to avoid, minimize, and mitigate for unavoidable impacts to meet RPO and Draft MSCP/BMO guidelines. These measures correspond to impacts identified in Section 3.2 and are described in the following text.

Design considerations described in Section 1.2.2 will be implemented to avoid or minimize potential impacts to sensitive biological resources and include the following project features:

D-1 The project design will incorporate features to minimize impacts to breeding Group 1 and Group 2 wildlife species known to occur within or adjacent to the site, or having some potential to occur within or adjacent to the site (Appendix E – *Sensitive Wildlife Species Observed or Potentially Occurring within the Proposed Energia Sierra Juarez Gen-Tie Project Site*). Project design features will include:

- Vegetation clearing activities within potential nesting habitat, as determined by a qualified biologist, will occur outside of the bird breeding season (generally February 1 to September 15). If clearing activities must occur in potential nesting habitat during the breeding season, preconstruction nest surveys will be performed, by a qualified biologist, to identify and avoid nesting raptors or nesting Group 1 and 2 wildlife species within the project area.

- Prior to construction or vegetation clearing, suitable nesting habitat and trees within 500 feet of the site will be surveyed for breeding activity to determine if raptors or Group 1 or 2 wildlife species are nesting. If nesting is confirmed, no construction activity will occur within 500 feet of raptor nests or Group 1 or 2 species, unless measures are implemented to reduce noise levels below 60 dBA hourly L_{eq} and minimize disturbance to those adjacent birds. If measures are implemented to reduce noise levels (see also D-3), noise monitoring will be conducted to determine that measures are effective to reduce nose to below 60 dBA hourly L_{eq}.

- To minimize impacts to breeding birds within the proposed project site and comply with the MBTA, all vegetation clearing within approved project areas will be removed prior to the start, or after the conclusion, of the breeding season (generally February 1 to September 15), unless a preconstruction survey by a qualified biologist during the breeding season documents that there are no nesting birds within or adjacent (within 500 feet of the edge of ground disturbance) to the project site. In addition, for any construction activities that coincide with the migratory bird and raptor breeding season (generally February 1 to August 31), a qualified biologist will monitor nesting and foraging raptors within the project area, weekly during vegetation removal, and every two weeks thereafter, during construction activities to determine if project activities adversely affect the behavior of nesting and foraging raptors. If project activities are observed to adversely affect raptor foraging and nesting, the monitoring biologist will make recommendations to modify construction activities to avoid the adverse effects, or, project construction will be halted until the affected raptors either abandon their nest, or it has been determined nesting is complete. Compensation for annual grassland habitat suitable to provide nesting habitat for California horned lark is discussed further in Section 4.4.

D-2 The project design will incorporate features to minimize noise generated from construction activities, including:

- If construction is required during the bird breeding season (defined above as the period from February 1 to September 15), a qualified biologist will conduct a preconstruction survey to determine the presence or absence of nesting bird species. If no nesting birds are present, construction will be allowed to commence and continue for the duration of the project, unless construction activity has ceased for more than one week during the bird breeding season. If nesting birds

have been documented, a noise analyses will be performed during construction activities adjacent to active nests. If necessary, temporary noise attenuation barriers will be erected to reduce construction-related noise to below 60 dBA hourly L_{eq}.

- Heavy equipment will be repaired as far away as practical from habitats where nesting birds may be present.
- Construction equipment, including generators and compressors, will be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures).
- The construction contractor will maintain all construction vehicles and equipment in proper operating condition and provide mufflers on all equipment.

D-3 The project design will incorporate features, such as installing flagging or construction fencing between the work site and adjacent open space areas to minimize the potential for pests and exotic species establishment or encroachment into biologically sensitive areas.

D-4 Several general construction BMPs will be implemented to avoid and minimize impacts to natural communities of special concern, special status plants, and special status animals:

1. Construction Limits – The contractor(s) will be informed, prior to the bidding process, about the biological constraints of this project. The construction limits shall be clearly marked on project maps provided to the contractor(s) and areas outside of the construction limits shall be designated as "no construction" zones.
2. Equipment Staging/Storage/Fueling Restrictions – No equipment staging and refueling areas shall be located at the construction site outside of designated staging areas. Moreover, staging/storage areas for construction equipment and materials should be located away from sensitive biological resources that are not approved for project impact, and no equipment maintenance should be performed near drainages or swales to minimize the potential for pollution runoff.
3. Soil Stockpiles – Soils from construction grading should be stockpiled either on portions of the proposed project site where direct impacts are approved, or at an off-site location approved by the County and the resource agencies. Stockpiled

soils must be located and piled in a manner that will avoid potential erosion and sedimentation into downstream drainages or swales.

4. Construction Debris – Project construction areas should be kept as clean of debris as possible to avoid attracting predators of native wildlife. Spoils, trash, or any debris should be removed off-site to an approved disposal facility.

5. Fugitive Dust – Construction-related fugitive dust will be minimized by incorporating appropriate Reasonably Available Control Measures to minimize fugitive dust emissions, as outlined in an approved dust control plan specific to the proposed construction activities. The dust control plan shall consider and/or incorporate the application of water, use of wind screens, and other applicable methods appropriate to the site, and in consideration of the sensitive biological resources that exist adjacent to and downstream of the site.

6. Construction Fencing/Flagging – To prevent accidental egress by construction equipment or workers onto open space areas, construction fencing/flagging will be installed to delineate the limits of construction.

7. Pets – Construction personnel will not be allowed to bring pets to the worksite, to prevent indirect impacts of predation of native animals and trampling of native flora.

Mitigation to compensate for unavoidable significant impacts will include the following measures:

M-BI-1 The project's unavoidable direct and indirect significant impacts to sensitive species; habitats designated by the County of San Diego as requiring mitigation for impacts (County of San Diego's Guidelines for Determining Significance to Biological Resources for areas under County jurisdiction that are outside of approved MSCP plans) will be mitigated through the preservation and conservation of suitable land within an undeveloped portion of the ESJ LLC project's land ownership parcels. The proposed compensation land contains sparse Sonoran mixed woody scrub vegetation on undulating rocky slopes, with two dry desert drainages running in an east-to-west orientation. The topographic features of the compensation site provide a greater variability in the number of biological microhabitats available to plant and animal species, relative to the area and resources impacted by the proposed ESJ Gen-Tie project. The proposed compensation site supports desert woody scrub vegetation, similar to what is found on the majority of the ESJ Gen-Tie project site, and the

variety of species supported by the two sites would be expected to be similar. Wildlife species observed or detected on the compensation site included western scrub jay (*Aphelocoma californica*), red-tailed hawk (*Buteo jamaicensis*), side-blotched lizard (*Uta stansburiana*), and white-tailed antelope ground squirrel (*Ammospermophilus leucurus*). These species, with the exception of the side-blotched lizard, were also documented at the ESJ Gen-Tie project site. The mitigation site is expected to support a higher diversity of reptile species than the gen-tie site, due to the relatively higher structural diversity in micro-habitats in the form of scrub vegetation, rock outcrops, and rock crevices that reptile species prefer for protection, basking, and foraging. Avian species observed or detected on the gen-tie site that would be expected to occur on the compensation site include the California horned lark (*Eremophila alpestris*), black-throated sparrow (*Amphispiza bilineata*), western kingbird (*Tyrannus verticalis*), and white-crowned sparrow (*Zonotrichia leucophrys*), among others, due to the presence of scrub habitat on the mitigation site. Mammal species associated with the gen-tie site would also be expected to occur on the compensation lands, since the home ranges for the coyote (*Canis latrans*) and bobcat (*Felis rufus*) are large enough to include the suitable habitat in both the gen-tie site where they were documented, as well as the adjacent mitigation site. The presence of drainage features onsite provides foraging and potential nesting areas for bird species that are better protected from the elements (e.g. the wind, and desert sun exposure), compared to the open flats associated with the proposed gen-tie site. These drainage features may also provide a conduit for the ephemeral precipitation in the region to be concentrated and retained for relatively longer periods of time, compared to the open gen-tie site, which would allow plants and animals to utilize the region's rainfall for a greater period of time, compared to species on the gen-tie site. Additionally, the rocky outcrops on the compensation site provide potential perching and nesting sites for raptors, basking and refugia for reptiles, and denning areas for small mammals. Therefore, even though the gen-tie site supports an additional vegetation community (i.e., peninsular juniper woodland and scrub), this is expected to be offset by the relatively more complex microhabitat variability (i.e., a greater number of distinct habitat types as opposed to vegetation communities) associated with the compensation site. This preserved area will be provided to compensate for unavoidable significant impacts to sensitive biological resources that are approved by the County and the resource agencies. Impacts to sensitive habitats will be compensated at mitigation ratios consistent with County Guidelines (2008) and requirements of the resource agencies. It is anticipated that permanent impacts would be mitigated through the transfer of the required amount of acreage of vegetation

communities on the east side of the project property to the U.S. Bureau of Land Management (BLM), contiguous with the western boundary of the Jacumba Wilderness Area. It is anticipated that the BLM will accept the transfer of the proposed compensatory mitigation property in the near future. In the interim period, ESJ US, LLC has prepared a Conceptual Resource Management Plan (CRMP) to guide the short-term management of the proposed compensation property, until such time that the transfer can be completed (see Appendix H).

3.5 CONCLUSIONS

Potentially significant impacts to sensitive species include direct and indirect nesting impacts to Group 1 or Group 2 animal species during the breeding season, direct impacts to foraging habitat for raptors and Group 1 species, construction-generated noise, and an increase of pests or exotic species. Project design features and mitigation measures will reduce impacts to these sensitive resources to below a level of significance according to the following rationale:

- Potential impacts to breeding California horned lark, raptors, and other migratory birds, will be mitigated through avoidance of vegetation clearing and construction activities during the breeding season as discussed in Section 3.4 (D-2). Thus, these mitigation measures and project design considerations compensate for impacts to California horned lark and reduce impacts to a less than significant level.

- Temporary impacts to sensitive habitats and species as a result of increased pests and exotic species will be avoided because construction personnel will not be permitted to bring pets to the works site; the personnel will be instructed to stay within the construction area, which will be delineated by installation of temporary construction flagging or fencing along the boundary of the project site. This fencing will also prevent encroachment into adjacent habitat areas, and implementation of BMPs as discussed in Section 3.4 (D-4 and M-BI-1). This design consideration would avoid impacts to sensitive habitats and species within these habitats.

- Permanent impacts to sensitive habitats will be mitigated to less than significant by preserving and managing equivalent habitat at a 1:1 ratio for impacts to Sonoran mixed woody scrub, and a 3:1 ratio for impacts to Peninsular Juniper woodland and scrub (see analysis of Guideline 4.1.A for a more detailed discussion of the proposed mitigation).

CHAPTER 4
RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the USFWS or CDFG?

Guidelines for the Determination of Significance include:

A. Project-related grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by the USACE, CDFG and the County: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

D. The project would increase human access or competition from domestic animals, pests, or exotic species to levels proven to adversely affect sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

4.2 ANALYSIS OF PROJECT EFFECTS

4.2.1 Project Effects Relevant to Guideline 4.1.A

Project-related clearing, grading, and construction would directly impact approximately 6.07 acres for A1, 5.06 acres for A2, 4.72 acres for D1, and 4.06 acres for D2 of Sonoran mixed

woody scrub as summarized in Tables 4a and 4b in Section 2.2.1. Construction of the Property Access road (Route PA) Option A would result in direct impacts to an additional 0.55 acre of Sonoran mixed woody scrub in conjunction with A1 and A2 (0.21 acre under D1 and D2), and 2.29 acres of Peninsular Juniper woodland and scrub vegetation (2.23 acres under D1 and D2). Under Route PA Option B direct impacts would occur to 1.14 acres of Sonoran mixed woody scrub in conjunction with A1 and A2 (0.21 acre under D1 and D2), and 2.60 acres of Peninsular Juniper woodland and scrub vegetation (2.44 acres under D1 and D2). Removal of these sensitive habitat lands would be considered a significant impact under County guidelines for areas within County jurisdiction that are outside of approved MSCP plans.

All impacts to sensitive native and naturalized habitats would be considered permanently impacted by site development. The project's unavoidable direct and indirect significant impacts to sensitive habitat lands under RPO that are also sensitive habitats designated by the County as requiring mitigation will be mitigated to a level below significance through the preservation and conservation of an undeveloped portion of the project site parcels, as noted in M-BI-1. Mitigation ratios will comply with those identified in the County of San Diego's Guidelines for Determining Significance to Biological Resources for areas under County jurisdiction that are outside of approved MSCP plans. The mitigation ratios from this source are summarized in Table 5. The project's potential indirect impacts to native and naturalized habitats that exist within the surrounding 100-foot survey buffer area would be reduced to a level below significance through incorporation of design measures D-3 and D-4 and the general construction measures noted in Section 3.4.

Table 5. Compensatory Habitat Mitigation Ratios for Permanent Impacts

Vegetation Community	Mitigation Ratios for Areas Under County Jurisdiction That are Outside of Approved MSCP Plans [a]
Uplands	
Sonoran mixed woody scrub	1:1
Peninsular Juniper woodland and scrub	3:1

[a] County of San Diego (2008)

4.2.2 Project Effects Relevant to Guideline 4.1.B

Project-related impacts to federal and state jurisdictional wetlands and waters are discussed in Section 5.2.2.

4.2.3 Project Effects Relevant to Guideline 4.1.C

It is anticipated that the project would not require a permanent source of water for either the construction or the operation of the project, with all of the project's water needs being supplied by water trucks. However, the 780,000 gallons of water needed for construction could be obtained by drilling an onsite well and accessing the local groundwater table. If a temporary well is constructed, the 780,000 gallons that could be drawn out would be relatively minor and temporary in nature; and as such would not adversely or permanently draw down of the groundwater table. Therefore, no adverse impacts to groundwater will occur.

4.2.4 Project Effects Relevant to Guideline 4.1.D

Permanent direct impacts would occur to 6.07 acres of Sonoran mixed woody scrub for A1 and 5.06 acres of Sonoran Desert scrub for A2. As discussed earlier in Section 3.2.9, project construction areas would be kept as clean of debris as possible and would not result in a significant increase of pests or exotic species beyond those already occurring in the area. However, project activities would clear existing vegetation and create areas where nonnative weed species could establish post-construction. Similarly, project operations would increase human use in the area and could potentially increase pests or exotic species that would significantly impact neighboring sensitive species.

Additionally, indirect impacts to habitat within the right-of-way adjacent the project area have the potential to occur due to an increase in disturbance from construction, increased human access, and competition from exotic species. Therefore, indirect impacts would be potentially significant.

4.2.5 Project Effects Relevant to Guideline 4.1.E

No wetland resources will be impacted by the proposed project. Therefore wetland buffers are not required.

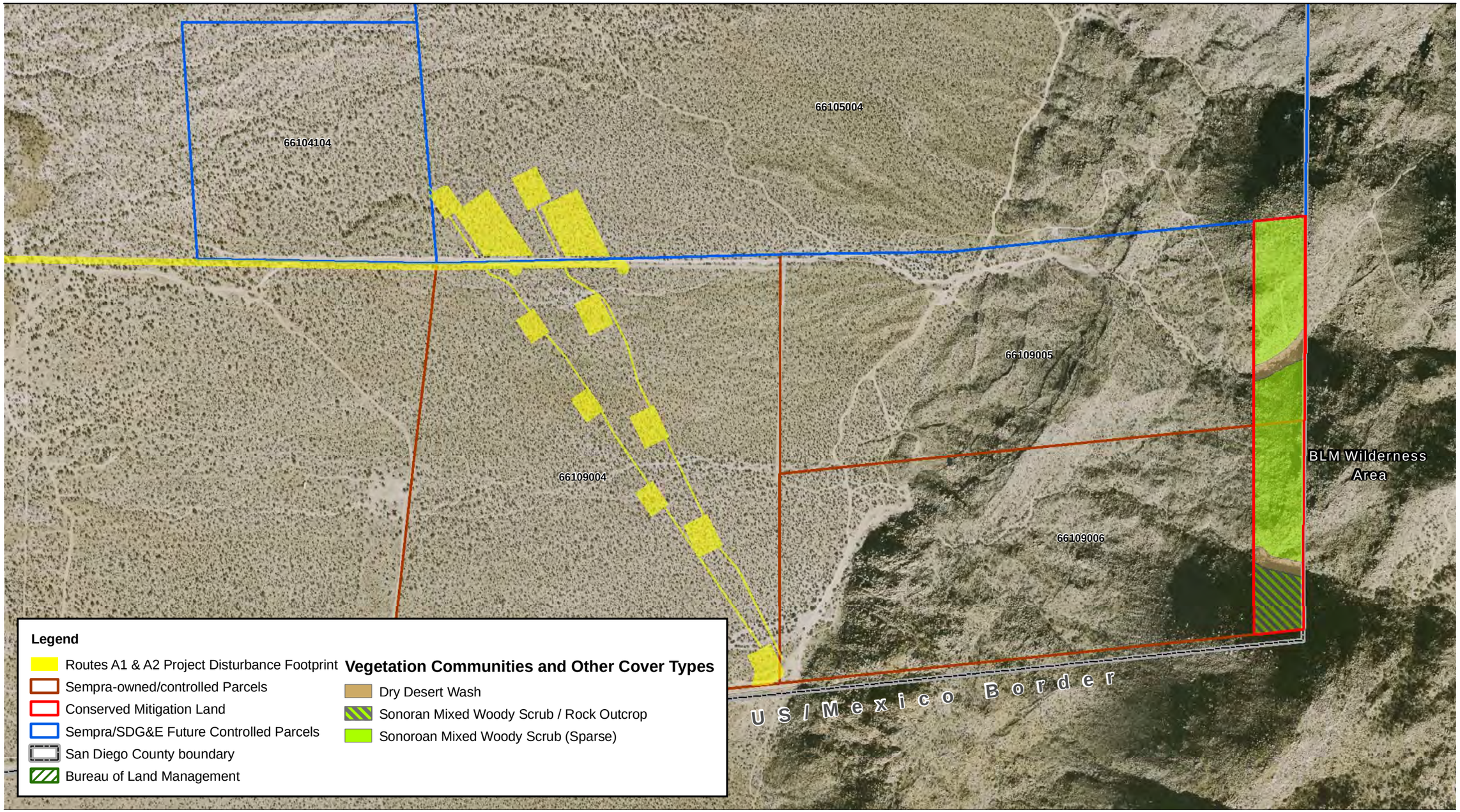
4.3 CUMULATIVE IMPACT ANALYSIS

Since the ESJ Gen-Tie project would not result in any impacts to riparian habitat, it would not contribute to any cumulative impact from a regional perspective. With the implementation of the proposed impact avoidance, minimization, and mitigation measures, the project would not result in any significant impacts to sensitive natural communities.

4.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Table 5 identifies mitigation ratios recommended for impacts to the onsite sensitive habitat under the County's Guidelines for Determining Significance for Biological Resources for impacts that occur outside approved MSCP Plans. Mitigation for unavoidable permanent impacts to the native and naturalized habitats that require mitigation will be provided in compliance with mitigation ratios approved for the project by the County and the resource agencies as described in Section 3.4 (M-BI-1). Indirect impacts to sensitive habitat types would be avoided per measures described in D-3 and D-4 of section 3.4.

Since the project's Fire Protection Plan does not allow restoration and/or planting within, and 30 feet adjacent to, the ROW, all project ground disturbance would be considered a permanent impact. As such, the project's permanent impacts requiring mitigation would require compensatory habitat at the ratios required by the County. The compensatory mitigation would be accomplished by placing a portion of the project property under a conservation easement to mitigate for permanent impacts proposed by the development project. A piece of the property in the eastern section of the site is proposed for preservation (Figures 12a and 12b). This area contains sparse Sonoran mixed woody scrub vegetation on undulating rocky slopes, with two dry desert drainages running in an east-to-west orientation. A total of 13.49 acres for Route A1 and Route PA Option A, 15.01 acres for Route A1 and Route PA Option B, 12.48 acres for Route A2 and Route PA Option A, or 14.00 acres for Route A2 and Route PA Option B would be placed in a conservation easement to mitigate for permanent impacts for the ultimate alignment selected and the associated access road. If Route D1 or D2 is selected, a total of 11.17 acres for Route D1 and Route PA Option A, 11.80 acres for Route D1 and Route PA Option B, 10.96 acres for Route D2 and Route PA Option A, or 11.59 acres for Route D2 and Route PA Option B would be placed in a conservation easement to mitigate for permanent impacts for the ultimate alignment selected and the associated access road. A portion of the property in the eastern section of the site is proposed to be placed under a conservation easement. This preserved area would adjoin a large open space tract of land to the east under ownership of BLM (Figures 12a and 12b). Placement of an easement in this portion of the undeveloped project property would provide direct continuity with this large preserved tract of land. It would help to preserve a ridgeline travel route and wildlife corridor/landscape linkage between protected BLM land to the east and the project site. The mitigation site would preserve habitat similar to what would be impacted, provide the same and/or additional functions and values, and be located a sufficient distance from the project site to minimize the effects of the completed project on the preservation site. No physical changes or improvements are anticipated at the preservation site.



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

800 400 0 800 Feet

Scale: 1 = 6,547; 1 inch = 546 feet

Figure 12a
Proposed Site of Conserved Mitigation Land on Project Property
ESJ Gen-Tie Routes A1 and A2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\BTR\ReRoute20100430\Figure12a_MitigationArea.mxd, 04/30/10, SorensenJ

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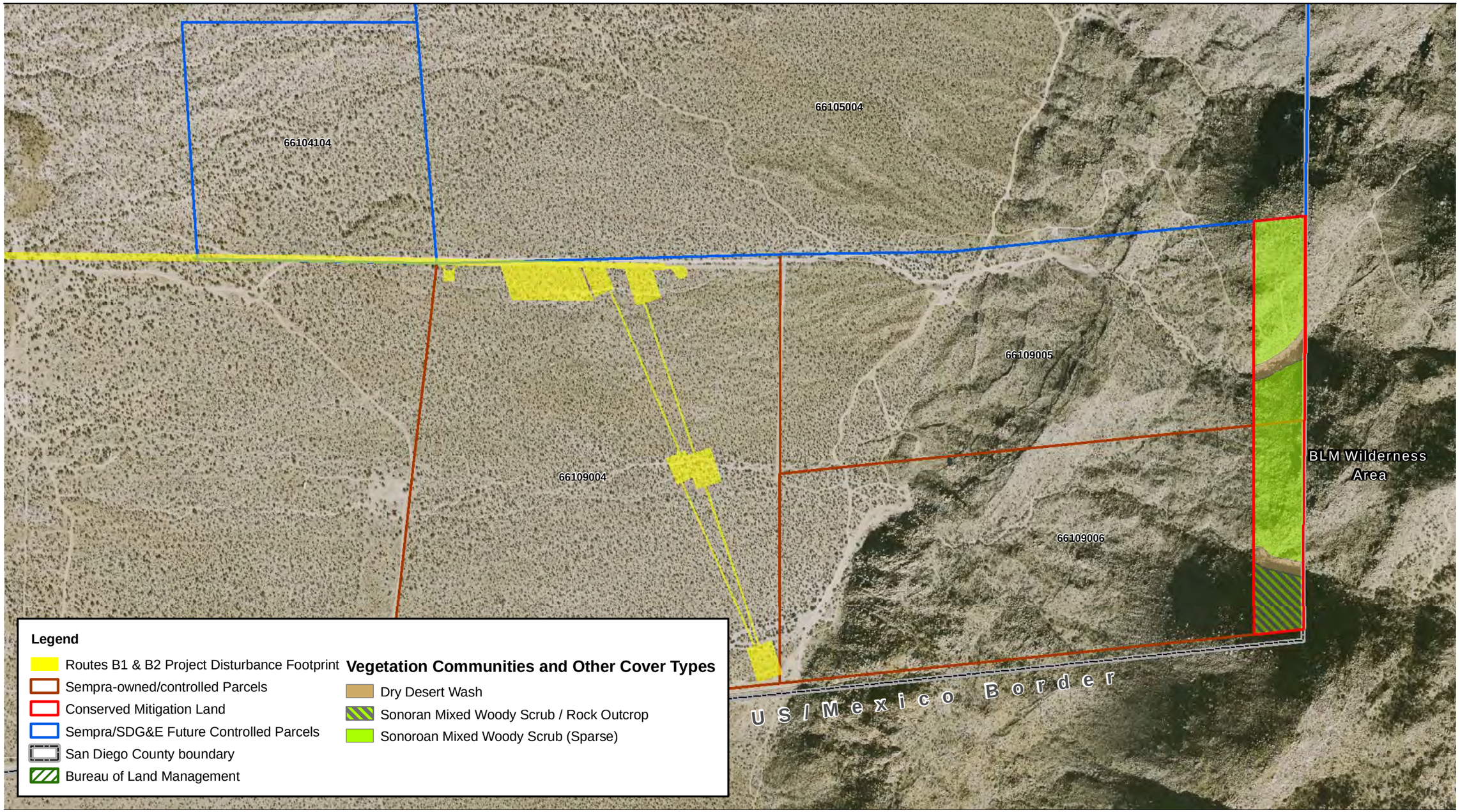

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

800 400 0 800 Feet

Scale: 1 = 6,547; 1 inch = 546 feet

Figure 12b
Proposed Site of Conserved Mitigation Land on Project Property
ESJ Gen-Tie Alternative Routes D1 and D2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\BTR\ReRoute20100430\Figure12b_MitigationArea.mxd, 04/30/10, SorensenJ

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4.5 CONCLUSIONS

Potential project impacts to sensitive natural communities would be considered significant. As discussed previously in Section 3.5, mitigation measures and project design considerations including mitigation for sensitive natural communities according to RPO guidelines (M-BI-1) would compensate for impacts. These project design considerations and mitigation measures would reduce impacts to less than significant.

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CHAPTER 5
JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA and also protected under Section 401 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? The project's effect to waters regulated under CFGC 1600-1616 are also presented below.

Consistent with County of San Diego Report Format and Content Guidelines (County of San Diego 2008) the analysis below is based on Section 4.1 guidelines and presents a comparable analysis for federally protected wetlands and other waters.

5.2 ANALYSIS OF PROJECT EFFECTS

5.2.1 Project Effects Relevant to Guideline 5.1.A

Project-related impacts to sensitive native or naturalized habitats are discussed in Section 4.2.1. No jurisdictional wetlands or waterways will be impacted.

5.2.2 Project Effects Relevant to Guideline 5.1.B

Jurisdictional waters do not occur within the project site; therefore, project-related activities will not have an impact on jurisdictional waters.

5.2.3 Project Effects Relevant to Guideline 5.1.C

The project would not adversely affect the groundwater table. Although the project proposes to import construction water via water trucks, there is the potential that this volume of water could be sourced from an onsite well tapping into groundwater during construction. However, if groundwater is tapped, the minor and temporary use would cease upon project completion, and construction activities will not adversely impact the groundwater table or its recharge potential.

5.2.4 Project Effects Relevant to Guideline 5.1.D

The project will not result in indirect impacts in jurisdictional areas.

5.2.5 Project Effects Relevant to Guideline 5.1.E

There are no wetlands within the project area and therefore no buffers are needed.

5.3 CUMULATIVE IMPACT ANALYSIS

Because there are no federal or state jurisdictional waters at the site, the project would not contribute to cumulative losses of these resources in the region.

5.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Though the erosive features and swale are not under agency jurisdiction, access roads, staging areas, pull areas, etc. may be restricted from around these areas to avoid potential damage from storm water runoff.

5.5 CONCLUSIONS

There are no federal or state jurisdictional waters at the project site. As a result, there are no significant impacts to such and no mitigation is required.

CHAPTER 6
WILDLIFE MOVEMENT AND NURSERY SITES

6.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Guidelines for the Determination of Significance include:

A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

D. The project would increase noise and/or lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage.

6.2 ANALYSIS OF PROJECT EFFECTS

6.2.1 Project Effects Relevant to Guideline 6.1.A

As discussed in Section 3.2, implementation of the proposed project would result in both the permanent, minor loss of foraging habitat for raptors within the project site. However, the project would be required to compensate for the permanent loss of foraging habitat, and therefore, impacts would be less than significant. Therefore, the project would not prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

6.2.2 Project Effects Relevant to Guideline 6.1.B

The project is located in the relatively undeveloped southeastern portion of the County. However, there are existing linear development features (e.g., the U.S.-Mexico International Border Fence, Interstate 8, and Old Highway 80) that already constrain north-south wildlife movement of terrestrial animal species. As discussed in Section 3.2, the project design incorporates widely spaced gen-tie towers, which would not substantially interfere with connectivity between blocks of habitat or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage; and the structures would be designed per industry standards, which include providing a minimum of 60 inches between phase conductors or a phase conductor and a grounded component, thereby minimizing the potential for electrocution since the majority of avian wingspans do not exceed this width. Additionally, the site is not known to be within a migratory bird migration corridor, and thus avian collisions with the gen-tie structures would be minimized. Therefore, impacts would be less than significant.

6.2.3 Project Effects Relevant to Guideline 6.1.C

The project would not create artificial wildlife corridors that do not follow natural movement patterns, and therefore, no impact would occur.

6.2.4 Project Effects Relevant to Guideline 6.1.D

Construction activities associated with the proposed project are temporary, would occur during daylight hours and would not involve nighttime lighting during project construction or operation. Therefore, impacts would be less than significant.

6.2.5 Project Effects Relevant to Guideline 6.1.E

As previously described, the project is designed such that permanent impacts are widely separated, such that disruption of wildlife movement is not anticipated. Additionally, the region is primarily undeveloped, and traditional wildlife corridors do not adequately define the wildlife movement situation for the project area and the surrounding vicinity. The project site is part of a much larger landscape linkage that facilitates wildlife movement primarily in an east-west orientation. Development of the project site would not result in any reduction to wildlife corridor widths, or to the overall wildlife habitat linkage. Therefore, no impacts would occur.

6.2.6 Project Effects Relevant to Guideline 6.1.F

The visual continuity of habitat for wildlife will not be affected as the Gen-Tie tower lattice structure or monopoles would not screen the wildlife habitat landscape. The presence of lattice towers or monopoles spaced widely apart would not be considered significant.

6.3 CUMULATIVE IMPACT ANALYSIS

As discussed in Section 3.3, the proposed project would not contribute to cumulative impacts to raptor foraging habitat.

Other projects being developed would potentially impact wildlife species within adjacent habitat by nighttime lighting. However, the proposed ESJ Gen-Tie project would not utilize construction or operational nighttime lighting. Thus, this project would not contribute cumulative effects to wildlife movement or nurseries by increasing nighttime lighting.

6.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Mitigation measures and design considerations for potentially significant impacts to raptor foraging habitat (Section 6.2.1) will be implemented as described in Section 3.4.

6.5 CONCLUSIONS

Potential project impacts to raptor foraging habitat would not be considered significant.

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CHAPTER 7
LOCAL POLICIES, ORDINANCES, ADOPTED PLANS

7.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Conflict with the provisions of an adopted Habitat Conservation Plan; NCCP; or other approved local, regional, or state habitat conservation plan?

Guidelines for the Determination of Significance include:

A. For lands outside of the MSCP, the project would impact coastal sage scrub vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

B. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.

D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan, Habitat Management Plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas, as defined in the BMO.

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

7.1.1 Project Effects Relevant to Guideline 7.1.A

The proposed project area would not impact coastal sage scrub vegetation. Therefore, the project would not contribute to the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

7.1.2 Project Effects Relevant to Guideline 7.1.B

The project site is within the Study Area boundaries of the County's draft ECMSCP, a NCCP area for which a subarea plan has not yet been approved. However, based on a December 10, 2008 map of the Working Draft FCAs for the ECMSCP, the project is outside of the ECMSCP Plan Area.

In addition, the proposed project is not in close proximity to preserved lands, and the site itself has not been identified by the County or resource agencies as critical to future habitat preserves. Therefore, this guideline is not applicable.

7.1.3 Project Effects Relevant to Guideline 7.1.C

The proposed project will not impact wetlands or RPO Sensitive Habitat Lands. Therefore, this guideline is not applicable.

7.1.4 Project Effects Relevant to Guideline 7.1.D

The proposed project would not impact coastal sage scrub habitat. Therefore, conformance with this guideline is not applicable.

7.1.5 Project Effects Relevant to Guideline 7.1.E

The proposed project is not subject to any Habitat Conservation Plan, Habitat Management Plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort. Therefore, conformance with such plans is not applicable.

7.1.6 Project Effects Relevant to Guideline 7.1.F

The project is outside the MSCP. Therefore, this guideline is not applicable.

7.1.7 Project Effects Relevant to Guideline 7.1.G

Although there are areas of conserved open space within the region that lie primarily to the north and east of the site, including the BLM's Jacumba National Cooperative Land and Wildlife Management Area, Anza Borrego State Park, In-Ko-Pah County Park, Mountain Springs County Park, and the BLM's Jacumba Wilderness Area, the proposed project does not create any barriers to connectivity between these areas. The permanent impacts associated with the proposed project are localized in relatively small tower footprints that are spatially separated such that connectivity is maintained over the local and regional landscape. The project would have no effect on connectivity of lands of high habitat value, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

7.1.8 Project Effects Relevant to Guideline 7.1.H

The project is outside the MSCP. Therefore, the BMO does not apply.

7.1.9 Project Effects Relevant to Guideline 7.1.I

The project is outside the MSCP, and no narrow endemic species are known to occur within the proposed project area; thus, the guideline is not applicable.

7.1.10 Project Effects Relevant to Guideline 7.1.J

No listed species have been observed or detected on or adjacent to the proposed site. Although focused protocol level surveys for QCB were conducted during the 2008 and 2009 flight seasons, no QCBs were documented during the project surveys. Therefore, the project would not reduce the likelihood of survival and recovery of listed species in the wild. Further, additional QCB

surveys were conducted during the 2010 survey season, and no QCB were reserved. The results will be incorporated into this document following completion of the QCB survey report.

7.1.11 Project Effects Relevant to Guideline 7.1.K

The project may potentially impact nesting migratory birds; however, project design considerations would avoid or reduce impacts to less than significant, as discussed in Section 3.5.

7.1.12 Project Effects Relevant to Guideline 7.1.L

Nesting habitat for the bald eagle or golden eagle does not occur within the project site; thus, the project would not result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 CUMULATIVE IMPACT ANALYSIS

The majority of the local policies, ordnances, and adopted plans associated with the county do not apply to the ESJ Gen-Tie project, and would therefore not result in any cumulative impacts. Although the project has the potential to impact nesting birds protected under the MBTA, project design features would be implemented such that any effect would be less than significant. Therefore, the ESJ Gen-Tie project would not contribute to any adverse cumulative impact on nesting migratory bird species.

7.3 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

None are needed or proposed.

7.4 CONCLUSIONS

The project does not conflict with any local policies or ordinances protecting biological resources; thus, no mitigation would be required for impacts associated within noncompliance with local policies or ordinances.

CHAPTER 8
SUMMARY OF PROJECT IMPACTS AND MITIGATION

Tables 6a and 6b provide summaries of potential permanent direct impacts to habitat types/vegetation communities resulting from the proposed project, and the range of potential offsite mitigation area that could be required using the County's MSCP and Guidelines for Determining Significance for Biological Resources for impacts that occur outside approved MSCP Plans.

Design features and mitigation measures that would reduce temporary biological impacts from the proposed project are listed in Table 7.

Table 6a. Mitigation for Direct Permanent Impacts to Vegetation Communities (Route A1 and Route A2)

Alternative Routes	Vegetation Communities and Cover Types	Onsite Permanent Impacts (Acres)[a]	Mitigation Ratio[a]	Mitigation Required (Acres)[b]
A1	Sonoran mixed woody scrub	6.07	1:1	6.07
A2	Sonoran mixed woody scrub	5.06	1:1	5.06
PA Option A	Sonoran mixed woody scrub	0.55	1:1	0.55
PA Option A	Peninsular Juniper woodland and scrub	2.29	3:1	6.87
PA Option B	Sonoran mixed woody scrub	1.14	1:1	1.14
PA Option B	Peninsular Juniper woodland and scrub	2.60	3:1	7.80

[a] As required by County Guidelines.

[b] Onsite permanent impacts to be mitigated through a conservation easement over an appropriate amount of in-kind habitat on the project property or other suitable lands owned by the project proponent.

Table 6b. Mitigation for Direct Permanent Impacts to Vegetation Communities (Route D1 and Route D2)

Alternative Routes	Vegetation Communities and Cover Types	Onsite Permanent Impacts (Acres)[a]	Mitigation Ratio[a]	Mitigation Required (Acres)[b]
D1	Sonoran mixed woody scrub	4.72	1:1	4.72
D2	Sonoran mixed woody scrub	4.06	1:1	
PA Option A	Sonoran mixed woody scrub	0.21	1:1	0.21
PA Option A	Peninsular Juniper woodland and scrub	2.23	3:1	6.69
PA Option B	Sonoran mixed woody scrub	0.21	1:1	0.21
PA Option B	Peninsular Juniper woodland and scrub	2.44	3:1	7.32

[a] As required by County Guidelines.

[b] Onsite permanent impacts to be mitigated through a conservation easement over an appropriate amount of in-kind habitat on the project property or other suitable lands owned by the project proponent.

Table 7. Summary of Design Features and Mitigation Measures

Reference No.	Design Features
D-1	The project design will incorporate features to minimize impacts to breeding Group 1 and Group 2 wildlife species known to occur within or adjacent to the site, or having some potential to occur within or adjacent to the site, including: • Vegetation clearing activities within potential nesting habitat, as determined by a qualified biologist, will occur outside of the bird breeding season (generally February 1 to September 15). If clearing activities must occur in potential nesting habitat during the breeding season, preconstruction nest surveys will be performed, by a qualified biologist, to identify and avoid nesting raptors or nesting Group I and II wildlife species within the project area. • Prior to construction or vegetation clearing, suitable nesting habitat and trees within 500 feet of the site will be surveyed for breeding activity to determine if raptors or Group 1 or 2 wildlife species are nesting. If nesting is confirmed, no construction activity will occur within 500 feet of raptor nests or Group I or II species, unless measures are implemented to reduce noise levels below 60 dBA hourly L_{eq} and minimize disturbance to those adjacent birds. If measures are implemented to reduce noise levels (see also D-6), noise monitoring will be conducted to determine that measures are effective to reduce nose to below 60 dBA hourly L_{eq}. • To minimize impacts to breeding birds within the proposed project site and comply with the MBTA, all vegetation clearing within approved project areas will be removed prior to the start of the breeding season (generally February 1 to September 15). In addition, for any construction activities that coincide with the raptor breeding season (generally February 1 to September 30), a qualified biologist will monitor nesting and foraging raptors within the project area during construction activities to determine if project activities adversely affect the behavior of nesting and foraging raptors. If project activities are observed to adversely affect raptor foraging and nesting, the monitoring biologist will make recommendations to modify construction activities to avoid the adverse effects, or, project construction will be halted until the affected raptors either abandon their nest, or it has been determined nesting is complete. Finally, impacts to potential nesting habitat for the California horned lark (a Group II wildlife species) within the northwestern corner of the proposed project site will be restored to the same or better quality habitat than currently exists in this portion of the proposed project site. Compensation for annual grassland habitat suitable to provide nesting habitat for California horned lark is discussed further in Section 4.4.
D-2	The project design will incorporate features to minimize noise generated from construction activities, including: • Noise analyses will be performed during construction activities adjacent to sensitive habitats or potential active nests. If necessary, temporary noise attenuation barriers will be erected to reduce construction-related noise to below 60 dBA hourly L_{eq}. • Heavy equipment will be repaired as far away as practical from habitats where nesting birds may be present. • Construction equipment, including generators and compressors, will be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures). • The construction contractor will maintain all construction vehicles and equipment in proper operating condition and provide mufflers on all equipment.
D-3	The project design will incorporate features, such as installing flagging or construction fencing between the work site and adjacent open space areas to minimize the potential for

Reference No.	Design Features
	pests and exotic species establishment by installing fencing between the project site and adjacent open space areas to restrict encroachment into biologically sensitive areas.
D-4	Several general construction BMPs will be implemented to avoid and minimize impacts to natural communities of special concern, special status plants, and special status animals: 1. Construction Limits – The contractor(s) will be informed, prior to the bidding process, about the biological constraints of this project. The construction limits shall be clearly marked on project maps provided to the contractor(s) and areas outside of the construction limits shall be designated as "no construction" zones. 2. Equipment Staging/Storage/Fueling Restrictions – No equipment staging and refueling areas shall be located at the construction site outside of designated staging areas. Moreover, staging/storage areas for construction equipment and materials should be located away from sensitive biological resources that are not approved for project impact, and no equipment maintenance should be performed near drainages, swales, or vernal pool habitat to minimize the potential for pollution runoff. 3. Soil Stockpiles – Soils from construction grading should be stockpiled either on portions of the proposed project site where direct impacts are approved, or at an off-site location approved by the County and the resource agencies. Stockpiled soils must be located and piled in a manner that will avoid potential erosion and sedimentation into downstream drainages, swales, or vernal pool habitat. 4. Construction Debris – Project construction areas should be kept as clean of debris as possible to avoid attracting predators of native wildlife. Spoils, trash, or any debris should be removed off-site to an approved disposal facility. 5. Fugitive Dust – Construction-related fugitive dust will be minimized by incorporating appropriate Reasonably Available Control Measures (RACMs) to minimize fugitive dust emissions, as outlined in an approved dust control plan specific to the proposed construction activities. The dust control plan shall consider and/or incorporate the application of water, use of wind screens, and other applicable methods appropriate to the site, and in consideration of the sensitive biological resources that exist adjacent to and downstream of the site. 6. Construction Fencing/Flagging – To prevent accidental egress by construction equipment or workers onto open space areas, construction fencing/flagging will be installed along the entire limits of construction. 7. Pets – Construction personnel will not be allowed to bring pets to the worksite, to prevent indirect impacts of predation of native animals and trampling of native flora.
M-BI-1	The project's unavoidable direct and indirect significant impacts to sensitive species and habitats designated by the County of San Diego as requiring mitigation for impacts (County of San Diego's Guidelines for Determining Significance to Biological Resources for areas under County jurisdiction that are outside of approved MSCP plans) will be mitigated through the preservation and conservation of an undeveloped portion of the project parcels. This preserved area will be provided to compensate for unavoidable significant impacts to sensitive biological resources that are approved by the County and the resource agencies. Impacts to sensitive habitats will be compensated at mitigation ratios consistent with County Guidelines (2008) or the MSCP BMO, and requirements of the resource agencies. Alternatively, all or a portion of the mitigation obligations may be satisfied by participating in a fee-based mitigation program, e.g., a mitigation bank, in which case, long-term management for such mitigation would be covered under the terms of the formal banking agreement. All proposed mitigation is subject to the resource agencies' review and discretion; thus, the mitigation obligations for the impacts to sensitive and regulated resources may change from those recommended here.

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CHAPTER 9
REFERENCES

Beier, Paul, and Steven Loe

1992 A Checklist for Evaluating Impacts to Wildlife Movement Corridors. Wildlife Society Bulletin 20:434-440.

Bennett, A. F.

1990 Habitat Corridors and the Conservation of Small Mammals in the Fragmented Forest Environment. Landscape Ecology. 4: 109-122.

Bureau of Land Management (BLM)

2008 Environmental Assessment for the Sunrise Powerlink Helicopter Access. BLM El Centro Field Office.

California Department of Fish and Game (CDFG)

1991 Fish and Game Code of California. Gould Publications, Inc.

2008 Personal Communication from Paul Schlitt. Email received May 15, 2008. On file at Ecology & Environment San Diego.

California, State of

2006 State and Federally Listed Endangered and Threatened Animals of California. The Resources Agency, California Department of Fish and Game. October.

2007a State and Federally Listed Endangered, Threatened, and Rare Plants of California. The Resources Agency, California Department of Fish and Game. April.

2007b Natural Diversity Data Base. Nongame-Heritage Program, California Department of Fish and Game, Sacramento.

California Native Plant Society (CNPS)

2007 Inventory of Rare and Endangered Vascular Plants of California (online edition, v7-06c). California Native Plant Society. Sacramento, California. Available at http://www.cnps.org/inventory.

County of San Diego

2002 Biological Resource Mapping Requirements. Revised 2008.

2006 General Plan 2020, Jacumba Community Sponsor Group map. http://www.co.sandiego.ca.us/cnty/cntydepts/landuse/planning/gpupdate/pubs/draft_lu/jacumba.pdf (Accessed January 23, 2008).

2008 County of San Diego Guidelines for Determining Significance to Biological Resources and Report Format and Content Requirements. Second Revision, July 30.

Cowardin, L., V. Carter, F. Golet, and E. LaRoe

1979 Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of Interior. U.S. Fish and Wildlife Service. FWS/OBS-79/31. December.

Ecology & Environment (E&E)

2009 Energia Sierra Juarez U.S. Gen-Tie Line Project Habitat Assessment Report. Prepared for Energia Sierra Juarez U.S. February.

Farhig, L., and G. Merriam

1985 Habitat Patch Connectivity and Population Survival. Ecology 66:1,762-1,768.

Hall, E. Raymond.

1981 Mammals of North America. 2 vols. John Wiley and Sons. New York. 1181 pp.

Harris, L. D., and P. B. Gallagher

1989 New Initiatives for Wildlife Conservation: The Need for Movement Corridors. Pages 11-34 in, Defenders of Wildlife. In Defense of Wildlife: Preserving Communities and Corridors. Defenders of Wildlife, Washington, D.C.

Haug, E. A., B. A. Millsap, and M. S. Martell.

1993 Burrowing Owl (*Speotyto Cunicularia*). *In* The Birds of North America, No. 149. The Academy of Natural Sciences, Philadelphia PA, and American Ornithologists Union, Washington, D.C. 20 pp.

Holland, Robert F.

1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game. October.

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

1997 The endangered Quino checkerspot butterfly, *Euphydryas editha quino* (Lepidoptera: Nymphalidae). J. Res. Lep. 34:99-118.

MacArthur, R. H., and E. O. Wilson

1967 The Theory of Island Biogeography. Princeton University Press, New Jersey. 203 pp.

Noss, R. F.

1983 A Regional Landscape Approach to Maintain Diversity. BioScience 33(11): 700-706.

Oberbauer, Thomas

1996 Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions.

Rocks Biological Consulting

2008 Year 2008 45-Day Report for Quino Checkerspot Butterfly Surveys at the Baja Wind Transmission Line Project Site in Jacumba, CA

2009 Year 2009 45-Day Report for Quino Checkerspot Butterfly Surveys at the Proposed Energia Sierra Juarez Gen-Tie Project Site Near Jacumba, CA

Regional Water Quality Control Board (RWQCB)

1994 Available at http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml. San Diego Region.

Skagen, S. K., Melcher, C. P., and Hazlewood, R.

2004 Migration stopover ecology of western avian populations: A southwestern migration workshop. U.S. Geological Survey, Biological Resources Discipline, Open-File Report 2004-1425, 28 pp.

Simberloff, D. S., and J. Cox

1987 Consequences and Costs of Conservation Corridors. Conservation Biology 1:63-71.

Soule, M.

1987 Viable Populations for Conservation. Cambridge Univ. Press, Cambridge.

Stebbins, R. C.

1985 A field guide to western reptiles and amphibians. Second edition. Houghton Mifflin Co., Boston. 336 pp.

Unitt, P. A.

1984 Birds of San Diego County. Memoir No. 13. San Diego Society of Natural History.

U.S. Department of Agriculture (USDA)

1973 Soil Survey, San Diego Area, California. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.

1992 Hydric Soil List. Natural Resources Conservation Service. Escondido, California Field Office. Field Office Technical Guide. March.

U.S. Fish and Wildlife Service (USFWS)

1997 *Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Laguna Mountains Skipper and Quino Checkerspot Butterfly, Final Rule*. Federal Register 62(11):2313-2322.

2000 *Recovery Plan for Bighorn Sheep in the Peninsular Ranges, California.*

2001 Final Critical Habitat for the Peninsular Bighorn Sheep (*Ovis Canadensis cremnobates*); Final Rule. Federal Register 66:8650-8677.

2002 Designation of Critical Habitat for the Quino checkerspot butterfly (*Euphydryas editha quino*); Final Rule. Federal Register 67:18356-18395.

2008 Personal Communication with Guy Wagner, Wildlife Biologist, February 12, 2008. Telephone contact report on file at Ecology & Environment, San Diego.

U.S. Geological Service (USGS)

1954 In-Ko-Pah Gorge Quadrangle 7.5-Minute Topographic Map. Photo revised 1988.

Zeiner, D. C., W. F. Laudenslayer, Jr., and K. E. Mayer, eds.

1988 California's Wildlife. Volume I. Amphibians and Reptiles. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

1990 Birds. California's Wildlife, vol. 1. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento.

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CHAPTER 10
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APPENDIX A

SITE PHOTOGRAPHS

APPENDIX A

ESJ GEN-TIE PROJECT SITE PHOTOGRAPHS

Photograph 1. View of southern erosive feature 1 looking east, with roadway in top background.

Photograph 2. View of southern erosive feature 1 looking east, with roadway in top background.

Photograph 3. View of erosive feature 2 looking west.

Photograph 4. View of swale feature 3, looking east.

Photograph 5. View of erosive feature 4, looking southeast.

Photograph 6. View of erosive feature 5, looking west.

Photograph 7. Representative upland view, looking east.

Photograph 8. Representative upland view, looking southwest.

Photograph 9: View of existing east-west access road, looking east.

Photograph 10: Overview of project site area, looking east.

APPENDIX B

FLORAL COMPENDIUM

APPENDIX B

FLORAL SPECIES DOCUMENTED ON AND ADJACENT TO THE ESJ GEN-TIE PROJECT SITE

Scientific Name	Common Name
Acacia greggii	Catclaw acacia
Agave deserti	Agave
Allium fimbriatum var. *fimbriatum*	Desert onion
Amsinckia menziesii var. *intermedia*	Rancher's fiddleneck
Amsinckia tessellata	Checker fiddleneck
Anisocoma acaulis	Scale bud
Atriplex canescens	Four-wing saltbush
Bromus rubens (non-native invasive)	Red brome
Calochortus splendens	Splendid Mariposa lily
Calyptridium monandrum	Common calypatridium
Camissonia californica	False mustard
Camissonia sp.	Primrose
Chaenactis stevioides	Desert pincushion
Chamaesyce albomarginata	Rattlesnake weed
Chorizanthe brevicornu	Brittle spineflower
Chorizanthe fimbriata	Fringed spineflower
Coreopsis californica var. *californica*	California coreopsis
Cryptantha intermedia	Nievitas cryptantha
Cylindropuntia ganderi	Gander's buckhorn cholla
Delphinium sp.	Larkspur
Descurainia pinnata	Tansy mustard
Dichelostemma capitatum	Blue dicks
Echinocereus engelmannii	Engelmann's hedgehog cactus
Emmenanthe penduliflora	Whispering bells
Ephedra californica	California ephedra
Ephedra nevadensis	Nevada ephedra
Ephedra viridis	Green ephedra
Eriastrum eremicum	Desert woollystar
Ericameria pinifolia	Pinebush
Eriogonum fasciculatum var. *polifolium*	Mountain buckwheat
Eriogonum gracile	Slender buckwheat
Eriogonum thurburi	Thurbur's buckwheat
Eriophyllum wallacei	Wallace's wooly daisy
Erodium cicutarium (non-native)	Filaree
Eschscholzia californica	California poppy
Filago sp.	Filago
Galium sp.	Bedstraw
Gilia spp.	Gilia
Guillenia lasiophylla	California mustard
Hymenoclea salsola	Cheesebush
Juniperous californica	California juniper
Larrea tridentata	Creosote bush
Lasthenia gracilis	Common goldfields
Loeseliastrum schottii	Schott's calico
Logfia depressa	Dwarf cottonrose
Lomatium mohavense	Mohave lomatium
Lotus scoparius var. *brevialatus*	Deerweed

Scientific Name	Common Name
Lotus strigosus	Strigose lotus
Lupinus concinnus	Bajada lupine
Lycium andersonii	Waterjacket
Malacothrix glabrata	Desert dandelion
Mentzelia affinis	Hydra stick-leaf
Mirabilis laevis	Wishbone
Nama demissum var. *demissum*	Purple mat
Opuntia chlorotica	Pancake prickly pear
Opuntia phaecantha	Mojave prickly pear
Pectocarya linearis var. *ferocula*	Slender pectocarya
Pectocarya recurvata	Curvenut combseed
Pectocarya setosa	Bristly pectocarya
Phacelia distans	Wild heliotrope
Pholistoma membranaceum	White fiesta flower
Phoradendron californicum	Desert mistletoe
Plagiobothrys sp.	Popcorn flower
Platystemon californicus	cream cups
Prunus fremonti	Desert apricot
Purshia tridentata	Antelope bitterbrush
Rafinesquia neomexicana	Desert chicory
Rhus ovata	Sugar bush
Ribes quercetorum	Oak gooseberry
Salvia columbariae	Chia
Schismus barbatus	Arabian schismus
Senecio californicus	California butterweed
Senecio flaccidus var. *monoensis*	Mono butterweed
Sidotheca trilobata	Three-lobe starry puncturebract
Simmondsia chinensis	Jojoba
Sisymbrium altissimum (non-native)	Tumble mustard
Stephanomeria sp.	Wreath plant
Stillingia linearifolia	Linear-leaved stillingia
Stylocline gnaphaloides	Everlasting nest straw
Tetradymia canescens	Spineless horsebrush
Thamnosma montana	Turpentinebroom
Thysamnocarpus curvipes	Fringepod
Yucca schidigera	Mojave yucca
Ziziphus parryi	Lotebush

APPENDIX C

WILDLIFE SPECIES OBSERVED OR DETECTED

APPENDIX C

WILDLIFE SPECIES OBSERVED/DETECTED ON THE ESJ GEN-TIE PROJECT SITE

Common Name	Scientific Name	Identification Method	Notes
Mammals			
White-tailed antelope ground squirrel	*Ammospermophilus leucurus*	sightings	
Coyote	*Canis latrans*	tracks, probable burrows	
Bobcat (unconfirmed)	*Felis rufus*	possible tracks	
Black-tailed jack rabbit	*Lepus californicus*	sightings	
Unidentified small rodent		tracks, burrows	
Medium-size animal burrow		~1' diameter burrows	
Birds			
Black-throated sparrow	*Amphispiza bilineata*	sightings	perched
Western scrub jay	*Aphelocoma californica*	sightings	perched
Red-tailed hawk	*Buteo jamaicensis*	sighting	Briefly soaring over sight
Common ravens	*Corvus corax*	sighting	Two flying over the site
Horned lark	*Eremophila alpestris*	audio and visual	
Northern mockingbird	*Mimus polyglottos*	sighting	perched
Ash-throated flycatcher	*Myiarchus cinerascens*	sighting	perched
Scott's oriole	*Icterus parisorum*	sightings	perched
Ladder-backed woodpecker (unconfirmed)	*Picoides scalaris*	possible sighting	Foraging on agave flower stalks
Western kingbird	*Tyrannus verticalis*	sighting	perched
White-crowned sparrow	*Zonotrichia leucophrys*	sighting	perched
Unidentified inactive bird nests		sightings	~5-inch diameter, cup-like, in *Lycium/Ziziphus*
Reptiles			
Tiger Whiptail	*Aspidoscelis tigris*	sighting	
Unidentified lizard		sightings	Small (3 to 5 inches)
Butterflies			
painted lady	*Vanessa cardui*	sightings	QCB survey
common white	*Pontia protodice*	sightings	QCB survey
Ceraunus blue	*Hemiargus ceraunus*	sighting	QCB survey
Sara's orangetip	*Anthocharis sara*	sighting	QCB survey
funereal duskywing	*Erynnis funeralis*	sightings	QCB survey
sulphur	*Colias* sp.	sightings	QCB survey
red Admiral	*Vanessa atalanta*	sighting	QCB survey
Chalcedon checkerspot	*Euphydryas chalcedona*	sighting	QCB survey
Becker's white	*Pontia beckeri*	sighting	QCB survey
anise swallowtail	*Papilio zelicaon*	sightings	QCB survey
black swallowtail	*Papilio polyxenes*	sighting	QCB survey

APPENDIX D

SENSITIVE PLANT SPECIES KNOWN OR POTENTIALLY OCCURRING

APPENDIX D

SENSITIVE PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE PROPOSED ENERGIA SIERRA JUAREZ GEN-TIE PROJECT SITE

Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
Astragalus douglasii var. *perstrictus* Jacumba milk-vetch	–/–	1B	Group A	Chaparral, cismontane woodland, valley and foothill grassland/rocky; blooms Apr-May.	Moderate, though undetected. Not expected to occur, as this species would have been detected during surveys. Furthermore, there is a lack of suitable habitat on-site. A known occurrence occurs within1-mile of the project site.
Astragalus magdalenae var. *peirsonii* Peirson's milk-vetch	SE/FT	1B	Group A	Perennial herb; desert dunes; blooms Dec-Apr; elevation 180-820 ft.	Not expected to occur as project site is well out of species known elevation range.
Ayenia compacta Ayenia	–/–	4	Group B	Mojave desert scrub, Sonoran desert scrub/rocky.	Not observed. Not expected to occur, as this species would have been detected during surveys.
Berberis fremontii Fremont barberry	--/--	3	Group C	Chaparral, Joshua tree woodland, piñon and juniper woodland/rocky; blooms Apr-June	Not observed. Not expected to occur, as this species would have been detected during surveys. Furthermore, there is a lack of suitable habitat on-site.
Bursera microphylla Elephant tree	--/--	2	Group B	Deciduous tree; Sonoran Desert scrub (rocky); blooms June-July, elevation 656-2,296 feet.	Moderate potential to occur. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
Calliandra eriophylla Fairyduster	--/--	2	Group B	Sonoran Desert scrub (sandy or rocky); blooms Mar-Apr.	Not observed. Not expected to occur, as this species would have been detected during surveys.
Caulanthus simulans Payson's jewelflower	--/--	4.2	Group D	Annual herb; chaparral, coastal scrub on sandy, granitic substrate; blooms (Feb) Mar-May (June); elevation 295-7,282 ft.	Low to moderate potential to occur based on habitat preference; CNDDB search did not show known occurrences within the vicinity of the project.

Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
Chamaesyce platysperma Flat-seeded spurge	--/--	1B	Group A	Sonoran Desert (Coachella Valley) on sandy soils; blooms in May	Low potential to occur. There is a known occurrence in Coachella valley, approximately 23 miles away from the project site directly. Widespread in southwest Arizona.
Croton wigginsii Wiggin's croton	--/--	2	n.a.	Sand dunes; blooms Mar-May	Not observed. Not expected to occur, as this species would have been detected during surveys.
Cynanchum utahense Utah vine milkweed	--/--	4.2	Group D	Perennial herb; Mojavean desert scrub, Sonoran desert scrub on sandy or gravelly substrate; blooms Apr-June, elevation 492-4,707 ft.	Moderate potential to occur based on habitat preferences; CNDDB search did not show known occurrences within the vicinity of the project. Rare plant survey conducted during blooming period in April.
Deinandra floribunda Tecate tarplant	--/--	1B	Group A	Chaparral, coastal scrub; blooms Aug-Oct.	Not expected to occur onsite due to lack of suitable habitat.
Delphinium parishii ssp. *subglobosum* Colorado Desert larkspur	--/--	4.3	Group D	Perennial herb; Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms Mar-June; elevation 1,968-5,904 ft.	Moderate potential to occur based on habitat preferences; CNDDB search did not show known occurrences within the vicinity of the project. Surveys conducted during the peak of the blooming period did not document the species.
Dieteria asteroids var. *lagunensis* Mount Laguna aster	–/–	2	n.a.	Cismontane woodland, lower montane coniferous forest; blooms Aug-Oct.	Not expected to occur onsite due to lack of suitable habitat.
Eryngium aristulatum ssp. *parishii* San Diego button-celery	SE/FE	1B	Group A	Annual/perennial herb; coastal scrub, valley and foothill grassland, vernal pools/mesic; blooms Apr-June; elevation 66-2,034 ft.	Not expected to occur onsite due to lack of suitable habitat.
Eucnide rupestris (=*Hemizonia conjugens*) Rock nettle	--/--	2	Group B	Sonoran Desert scrub; blooms Dec-Apr.	Not observed. Not expected to occur, as this species would have been detected during surveys.
Geraea viscida Sticky geraea	–/–	2	Group B	Chaparral (often in disturbed areas); blooms May-June.	Not observed. Not expected to occur due to lack of suitable habitat

Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
Harpagonella palmeri Palmer's grappling hook	--/--	4.2	Group D	Annual herb; Chaparral, coastal scrub, valley and foothill grassland on clay substrates; blooms Mar-May; elevation 65-3,132 ft.	Low potential to occur based on habitat preferences; CNDDB search did not show known occurrences within the vicinity of the project.
Helianthus niveus Variegated dudleya	--/E	1B	n.a.	Open sandy places; blooms Sept-May.	Not observed. Not expected to occur, as this species would have been detected during surveys.
Herissantia crispa Curly herissantia	--/--	2	Group B	Annual/perennial herb; Sonoran Desert scrub; blooms Apr (uncommon)/Aug-Sept; elevation 2,296-2,378 ft.	Moderate potential to occur. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
Heuchera brevistaminea Laguna Mountains alumroot	--/--	1B	Group A	Riparian, chaparral, foothill woodland, mixed evergreen forest; blooms Apr-Jul/Sept. (uncommon).	Not observed. Not expected to occur due to lack of suitable habitat
Hulsea californica San Diego sunflower	–/–	1B	Group A	Openings in yellow pine forest; blooms Apr-Jun.	Not observed. Not expected to occur due to lack of suitable habitat
Hulsea mexicana Mexican hulsea	--/--	2.3	Group B	Annual/perennial herb; chaparral (volcanic, often on burns or disturbed areas); blooms Apr-June; elevation 3,936 ft.	Low potential to occur based on habitat preferences; CNDDB search did not show known occurrences within the vicinity of the project.
Ipomopsis tenuifolia Slender-leaved ipomopsis	--/--	2	Group B	Chaparral, piñon and juniper woodland, Sonoran Desert scrub/gravelly or rocky soils; blooms Mar-May.	Not observed. Not expected to occur, as this species would have been detected during surveys.
Linanthus bellus Desert beauty	--/--	2	Group B	Chaparral (sandy); blooms Apr-May.	Not observed. Not expected to occur, as this species would have been detected during surveys.
Lotus haydonii Pygmy lotus	--/--	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub (rocky); blooms Mar-Jun	Not observed. Not expected to occur, as this species would have been detected during surveys.
Lupinus excubitus var. *medius* Mountain Springs bush lupine	–/–	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub; blooms Mar-Apr.	Not observed. Not expected to occur, as this species would have been detected during surveys.

Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
Mentzelia hirsutissima Hairy stickleaf	--/--	2	Group B	Annual herb; Sonoran Desert scrub (rocky); blooms Apr-May; elevation 0-2,296 ft.	Moderate potential to occur. This species may have been detected during surveys. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
Mentzelia tridentata Creamy blazing star	–/–	1B	n.a.	Mojave Desert scrub/rocky, gravelly, sandy; blooms Apr-May.	Low potential to occur. Marginally suitable habitat does occur onsite.
Mimulus aridus low bush monkeyflower	--/--	4.3	Group D	Evergreen shrub; chaparral; blooms Apr-July; elevation 2,460-3,608 ft.	Low potential to occur based on habitat preferences; CNDDB search did not show known occurrences within the vicinity of the project.
Nemacaulis denudata var. *gracilis* Slender woolly-heads	--/--	2	Group B	Dunes; coastal strand, creosote bush scrub; blooms Mar-May.	Not observed. Not expected to occur, as this species would have been detected during surveys. Furthermore, there is a lack of suitable habitat on-site.
Opuntia munzii Munz's cholla	--/--	1B	Group A	Stem succulent; Sonoran Desert, flats, hills, sandy to rocky soils; blooms in May; elevation 492-1,968 ft.	Low potential to occur. Suitable habitat does occur onsite. However, the project site is well out of the species' known elevation range.
Penstemon thurberi Thurber's beardtongue	--/--	4.2	Group D	Perennial herb; chaparral, Joshua tree woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms May-July; elevation 3,936-4002 ft.	Moderate potential to occur based on habitat preferences; CNDDB search did not show known occurrences within the vicinity of the project. Surveys did not document this perennial herb, or any other *Penstemon* species onsite.
Rhus trilobata var. *simplicifolia* Single-leaved skunk bush	--/--	2.3	Group B	Deciduous shrub; pinyon and juniper woodland; blooms Mar-Apr; elevation 4,002-4,494	Low potential to occur. Suitable habitat does occur onsite. However, the project site is slightly out of the species' known elevation range and it was not detected during surveys.
Selaginella eremophila Desert spikemoss	--/--	1B	Group B	Rhizomatous herb; Sonoran Desert scrub (gravelly or rocky); blooms June/May and July (uncommon); elevation 656-2,952 ft.	Moderate potential to occur. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
Senecio aphanactis Chaparral ragwort	--/--	2.2	Group B	Annual herb; chaparral, cismontane woodland; coastal scrub/sometimes alkaline: blooms Jan-Apr; elevation 49-2,624 ft.	Not expected to occur. Marginal habitat onsite, project is slightly out of the species' known elevation range.

Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
Senna covesii Cove's cassia	--/--	2.2	Group B	Perennial herb; Sonoran desert scrub; blooms Mar-June; elevation 1,000-3,510	Moderate potential to occur based on habitat preference; CNDDB search did not show known occurrences within the vicinity of the project.
Tetrococcus dioicus Parry's tetracoccus	--/--	1B	Group A	Chaparral, coastal scrub; blooms Apr-May	Not observed. Not expected to occur due to lack of suitable habitat
Texosporium sancti-jacobi woven-spored lichen	ST/--	n.a.	n.a.	Lichen; organic matter and organic soil in sagebrush, old fenceposts, or other wood	Moderate potential to occur.

STATUS CODES

State/Federal Status

FE = Federally listed endangered
FT = Federally listed threatened
SE = State listed endangered
ST = State listed threatened
SR = State listed rare

County of San Diego Status

Group A = Plants rare, threatened, or endangered in California and elsewhere.
Group B = Plants rare, threatened, or endangered in California but more common elsewhere.
Group C = Plants which may be quite rare, but need more information to determine true rarity status.
Group D = Plants limited in distribution and uncommon but not presently rare or endangered.

California Native Plant Society Status

1A = Species presumed extinct.
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

APPENDIX E

SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING

APPENDIX E
SENSITIVE WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE PROPOSED ENERGIA SIERRA JUAREZ GEN-TIE PROJECT SITE

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
Birds							
Accipiter cooperii	Cooper's hawk	--	SSC		Group 1	Forests and open woodland habitats	Low (foraging); not expected to nest, due to lack of habitat.
Aquila chrysaetos canadensis	Golden eagle	BEGEPA	CFP		Group 1	Requires vast foraging areas in grasslands, broken chaparral or sage scrub. Secluded cliffs with overhanging ledges and large trees for nesting and cover.	Low (foraging); not expected to nest, due to lack of habitat.
Agelaius tricolor	Tricolored blackbird	--	SSC	BLM Sensitive	Group 1	Dairies and ripening grain heads, rice districts, cattail marshes	Not expected due to lack of habitat.
Athene cunicularia	Western burrowing owl	--	SSC	BLM Sensitive	Group 1	Deserts with burrowing animals	Low.
Cathartes aura meridionalis	Turkey vulture	--			Group 1	Open stages of habitats that provide cliffs and large trees.	Not expected due to lack of habitat.
Circus cyaneus	Northern harrier (nesting)	--	SSC		Group 1	Coastal lowland, marshes grassland, agricultural fields	Low (foraging); not expected to nest, due to lack of habitat.
Eremophila alpestris actia	California horned lark	--	SSC		Group 2	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub	Observed
Falco mexicanus	Prairie falcon	--	SSC		Group 1	Open country	Moderate (foraging); not expected to nest, due to lack of habitat.
Falco peregrinus anatum	American peregrine falcon	D	E		Group 1	Open country, especially along rivers; also near lakes, along coasts, and in cities	Low (foraging); not expected to nest, due to lack of habitat.

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
Lanius ludovicianus	Loggerhead shrike	--	SSC		Group 1	Open foraging areas near scattered bushes and low trees	High
Parabuteo unicinctus	Harris' hawk	--	SSC			River woods, mesquite, brush, cactus deserts	Low (foraging); not expected to nest, due to lack of habitat.
Piranga rubra	Summer tanager		SSC		Group 2	Desert riparian habitat dominated by cottonwood and willow.	Not expected due to lack of habitat.
Toxostoma crissale	Crissal thrasher	--	SSC		Group 1	Dense thickets of shrubs or low trees in desert riparian and desert wash habitats	Low due to lack of habitat.
Toxostoma lecontei lecontei	Leconte's thrasher	--		BLM Sensitive	Group 2	Desert scrub habitats; prefers breeding in saltbush/shadscale vegetation or cholla cacti in sandy substrate.	Moderate
Vireo bellii pusillus	Least Bell's vireo	E	E		Group 1	Riparian	Not expected due to lack of habitat.
Vireo vicinior	Gray vireo	--	SSC	BLM Sensitive	Group 1	Hot, semi-arid, shrubby habitats, especially mesquite and brushy pinyon-juniper woodlands; also chaparral, desert scrub. Thorn scrub, oak-juniper woodland, pinyon-juniper, juniper-cholla, mesquite, dry chaparral. Nests in mature, closed vegetation. Dependent upon elephant tree in the winter.	Low
Reptiles							
Coleonyx switaki	Barefoot banded gecko	--	T		Group 2	Arroyos and rocky hillsides, especially near large boulders or rocky outcrops	Not expected due to lack of habitat.
Phrynosoma mcalli	Flat-tailed horned lizard	--	SSC	BLM Sensitive	Group 1	Dunes and sandy flats of low desert	Not expected due to lack of habitat.
Salvadora hexalepis virgultea	Coast patch-nosed snake	--	SSC		Group 2	Grasslands, chaparral, sagebrush, desert scrub in sandy and rocky areas	Low

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
Crotalus ruber ruber	Red diamond rattlesnake	--	SSC		Group 2	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields	High
Phrynosoma coronatum blainvillei	San Diego horned lizard	---	SSC		Group 2	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest; loose, fine soils with a high sand fraction, an abundance of native ants or other insects, and open areas with limited overstory for basking and low but relatively dense shrubs for refuge	Low
Uma notata notata	Colorado Desert fringe-toed lizard	--	SSC	BLM Sensitive	Group 1	Desert dunes, flats, riverbanks, and washes with loose sand and scant vegetation	Not expected due to lack of habitat.
Mammals							
Chaetodipus californicus femoralis	Dulzura California pocket mouse	--	SSC		Group 2	Chaparral, desert grassland.	Low
Corynorhinus townsendii pallescens	Townsend's big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings. Variety of habitats, arid to mesic. Individual or colonial. Sensitive to disturbance.	Not expected due to lack of habitat.
Eumops perotis californicus	Great western mastiff bat	--	SSC	BLM Sensitive	Group 2	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	Low
Felis concolor	Mountain lion	--	CFP		Group 2	Many habitats, wherever deer are found.	Low
Lasiurus blossevillii	Western red bat	--	SSC		Group 2	Forests and woodlands from sea level up through mixed conifer woodlands. Not found in desert areas.	Not expected due to lack of habitat.
Myotis ciliolabrum	Small-footed myotis	--		BLM Sensitive	Group 2	Arid wooded and brushy uplands near water.	Low
Nyctinomops macrotis	Big free-tailed bat	--	SSC		Group 2	Prefers rugged rocky canyons. Buildings, caves, holes in trees.	Not expected due to lack of habitat.

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
Ovis canadensis cremnobates	peninsular bighorn sheep	E	T		Group 1	Dry, rocky, low-elevation desert slopes	Low, per discussions with USFWS.
Onychomys torridus ramona	southern grasshopper mouse	--	SSC		Group 2	Alkali desert scrub and desert scrub preferred; also succulent scrub, wash, and riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush; low to moderate shrub cover preferred	Moderate
Neotoma lepida intermedia	San Diego desert woodrat	--	SSC		Group 2	Coastal sage scrub, chaparral, most desert habitats	Moderate; no woodrat middens documented onsite
Perognathus longimembris internationalis	Jacumba little pocket mouse	--	SSC		Group 2	Desert scrub and grasslands on loosely packed or sandy soils with sparse to moderately dense vegetation.	Low
Lepus californicus bennettii	San Diego black-tailed jackrabbit	--	SSC		Group 2	Semi-open scrub habitats throughout southern California	Observed
Taxidea taxus	American badger	--	SSC		Group 2	Grasslands, Sonoran Desert scrub	Moderate
Macrotus californicus	California leaf-nosed bat	--	SSC	BLM Sensitive	Group 2	Low deserts, caves, mines, buildings.	Moderate foraging, no roosting
Antrozous pallidus	Pallid bat	--	SSC	BLM Sensitive	Group 2	Arid deserts and grasslands; shallow caves, crevices, rock outcrops, buildings, tree cavities, esp. near water	Moderate foraging, no roosting
Euderma maculatum	Spotted bat	--	SSC	BLM Sensitive	Group 2	Wide variety of habitats: caves crevices, trees; prefers sites with adequate roosting sites	Low
Corynorhinus townsendii pallescens	Pale big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings; variety of habitats, arid and mesic	Low
Nyctinomops femorosaccus	Pocketed free-tailed bat	--	SSC		Group 2	Crevices in rocks, slopes, cliffs; lower elevations	Moderate foraging, no roosting
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	--	SSC		Group 2	Chaparral, open, sandy areas	Low

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
Invertebrates							
Euphydryas editha quino	Quino checkerspot butterfly	E	--		Group 1	Coastal sage scrub	Low

Status Codes:

State/Federal Status

BEGEPA = protected under the federal Bald Eagle and Golden Eagle Protection Act.
BLM Sensitive = species that may require federal T/E listing, or with small and widely dispersed populations, or inhabiting ecological refugia or unique habitats.
CFP = California Fully Protected species.
D = Delisted.
E = Endangered.
SSC = California Species of Special Concern.
T = Threatened.

County of San Diego Status

Group I = animal species that are listed as threatened or endangered or have very specific natural history requirements that must be met.
Group II = animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.

APPENDIX F

2008 AND 2009 QUINO CHECKERSPOT BUTTERFLY SURVEY REPORTS

ROCKS BIOLOGICAL CONSULTING

June 9, 2008

U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Rd.
Carlsbad, CA 92009

Attention: Ms. Sandy Marquez

Permitted Biologists:
Jim Rocks: TE-063230-3
Cynthia Jones Daverin: TE-811615-4

Subject: Year 2008 45-Day Report for Quino Checkerspot Butterfly Surveys at the Proposed Baja Wind U.S. Transmission Line Project Site near Jacumba, CA

Dear Ms. Marquez:

This letter presents the 45-Day Report for Quino Checkerspot Butterfly (*Euphydryas editha quino,* QCB) surveys at the proposed Baja Wind U.S. Transmission Line Project Site (site), near Jacumba in San Diego County, CA. Survey results were negative for both QCB and larval host plant populations during the 2008 surveys. The survey, including the habitat assessment, was conducted from March 6 to April 28, 2008. Figures showing the survey area boundary and copies of field notes are attached to this report.

Location
The proposed Baja Wind U.S. Transmission Line Project will be located sited within an approximately 87-acre area located east of the town of Jacumba, CA, south of Old Highway 80, and immediately north of the international border. The site is on the USGS 7.5'Jacumba Quadrangle (see Figure 1). The site is in the U.S. Fish and Wildlife Service (FWS) recommended Survey Area 1 (2002).

The site is undeveloped, but there are existing dirt roads that are frequently used by the Border Patrol for border surveillance and evidence of trash dumping along the eastern edge of the site. The site is surrounded by relatively undisturbed open space on all sides with Interstate 8 offsite to the north and the US/Mexico border to the south. Figure 2 shows the project site boundary on an aerial photograph. The figures included in this report were provided by Ecology and Environment, Inc. and are assumed to be an accurate representation of the limits of the intended survey area.

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Habitat Assessment
The site is relatively flat to gently sloping with deep alluvial granitic soils in most areas. Several ephemeral washes supporting a relatively high diversity of herbaceous annuals run west-east across the site. Elevation of the site is approximately to 3,100 feet above mean sea level (msl).

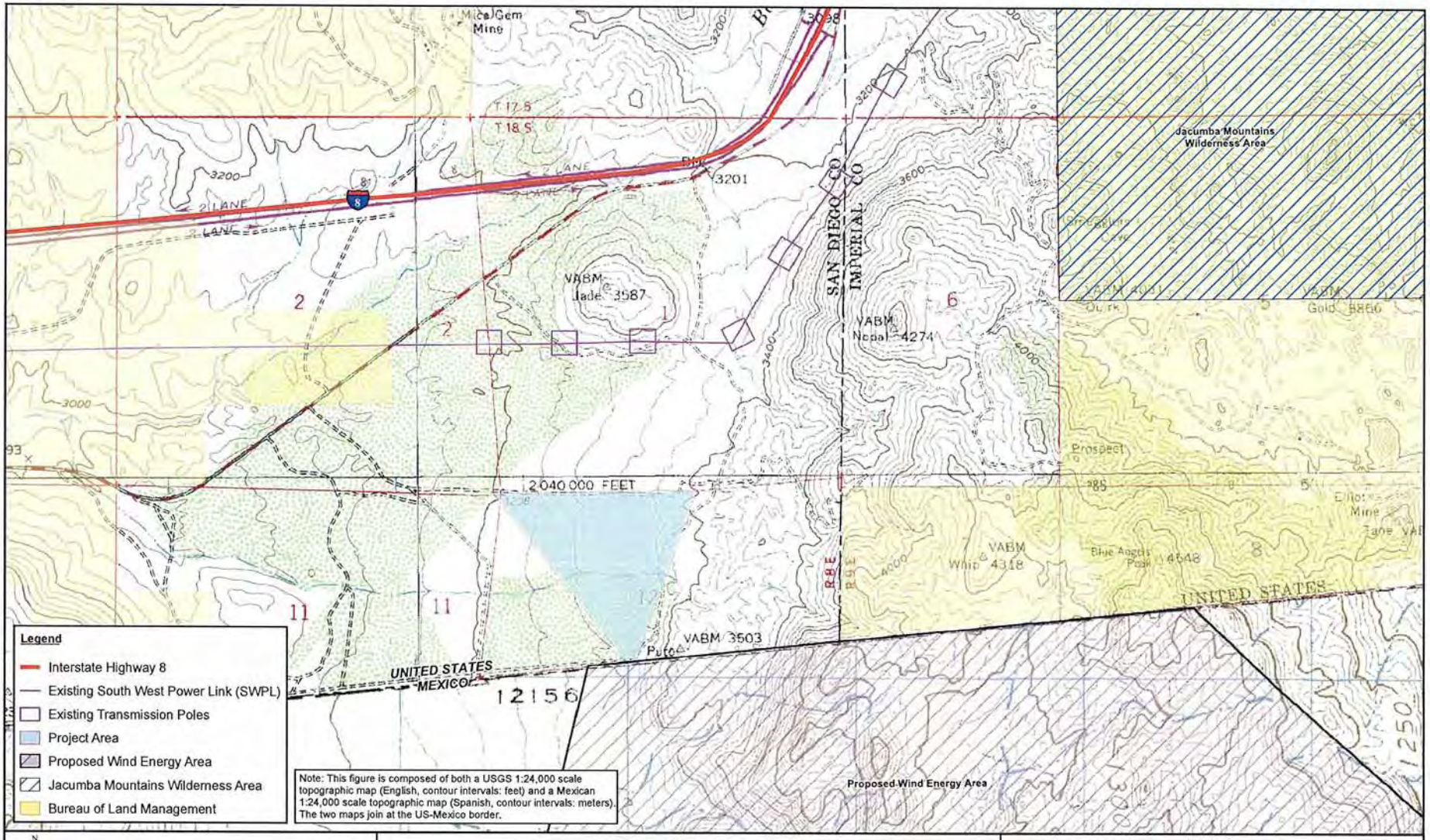
The habitat assessment was conducted on March 6, 2008 to assess the phenology of larval host plants and nectar sources if present. The vegetation communities, soils, and general conditions onsite were assessed for their suitability to support QCB. The vegetation community onsite is best classified as Desert Chaparral or Mixed Desert Scrub. Common shrub or perennial species in this habitat include Jojoba (*Simmondsia chinensis*), Waterjacket (*Lycium andersonii*), Lotebush (*Ziziphus parryi* var. parryi), Ephedra (*Ephedra* spp.), Gander's Cholla (*Cylindropuntia ganderi* var. *ganderi*), Mohave Yucca (*Yucca schidigera*) and Creosote (*Larrea tridentata*). Annuals present include dense patches of Common Goldfields (*Lasthenia gracilis*), Desert Dandelion (*Malacothrix glabrata*), Scale-bud (*Anisocoma acaulis*), Wild Heliotrope (*Phacelia distans*), California butterweed (*Senecio californicus*), California Coreopsis (*Coreopsis californica* var. *californica*), and Pincushion (*Chaenactis* spp.).

Methods
Surveys were performed in accordance with the FWS's "*Quino Checkerspot Butterfly (Euphydryas editha quino) Survey Protocol Information*" dated February 2002. On February 27, 2008, a pre-survey notification letter (the 10-day letter) was sent to the USFWS announcing the intent to conduct surveys for the QCB (Appendix B). The letter included a map of the project site and approximate time the surveys would begin. One field visit to assess the status of host plants and/or nectar sources was performed and six protocol level surveys were completed. More detailed information on the field visit and surveys is presented below. This report is being submitted within the required 45 days to the FWS.

The flight season of QCB is dependent upon adequate rainfall and warm weather to produce supplies of foodplants sufficient for allowing QCB larvae to feed, pupate, and emerge during the spring. In 2008, both in the southwestern and eastern portions of the QCB's range, rain fell in winter and early spring causing the germination of annual plants, but conditions became very dry as spring progressed and many surveyors reported rapid drying and senescence of potential host plants.

Following the rains of late February, a site check for presence of conditions that indicate QCB flight season is imminent or has started was conducted. These conditions include the presence of certain blooming annuals that could potentially be nectar sources, and larval host plants to support caterpillars. Conditions were not ready for surveys on March 6, 2008 as development of annual plants was not sufficient.

Mr. Rocks visited the FWS Jacumba "reference site" on March 29 and April 16, 2008 to compare the phenology of host plants and nectar sources between the reference site and



Baja Wind US Transmission LLC

SE San Diego County, California

Figure 1
PROJECT AREA MAP

Date:	GIS:	Job Number:
6/9/2008	avh	002510.SG08.01

..\edms projects\numerosa\figure 1 project area map.mxd

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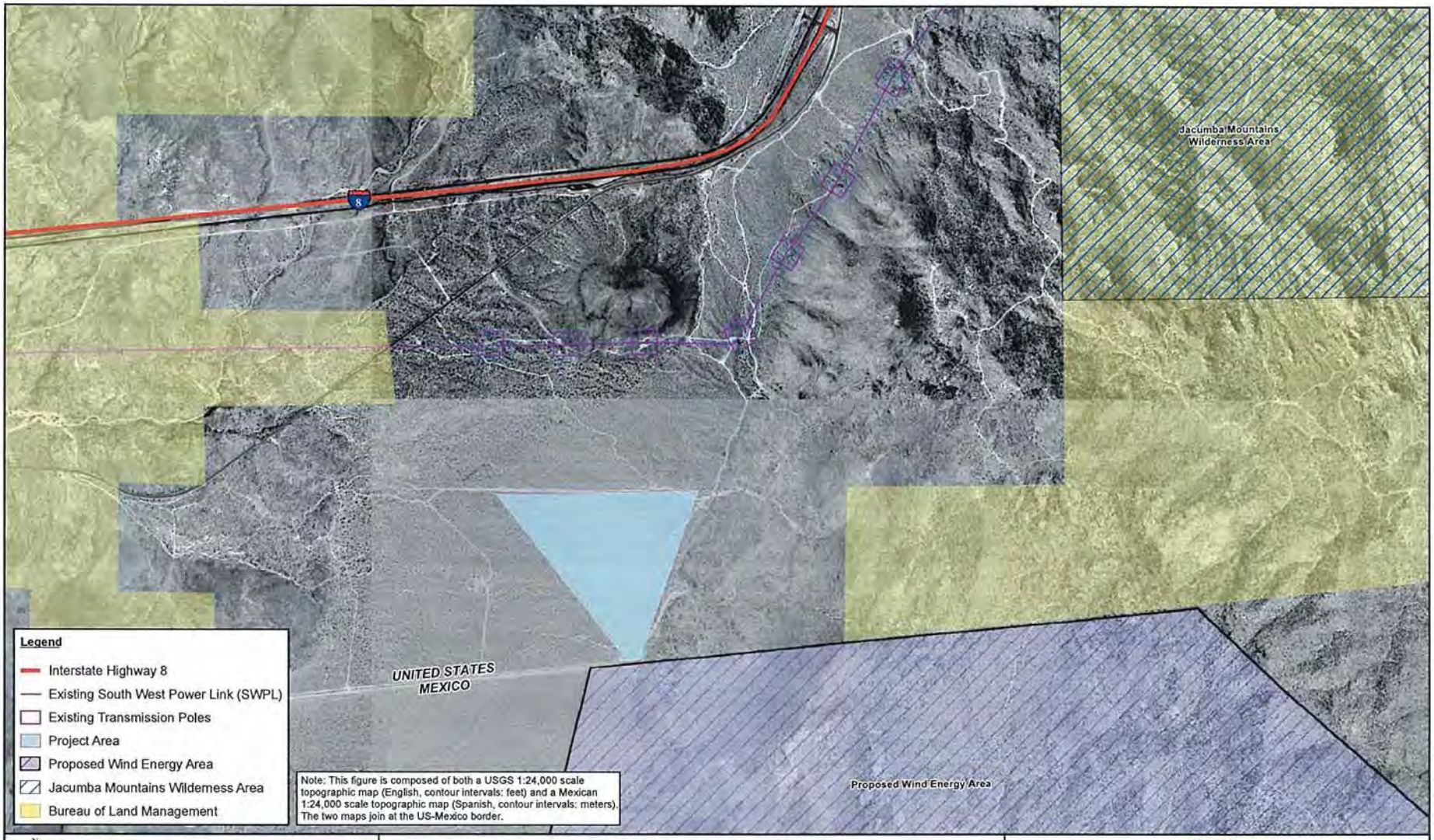

Map Reference:

Baja Wind US Transmission LLC

SE San Diego County, California

Figure 2
PROJECT AREA MAP

Date:	GIS:	Job Number:
6/9/2008	avh	002510.SG08.01

...\edms projects\vumorose\figure 1 project area map.mxd

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the survey area to best assess the appropriate survey commencement and duration to maximize the likelihood of observing QCB. In addition, the FWS's "2008 Season Quino Checkerspot Butterfly (*Euphydryas editha quino*) Monitored Reference Site Information" website was frequently monitored to obtain information on 2008 QCB observations and locations. On March 24, the site area conditions were deemed to be acceptable to initiate QCB protocol level surveys.

Please see Table 1 for survey dates, conditions, and personnel. All surveys were conducted by Jim Rocks (Permit# TE-063230-3) and Cynthia Jones Daverin (Permit# TE-811615-4).

The focus of this report is the Baja Wind U.S. transmission line area (87 acres). The 87 acre area was fully surveyed per FWS QCB protocol guidelines. It should be noted that the Baja Wind U.S. project area adjoins a 295 acre site where a transmission substation that will be owned, permitted, constructed, and operated by San Diego Gas and Electric (SDG&E) is proposed. The 295 acre proposed substation area was also surveyed for QCB by Mr. Rocks and Ms. Daverin in 2008. The survey results for that area were negative and a separate 45-day report will be submitted to FWS by Mr. Rocks and Ms. Daverin. Please note that Table 1 and the attached field notes include some time surveying a portion of the substation area, in addition to the 87 acre transmission line area. During each survey, the number of acres surveyed per hour within suitable QCB habitat averaged approximately 10-15 acres per biologist.

Table 1. Quino Checkerspot Butterfly Survey Dates/Conditions
Baja Wind Transmission Line Site
Jacumba, San Diego County, CA

Date	3-06-08	3-24-08	3-31-08	4-7-08	4-14-08	4-21-08	4-28-08
Time on site	1050-1350	0945-1615	1000-1600	1000-1500	930-1500	1000-1630	1030-1530
Temp (°F) Start-End	59-63	66-78	60-64	64-68	75-85	65-74	81-85
Sky Cover (%) (start-end)	0-0%	0-0%	0-0%	40-0%	0-0%	0-0%	30-10%
Wind Speed (MPH)	1-10	0-3	3-8	4-12	0-8	10-14	5-11
Personnel	JR	JR, CJD	JR, CJD	JR, CJD	JR, CJD	JR, CJD	JR, CJD

Personnel: JR = Jim Rocks; CJD = Cynthia Jones Daverin

Results

Survey results were negative for both QCB and larval host plant populations during the 2008 surveys. In general, the survey area supports a relatively low diversity of butterfly

species. Butterfly species detected during the surveys are presented in Table 2 and a list of nectar sources and other plant species observed on the site is presented in Table 3.

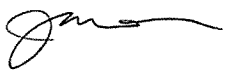
Nectar sources for butterflies were present throughout the site, but the density varied widely with extremely dense patches in some areas and few to no nectar sources in adjacent areas. The primary nectar sources onsite include Common Goldfields, Desert Dandelion, Scale-bud, California butterweed, California Coreopsis, Wild-Heliotrope, and Pincushion.

During the initial surveys (weeks 1-3) the percent cover of nectar sources was very dense, with up to 90% cover in some areas near the southern site boundary. During weeks 4-6, nectar sources in the washes remained viable as other areas declined. Overall, the amount was sharply reduced and conditions for butterfly nectar sources worsened generally across the site.

Please call me at (619) 843-6640 if you have any questions.

This report represents an accurate account of my work on the survey site.

Sincerely,



Jim Rocks, Principal Biologist
Rocks Biological Consulting
Permit Number TE-063230-3

This report represents an accurate account of my work on the survey site.

Cynthia Jones Daverin
Mariposa Biology
Permit Number TE-811615-4

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Table 2. Butterfly Species Detected by Survey Date

Sempra Baja Wind U.S. Transmission Line Site							
Jacumba, San Diego County, CA							
Species Detected		**Survey Date**					
Common Name	***Scientific Name***	3-24-08	3-31-08	4-7-08	4-14-08	4-21-08	4-28-08
Painted Lady	*Vanessa cardui*	▪	▪	▪	▪	▪	▪
Common White	*Pontia protodice*	▪	▪	▪	▪	▪	▪
Ceraunus Blue	*Hemiargus ceraunus*	▪					
Sara's Orangetip	*Anthocharis sara*	▪					
Funereal Duskywing	*Erynnis funeralis*	▪	▪				
Sulphur	*Colias sp.*	▪	▪		▪		
Red Admiral	*Vanessa atalanta*			▪			
Chalcedon Checkerspot	*Euphydryas chalcedona*			▪			
Becker's White	*Pontia beckeri*				▪		
Anise Swallowtail	*Papilio zelicaon*	▪			▪		▪
Black Swallowtail	*Papilio polyxenes*					▪	

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Table 3. Potential QCB Nectar Sources and Other Noted Plants, March-April, 2008

Sempra Baja Wind U.S. Transmission Line Site	
Floral List (March-April 2008)	
Potential QCB Nectar Sources	**Common Name**
Amsinckia menziesii var. *intermedia*	Rancher's Fiddleneck
Amsinckia tessellata var. *tessellata*	Checker Fiddleneck
Anisocoma acaulis	Scale-Bud
Calochortus splendens	Splendid Mariposa Lily
Chaenactis fremontii	Pincushion
Chaenactis stevioides	Desert Pincushion
Cryptantha intermedia	Nievitas Cryptantha
Descurainia pinnata	Tansy-Mustard
Eriogonum thurberi	Thurber's Buckwheat
Eriophyllum wallacei	Wallace's Woolly Daisy
Gilia spp.	Gilia
Guillenia lasiophylla	California Mustard
Lasthenia gracilis	Common Goldfields
Lotus strigosus	Bishop's/Strigose Lotus
Mentzelia affinis	Hydra Stick-Leaf
Pectocarya linearis var. *ferocula*	Slender Pectocarya
Pectocarya recurvata	Curvenut Combseed
Pectocarya setosa	Bristly Pectocarya
Phacelia distans	Wild-Heliotrope
Pholistoma membranaceum	White Fiesta Flower
Plagiobothrys sp.	Popcornflower
Platystemon californicus	Cream Cups
Salvia columbariae	Chia
Senecio californicus	California Butterweed
Senecio flaccidus var. *monoensis*	Mono Butterweed
Other Plants Onsite	**Common Name**
Agave deserti	Desert Agave
Allium fimbriatum var. *fimbriatum*	Desert Onion
Ambrosia [*Hymenoclea*] *salsola*	Cheesebush, Burrobrush
Atriplex canescens var. *canescens*	Four-Wing Saltbush/Shadscale
Bromus rubens	Red Brome
Calyptridium monandrum	Common Calyptridium
Camissonia californica	False-Mustard
Camissonia sp.	Primrose
Cylindropuntia ganderi var. *ganderi*	Gander's Cholla
Coreopsis californica var. *californica*	California Coreopsis
Chorizanthe brevicornu var. *brevicornu*	Brittle Spineflower
Chorizanthe fimbriata var. *fimbriata*	Fringed Spineflower
Delphinium sp.	Larkspur
Echinocereus engelmannii	Englemann's Hedgehog Cactus
Emmenanthe penduliflora var. *penduliflora*	Whispering Bells
Ephedra californica	California Ephedra

Ephedra nevadensis	Nevada Ephedra
Ephedra viridis	Green Ephedra
Eriastrum eremicum	Desert Woolly-Star
Ericameria pinifolia	Pine Goldenbush
Eriogonum fasciculatum var. *polifolium*	Mountain Buckwheat
Eriogonum gracile	Slender Buckwheat
**Erodium cicutarium*	Red-Stem Filaree/Storksbill
Eschscholzia californica	California Poppy
Filago sp.	Filago
Galium sp.	Bedstraw
Larrea tridentata	Creosote Bush
Loeseliastrum schottii	Schott's Calico
Lomatium mohavense	Mohave Lomatium
Lotus scoparius var. *brevialatus*	Deerweed
Lupinus concinnus	Bajada Lupine
Lycium andersonii	Waterjacket
Malacothrix glabrata	Desert Dandelion
Mirabilis laevis	Wishbone Plant
Nama demissum var. *demissum*	Purple Mat
Opuntia chlorotica	Pancake Prickly-Pear
Opuntia phaecantha	Desert Prickly-Pear
Phoradendron californicum	Desert Mistletoe
Prunus fremontii	Desert Apricot
Purshia tridentata var. *tridentata*	Antelope Bitterbrush
Rhus ovata	Sugar Bush
Ribes quercetorum	Oak Gooseberry
**Schismus barbatus*	Arabian Schismus
Sidotheca [Oxytheca] trilobata	Three-Lobe Starry Puncturebract
**Sisymbrium altissimum*	Tumble/Jim Hill Mustard
Simmondsia chinensis	Jojoba
Stephanomeria sp.	Wreath-Plant
Stillingia linearifolia	Linear-Leaf Stillingia
Tetradymia canescens	Spineless Horsebrush
Thamnosma montana	Turpentine-Broom
Thysanocarpus curvipes	Lacepod, Fringepod
Yucca schidigera	Mohave Yucca
Ziziphus parryi	Lotebush
* Non-native species	

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Appendix A. Field Notes

3/6/08 Baja Wind Transmission
Jacumba QCB
Habitat Assessment

	Time	Temp	Wind	Sky
Start	1050	59	1-7	0%
Stop	1350	63	1-10	0%

~~Ephedra~~ Ero Cic (dom)
Sch Bar-(dom)

Ephedra sp.
Cyl Gan
Phacelia spp.
Sim Chi
Jun Cal
Chaenactis sp.
Plagio sp.
Amsinckia ~~sp.~~ tessellata
Lupinus concinnus
Eriogonum (gracile)
Lar Tri
Pher Cal
Atr Can
Cyl Int
Camissonia sp.
Pecto (recurvata)
Lomatium sp.

Animals
Wh ~~[illegible]~~ Spa
Pnt'd Lady
Ladderback Woodpecker
Black-tailed Rabbit
Cow Scat
White
Red tip

Echino Eng
Ericameria
Las Gra (dense in patches)
Agave des
Thysanocarpus
Calyp mon
Yuc Sch
~~Rn Fre~~
Gri Las
Senecio californicus
Opuntia sp.
Salvia columbaria
cf. (Coreopsis californica)
Eri fas var
Esch
Ziz par
(Lyc and)
Mirabilis sp
Des pin

The site hab is consistent across the 200± acres. Herb cover is moderate w/ many still unident. due to early season. Many nectar sources apparent

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3/24/08 / E + E Jacumba GCB #1 — Baja Wind Project

Start	0945	66°	0-3	0%
Stop	1615	78°	0-3	0%

Non-native Plants	Native Plants	Animals
EroCic	PerSet	Scott's Oriole
Sis Alt	PecKic	(Ca. Am. Lady) Pntd Lady
Sch Bar	SenCal	Anise Swal
	CroCal	Phainopepla
	LasGra	Common White
	ZizPar	Black Throated Sparrow
	PhacDis	Ceraunus Blue (on Phacelia distans)
	SimChi	CaKi
	EriWall	Sara's Orangetip
	Plagio	Rt'd Hawk
	Ams Arcol	Bl Tl Jack
	MalaElk	Fun Dsk
	CamCal	~~Common ...~~
	EriFas	Sulphur
	EriFas	
	AtrCan	
	Euph...	
	G...	

AtrCan — JunpCal
Lyc And — Mentzelia
Eriogon... — Castilleja chloroflora (upright, dehisced thin pods)
CylCal — Purshia trid
Yuc Sch — Nama demissum
LarTri — Krameria sp.
Galium sp. — Mirabilis
~~Hirtella ...~~

Ephedra
Aphyllon/...membranaceum
Eucamenia
Deinandra? punctata?
PecLinFer
Ams Tess
Ams Men Int
SenCal
Salvia Col
Thamnosma montana
Echino eng
Thysanocarpus curvipes
Cryptantha inter
Platystemon californicus
Opun phae
Calypt monandrum

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3/31/08 / E+E
Jacumba QCB #2

w/ Cindy, Jones Dave ...

	Time	Temp	Wind	Sky cov
Start	1000	60°	3-5	0%
Stop	1600	64	6-8	0%

Starting on middle of site

Plants
Wildflowers still look good but starting to fade slightly.

Mentzelia affinis - ann, yellow, mentzelia, ... shrubs or exposed to open sandy areas

Animals
Painted lady
Common white
Funereal Duskywing
Sulphur sp.
Black Thr Sparrow
Sphinx moth - ... nectaring on ...
GoTi
Brewer's Sparrow ... tail, bill
Phainopepla
Nutho
Scott's Oriole

4/7/08 / E+E ... Jacumba QCB Survey #3

	Time	Temp	Wind	Sky cover
Start	1000	64	8-12	40% ...
Stop	1500	68	4-5 ...	0%

Antirrhinum ... Rhu ...

Animals
Red Admiral
Painted lady (nectaring on ...)
Phainopepla
Scott's Oriole
Brewer's Sparrow
B Th Gray Warbler
Chalcedon Checkerspot
Common white

Chalcedon checkerspot nectaring on ... old road of very sandy soil.

* No QCB observed

4/14/08 E+E

Jacumba GCB
Survey #4

	Time	Temp	Wind/Dir	Cloud Cov
Start	0930	75	0-1	0
Stop	1500	85	4-8	0

Parked in middle of site, heading north to survey

Plant Notes	Animals
Mal Gla (fl/seed)	Painted Lady
Chae [illegible] (fl/fl)	Common White
Las Gra (seed)	Sphinx Moth
Mal Dis (flower/seed)	Becker's White
Sal Col (f)	[illegible]
Ams Men (Fl/Fr)	ATHFl
~~[illegible]~~	BTH Spar
Amb Salsola	Scott's Oriole
Tetra Common	[illegible]
Sch [illegible]	Phainopepla
Cam Cal [illegible]	[illegible] Swallow
Lal [illegible]	

4/21/08 E+E

Jacumba GCB
Survey #5

	Time	Temp	Wind	Sky
Start	~~0545~~ 1000	65	10-14 SW	0%
Stop	1630	74	11-14	0%

Plants (good for pre)	Animals
[illegible]	Painted Lady
Cal [illegible]	[illegible] Hawk
[illegible] (in [illegible])	Kestrel (chasing [illegible])
[illegible]	Black Swallowtail
Eriogonum [illegible]	Ash Thr Fly
E [illegible]	Com White
[illegible]	Phainopepla
Filago	
[illegible] (veg)	

Rest [illegible] Still in Flower

Chaenactis	Crypt ant
Senecio cal	Amsinckia
Sal Col	
Ams Men	
[illegible] Gra	

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→ Andersonii
Lycium (calyx tube short ≤ ½ corolla tube
Corolla lobes short

Ambsal Filago (arizonica)
Stylo Gnap
Chaenactis stevioides
~~Lyc~~ Cham Albo
Chaenactis fremontii
Most of The Las Gra is dried and in seed. Still some in Fl in protected areas

Oxytheca tril
Layia gland.
Scott's Oriole

Jim Rocks
Castilleja gracilis – now completely in seed w/ a couple of exceptions.

4/28/08 Sempra / E+E
Jacumba QCB #6

	Time	Temp	Wind	[illegible]
Start	1030	81	5-10	30%
Stop	1530	85°	5-11	18% thin

- Nectar sources very scarce now

Senecio flaccidus var. monoensis
Mal Gla
Chae (stev)
Cryptantha
Sal Col
Sti llin
Erio Wall
Phac Dis
Phor Cal (on Ziz Par)
Ribes quercetorum

Ath Fly
No Mo
Phain
Common Raven
Red-tail Hawk
CaQu
B Th Sparrow
Blue-Gray Gnat
Sage thrasher
Anise Swallow

Geraea canescens – found offsite to the west ~25 indiv.

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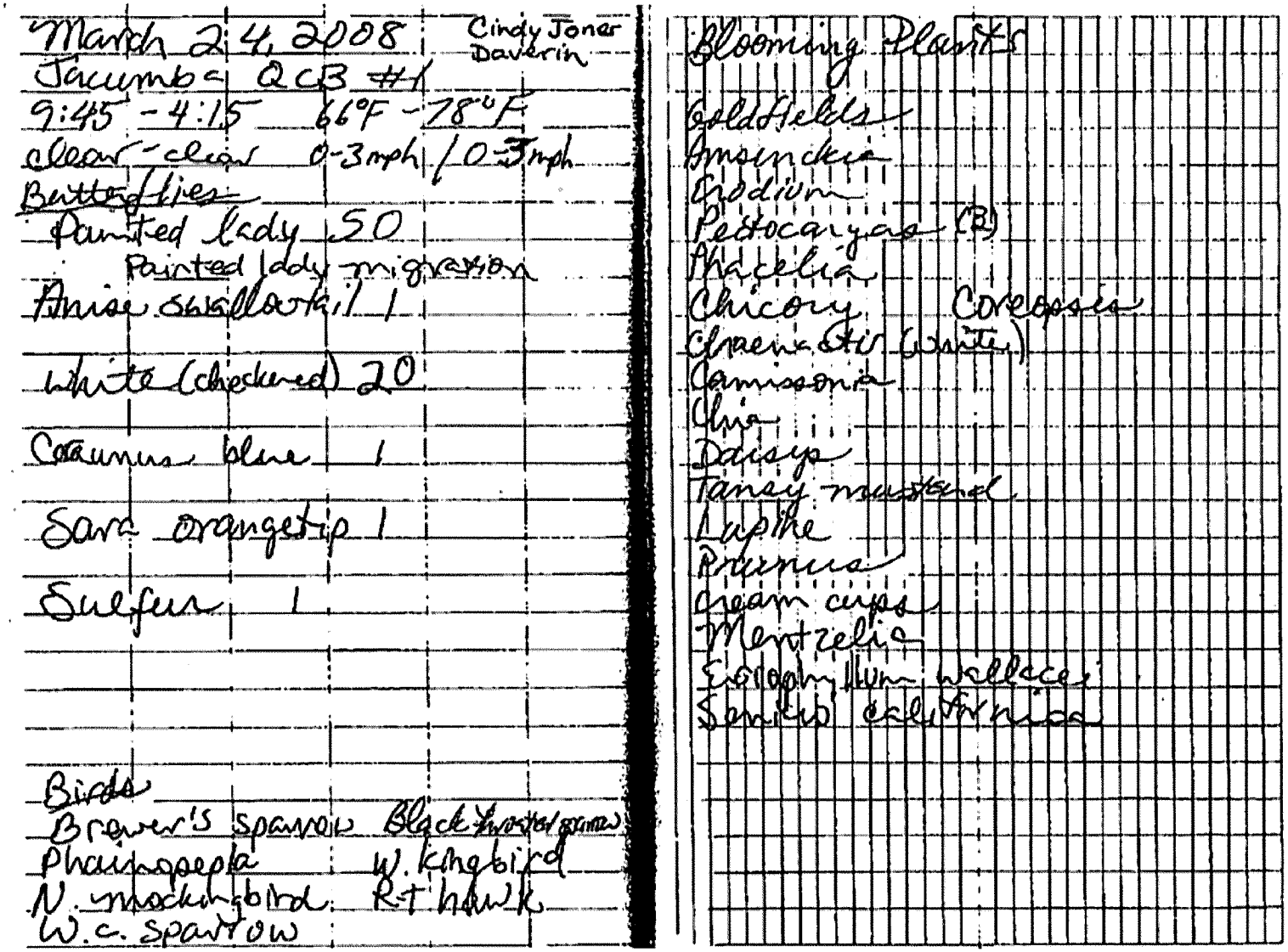

March 24, 2008 Cindy Jones Daverin
Jacumba QCB #1
9:45 - 4:15 66°F - 78°F
clear - clear 0-3mph / 0-3mph
Butterflies
Painted lady 50
Painted lady migration
Anise swallowtail 1
White (checkered) 20
Common blue 1
Sara orangetip 1
Sulfur 1

Birds
Brewer's sparrow Black-throated gray
Phainopepla W. kingbird
N. mockingbird R-t hawk
W.C. Sparrow

Blooming Plants
Goldfields
Amsinckia
Godivia
Pedocarya (B)
Phacelia
Chicory Coreopsis
Eriophyllum (white)
Camissonia
Chia
Daisy
Tansy mustard
Lupine
Brassica
Cream cups
Mentzelia
Eriodictyon wallacei
Salvia columbariae

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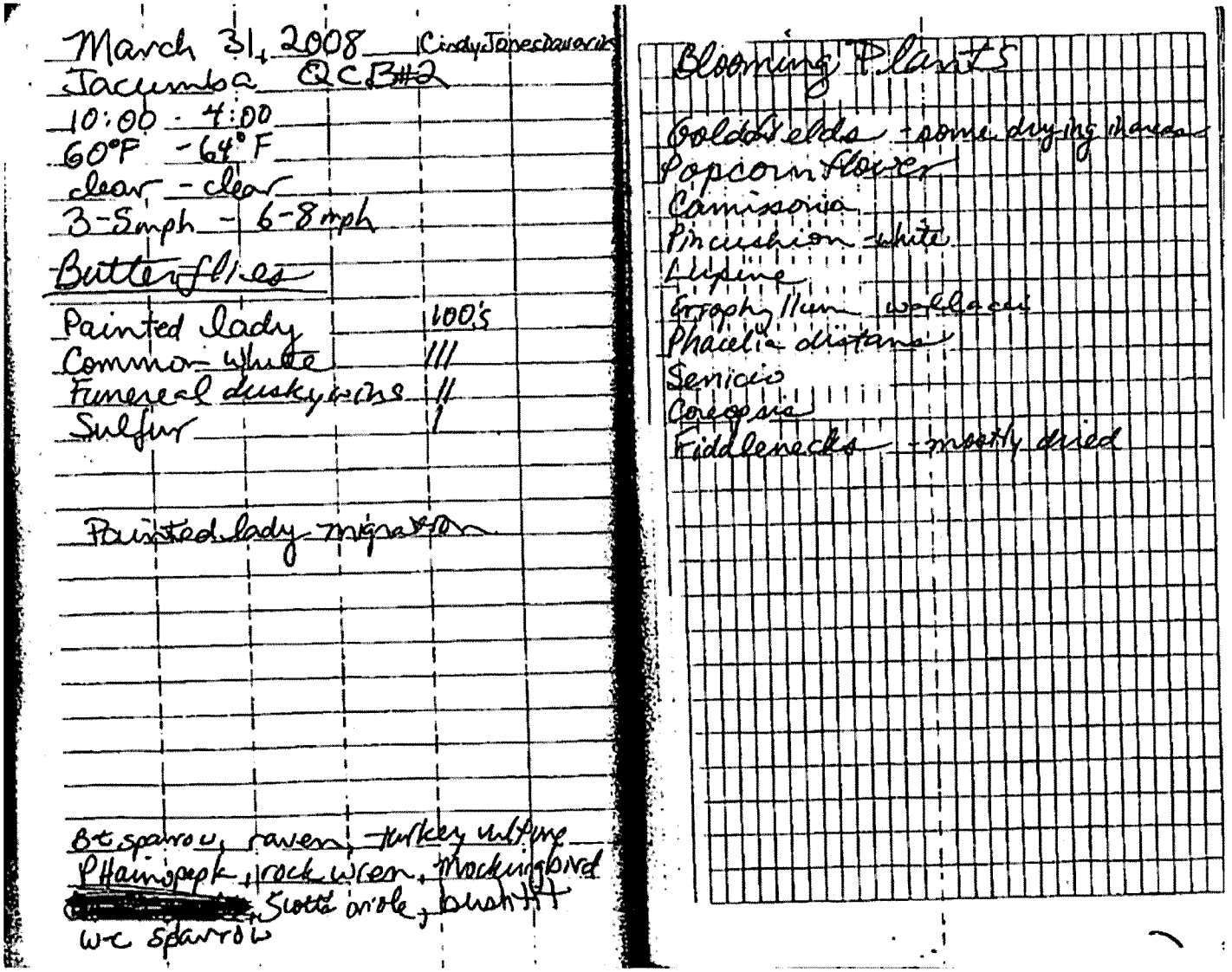

March 31, 2008 Cindy Jones/Dawn Roberts
Jacumba QCB#2
10:00 - 4:00
60°F - 64°F
clear - clear
3-5mph - 6-8mph

Butterflies

Painted lady	100's
Common White	111
Funereal dusky wings	11
Sulfur	1

Painted lady migration

Bt sparrow, raven, turkey vulture
P Hairy pk, rock wren, Mockingbird
[redacted], Scott oriole, Brewer's
WC Sparrow

Blooming Plants

Goldfields - some drying thereon
Popcorn flower
Camissonia
Pincushion - white
Lupine
Eriophyllum - woolly aster
Phacelia - distans
Senecio
Coreopsis
Fiddlenecks - mostly dried

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Jacumba Sempra QCB#3
10 - 3:00 Cindy Jones Davari
64°F - 68°F
Clouds 40%, high, thin
8-12 mph - 4-5 mph

Butterflies

Painted lady Hundreds in migration
Red admiral 1
Checkered white ||||
Chalcedon checkerspot 1
nectaring in dirt road - photo

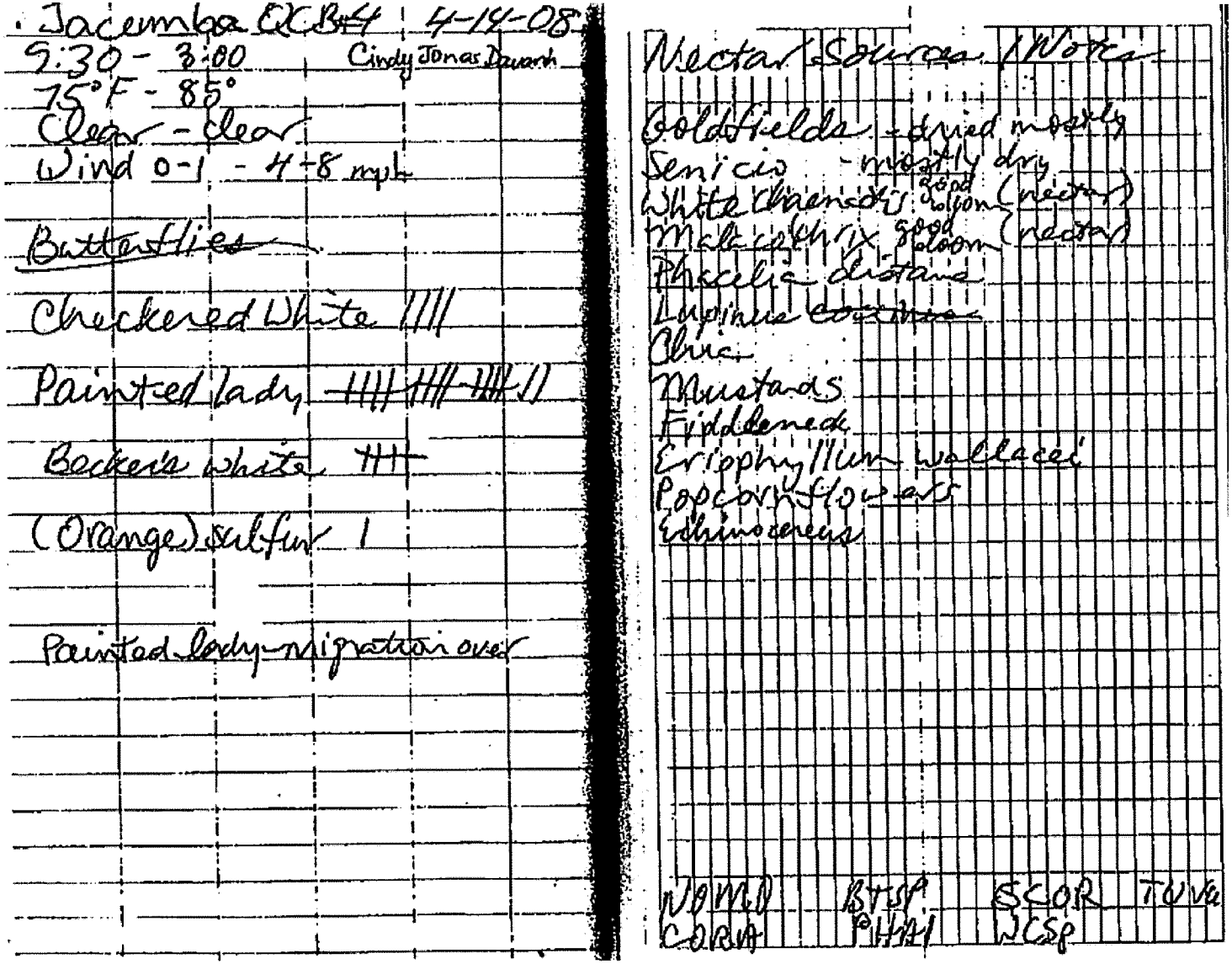
Juniper area has limited nectar sources. Butterflies drop in number.

Flowering Plants
Malacothrix
~~Coreopsis~~ - painted ladies nectar
Lasthenia
Cryptantha
Lupinus ~~[illegible]~~
Phacelia distans - check. white nectar
Erodium
Chia
Chaenactis
Camissonia cal
Eriophyllum wallacei
Amsinckia - chalcedon nectar

Most butterflies obs in South part where Malacothrix is in full bloom

Wildlife

SAGR	BTSP
BTGR Warbler	TUVU
ATFL	COCA
WCSP	NOMO



Jacumba EC B4 4-14-08
9:30 - 3:00 Cindy Jonas Dawarth
75°F - 85°
Clear - clear
Wind 0-1 - 4-8 mph

Butterflies

Checkered White ////

Painted lady ////////////

Becker's white ///

(Orange) sulfur 1

Painted lady-migration over

Nectar Sources / Notes

Goldfields - dried mostly
Senicio - mostly dry
White rhamnosis good bloom (nectar)
Malacothrix good bloom (nectar)
Phacelia dissecta
Lupinus
Clover
Mustards
Fiddleneck
Eriophyllum wallacei
Popcorn flowers
Echinocereus

NAME BTSP ESCOR TOVA
CORA PHAL WCSP

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Jacumba QCB#5 4-21-08

Cindy Jones Dawson

10:00 - 4:30
Clear - Clear
65°F - 74°F
11-14 mph - 8-10

Butterflies

Painted lady 𝍸|||

Black swallowtail |

Checkered white ||||

west whiptail
ATHL, NOMO, SCOR, ROWR
RTHA, BTSP, TUVU, jackrabbit

Blooming Plants

Onion Allium fimbriatum var. fimbria
Filaree
Goldfields (very dried)
Chaenactis (blooming)
Coreopsis (mostly seeding)
Chia (mostly seed)
Eriastrum eremicum
Senecio cal
Eriophyllum wallacei
Eriogonums (small)
Anisocoma (S. end only)
Phacelia (S. end only)
Layia (white)

The swashes in the S. part of site still blooming well
Malacothrix, Chaenactis, Chia, Coreopsis

Appendix B. 10-day Letter

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ROCKS BIOLOGICAL CONSULTING

February 27, 2008

Ms. Sandra Marquez
U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92011

Subject: 10-day Notification Letter for Quino Checkerspot Butterfly Protocol Surveys

Ms. Marquez:

This letter is to inform you that I will be conducting a U.S. Fish and Wildlife Service (FWS) protocol Quino Checkerspot Butterfly surveys in Jacumba, CA and Jamul, CA. I have attached maps of both sites for your information and review. Based on the 2006 FWS map, the sites are both located in Survey Area 1.

The Jacumba survey area consists of approximately 230-acres of desert-transition habitat including Pinyon-Juniper, Yuccas, and Cactus. I will be assisted on this survey by Cindy Jones Daverin (Permit # 811615).

The Jamul, CA site consists of approximately 2-acres of dense Chaparral and Coastal Sage Scrub.

Per the protocol, a thorough habitat assessment of both proposed project areas will be conducted for the Quino Checkerspot Butterfly host plants as well as other plants and environmental variables associated with known habitat of the butterfly, such as nectar sources, openings in Coastal Sage Scrub, Grassland and other habitats, and intact soil crusts.

Please contact me at (619) 843-6640 if you have any questions or concerns about this protocol survey.

Sincerely,

Jim Rocks, Principal Biologist
USFWS Permit No. 063230-3

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ROCKS BIOLOGICAL CONSULTING

May 22, 2009

U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, CA 92009

Attention: Ms. Sandra Marquez

Permitted Biologists:
Jim Rocks: TE-063230-3
Cynthia Jones Daverin: TE-811615-4

Subject: Year 2009 45-Day Report for Quino Checkerspot Butterfly Surveys at the Proposed Energia Sierra Juarez Gen-Tie Project Site near Jacumba, California

Dear Ms. Marquez:

This letter presents the 45-Day Report for Quino Checkerspot Butterfly (*Euphydryas editha quino*, QCB) surveys at the proposed Energia Sierra Juarez Gen-Tie Project site (site), near Jacumba in San Diego County, California. Survey results were negative for both QCB and larval host plant populations during the 2009 surveys. The 2009 survey for QCB is the second survey for this project; the first QCB survey and habitat assessment on the site were conducted in 2008. Surveys in 2008 were negative for both QCB and larval host plants. The 2009 survey was conducted from March 23 to April 22, 2009. Figures showing the survey area boundary and copies of field notes are attached to this report.

Location
The site is within an approximately 60-acre area located east of the town of Jacumba, California, south of Old Highway 80, and immediately north of the international border. The site is on the U.S. Geological Survey 7.5'Jacumba Quadrangle (see Figure 1). The site is in the U.S. Fish and Wildlife Service (USFWS) recommended Survey Area 1 (2002).

The site is undeveloped, but there are existing dirt roads that are frequently used by the Border Patrol for border surveillance, and there is evidence of trash dumping along the eastern edge of the site. The site is surrounded by relatively undisturbed open space on all sides with Interstate 8 about 0.7 miles to the north and the U.S./Mexico border marking the southern boundary of the project site (Figure 2). The figures included in this report were provided by Ecology and Environment, Inc. and are assumed to be an accurate representation of the limits of the intended survey area.

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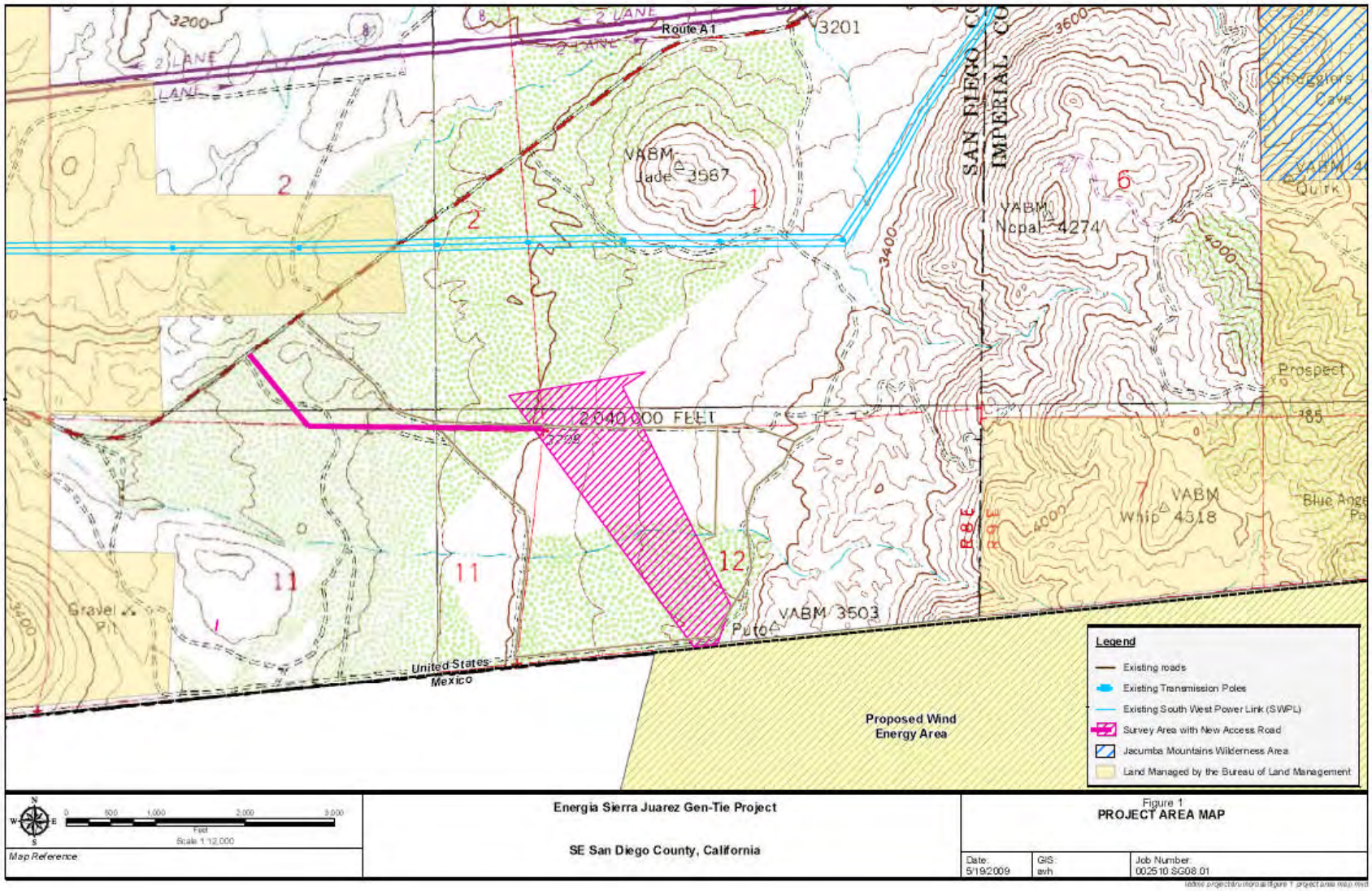

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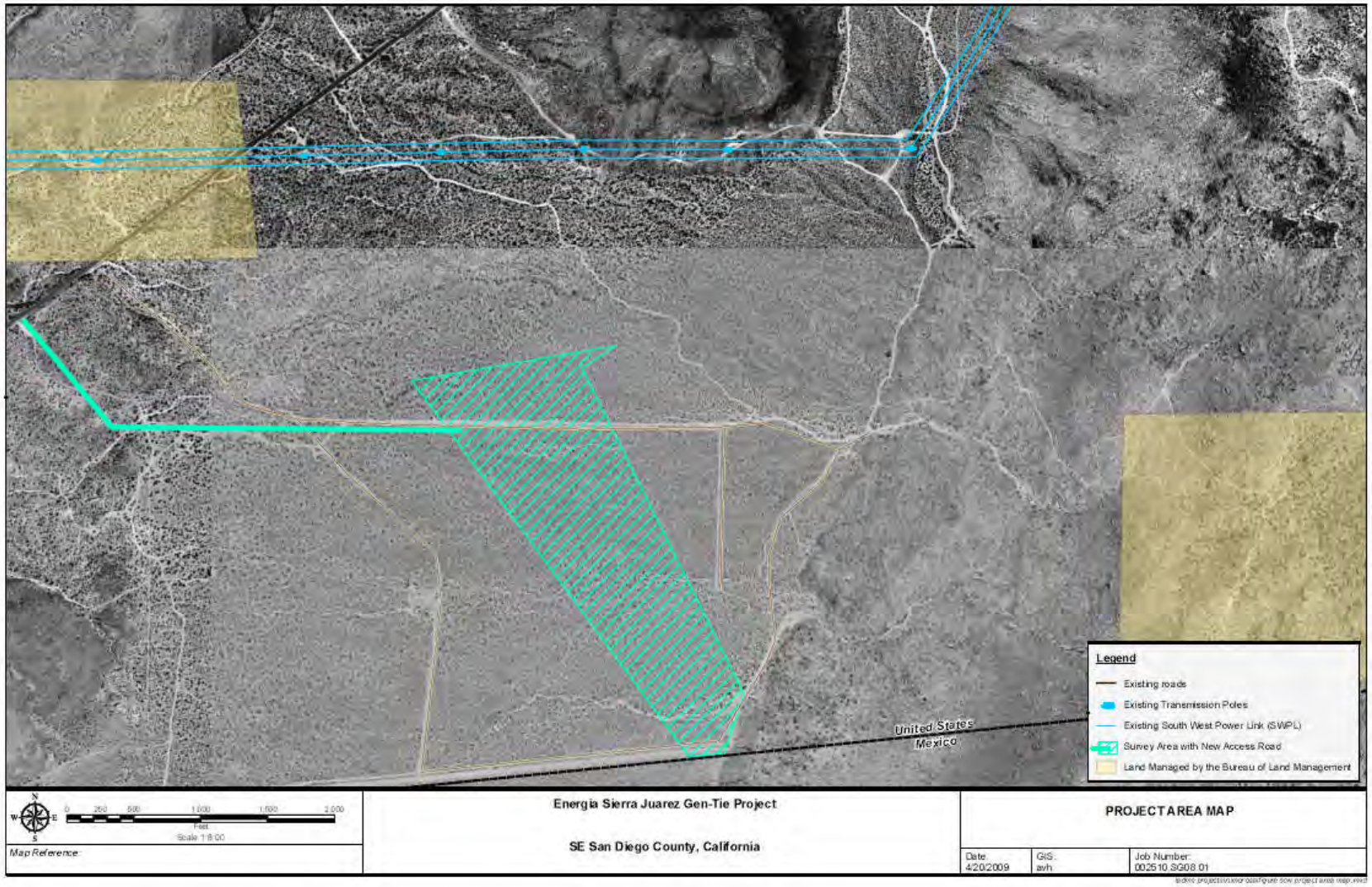

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Habitat Assessment

The site is relatively flat to gently sloping with deep alluvial granitic soils in most areas. Several ephemeral washes, supporting a relatively high diversity of herbaceous annuals, run west-east across the site. Elevation of the site is approximately 3,100 feet above mean sea level. The site is at the western base of a mountain composed of large granitic outcrops.

The habitat assessment was conducted on March 10, 2009, to assess the phenology of the nectar source plants on and near the site. The vegetation communities, soils, and general conditions on site were assessed for their suitability to support QCB in 2008 and were deemed suitable for surveys according to USFWS guidelines. The vegetation community on site is best classified as Desert Chaparral or Mixed Desert Scrub. Common shrub or perennial species in this habitat include Jojoba (*Simmondsia chinensis*), Waterjacket (*Lycium andersonii*), Lotebush (*Ziziphus parryi* var. parryi), Ephedra (*Ephedra* spp.), Gander's Cholla (*Cylindropuntia ganderi* var. *ganderi*), Mohave Yucca (*Yucca schidigera*) and Creosote (*Larrea tridentata*). Annuals present include dense patches of Common Goldfields (*Lasthenia gracilis*), Desert Dandelion (*Malacothrix glabrata*), Scale-bud (*Anisocoma acaulis*), Wild Heliotrope (*Phacelia distans*), California Butterweed (*Senecio californicus*), California Coreopsis (*Coreopsis californica* var. *californica*), and Pincushion (*Chaenactis fremontii*).

Washes, with looser and sandier soils, contained many of the same plant species as the Mixed Desert Scrub. Additional species found in the washes include Cheesebush (*Ambrosia salsola*), Woolly-star (*Eriastrum densifolium* ssp. *elongatum*), Wallace's Woolly Daisy (*Eriophyllum wallacei*), and Schott's Calico (*Loeseliastrum schottii*).

The boulder-covered hills immediately east of the site provide additional plant species important to butterflies such as Yellow Bush Penstemon (*Keckiella antirrhinoides* var. *antirrhinoides*) and Deerweed (*Lotus scoparius* var. *brevialatus*), in addition to most of the Desert Chaparral species.

Methods

Surveys were performed in accordance with the FWS's "*Quino Checkerspot Butterfly (Euphydryas editha quino) Survey Protocol Information*" dated February 2002. On March 15, 2009, a pre-survey notification letter (the 10-day letter) was sent to the USFWS announcing the intent to conduct surveys for the QCB (Appendix B). One field visit to assess the status of nectar sources was performed, and five protocol level surveys were completed. More detailed information on the field visit and surveys is presented below.

The flight season of QCB is dependent upon adequate rainfall and warm weather to produce supplies of food plants sufficient for allowing QCB larvae to feed, pupate, and emerge during the spring. In 2009, both in the southwestern and eastern portions of the QCB's range, rain fell in winter and early spring causing the germination of annual plants. Most of the annual plants that appeared during early surveys had dried by the final survey.

Following the winter rains, a site check for the presence of conditions that indicate QCB flight season is imminent or has started was conducted on March 10, 2009. These conditions include the presence of certain blooming annuals that could potentially be nectar sources and larval host

plants to support caterpillars. Conditions were not ready for surveys as development of annual plants was not yet sufficient.

The USFWS's "2009 Season Quino Checkerspot Butterfly (*Euphydryas editha quino*) Monitored Reference Site Information" website was frequently monitored to obtain information on 2009 QCB observations and locations. On March 13, the website announced that QCB were observed flying on Jacumba Peak. This initiated the QCB surveys on the site.

Please see Table 1 for survey dates, conditions, and personnel. All surveys were conducted by Jim Rocks (Permit# TE-063230-3) and Cynthia Jones Daverin (Permit# TE-811615-4). Because weather conditions prior to and during the 2009 QCB flight season were regarded as very good across the known range of the species, site surveys were extended to a sixth week. Furthermore, at the end of the fifth survey, the site still supported flowering nectar sources, and other spring butterflies that are commonly present with QCB were still in flight. We think the combination of these two factors warranted conducting a sixth protocol survey.

Table 1. Quino Checkerspot Butterfly Survey Dates/Conditions

Date	3-23-09	3-30-09	4-6-09	4-16-09	4-22-09	4-24-09
Time on Site	1545-1715	1415-1630	0900-1115	1100-1300	1345-1615	1430-1630
Temp (ºF) Start-End	66-64	63-62	64-67	65-68	85-81	69
Sky Cover (%) (start-end)	0-0%	0-0%	0-0%	0-0%	0-0%	50-60%, thin clouds
Wind Speed (MPH)	1-10	1-10	1-7	1-4	3-12, gusts to 20	4-12
Personnel	JR, CJD	JR, CJD	JR	JR, CJD	JR, CJD	JR

Personnel: JR = Jim Rocks; CJD = Cynthia Jones Daverin

Results

Survey results were negative for both QCB and larval host plant populations during the 2009 surveys. In general, the survey area supports a relatively low diversity of butterfly species. Butterfly species detected during the surveys are presented in Table 2, and a list of nectar sources and other plant species observed on the site is presented in Table 3.

Common species observed include Painted Lady (*Vanessa cardui*), Common White (*Pontia protodice*), Sara's Orangetip (*Anthocaris sara*), and Chalcedon Checkerspot (*Euphydryas chalcedona*). Becker's White (*Pontia beckeri*) and Bernardino Dotted-Blue (*Euphilotes bernardino*) appeared during the end of the surveys. The number of butterflies present on site in 2009 exceeded the number present in 2008.

Nectar sources for butterflies were present throughout the site, but the density varied widely with extremely dense patches in some areas and few to no nectar sources in adjacent areas. The

primary nectar sources on site include Common Goldfields, Desert Dandelion, Scale-bud, California butterweed, California Coreopsis, Wild-Heliotrope, and Pincushion. Butterflies were particularly attracted to a variety of nectar sources in a small gully at the base of the rock outcrops adjacent to the international border. Larval food plants for butterflies were more common in the outcrops than on the project site. Various Mustards and Rancher's Fiddleneck (*Amsinckia intermedia* spp. *intermedia*) provided nectar sources in the gully.

During the first survey, few nectar sources were blooming. The greatest numbers of nectar sources were present during the middle surveys. By the final survey, most nectar sources had declined or were senescent, with the exception of wash areas and areas beneath large shrubs. Overall, the number of flowering plants was lower in 2009 than in 2008.

This report represents an accurate account of my work on the survey site.

Sincerely,

Jim Rocks, Principal Biologist
Rocks Biological Consulting
Permit Number TE-063230-3

This report represents an accurate account of my work on the survey site.

Cynthia Jones Daverin
Mariposa Biology
Permit Number TE-811615-4

Table 2. Butterfly Species Detected by Survey Date

Common Name	Scientific Name	3-23-09	3-30-09	4-6-09	4-16-09	4-22-09	4-24-09
Common White	*Pontia protodice*	x	x	x	x	x	
Becker's White	*Pontia beckeri*				x	x	x
Pearly Marble	*Euchloe hyantis*			x			
Sara Orangetip	*Anthocaris sara*		x	x	x	x	
Sulphur	*Colias sp.*				x		
Western Pygmy-blue	*Brephidium exile*			x	x		
Bernardino blue	*Euphilotes battoides bernardino*					x	
Chalcedon Checkerspot	*Eyphydryas chalcedona*	x	x	x	x	x	x
Painted Lady	*Vanessa cardui*	x	x	x	x		x
Common Buckeye	*Junonia coenia*		x				
Monarch	*Danaus plexippus*				x		

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Table 3. Potential QCB Nectar Sources and Other Noted Plants, March-April, 2009

Potential QCB Nectar Sources	
Scientific Name	**Common Name**
Amsinckia menziesii var. *intermedia*	Rancher's Fiddleneck
Amsinckia tessellata var. *tessellata*	Checker Fiddleneck
Anisocoma acaulis	Scale-Bud
Calochortus splendens	Splendid Mariposa Lily
Camissonia californica	False-Mustard
Camissonia sp.	Primrose
Chaenactis fremontii	Pincushion
Chaenactis stevioides	Desert Pincushion
Coreopsis californica var. *californica*	California Coreopsis
Cryptantha intermedia	Nievitas Cryptantha
Descurainia pinnata	Tansy-Mustard
Emmenanthe penduliflora var. *penduliflora*	Whispering Bells
Eriogonum thurberi	Thurber's Buckwheat
Eriophyllum wallacei	Wallace's Woolly Daisy
Gilia spp.	Gilia
Guillenia lasiophylla	California Mustard
Larrea tridentata	Creosote Bush
Lasthenia gracilis	Common Goldfields
Lotus scoparius var. *brevialatus*	Deerweed
Lotus strigosus	Bishop's/Strigose Lotus
Lupinus concinnus	Bajada Lupine
Lycium andersonii	Waterjacket
Malacothrix glabrata	Desert Dandelion
Mentzelia affinis	Hydra Stick-Leaf
Pectocarya linearis var. *ferocula*	Slender Pectocarya
Pectocarya recurvata	Curvenut Combseed
Pectocarya setosa	Bristly Pectocarya
Phacelia distans	Wild-Heliotrope
Pholistoma membranaceum	White Fiesta Flower
Plagiobothrys sp.	Popcornflower
Platystemon californicus	Cream Cups
Prunus fremontii	Desert Apricot
Salvia columbariae	Chia
Senecio californicus	California Butterweed

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Potential QCB Nectar Sources	
Scientific Name	**Common Name**
Senecio flaccidus var. *monoensis*	Mono Butterweed
**Sisymbrium altissimum*	Tumble/Jim Hill Mustard
Thamnosma montana	Turpentine-Broom
Ziziphus parryi	Lotebush
Other Plants on Site	
Scientific Name	**Common Name**
Agave deserti	Desert Agave
Ambrosia [*Hymenoclea*] *salsola*	Cheesebush, Burrobrush
Atriplex canescens var. *canescens*	Four-Wing Saltbush/Shadscale
Bromus rubens	Red Brome
Calyptridium monandrum	Common Calyptridium
Cylindropuntia ganderi var. *ganderi*	Gander's Cholla
Chorizanthe brevicornu var. *brevicornu*	Brittle Spineflower
Chorizanthe fimbriata var. *fimbriata*	Fringed Spineflower
Echinocereus engelmannii	Englemann's Hedgehog Cactus
Ephedra californica	California Ephedra
Ephedra nevadensis	Nevada Ephedra
Ephedra viridis	Green Ephedra
Eriastrum densifolium var. *elongatum*	Chaparral Woolly-Star
Eriastrum eremicum	Desert Woolly-Star
Ericameria linearifolia	Goldenbush
Eriogonum fasciculatum var. *polifolium*	Mountain Buckwheat
Eriogonum gracile	Slender Buckwheat
**Erodium cicutarium*	Red-Stem Filaree/Storksbill
Eschscholzia californica	California Poppy
Filago gallica	Filago
Galium sp.	Bedstraw
Juniperus californica	California Juniper
Loeseliastrum schottii	Schott's Calico
Lomatium mohavense	Mohave Lomatium
Lycium andersonii	Waterjacket
Mirabilis laevis	Wishbone Plant
Nama demissum var. *demissum*	Purple Mat
Opuntia phaecantha	Desert Prickly-Pear
Phoradendron californicum	Desert Mistletoe

Other Plants on Site	
Scientific Name	**Common Name**
Prunus fremontii	Desert Apricot
Rhus ovata	Sugar Bush
Ribes quercetorum	Oak Gooseberry
**Schismus barbatus*	Arabian Schismus
Sidotheca [*Oxytheca*] *trilobata*	Three-Lobe Starry Puncturebract
Simmondsia chinensis	Jojoba
Stephanomeria pauciflora	Wreath-Plant
Stillingia linearifolia	Linear-Leaf Stillingia
Thysanocarpus curvipes	Lacepod, Fringepod
Yucca schidigera	Mohave Yucca
Ziziphus parryi var. *parryi*	Lotebush
* Non-native species	

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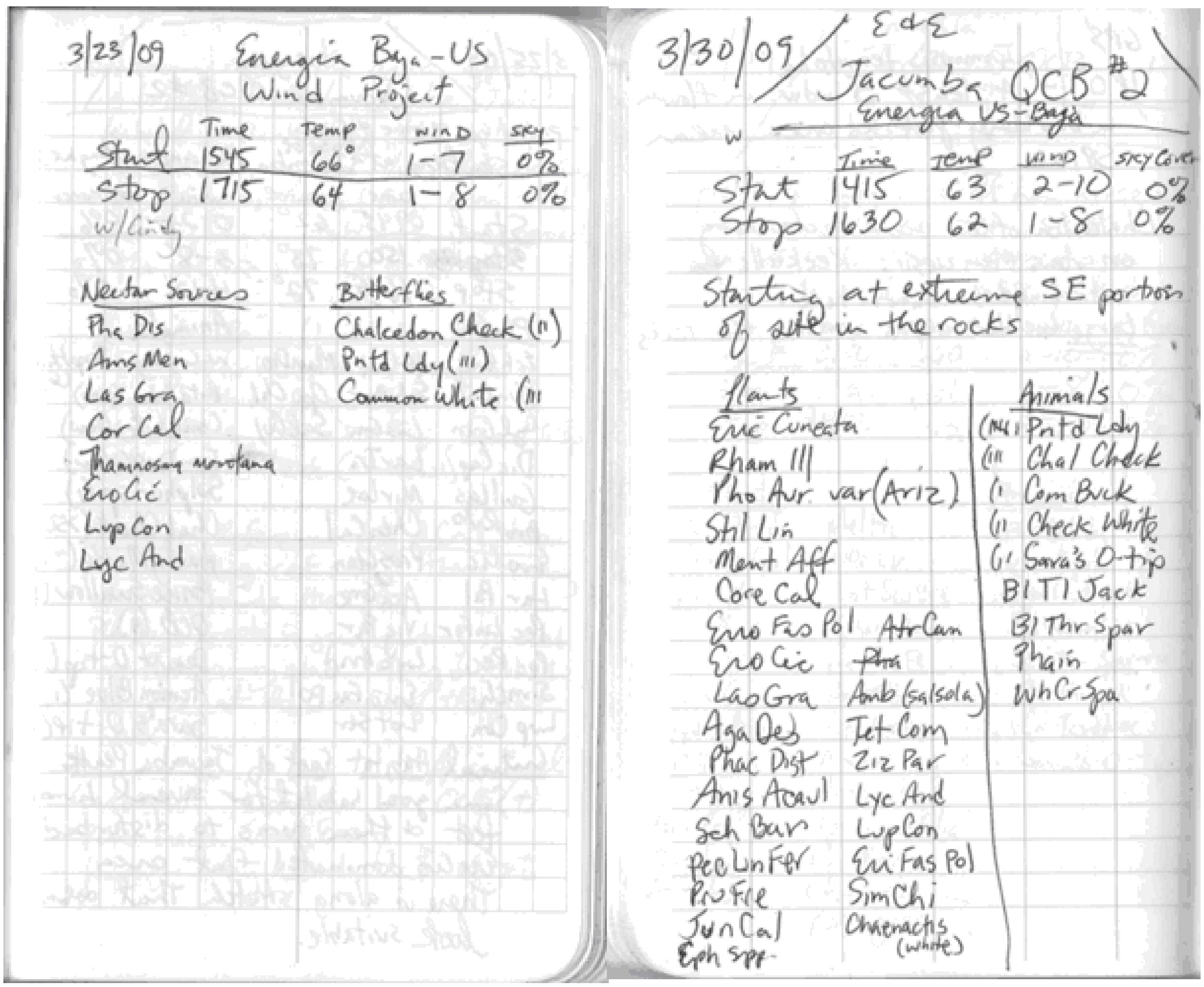
Appendix A. Field Notes



3/23/09 Energia Baja-US Wind Project

	Time	Temp	Wind	Sky
Start	1545	66°	1-7	0%
Stop	1715	64	1-8	0%

w/Cindy

Nectar Sources	Butterflies
Pha Dis	Chalcedon Check (II)
Ams Men	Pntd Ldy (III)
Las Gra	Common White (III
Cor Cal	
Thamnosma montana	
EroCic	
Lup Con	
Lyc And	

3/30/09 / E&E Jacumba QCB #2 Energia US-Baja

w

	Time	Temp	Wind	Sky Cover
Start	1415	63	2-10	0%
Stop	1630	62	1-8	0%

Starting at extreme SE portion of site in the rocks

Plants		Animals
Eric Cuneata		(IIII Pntd Ldy
Rham ilI		(II Chal Check
Pho Aur. var (Ariz)		(I Com Buck
Stil Lin		(II Check White
Ment Aff		(I Sara's O-tip
Core Cal		BI T I Jack
Erio Fas Pol	Atr Can	Bl Thr Spar
Ero Cic	~~Pha~~	Phain
Las Gra	Amb (salsola)	WhCr Spa
Aga Des	Tet Com	
Phac Dist	Ziz Par	
Anis Acaul	Lyc And	
Sch Bar	Lup Con	
Pec Lin Fer	Eri Fas Pol	
Pru Fre	Sim Chi	
Jun Cal	Chaenactis (white)	
Eph spp.		

Appendix A. Field Notes

4/6/09 E+E Jacum Ba QCB 3
US-Baja Energia Project
– only me on survey today

	Time	Temp	Wind	Sky
Start	0900	64	1-7 N	0%
Stop	1115	67	1-6 NE	0%

Starting in the approx. middle of the site then walking south

Plants	Animals
Stil Lin	Pata Ldy (11)
Anis Aca (Fl)	W Pygmy Blue ((
Mal Gla (Fl)	NoMo
Pha Dst (Fl)	Wh Cr Spar
	Bl Thr Spar
	Chalcedon Chk (~~HH HH~~
	Sara's O Tip (111
	Common White (1
	Pearly Marble

Protected cove/cyn area immed adj to the eastern end of the border fence supports many butterflies – ChalChk, Sara's, Ptd Ldy, Whites
Many nectaring on Ams Men

MODO
CAQU

4/16/09 E&E QCB 4 Energia US-Baja Wind

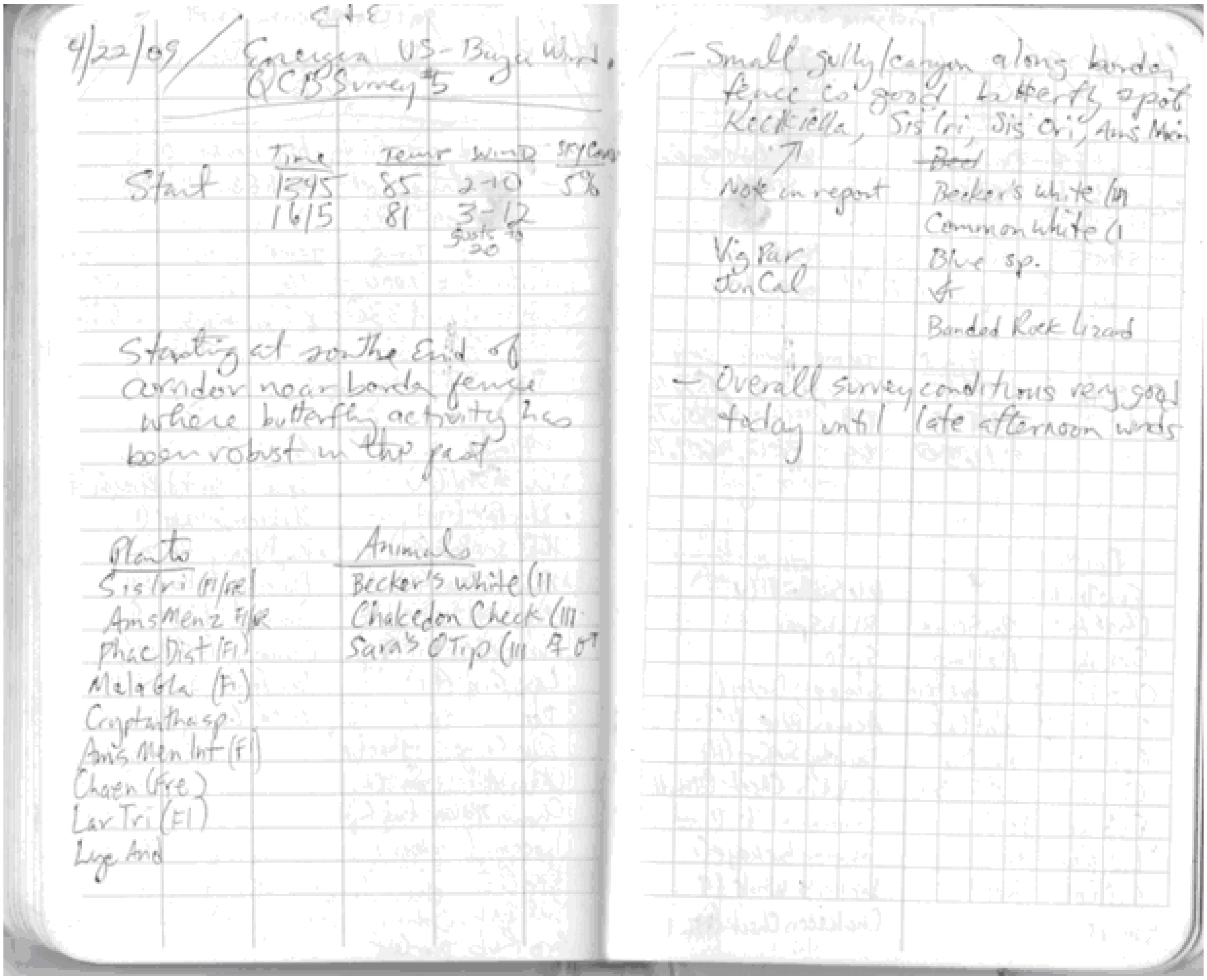
– picked up Cindy 1000

	Time	Temp	Wind	Sky Cover
Start	1100	65	1-4	0%
Stop	1300	68	1-4	0%

Plants	Animals
Las Gra	Chalcedon Check
Mal Gla	Sulfur
Phac Dist	Sara's OTip (11
Chae Frem	Phainopepla
Frias Densif	Monarch (moving S over border fence)
Erio Wall	Becker's White (1
Atr Can	CoRa
Tham Mont	Western Pygmy Blue (1
Locsal schottii	Common White (1
	NoMo
	BlThr Sparrow

Ana

Appendix A. Field Notes



E + E

4/22/09 / Energia US-Baja Wind, QCB Survey #5

	Time	Temp	Wind	Sky Cover
Start	1345	85	2-10	5%
	1615	81	3-12 gusts to 20	

Starting at south end of corridor near border fence where butterfly activity has been robust in the past

Plants	Animals
Sis Tri (Fl/Fr)	Becker's white (1)
Ans Men z Fl/Fr	Chalcedon Check (1)
Phac Dist (Fl)	Sara's O Tip (1) ♀ ♂
Mela Gla (Fl)	
Cryptantha sp.	
Ans Men Int (Fl)	
Chaen (Fre)	
Lar Tri (Fl)	
Lyc And	

– Small gully/canyon along border fence is good butterfly spot
Keckiella, Sis Tri, Sis Ori, Ans Men
Note in report

~~Bird~~
Becker's white (1)
Common white (1)
Blue sp.

Vig Par
Jun Cal

Banded Rock Lizard

– Overall survey conditions very good today until late afternoon winds

3242 FALCON ST ● SAN DIEGO, CA 92103
PH: 619-843-6640. FAX: 619-297-9005. E-MAIL: JIM@ROCKSBIO.COM

Appendix A. Field Notes

E+E

4/24/09 Georgia-US Baja Wind GCB #6

Start	1430	69	4-12	5% Rain
Stop	1630	69	8-12	60% Rain

Plants
Ams Mon Int
Sis Ori
Koe Ant
Chae Fre
Loes Sch
Mal Gla

Animals
Becker's White (1
Chalcedon Check (1
Pntd Lady (1

Site now very dry; butterfly activity waning

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Appendix B. 10-Day Notification Letter

March 15, 2009

Ms. Sandra Marquez
U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92011

Subject: 10-day Notification Letter for Quino Checkerspot Butterfly Protocol Surveys for San Diego Gas & Electric East County 500/230/60kV Substation Project near Jacumba, CA.

Ms. Marquez:

This letter is to inform you that I will be conducting a U.S. Fish and Wildlife Service (FWS) protocol Quino Checkerspot Butterfly surveys in Jacumba, CA. The survey area consists of an approximately 250-acre substation site and 13.5 miles of transmission line corridor. I have attached a map of the survey area for your information and review. Based on the 2006 FWS map, the site is located in Survey Area 1.

The survey area consists of suitable habitat including openings in Desert-transition Chaparral, Red-Shank Chaparral, and Chamise Chaparral. I will be assisted by one or more of the following biologists on this survey: Cindy Jones Daverin (Permit # 811615-4), David Faulkner (838743-5), Erik LaCoste (TE-027736-4), and Darin Busby TE-115373-0.

Per the protocol, a thorough habitat assessment of the proposed survey area will be conducted. Host plants as well as other plants and environmental variables associated with known habitat of the butterfly, such as nectar sources, openings in scrub, grassland and other habitats, and intact soil crusts will be documented.

Please contact me at (619) 843-6640 if you have any questions or concerns about this protocol survey.

Sincerely,

Jim Rocks, Principal Biologist
USFWS Permit No. 063230-3

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APPENDIX G

JURISDICTIONAL DELINEATION REPORT FOR WATERS OF THE U. S. AND STATE OF CALIFORNIA

JURISDICTIONAL WATERS REPORT FOR WATERS OF THE U.S. AND STATE OF CALIFORNIA FOR THE PROPOSED ENERGIA SIERRA JUAREZ U.S. GEN-TIE LINE PROJECT COMMUNITY OF JACUMBA, MOUNTAIN EMPIRE COMMUNITY PLANNING AREA, SAN DIEGO COUNTY

(KIVA PROJECT NUMBER 09-0107420)

Prepared for:

County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123
Contact: Patrick Brown, Project Manager
(858) 694-3011

and

Energia Sierra Juarez U.S. Transmission, LLC
101 Ash Street
San Diego, California 92101
Contact: Joan Heredia, Permitting Manager
(619) 696-1824

Prepared by:

EDAW, Inc.
1420 Kettner Boulevard, Suite 500
San Diego, California 92101
Phone: (619) 233-1454
Fax: (619) 233-0952

Contact: Arthur Popp

~~June 2009~~May 2010

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LIST OF FIGURES

I. SUMMARY

The proposed project is the construction, operation and maintenance of a less than one-mile electric generator-tie line from the Mexico border to a substation adjacent to the Southwest Powerlink (SWPL) 500 kV transmission line in Eastern San Diego County. This project, known as Energia Sierra Juarez U.S. Gen-Tie project (ESJ Gen-Tie Project) is proposed by ESJ U.S. The proposed ESJ Gen-Tie Project proposes two sets of gen-tie routes based upon the East County Substation (ECO Substation) location and the ECO Substation Alternative location. The proposed Gen-Tie would have the capacity to interconnect up to 1250 MW of future renewable energy produced by generators located in Northern Baja California Mexico.

The ESJ Gen-Tie Routes would connect with the proposed East County Substation (ECO Substation) and the ESJ Gen-Tie Alternative Routes would connect to the ECO Substation Alternative. The ECO substation is proposed by San Diego Gas and Electric (SDG&E) which in turn would interconnect to SWPL. The ECO Substation will be permitted by the California Public Utility Commission and will be constructed and operated by SDG&E. The ECO Substation is located approximately 0.65 miles north of the U.S. Mexico border and approximately 3.75 miles east of Jacumba in the southeast corner of San Diego County near the Imperial County Line (see Figures 1, 2a, and 2b).

Within the 62.95-acre survey area, the proposed ESJ Gen-Tie Project proposes two sets of gen-tie routes based upon the East County Substation (ECO Substation) location and the ECO Substation Alternative location within the 62.95-acre survey area. The first set consists of the ESJ Gen-Tie Routes A1 and A2, and the second set consists of the ESJ Gen-Tie Alternative Routes D1 and D2. Each set consists of a single circuit 500 kV line (Route A1 or Route D1) or double-circuit 230 kV line (Route A2 or Route D2). The route that is ultimately selected would be supported on three to five 150 foot steel lattice towers or up to 170-foot steel monopoles. Currently, Routes A1 and A2 are proposed to be supported by five steel lattice towers or steel monopoles and Routes D1 and D2 are proposed to be supported by three steel lattice towers or steel monopoles. Figure 3a shows the alignments and project features for Routes A1 and A2 and Figure 3b shows the alignments and project features for Routes D1 and D2.

The total length of the generator tie line would be approximately two miles, with approximately one mile in the United States (ESJ Gen-Tie Project) and approximately one mile from the international border to the first point of interconnection in Mexico, at the ESJ Jacume substation in Mexico. An additional overhead static ground wire running above the conductors would have

a fiber optic core for communications between the ESJ Jacume Substation in Mexico and the proposed SDG&E ECO Substation.

Access to the ESJ Gen-Tie Project area is provided by Old Highway 80. The proposed project has two property access (PA) road options, Option A and B. Option A is the historical property easement; however, the County of San Diego determined this easement did not satisfy the County's Site Distance requirements. Option B satisfies the County of San Diego Site Distance requirements. The locations and alignments for both PA options are shown in Figures 3a and 3b. Both options would require construction of a new 28 foot wide road and turnaround within a 40-foot wide easement, as required by the Rural Fire Protection District. It is possible that the entire 40-foot easement could be impacted during construction of the access road. Disturbed areas within the 40-foot easement, but beyond the 28-foot wide access road, would be revegetated with a native seed mix.

A new Gen-Tie tower access road would be constructed that would parallel the proposed Gen-Tie. The Gen Tie tower access road and foundations for the lattice towers or monopoles would be located entirely within the permanent right-of-way. The Gen-tie tower access road would be an approximately 12-foot wide graded dirt road. Both the property access road and Gen-Tie tower access road would be maintained periodically. This maintenance would include periodic grading and minor repairs.

As noted above, the Gen-Tie would consist of either a single circuit 500 kV line or double circuit 230 kV line. The key features and impacts of each of these alternatives are summarized in Table 1.

Route A1 or D1 (the 500 kV Gen-tie) would be constructed within a 214-foot wide permanent right-of-way. Route A2 or D2 (the 230 kV Gen-tie) would be constructed within a 130-foot permanent right-of way. A 100-foot and 70 foot wide temporary construction easement along the right-of-way was originally proposed for Route A1 and A2, respectively. The temporary easement has been eliminated to minimize disturbed areas.

In lieu of these 100-foot wide (7.72 acres) or 70-foot wide (5.64 acres) temporary easements, the wire stringing site proposed at the north end of the project site immediately adjacent to the property access road, and which was originally identified as having a disturbance of 0.69 acres, would instead be used as a wire stringing site and as a construction laydown and parking area. This consolidated construction laydown/parking/stringing disturbance area would be 1.88 acres for Route A1 and 1.98 acres for Route A2, which is a reduction in impacts in comparison to the

100-foot and 70-foot easements. Route D1 and Route D2 share a common 1.99 acre staging area south of common roadway of both Route PA options (Figures 3a and 3b).

The proposed project will be constructed entirely on privately owned land in southeastern San Diego County, approximately 3.75 miles east of the unincorporated community of Jacumba. The project site is primarily undeveloped land adjacent to the U.S. Mexico International Border, and is composed of scrubby desert vegetation. Border Patrol activity in the area is common, and roadways utilized by the Patrol exist along and through the site. In accordance with County Guidelines (2008), the entire proposed project site plus 100 feet onto adjoining properties was surveyed to evaluate on-site and immediately adjacent off-site land.

In accordance with County Guidelines (2008), the entire proposed project site, plus a 100-foot off-site survey area surrounding the site must be surveyed. Therefore, both gen-tie line alternatives within the project site, both access road alternatives into the site from Old Highway 80, as well as the surrounding off-site 100-foot project buffer were investigated for the presence or absence of jurisdictional waters.

This report summarizes the existing conditions at the proposed project site, the methodology employed in determining whether features found within the survey area are considered jurisdictional water resources, and the results of this evaluation.

For this project, it has been determined that there are no federal or state jurisdictional waters present at the project site.

II. INTRODUCTION

A. Project Location

The proposed project site is located in the southeast corner of San Diego County, along the U.S. Mexico international border (Figure 1). It is situated approximately 60 miles southeast of San Diego, and 3.75 miles east of the unincorporated community of Jacumba, approximately 1 mile south of Interstate 8. The proposed project site occurs within the Jacumba mountain range at an elevation between 3,300-3,400 feet above mean sea level. It lies within Range 8 East, Township 18 South, Section 12 of the U.S. Geological Survey (USGS) In-Ko-Pah Gorge Quadrangle (USGS 1954; Figure 2).

B. Project Setting

The Jacumba range is characterized by granite ridges, separated by scrubby desert valleys. Ridge elevation descends as you move to the east into the Sonoran Desert. As a high-elevation environment, it is generally warmer than coastal areas to the west, but cooler than lower deserts to the east. Average high temperatures range between 62°F in January and 94°F in August, with lows averaging between 34°F and 52°F during the same months. Precipitation averages 15.58 inches per year, with more than half of that amount (9.36 inches) occurring in the winter months of January and March. Monthly averages range between 0.09 inches in June and 3.30 inches in January (Weather 2009).

III. REGULATORY FRAMEWORK

Wetland and other aquatic environments/habitats occurring within California are regulated under the following federal and state laws.

A. Federal Regulations

Under Section 404 of the CWA, the USACE regulates the discharge of dredged or fill material into jurisdictional waters of the U.S., which include those waters listed in 33 CFR 328.3 (Definitions).

Section 401 of the CWA requires a water quality certification from the state for all permits issued by the USACE under Section 404 of the CWA. The RWQCB is the state agency in charge of issuing a CWA Section 401 water quality certification or waiver.

B. State Regulations

Under Section 1600 et seq., of the California Fish and Game Code (CFGC) the CDFG regulates activities that would substantially alter the channel, bed, or bank, of a lake, river, or stream. In practice, the CDFG extends its jurisdictional limit to the continuous edge of the riparian canopy that may grow along a lake, river, or stream.

Under Section 13000 et seq., of the Porter-Cologne Water Quality Control Act (Porter-Cologne) the RWQCB is the agency that regulates discharges of waste and fill material within any region that could affect a water of the state (Water Code 13260[a]), (including wetlands and isolated waters) as defined by the California Water Code (CWC) Section 13050(e).

IV. SITE CONDITIONS

A. Vegetation

Two vegetative communities occur within the survey area (Figure 4). Utilizing the Holland Code (as modified by Oberbauer) for classifying vegetation communities of San Diego County (Holland 1986; Oberbauer 2005; Oberbauer et al. 2008), the on-site communities can be classified as Sonoran Mixed Woody Scrub (Holland Code 33210) and Peninsular Juniper Woodland and Scrub (72320). The Sonoran Mixed Woody Scrub community was dominated by: creosote bush (*Larrea tridentata*), jojoba (*Simmondsia chinensis*), lotebush (*Ziziphus parryi*), ephedra (*Ephedra californica*), yucca (*Yucca schidigera*), and Gander's cholla (*Cylindropuntia gander*). These species uniformly covered the survey area. Annuals are more common in the southern portion of the site, and include: common goldfields (*Lasthenia gracilis*), filaree (*Erodium cicutarium*), wild heliotrope (*Phacelia distans*), hydra stick-leaf (*Mentzelia affinis*), and rancher's fiddleneck (*Amsinckia menziesii* var. *intermedia*).

The transition to the Peninsular Juniper Woodland and Scrub community was noted by areas consisting primarily of California juniper (*Juniperus californica*) along the access road in the northwest portion of the survey area. Vegetative cover in this community is relatively sparse, and includes occasional occurrences of ephedra, creosote bush, and yucca.

Existing access roadways are considered disturbed habitat (Holland Code 11300). This cover type is generally void of vegetation but continues to retain a soil surface.

No hydrophytic vegetation was observed within the survey area during the field visit. Drainage features observed within the site did not contain any vegetation that thrives in wet conditions; rather, vegetative growth is generally sparse and unchanged from the surrounding landscape.

B. Soils

The project site is composed primarily of Rositas (RsC) soils (Figure 5), which are very deep, loamy course sands, with 2-9 percent slopes. These deep, somewhat excessively drained soils originate from eroding granite ridges. This soil type has rapid permeability, slow to medium runoff, a slight hazard for erosion, and is used primarily as desert range. Three additional soil types exist along the access roadway, or within close proximity of the survey area. Rough Broken Land (RuG) is well-drained to excessively drained, steep to very steep mountain or mountain flank landforms, that have either exposed or a shallow depth to well-weathered

bedrock. Mecca soil (MnB) is very deep, well-drained course sandy loam, which also derived from granite alluvium. Acid Igneous Rock Land (AcG) is rough broken terrain of low hills to very steep mountains, 50-90 percent of which is covered by large mineral boulders and rocks, with remaining areas consisting of soils that have a loam to loamy course sand texture and is very shallow over decomposing granite or basic igneous rock (USDA 1973).

None of these soils appear on the National Hydric Soil List (USDA 1992). The somewhat excessively drained, course sandy nature of the Rositas soils is readily apparent at the site. Erosive features and a swale found during the reconnaissance visit quickly became indiscernible, reflecting the dry and well-drained nature of the site's soils.

C. Hydrology

Erosive features and a swale were observed in the survey area during the site visit, as shown on Figure 6.

Erosive feature (1) was observed approximately 225 feet north of the border fence, just to the east of where proposed Gen-Tie lines A1 and A2 begin to split. Evidence of water runoff during rain events along a roadway utilized by the Border Patrol was noted that created eroded surface features generally 3-6 inches deep a few feet wide (see photographs 1 and 2 in Figure 8). These features converge to create a wider erosive feature, which becomes indiscernible and diffuse into sheet flow at the point where the two proposed gen-tie line alternatives split from each other. The total length of this eroded surface feature is approximately 335 feet. Tire tracks are evident within the drainage feature, and travel through the area may increase erosion from water runoff. Travel further to the west along this route accounts for the lack of vegetation visible on the aerial.

A second feature (2) was observed approximately 1,260 feet north of the border fence, and originates outside of the project area and 100 foot buffer, to the east. It is a similar erosive feature (see photograph 3 in Figure 9) that is approximately 100 feet long, and again appears to be associated with runoff from a roadway utilized by the Border Patrol. At a point just outside the buffer and project area, it also becomes indiscernible and diffuses into sheet flow. As with the feature discussed above, tire tracks are evident through portions of this area as well; travel through the feature to the west accounts for the lack of vegetation visible on the aerial. The USGS In-Ko-Pah Gorge topographic map (Figure 2) depicts a dashed blue-line through this area. The current field assessment, however, indicates that the blue-line may be a map artifact, as any type of drainage is no longer present through the survey area.

The third feature (3) is a swale that lies approximately 150 feet southeast of the property access road into the site, and originates to the east of the project area and buffer. This approximately 3-foot-wide swale runs roughly perpendicular to the access road for approximately 400 feet. This slightly concave portion of the landscape would concentrate and convey surface storm water runoff in the area; however, no evidence of a bed or bank or an ordinary high water mark (OHWM) was noted (see photograph 4 in Figure 9). The swale also becomes indiscernible and diffuses into sheet flow approximately 100 feet into the survey area.

The fourth (4) and fifth (5) features were observed along existing access roads in the northwest portion of the survey area. Both of these features are associated with runoff from roadways, which has created erosive features that convey storm water into the surrounding landscape. These features disappear when they are intersected by other roadways. Vehicle travel along them appears common and provides shortcuts between roads; such activity may increase their erosive nature.

V. JURISDICTIONAL EVALUATION

Prior to conducting the field survey, an aerial map (2008 Digital Globe) of the survey area and vicinity was examined to determine the potential for jurisdictional waters to occur. Based on the aerial assessment no wetlands were likely to occur within the survey area; however, indications of potential drainage features warranted a field assessment.

The site assessment verified the absence of hydrophytic vegetation and any field indicators of wetland hydrology; therefore, a formal wetland delineation was not warranted. In addition, no evidence of jurisdictional waters was observed [i.e., "other waters" as indicated by an ordinary high water mark (OHWM)] or channel bed or bank. Therefore, based on regulatory guidance the erosive features and the swale are not considered waters of the U.S. or state under Section 404 of Clean Water Act (CWA) or Section 1600 *et seq.* of the California Fish and Game Code, respectively.

In addition, these features – isolated erosive or concave areas that convey runoff for short distances and of short duration and do not support onsite or offsite "beneficial uses," e.g., enhancement of fish, wildlife, and other aquatic resources – are not considered "waters" under California Water Code Section 13050(e) that would be regulated under Porter-Cologne.

VI. REFERENCES CITED

County of San Diego

2008 County of San Diego Guidelines for Determining Significance to Biological Resources and Report Format and Content Requirements. Second Revision, July 30.

Holland, R. F.

1986 *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Prepared for California Department of Fish and Game.

Oberbauer, T.

1996 *Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions*. San Diego Association of Governments, San Diego, CA, 6 pp.

Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge

2008 Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," Robert F. Holland, Ph.D., October 1986. November.

U.S. Department of Agriculture (USDA)

1973 Soil Survey, San Diego Area, California. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.

1992 Hydric Soil List. Natural Resources Conservation Service. Escondido, California Field Office. Field Office Technical Guide. March.

U.S. Geological Service (USGS)

1954 In-Ko-Pah Gorge Quadrangle 7.5-Minute Topographic Map. Photo revised 1975.

Weather

2009 *Average Weather for Jacumba, CA,* Available at http://www.weather.com. Accessed March 31, 2009.

APPENDIX A

FIGURES

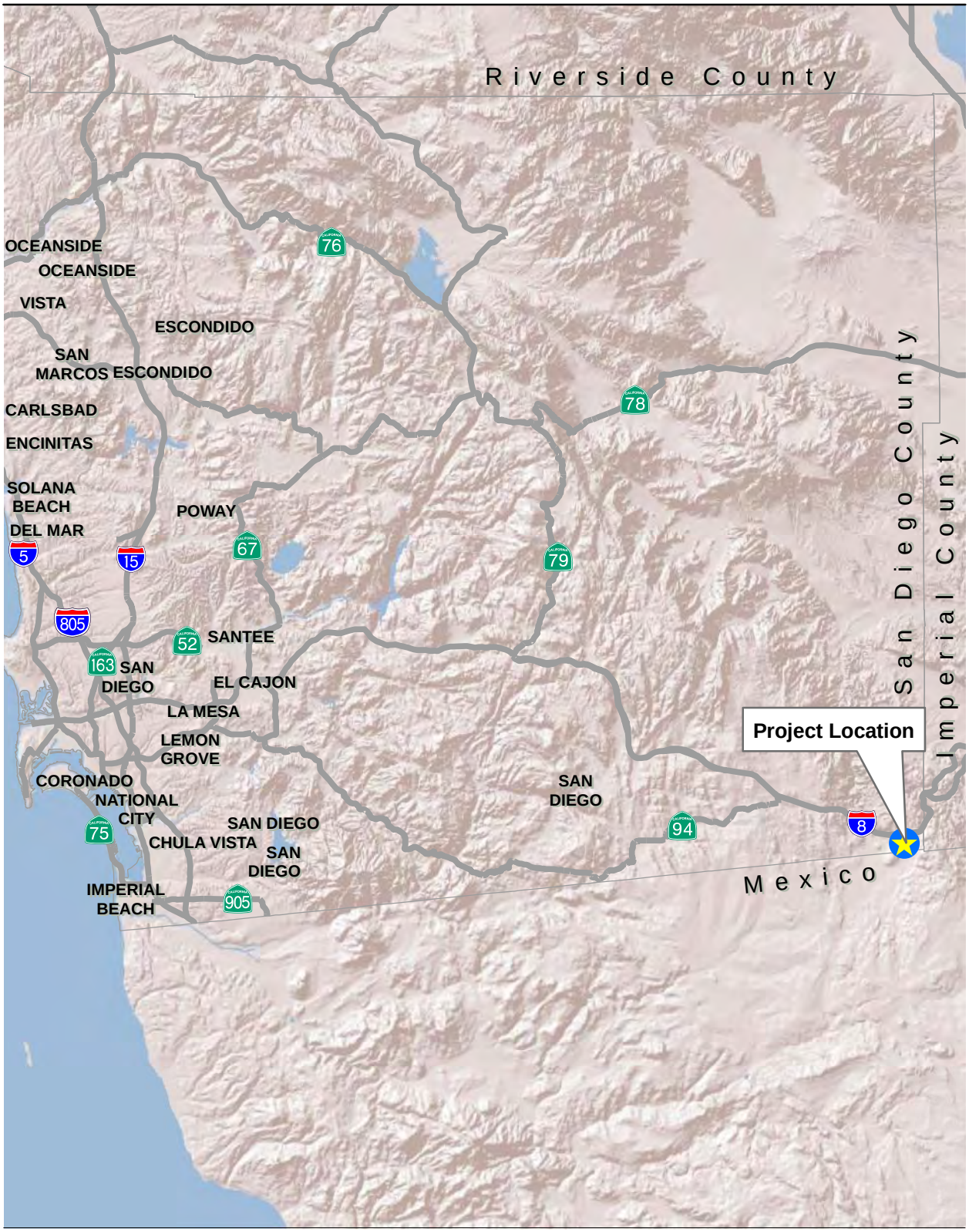

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Figure 1
Regional Location Map

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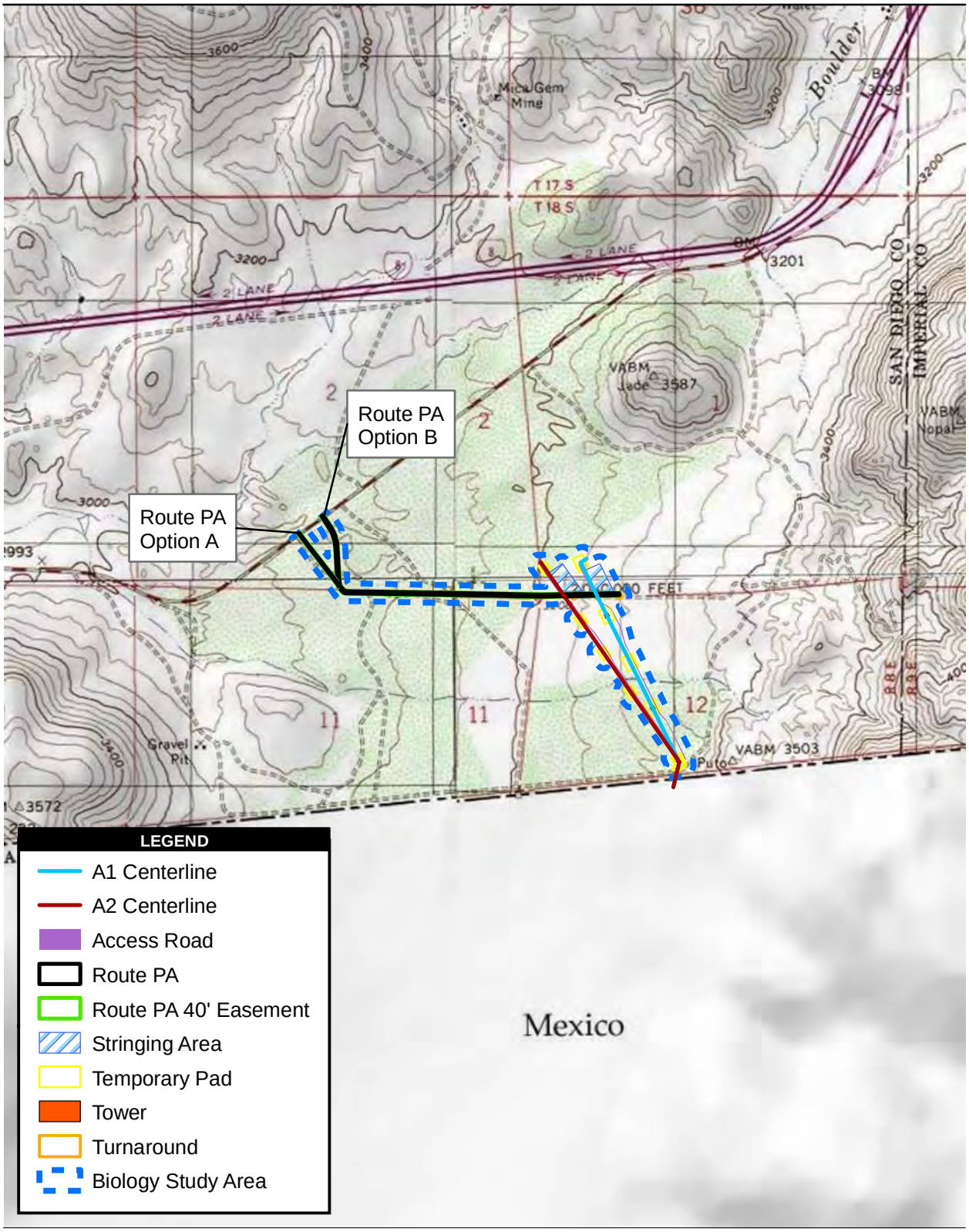

Source: ESRI 2009, USGS Topographic Quadrangle In-Ko-Pah Gorge 1975, Jacumba 1975

2,000 1,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2a
Project Vicinity
ESJ Gen-Tie Routes A1 and A2

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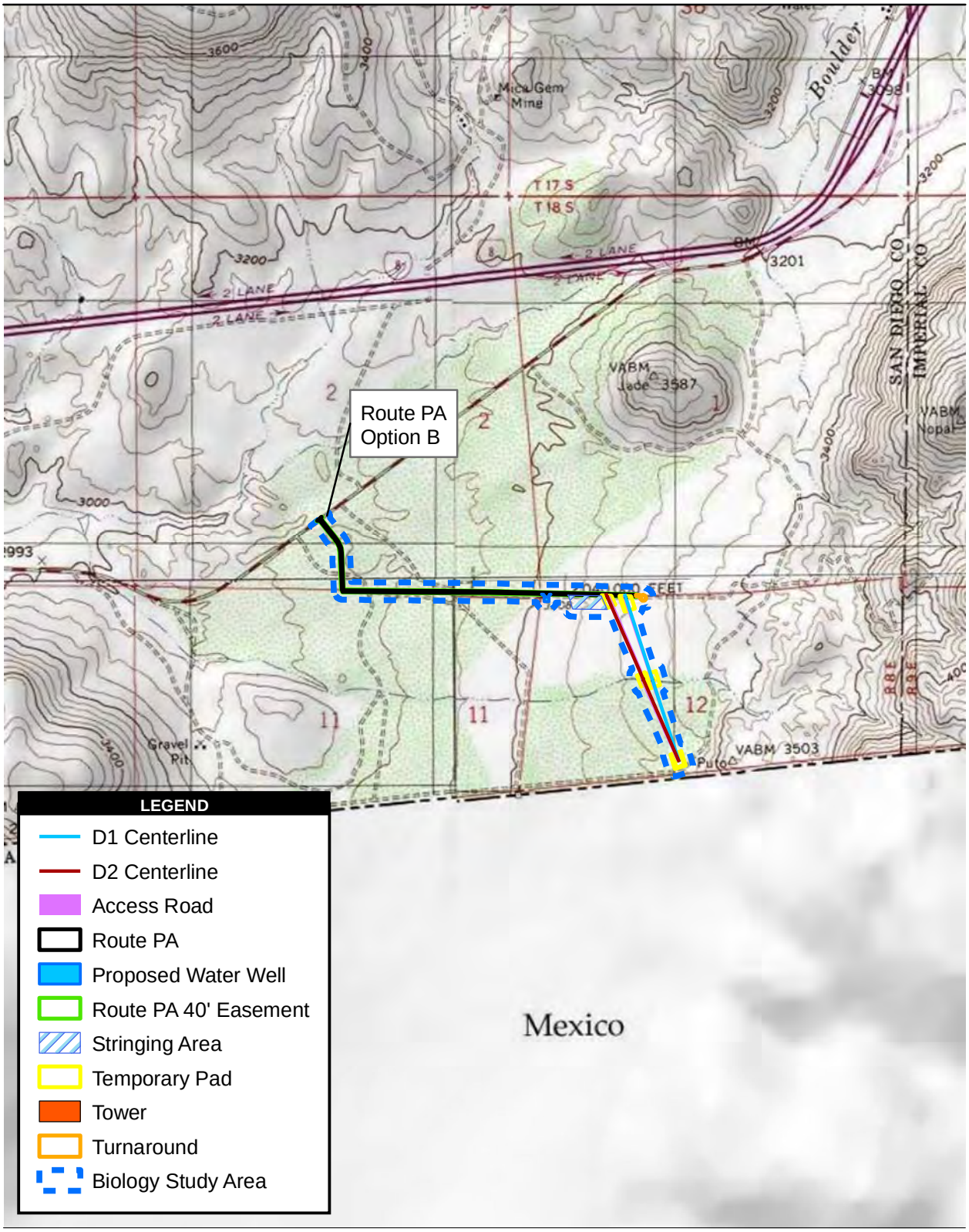

Source: ESRI 2009, USGS Topographic Quadrangle In-Ko-Pah Gorge 1975, Jacumba 1975

2,000 1,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2b
Project Vicinity
ESJ Gen-Tie Alternative Route D1 and D2

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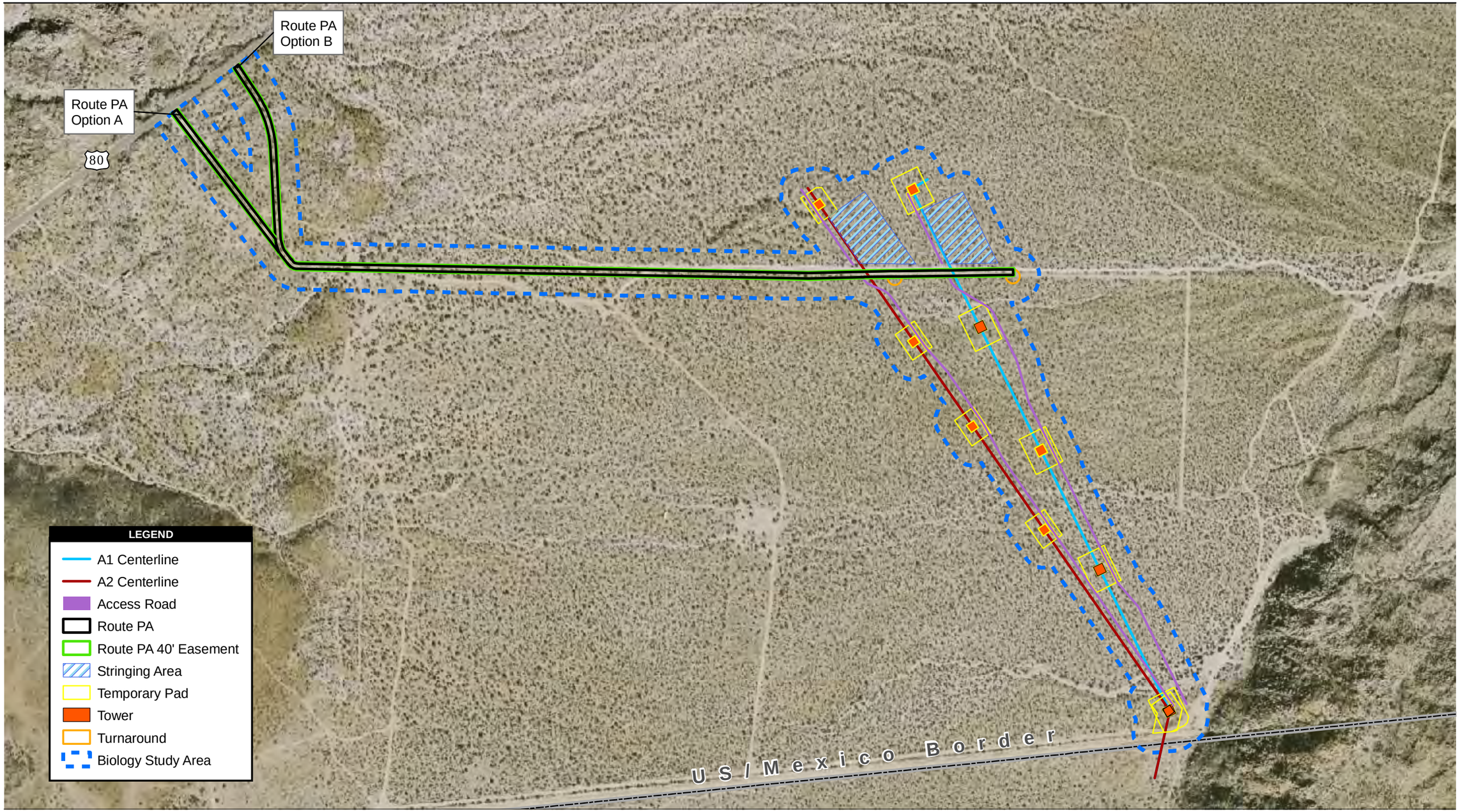

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 3a
Survey Area for Jurisdictional Waters
ESJ Gen-Tie Route A1 and A2

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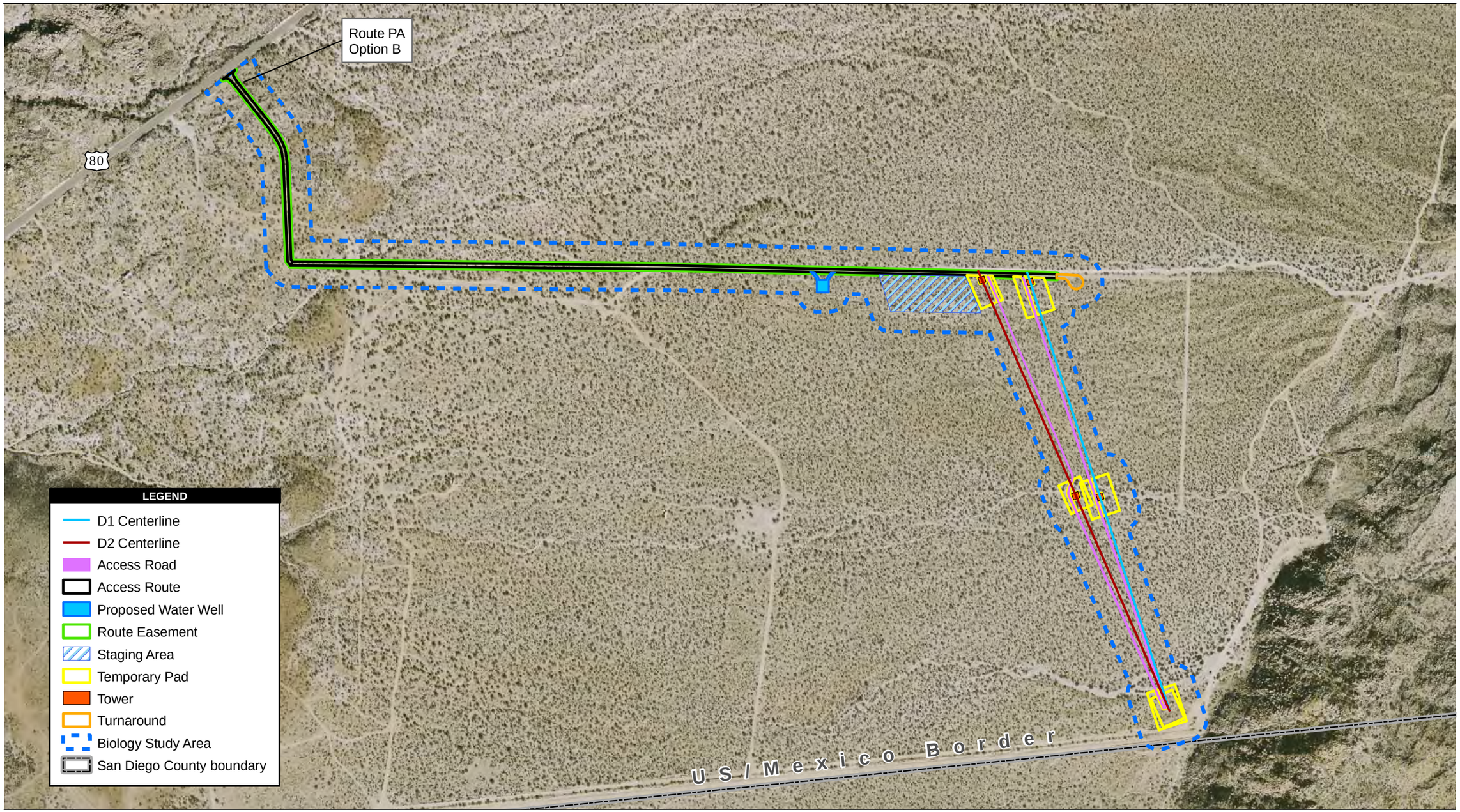

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 3b
Survey Area for Jurisdictional Waters
ESJ Gen-Tie Alternative Route D1 and D2

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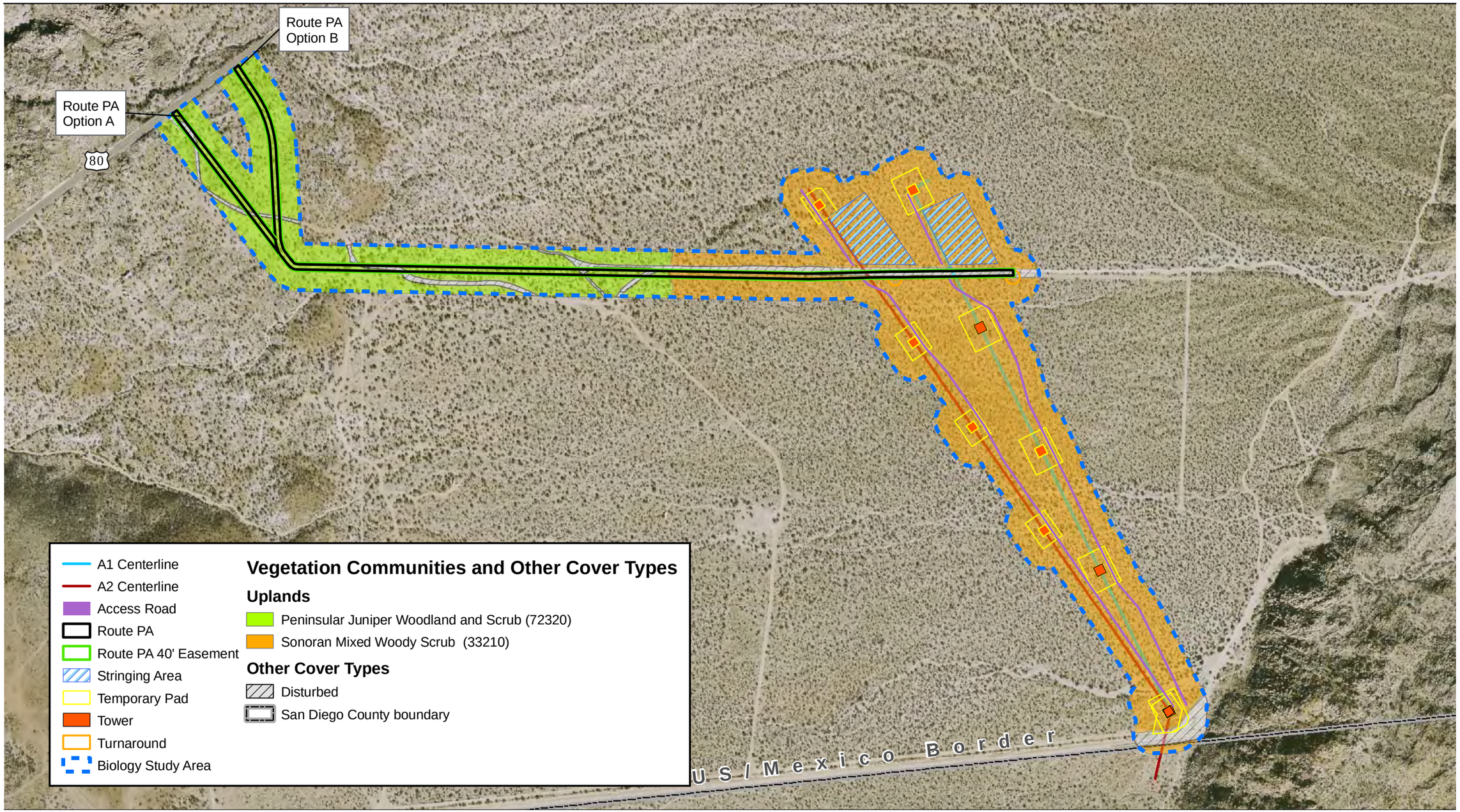

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

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Scale: 1 = 6,000; 1 inch = 500 feet

Figure 4a
Vegetation Cover Types
ESJ Gen-Tie Route A1 and A2

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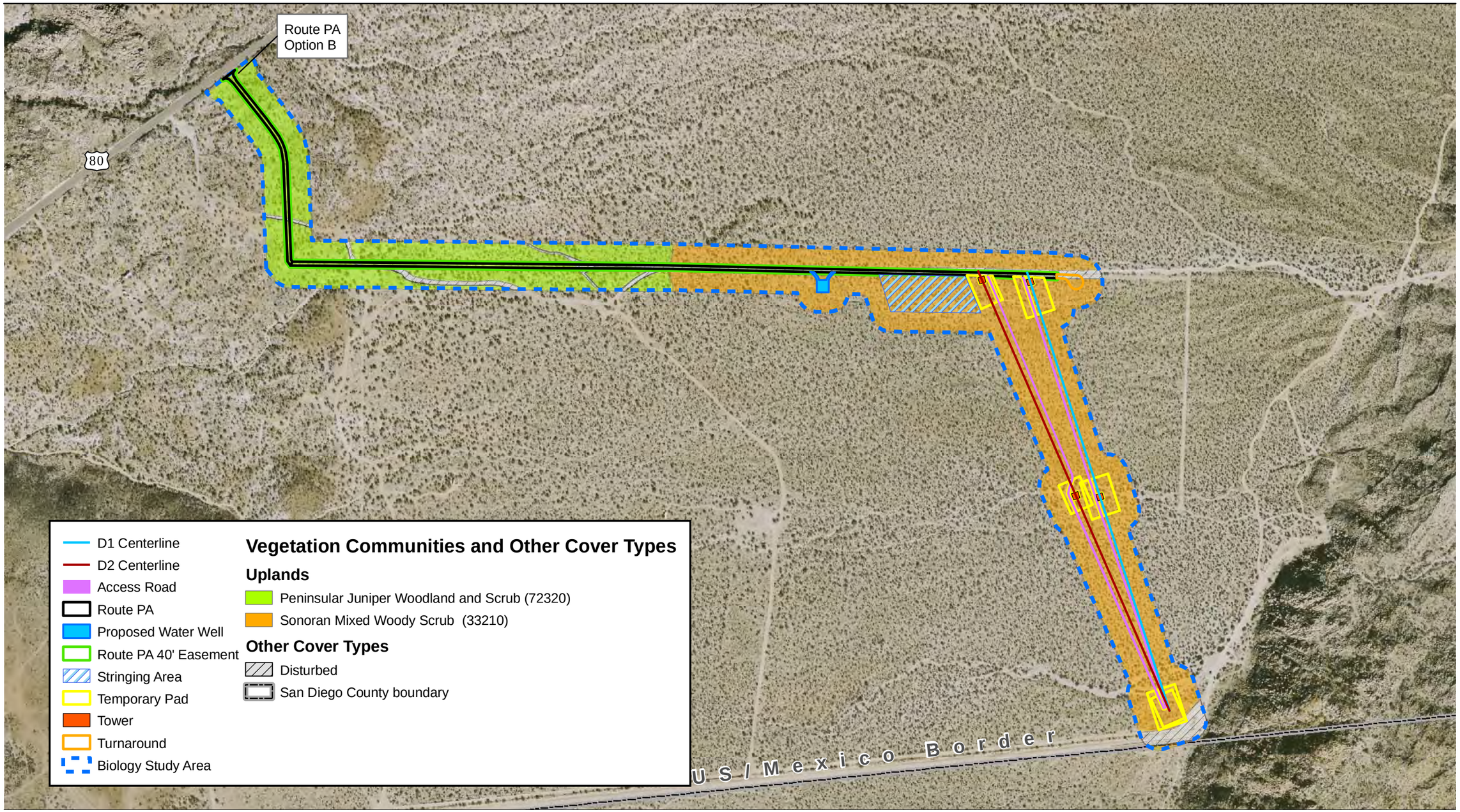

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 4b
Vegetation Cover Types
ESJ Gen-Tie Alternative Routes D1 and D2

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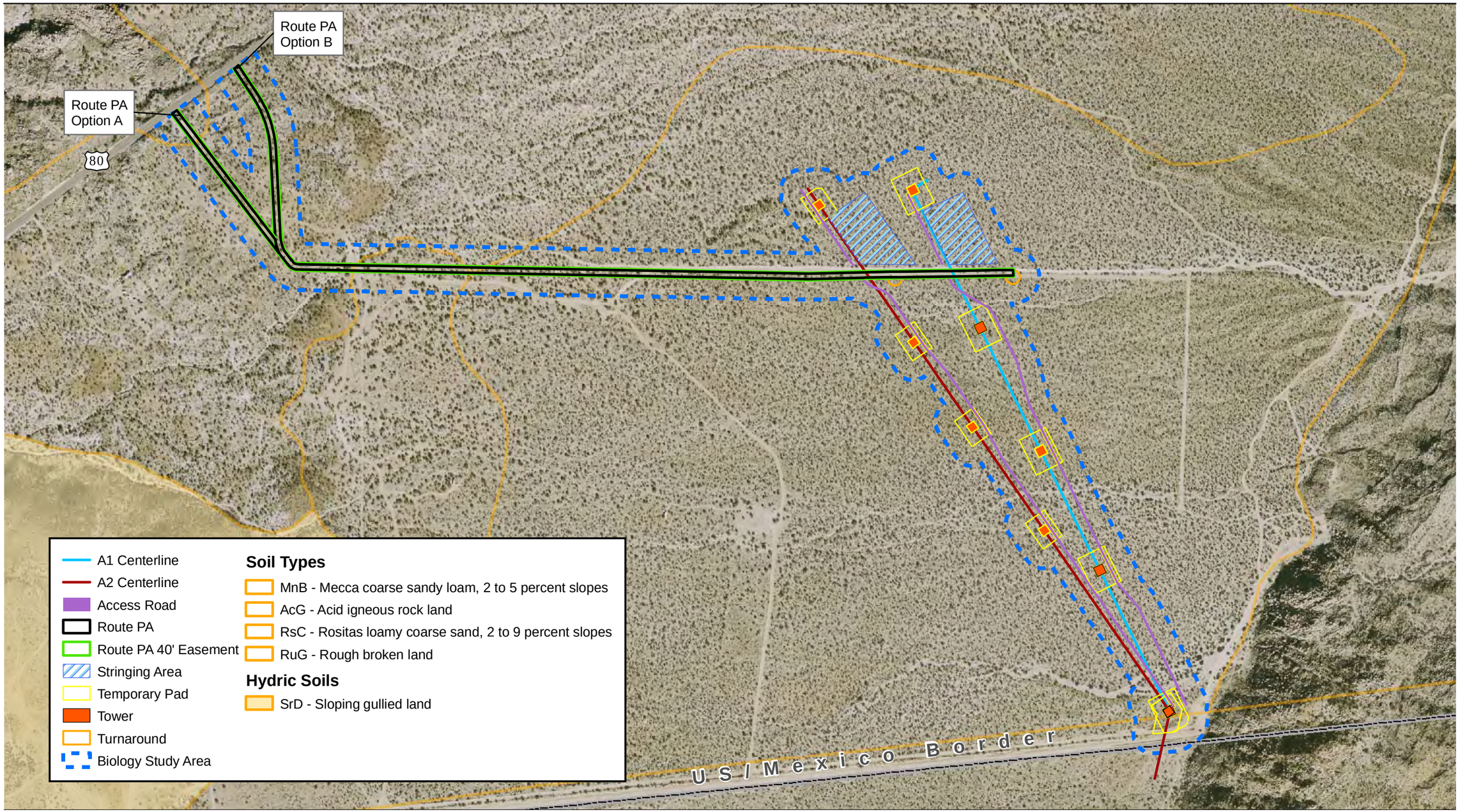

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 5a
Soil Types
ESJ Gen-Tie Route A1 and A2

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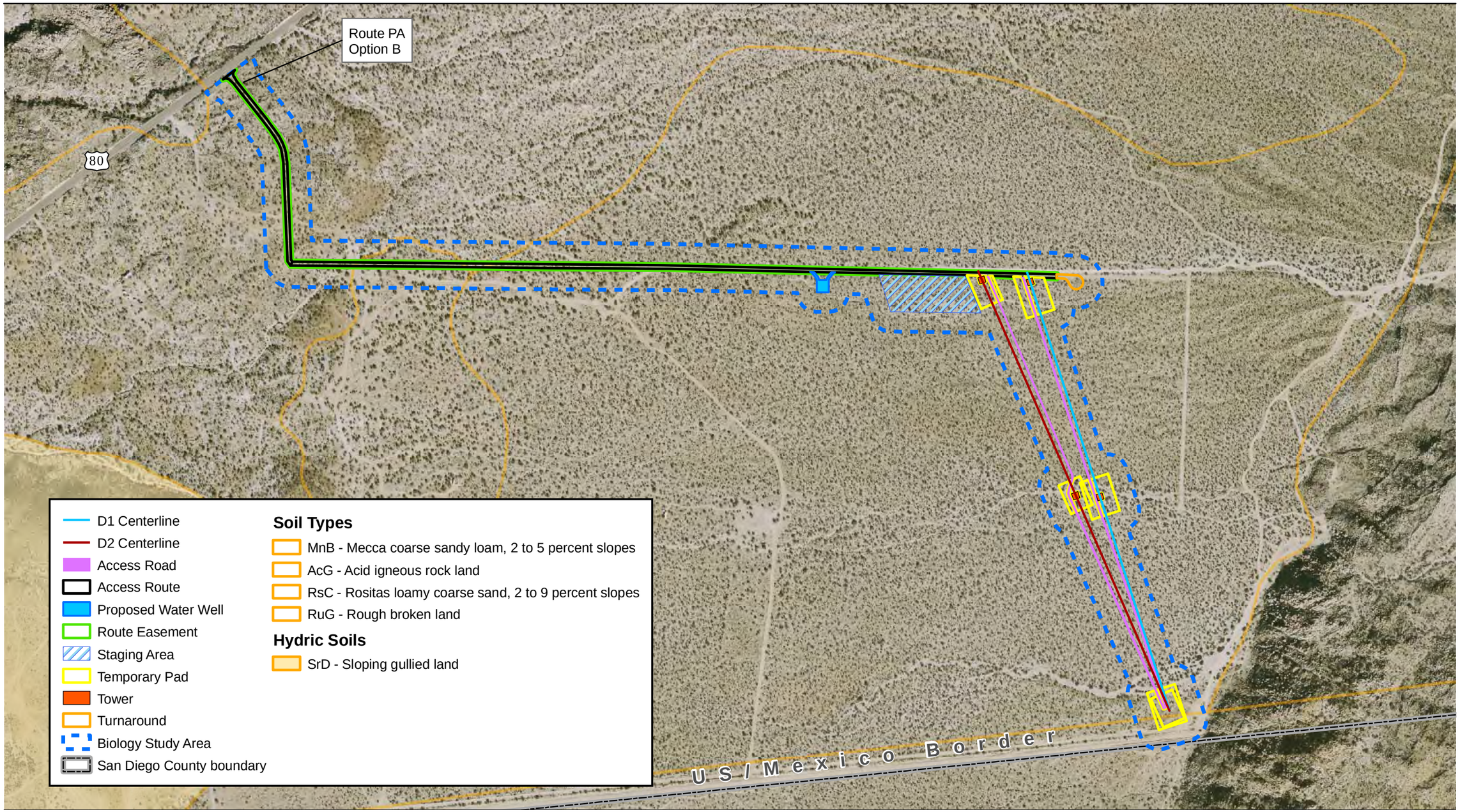

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 5b
Soil Types
ESJ Gen-Tie Alternative Route D1 and D2

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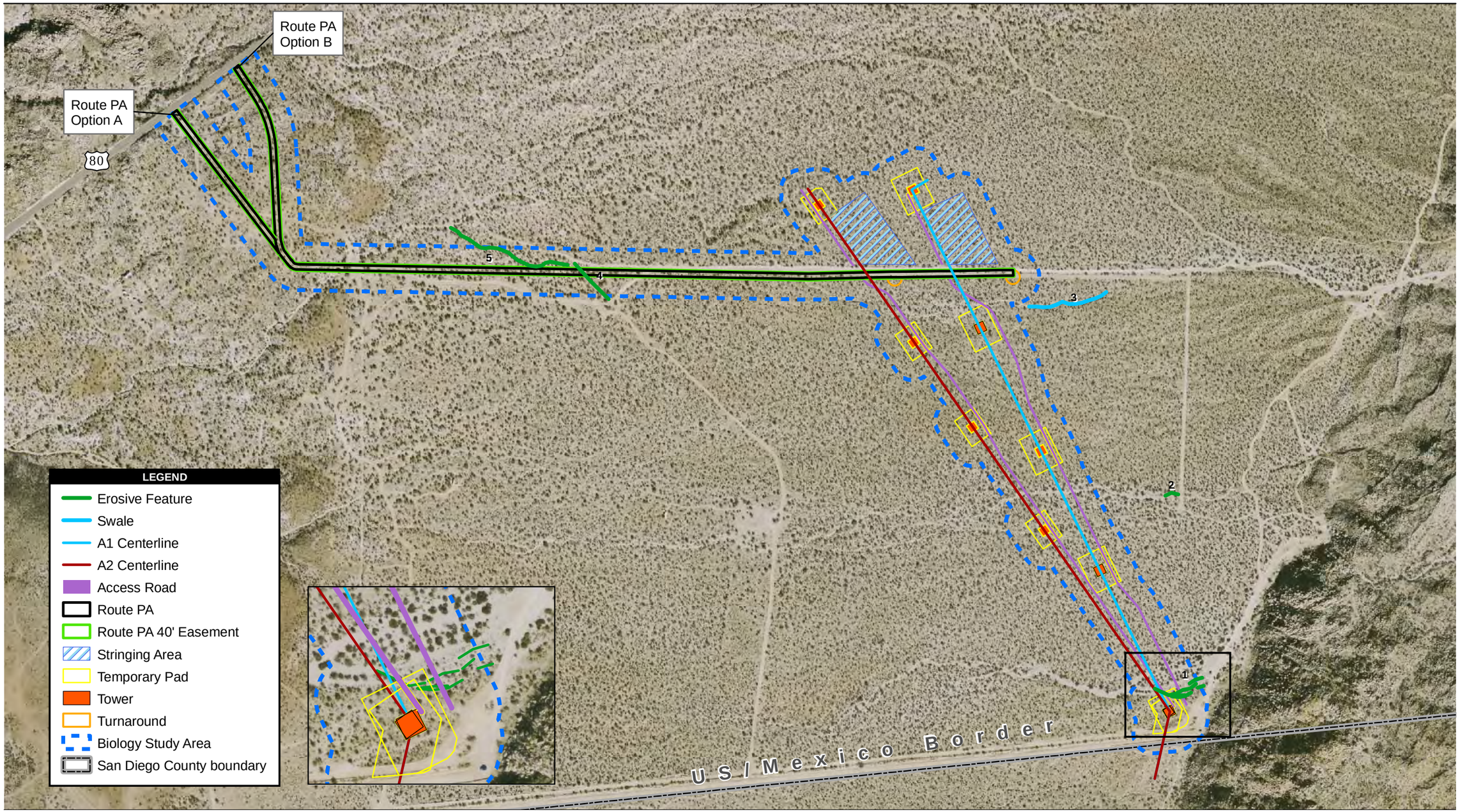


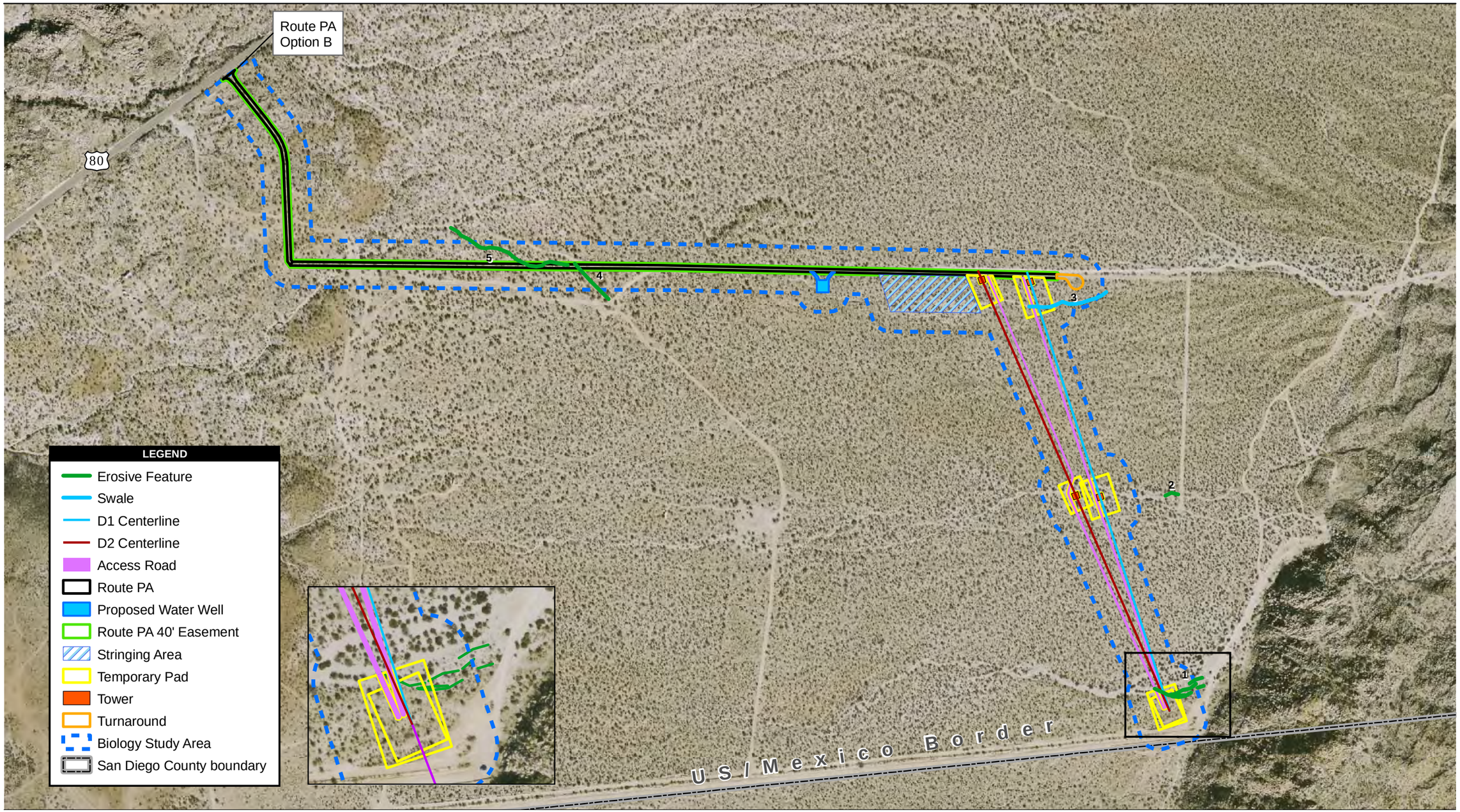
Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 6a
Potential Jurisdictional Waters
ESJ Gen-Tie Routes A1 and A2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\BTR\Figure6_JD_Waters20100308.mxd, 03/15/10, SorensenJ



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 6b
Potential Jurisdictional Waters
ESJ Gen-Tie Alternative Routes D1 and D2

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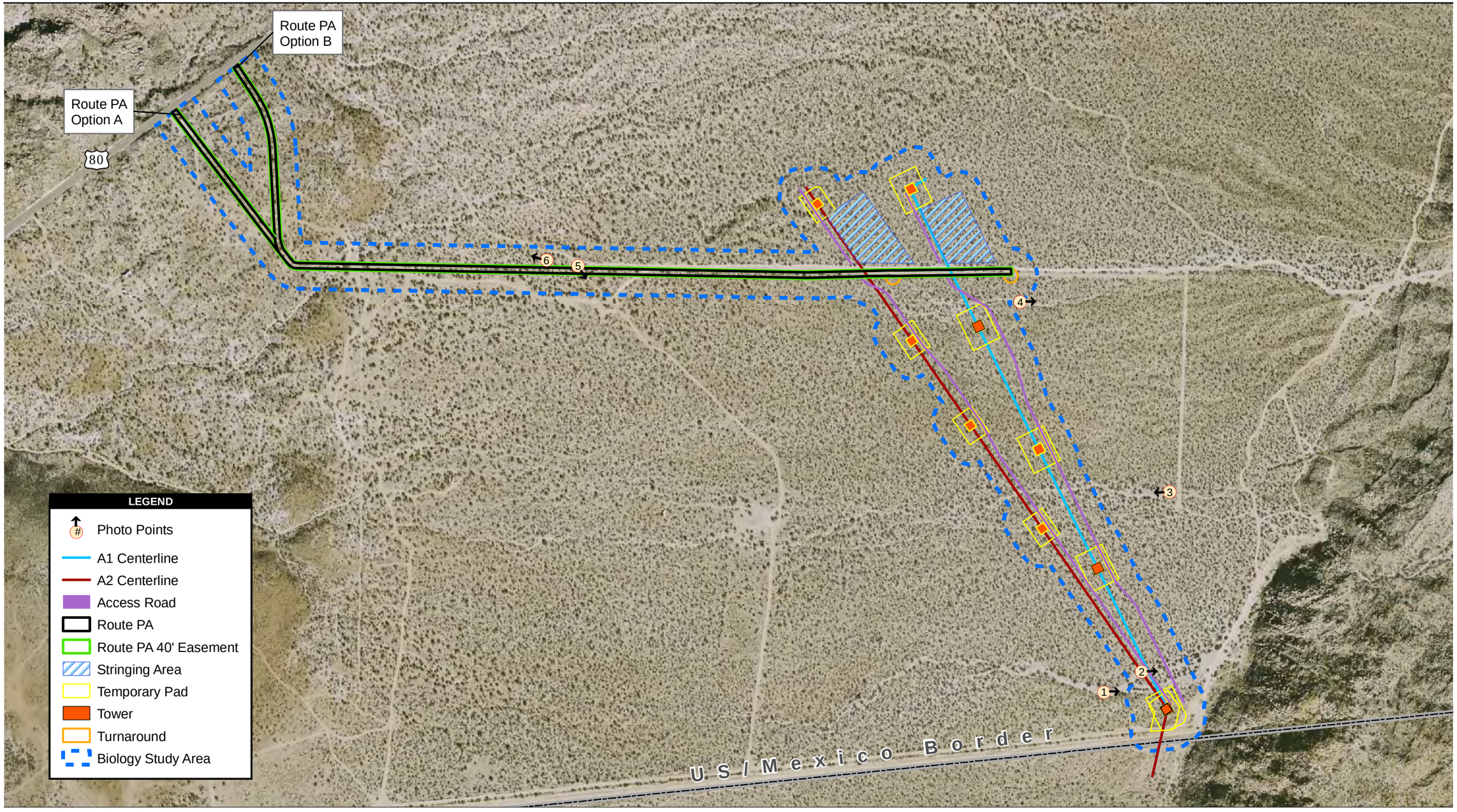


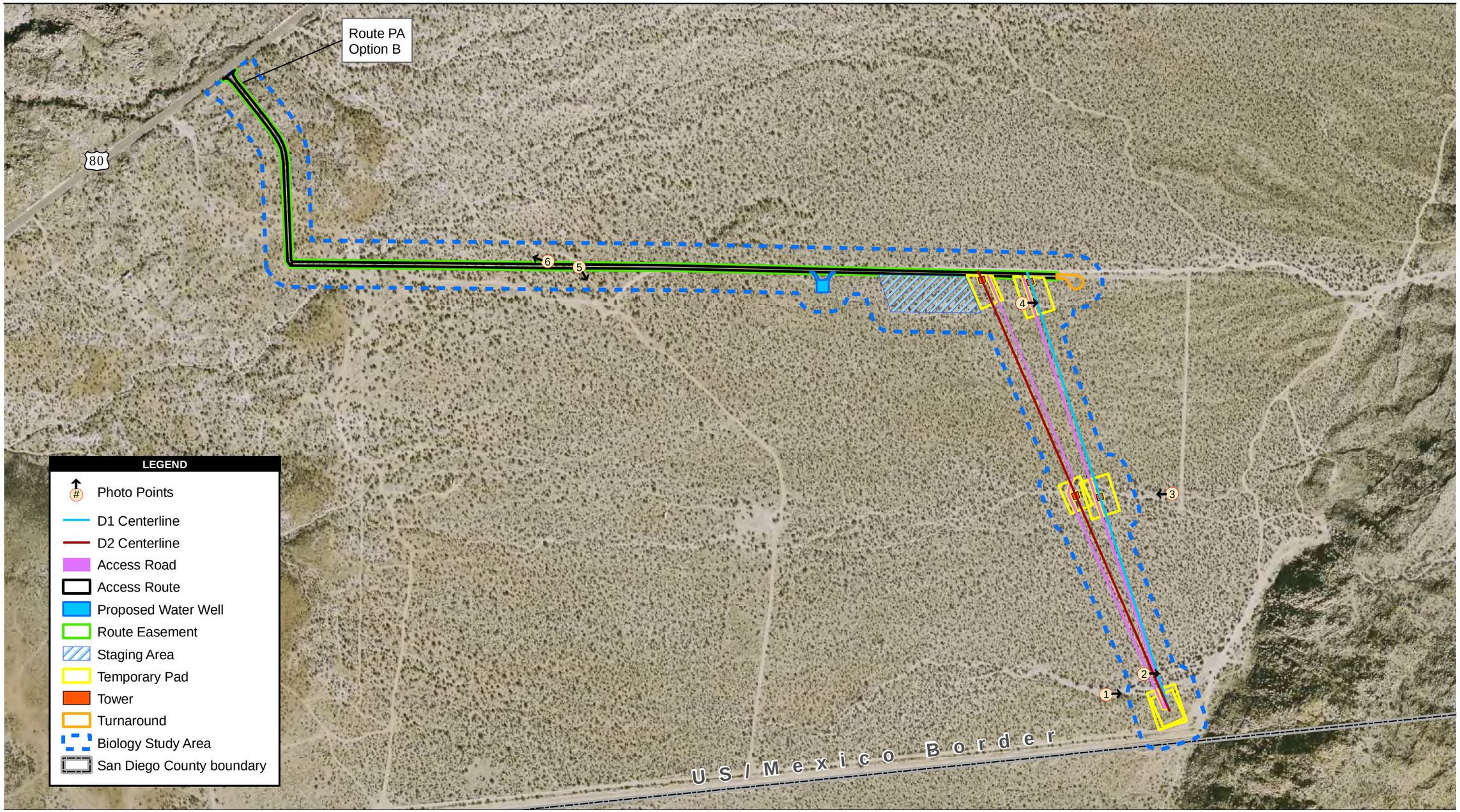
Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 7a
Photo Points
ESJ Gen-Tie Route A1 and A2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\BTR\ReRoute20100430\Figure3a_Survey_Area20100308.mxd, 03/15/10, SorensenJ



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 7b
Photo Points
ESJ Gen-Tie Alternative Route D1 and D2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\JD\ReRoute20100430\Figure3b_Survey_Area.mxd, 04/30/10, sorensenj

Photograph 1. View of southern erosive feature looking east, with roadway in top background.

Photograph 2. View of southern erosive feature looking east, with roadway in top background.

Figure 8
Erosive Features

Photograph 3. View of middle erosive feature looking west.

Photograph 4. View of northern swale, looking east.

Figure 9
Erosive and Swale Features

Photograph 5. View of Erosive feature 4, looking southeast.

Photograph 6. View of Erosive feature 5, looking west.

Figure 10
Erosive and Swale Features Along Property Access Road

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APPENDIX H

CONCEPTUAL RESOURCE MANAGEMENT PLAN FOR ENERGIA SIERRA JUAREZ U.S. GEN-TIE LINE PROJECT

Conceptual Resource Management Plan

ENERGIA SIERRA JUAREZ U.S. GEN-TIE LINE PROJECT COMMUNITY OF JACUMBA, MOUNTAIN EMPIRE COMMUNITY PLANNING AREA, SAN DIEGO COUNTY

(MUP 09-008)
(P09-008, ER 09-22-001)

Prepared for:

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~~March~~ May 2010

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1.0 PURPOSE OF CONCEPTUAL RESOURCE MANAGEMENT PLAN

The purpose of this Conceptual Resource Management Plan (CRMP) is to provide the framework for the interim and long-term management of the compensatory mitigation lands outlined in the *Biological Resource Report for the Proposed Energia Sierra Juarez U.S. Gen-Tie Line Project (P90-008, ER 09-22-001)* (EDAW 2009). This interim CRMP outlines the short-term management requirements, until such time that a formal land management entity can assume the long-term management of the compensatory lands. At this time, Energia Sierra Juarez U.S., LLC (ESJ LLC) is coordinating with the U.S. Bureau of Land Management (BLM) to have the federal agency assume management responsibilities of the compensatory land. This CRMP is written with the assumption that the BLM, or other non-profit organization, will be the long-term Land Manager of the compensation site. Further, the measures outlined herein would be implemented for the short-term (interim) management of the property, until such time an entity can be engaged as the long-term Land Manager. In the event that the BLM does not assume the role of long-term Land Manager of the compensation site this CRMP will remain in effect and will be implemented by ESJ LLC, until some other non-profit organization is found to serve as the long-term Land Manager.

The proposed gen-tie project would result in significant impacts to biological resources regulated by the County of San Diego, including impacts of up to 7.21 acres of Sonoran mixed woody scrub and 2.60 acres of Peninsular juniper woodland and scrub for the route alternative with the greatest impacts (i.e., Alternative Route A1 and Property Legal Access Route PA Option B). Per mitigation measure M-BI-1 of the Biological Technical Report (BTR), these impacts would be mitigated through the conservation of an undeveloped portion of the project parcels, based on a 1:1 ratio for Sonoran mixed woody scrub, and a 3:1 ratio for impacts to Peninsular juniper woodland and scrub. Therefore, as a worst-case scenario, the proposed compensatory mitigation site is assumed to be 15.01 acres in size. Based on County guidance, the compensatory lands require the preparation of this CRMP.

The purpose and objectives of the CRMP are as follows:

- *The plan serves as a descriptive inventory of vegetation communities, habitats and plant and animal species that occur on or use this property.*
- *The plan establishes the baseline conditions from which adaptive management will be determined and success will be measured.*

The details of this conceptual plan may be modified when the Final Resource Management Plan (RMP) is prepared and submitted to the County for approval. The County will review the Final RMP to ensure that it meets the specified Purpose and Objectives.

2.0 IMPLEMENTATION

2.1 Resource Manager Qualifications and Responsible Parties

Proposed Resource Manager: The resource manager shall be one of the following:

- Conservancy group
- Natural resources land manager
- Natural resources consultant
- County Department of Parks and Recreation
- County Department of Public Works
- Federal or State Wildlife Agency (U.S. Fish and Wildlife Service, California Department of Fish and Game)
- Federal Land Manager such as Bureau of Land Management
- City Land Managers, including but not limited to Department of Parks and Recreation, Watershed Management or Department of Public Works

The resource manager shall be approved in writing by the Director of Planning and Land Use (DPLU), the Director of Public Works (DPW), or the Director of Parks and Recreation (DPR). Any change in the designated resource manager shall also be approved in writing by the approving director. Appropriate qualifications for resource managers include, but are not limited to:

- Ability to carry out habitat monitoring or mitigation activities
- Fiscal stability including preparation of an operational budget (using an appropriate analysis technique) for the management of this CRMP
- Have at least one staff member with a biological, ecological, or wildlife management degree from an accredited college or university, or have a Memorandum of Understanding (MOU) with a qualified person with such a degree

- If cultural sites are present, have a cultural resource professional on staff or an MOU with cultural consultant
- Experience with habitat and cultural resource management in southern California

Proposed Land Owner: Fee title of all separate open space lots may be held by ESJ LLC, or transferred to a resource manager or other appropriate landowner (e.g., land trust, conservancy, or public agency).

Proposed Easement Holder: If the land is transferred in fee title to any non-governmental entity, a Biological Open Space Easement or Conservation Easement dedication must be recorded. This easement should include the County but may also include other appropriate responsible agencies as defined under Section 815 of the California Civil Code as a grantee or third-party beneficiary. If the land is transferred to the County or other public conservation entity, no easement dedication is necessary.

Restoration Entity: If revegetation/restoration activities are required, management responsibility for the revegetation/restoration area shall remain with the restoration entity until restoration/ revegetation is completed. Upon County/Agency acceptance of the revegetated/restored area, management responsibility for the revegetation/restoration area will be transferred to the resource manager.

Based on initial discussions between the BLM and ESJ LLC, it is anticipated that the compensation site will ultimately be conveyed from ESJ LLC to the BLM for their long-term management. It is anticipated that the long-term Resource Manager and the Responsible Party associated with the management and oversight of the compensatory lands would be the BLM or other non-profit. Prior to the BLM or other non-profit taking over the role of long-term Land Manager, the project proponent, ESJ LLC, will serve as the short-term (interim) Land Manager. In such role, ESJ LLC will identify an interim Resource Manager, who will be approved in writing by the County Director of Planning and Land Use (DPLU). Any change in the designated interim Resource Manager shall also be approved in writing by DPLU. Appropriate qualifications for Resource Managers include, but are not limited to:

- Ability to carry out site monitoring and adaptive management activities.
- Fiscal stability including preparation of an operational budget (using an appropriate analysis technique) for the management of this CRMP.

- The Resource Manager or at least one staff member (or an outside consultant), will have a biological, ecological, or wildlife management degree from an accredited college or university, or have a Memorandum of Understanding (MOU) with a qualified person with such a degree.
- Experience with habitat and cultural resource management in southern California.

During the interim period (defined as that period between adoption of the CRMP and transfer of the compensation site to the long-term Land Manager), the compensation site will remain the property of ESJ LLC, until such time as the BLM or other non-profit is able to takes over the responsibilities of the long-term Land Manager of the compensation site.

If the BLM or other public conservation entity is the long-term Land Manager of the compensation site, the compensation site would be transferred to a public conservation entity, and therefore no easement dedication is necessary. If the BLM or other public conservation entity is not the long-term Land Manager of the compensation site, ESJ LLC will dedicate and record a Biological Open Space Easement or Conservation Easement, to include the County and any other responsible agency as a grantee or third-party beneficiary. It should be noted that restoration of the compensatory site is not proposed due to the limited disturbance from occasional passive recreational use of the proposed compensation land.

2.2 Financial Mechanism

Acceptable financial mechanisms include the following:

- Special District. Formation of a Lighting and Landscape District or Zone, or Community Facility District as determined appropriate by the Director of DPLU, DPW or DPR. If the developer desires DPR to manage the land, the following criteria must be met:
    - The land must be located inside a Pre-Approved Mitigation Area (PAMA) or proposed PAMA, or otherwise deemed acceptable by DPR.
    - The land must allow for public access.
    - The land must allow for passive recreational opportunities such as a trails system.
- Endowment. A one-time non-wasting endowment, which is tied to the property, to be used by the resource manager to implement the RMP.

- Other acceptable types of mechanisms including annual fees, to be approved by the Director of DPLU, DPW or DPR.
- Transfer of ownership to existing entity (e.g. Borrego Foundation, Cleveland National Forest)

During the interim period prior to the transfer of the compensatory land to the long-term Land Manager (BLM or other public conservation entity), ESJ US, LLC will be responsible for funding all management activities addressed in this CRMP. Following this interim period, the ownership and all management responsibilities will be transferred to the long-term Land Manager (BLM or other public conservation entity). If ownership of the compensation site is not transferred to the BLM or other public conservation entity, ESJ LLC will coordinate with the County to establish a non-wasting endowment to implement the Final RMP, or to establish an acceptable financial mechanism to fund the long-term management of the site.

2.3 Conceptual Cost Estimate

Table 1: Resource Management Tasks

Check if applies	Tasks	Frequency (times per year)	Days required per year
Biological Tasks			
X	Baseline inventory of resources (if original inventory is over 5 years old)*	One time	2 days
	Update biological mapping*	Once every ___ yrs	
	Update aerial photography	Once every ___ yrs	
	Removal of invasive species*	*Monthly/ Quarterly/ Annually*	
	Predator control	*Monthly/ Quarterly/ Annually*	
	Habitat Restoration / Installation	Installation	
	Habitat Restoration / Monitoring and Management	*Monthly/ Quarterly*	
	Poaching control	*Monthly/ Quarterly*	
	Species Surveys (include a separate line for each species)	Once every ___ yrs	
	Species management (include a separate line for each specific task)	*(add frequency)*	
	Noise management, if required	*(add frequency)*	
	For lands within the MSCP and outside PAMA, consult Table 3-5 of the MSCP Plan for required biological resource monitoring	*(add frequency)*	
X	Other – Site Monitoring	Annually	2 days

Check if applies	Tasks	Frequency (times per year)	Days required per year
Operations, Maintenance, and Administration Tasks			
	Establish and maintain database and analysis of data	Annually	Hours
X	Write and submit annual report to County*	Annually	12 Hours
X	Submit review fees for County review of annual report*	Annually	$170
X	Review and if necessary, update management plan*	Every 5 years	20 Hours
X	Construct permanent signs	One time	10 – 15 signs
X	Replace signs	2 signs/yr	Up to 10 signs
	Construct permanent fencing/gates	One time	___ feet
	Maintain permanent fencing/gates	*(add frequency)*	___ feet/yr
	Remove trash and debris*	Monthly/ Quarterly	___ hrs/yr
	Coordinate with DEH and Sheriff*	*(add frequency)*	___ Hours
	Maintain access road	*(add frequency)*	___ miles/yr
	Install stormwater BMPs	One time	___ Hours
	Maintain stormwater BMPs	*(add frequency)*	___ Hours
	Restore Built Structure	One time	___ Hours
	Maintain Built Structure	*(add frequency)*	___ Hrs/yr
	Maintain regular office hours	*(add frequency)*	___ Hours
	Inspect and service heavy equipment and vehicles	*(add frequency)*	___ Hours
	Inspect and repair buildings, residences and structures	*(add frequency)*	___ Hours
	Inspect and maintain fuel tanks	*(add frequency)*	___ Hours
	Coordinate with utility providers and easement holders	*(add frequency)*	___ Hours
	Manage hydrology (as required)	*(add frequency)*	___ Hours
	Coordinate with law enforcement and emergency services (e.g., fire)	*(add frequency)*	___ Hours
X	Coordinate with adjacent land managers	*Annually*	10 Hours
	Remove graffiti and repair vandalism	*(add frequency)*	___ Hours
	Other		
Public Use Tasks			
	Construct trail(s)		___ Miles
	Monitor, maintain/repair trails	*(add frequency)*	___ Miles/yr
	Control public access	*(add frequency)*	___ hours
	Provide Ranger patrol	*(add frequency)*	___ hours
	Provide visitor/interpretive services	*(add frequency)*	___ hours
	Manage fishing and/or hunting program	*(add frequency)*	___ hours
	Provide Neighbor Education -Community Partnership	*(add frequency)*	___ hours
	Prepare and reproduce trail maps and interpretative materials.	*(add frequency)*	___ hours
	If HOA is funding management, provide annual presentation to HOA	Annually	___ hours
	Coordinate volunteer services	*(add frequency)*	___ hours
	Provide emergency services access/ response planning	*(add frequency)*	___ hours

Check if applies	Tasks	Frequency (times per year)	Days required per year
X	Other – Install and maintain trail signage	*Annually*	2 days
Fire Management Tasks			
	Coordinate with applicable fire agencies and access (gate keys, etc.) for these agencies	*(add frequency)*	Hours
	Plan fire evacuation for public use areas	One time	Hours
	Protect areas with high biological importance	*(add frequency)*	Hours
	Hand-clear vegetation	*(add frequency)*	Hours
	Mow vegetation	*(add frequency)*	Hours
Post-fire Tasks			
X	Control post-fire erosion	*As needed*	20 Hours per event
	Remove post-fire sediment	*(add frequency)*	Hours
	Reseed after fire	*(add frequency)*	Hours
	Replant after fire	*(add frequency)*	Hours
	TOTAL		$170 14 days

2.4 Reporting Requirements

During the interim period (i.e., during the period that ESJ LLC serves as the short-term Land Manager), a CRMP Annual Report will be submitted to the County and BLM, along with the submittal fee to cover County staff review time. Annual reports shall discuss the previous year's management and monitoring as well as management/monitoring anticipated in the upcoming year.

The Annual Report shall provide a concise but complete summary of monitoring methods, and identify any necessary management issues. The report shall include a qualitative summary of changes from baseline or previous year site conditions (including any changes in vegetation communities, biological habitats, etc.), and address any monitoring and management limitations, including weather (e.g., drought). The report shall also address any adaptive management (changes) resulting from previous monitoring results and provide a methodology for measuring the success of adaptive management.

For new sensitive species observations or significant changes to previously reported species, the annual report shall prepare and include copies of completed California Natural Diversity Database (CNDDB) forms with evidence that they have been submitted to the State. The report shall also include copies of invasive plant species forms submitted to the State or County.

A fee will be collected by DPLU upon submittal of the Annual Report for staff's review time. The CRMP may also be subject to an ongoing deposit account for staff to address management challenges as they arise. Deposit accounts, if applicable, are replenished to a defined level as necessary.

2.5 Memorandum of Agreement (MOA)

For RMPs associated with discretionary projects, the County will require a Memorandum of Agreement (MOA) with the applicant. The agreement will be executed when the County accepts the final RMP. The MOA will state that the applicant agrees to implement the RMP and provide perpetual funding. The MOA shall also provide a mechanism for the funds to transfer to the County in the event of the failure of the resource manager to meet the goals of the RMP.

The MOA will specify that RMP funding or funding mechanism be established prior to the following milestones:

- For subdivisions, prior to the approval of grading or improvement plans, or prior to approval of the Parcel/Final Map, whichever is first;
- For permits, prior to construction or use of the property in reliance on the permit.

Since this CRMP is associated with a discretionary project, the County will require a Memorandum of Agreement (MOA) with ESJ US, LLC. The agreement will be executed when the County accepts the final CRMP. In general, the MOA will state that the applicant agrees to implement the CRMP until such time that the BLM or other non-profit (or other entity that is acceptable to ESJ LLC and the County), accepts the transfer of the compensatory land.

3.0 PROPERTY DESCRIPTION

3.1 Legal and Geographical Description

The compensation site would consist of one of the following scenarios: 13.49 acres to compensate for impacts associated with Route A1 and Route PA Option A, 15.01 acres to compensate for impacts associated with Route A1 and Route PA Option B, 12.48 acres for Route A2 and Route PA Option A, 14.00 acres for Route A2 and Route PA Option B, 11.17 acres for Route D1 and Route PA Option A, 11.80 acres for Route D1 and Route PA Option B, 10.96 acres for Route D2 and Route PA Option A, or 11.59 acres for Route D2 and Route PA Option B. The site would be located along the southeast portion of parcels APN 66109005 and APN

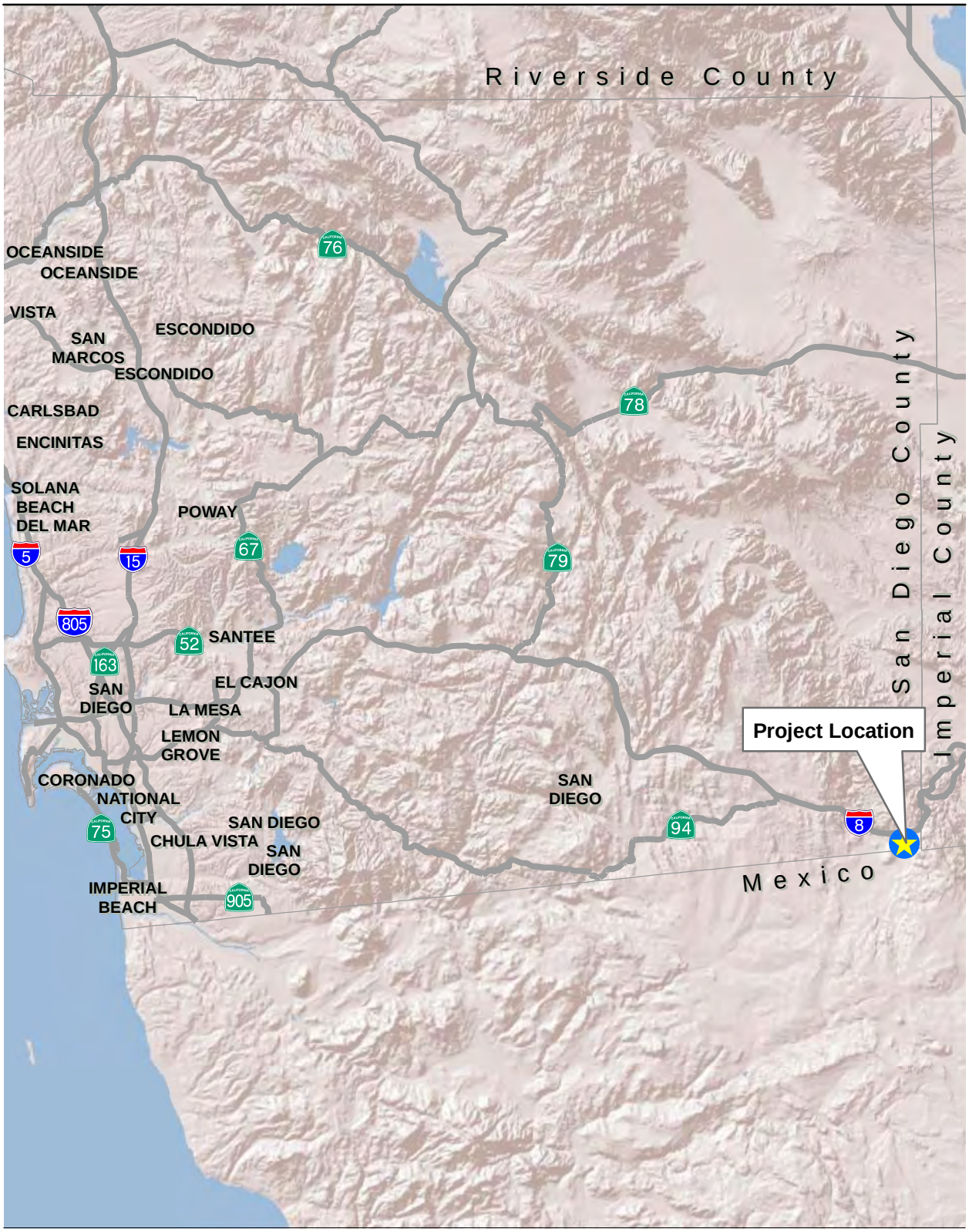
66109006 (Figures 1 through 3b). The center of the compensation site is located at approximately 32.37'67"N, 116.06'23.09"W. Elevation on the compensation site ranges from approximately 3,600 feet in the central portion of the site, to a high of approximately 3,855 feet at a peak on the southern portion of the property.

3.2 Environmental Setting

The project site lies within the Jacumba mountain range in the southeastern corner of San Diego County, immediately along the U.S.-Mexico international border. The range is characterized by granite ridges, separated by scrubby desert-like valleys. The elevation of these ridges begins to descend as you move east further into the Sonoran Desert. The compensatory site lies within at an elevation between 3,600-3,775 feet above mean sea level. As a high-elevation, desert like environment, it is generally warmer than coastal areas to the west, but cooler than lower deserts to the east. Average high temperatures range between 62°F in January and 94°F in August, with lows averaging between 34°F and 52°F during the same months. Precipitation averages 15.58 inches per year, with more than half of that amount (9.36 inches) occurring in the winter months of January and March. Monthly averages range between 0.09 inches in June and 3.30 inches in January (www.weather.com).

The majority of the project site is composed of Acid Igneous Rock Land (AcG), which is a rough broken terrain of low hills to very steep mountains, 50-90 percent of which is covered by large mineral boulders and rocks, with remaining areas consisting of soils that have a loam to loamy course sand texture, and is very shallow over decomposing granite or basic igneous rock (USDA 1973).

There are currently no active uses of the compensation site. It appears to receive occasional use for passive recreation, such as hiking and mountain biking. Currently, adjacent land use to the east is dedicated open space (the BLM's Jacumba Wilderness Area), and undeveloped open space to the west. The location of the compensatory land has the potential to increase the open space buffer along the U.S.-Mexico International Border. An increase in dedicated open space area has the potential to benefit wildlife movement in the region, since the border fence has not been constructed across this area. The proposed ESJ Gen-Tie project is located to the west of the proposed compensatory land.



Source: SANGIS 2008, ESRI 2009

11 5.5 0 11 Miles

Scale: 1 = 696,960; 1 inch = 11 mile(s)

Figure 1
Regional Location Map

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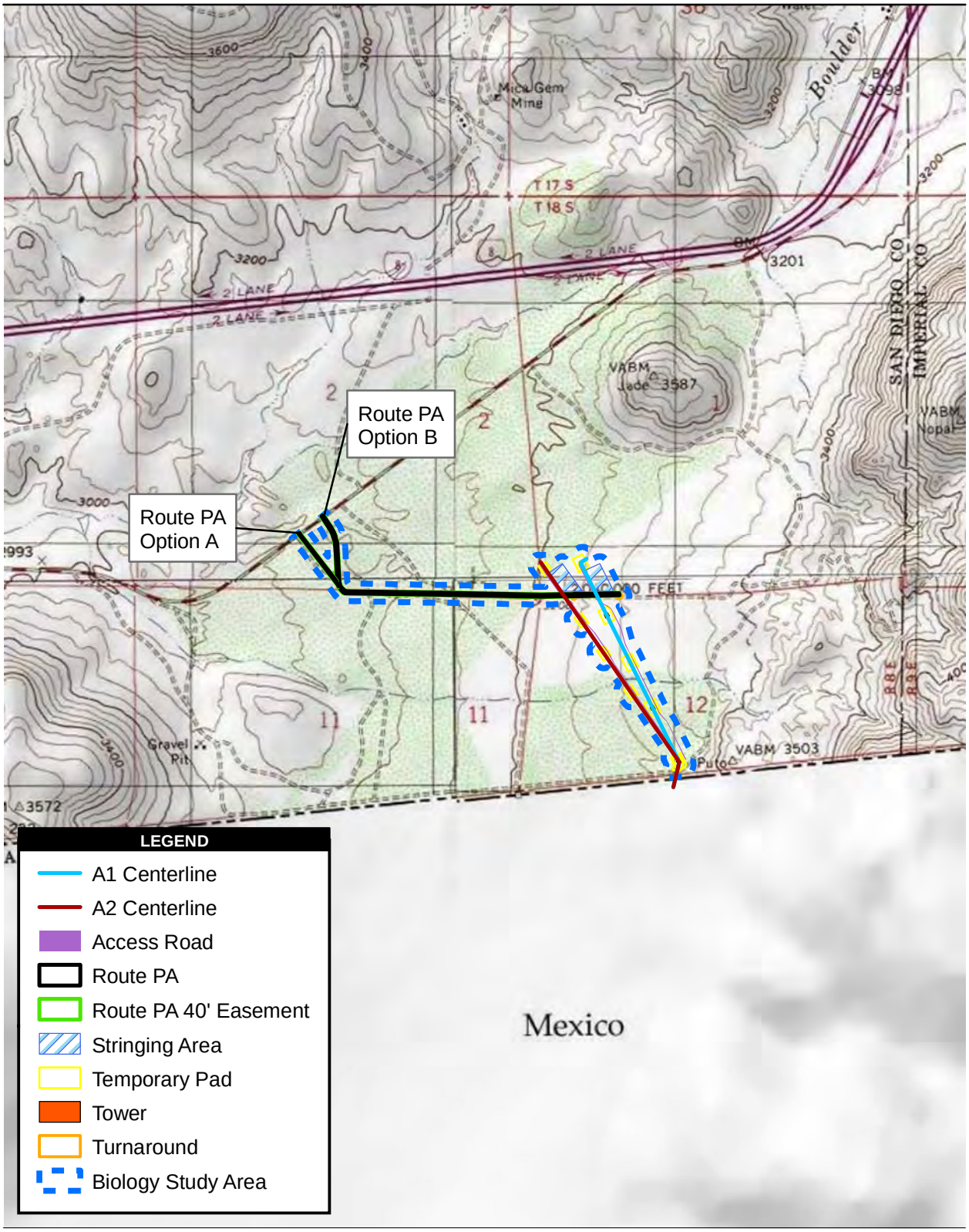

Source: ESRI 2009, USGS Topographic Quadrangle In-Ko-Pah Gorge 1975, Jacumba 1975

2,000 1,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2a
Project Vicinity
ESJ Gen-Tie Routes A1 and A2

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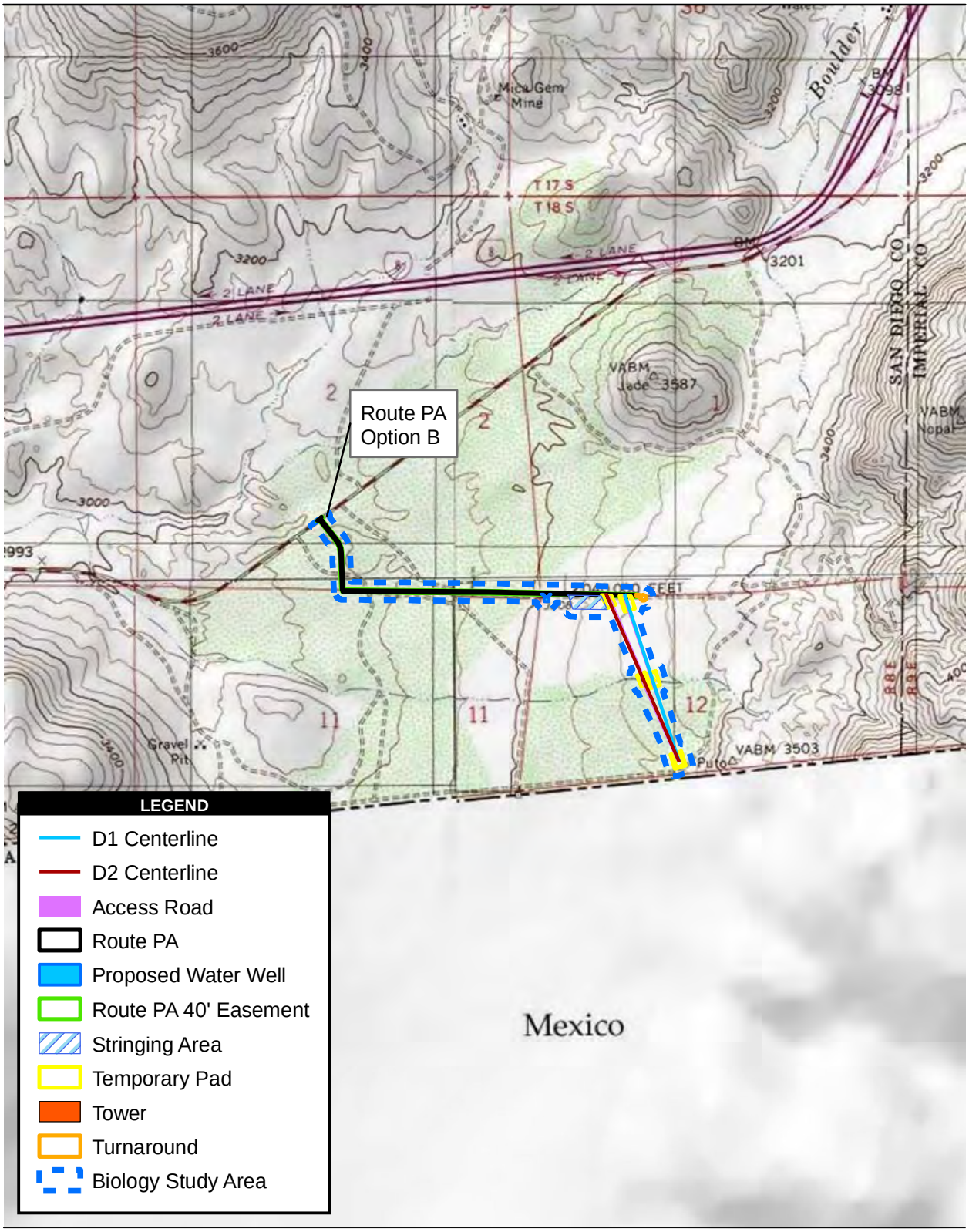


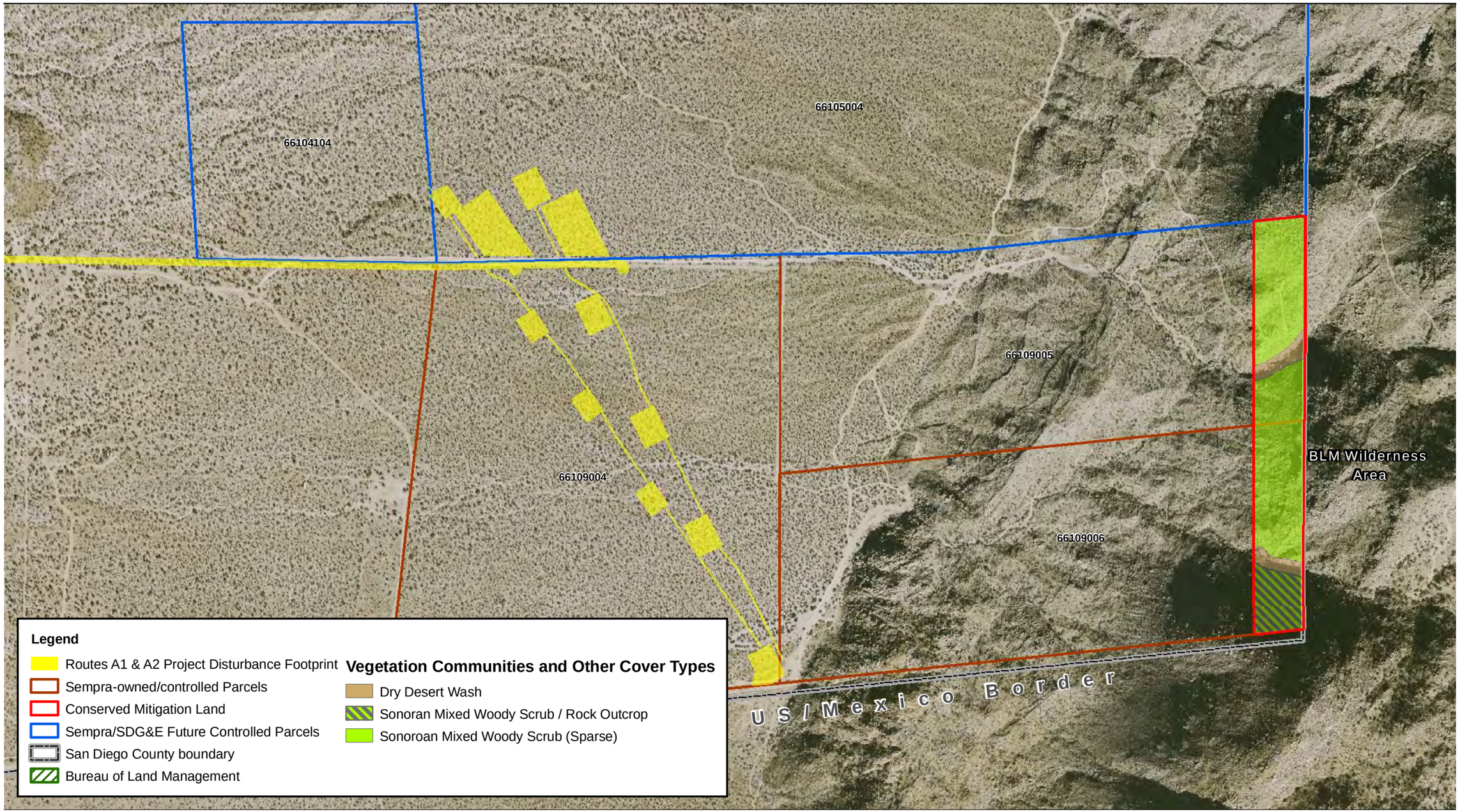
Source: ESRI 2009, USGS Topographic Quadrangle In-Ko-Pah Gorge 1975, Jacumba 1975

2,000 1,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2b
Project Vicinity
ESJ Gen-Tie Alternative Route D1 and D2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\CRMP\Reroute20100506\Figure2b_Project_Vicinity.mxd, 05/06/10, SorensenJ



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

800 400 0 800 Feet

Scale: 1 = 6,547; 1 inch = 546 feet

Figure 3a
Proposed Site of Conserved Mitigation Land on Project Property
ESJ Gen-Tie Routes A1 and A2

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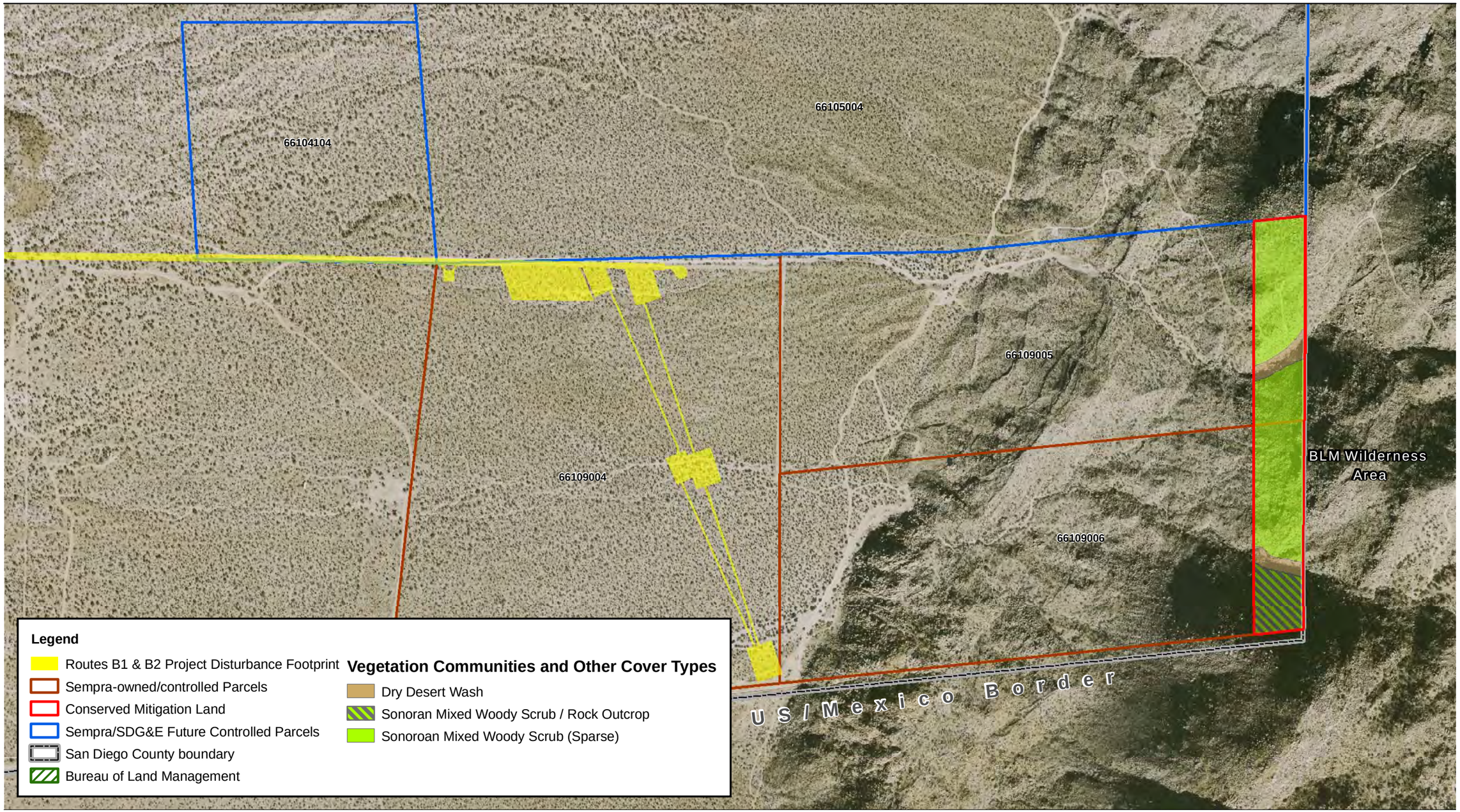

Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

800 400 0 800 Feet

Scale: 1 = 6,547; 1 inch = 546 feet

Figure 3b
Proposed Site of Conserved Mitigation Land on Project Property
ESJ Gen-Tie Alternative Routes D1 and D2

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\BTR\ReRoute20100430\Figure12b_MitigationArea.mxd, 04/30/10, SorensenJ

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3.3 Uses of Plan Area

One existing unpaved road crosses the northern portion of the proposed compensation site. This road is a continuation of the unpaved access road on the ESJ Gen-Tie project site utilized primarily by the U.S. Border Patrol as a patrol route and vantage point. It is also occasionally used as an access route for hiking and mountain biking in the adjacent BLM Jacumba Wilderness Area to the east, where the road ultimately intersects to the east. No easements currently exist over the propose compensation site. Upon transfer of the land to the BLM, or other entity, it is anticipated that the current land uses within the plan area would remain unchanged; the BLM would continue to allow passive hiking and mountain biking, and the area would still be patrolled by the U.S. Border Patrol.

4.0 BIOLOGICAL RESOURCES – FUNCTIONS AND VALUES

The proposed compensation land contains sparse Sonoran mixed woody scrub vegetation on undulating rocky slopes, with two dry desert drainages running in an east-to-west orientation. Species onsite include: Ephedra (*Ephedra californica*), yucca (*Yucca schidigera*), Gander's Cholla (*Cylindropuntia gander*), and Creosote Bush (*Larrea tridentata*). The topographic features of the compensation site provide a greater variability in the number of biological microhabitats available to plant and animal species, relative to the area and resources impacted by the proposed ESJ Gen-Tie project. The proposed compensation site supports desert woody scrub vegetation, similar to what is found on the ESJ Gen-Tie project site, and the variety of species supported by the two sites would be expected to be similar.

The presence of drainage features onsite provides foraging and potential nesting areas for bird species that are better protected from the elements (e.g. the wind, and desert sun exposure), compared to the open flats associated with the proposed gen-tie site. These drainage features may also provide a conduit for the ephemeral precipitation in the region to be concentrated and retained for relatively longer periods of time, compared to the open gen-tie site, which would allow plants and animals to utilize the region's rainfall for a greater period of time, compared to species on the gen-tie site.

Additionally, the rocky outcrops on the compensation site provide potential perching and nesting sites for raptors, basking and refugia for reptiles, and denning areas for mammals. The Public Lands Information Center describes the southwestern corner of the Jacumba Wilderness Area, which is immediately adjacent to the proposed compensation site, and supports similar vegetation and wildlife habitats, as containing "habitat for mule deer, penninsular bighorn sheep,

golden eagles, and the Mexican Trinidad Merriam kangaroo rat" (http://www.publiclands.org/explore/site.php?id=6383).

The compensatory site's connectivity to existing dedicated open space and an unfenced section of the U.S.-Mexico International Border provides an opportunity for local and regional wildlife movement across the parcel.

5.0 BIOLOGICAL ELEMENT GOALS

The biological goals of this interim CRMP are to preserve and manage the proposed compensation lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the plan area, until such time as the BLM or other non-profit accepts control of the compensation property.

ESJ LLC has outlined the following tasks to be undertaken in the interim period before the BLM or other non-profit takes custody of the compensation site.

5.1 Biological Management Tasks

See Table 1 for a summary of the biological management tasks. The CRMP biologist will conduct an annual visit to the compensation site. The biologist will be responsible for preparing a status report on the site conditions, relative to the baseline established upon the County's approval of the CRMP. The biologist will note any changes to the general condition of the biological resources onsite, such as (but not limited to) ground disturbance, fire damage, litter or other illegal dumping, signs of trespassing, vandalism, etc. The biologist will prepare and submit the status report to the interim Resource Manager within 14 calendar days of completion of the site visit. The status report will include a description of the general biological resources onsite, and any changes that may have occurred relative to the baseline and to the previous annual site visit. If any changes have occurred, the biologist will provide recommendations for adaptive management of the biological resources being affected.

5.2 Adaptive Management

The Resource Manager is responsible for interpreting the results of site monitoring to determine the ongoing success of the RMP. If it is necessary to modify the plan between regularly scheduled updates, plan changes shall be submitted to the County and agencies for approval as required.

Following the annual site visit and development of the status report, the interim Resource Manager will determine if any corrective actions need to be taken in response to changes in the conditions of the biological resources on the compensation lands. If necessary, the Resource Manager will then prepare an adaptive management strategy, to be submitted to the County for approval.

5.3 Operations, Maintenance and Administration Tasks

See Table 1 for a summary of the operations, maintenance and administration tasks. The interim Resource Manager will coordinate the installation of signage along the edge of the unpaved road that crosses the compensation site. The signs will warn travelers to remain within the road at all times. The Resource Manager will coordinate with the County to develop the text and/or graphics of the signs, and to establish spacing of the signs along the unpaved road. ESJ LLC will be responsible for the purchase, installation, and maintenance/repair of all signs during the interim period.

The interim Resource Manager will prepare an annual report (due to the County at the end of each calendar year of the interim period), that summarizes the results of the annual biological site status monitoring survey, and all adaptive management measures implemented, and the relative success of the management measures. The annual report will include the biological site status report as an attachment.

5.4 Management Constraints

The primary management constraint during the interim period, would involve public access and use of the property. Although the site is relatively remote, the current use by the U.S. Border Patrol, and the proximity to public lands (the BLM's Jacumba Wilderness Area), result in access issues being a management constraint on the property. Local residents have requested that public use of the unpaved road within the compensation land not be prohibited. Currently, no easements exist for the unpaved road that crosses the compensation site. In addition to the daily use of the unpaved road by the U.S. Border Patrol, the public uses the system of trails in the local area (including the unpaved road crossing the compensation site) to access the Valley of the Moon in the Jacumba Wilderness Area. This remote mountain biking and rock climbing destination is documented in Jerry Schad's *Afoot & Afield in San Diego County* (Schad 1998), and numerous rock climbing and mountain biking websites have published trail maps of the area on the internet.

5.5 Public Use Tasks

See Table 1 for a summary of the public uses tasks. Since it is infeasible to restrict all public access to the property without disrupting the biological functions and values of the site, in addition to the desire of local residents that access not be restricted, the interim Resource Manager will maintain public access along the existing unpaved road across the plan area. Per Section 5.3 of this CRMP, the interim Resource Manager will coordinate with the County on the installation and maintenance of signs to minimize public access beyond the confines of the unpaved road.

5.6 Fire Management Tasks

See Table 1 for a summary of the fire management tasks. In the event of a wildfire during the interim period, the interim Resource Manager will coordinate with the County to develop site-specific post-fire erosion control measures.

6.0 REFERENCES

EDAW. 2009. Biological Resource Report for the Proposed Energia Sierra Juarez U.S. Gen-Tie Line Project, Community of Jacumba, Mountain Empire Community Planning Area, San Diego County.

Schad, Jerry. 1998. Afoot & Afield in San Diego County. 3rd Edition. Wilderness Press. 366 pp.

U.S. Department of Agriculture (USDA). 1973. Soil Survey, San Diego Area, California. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.