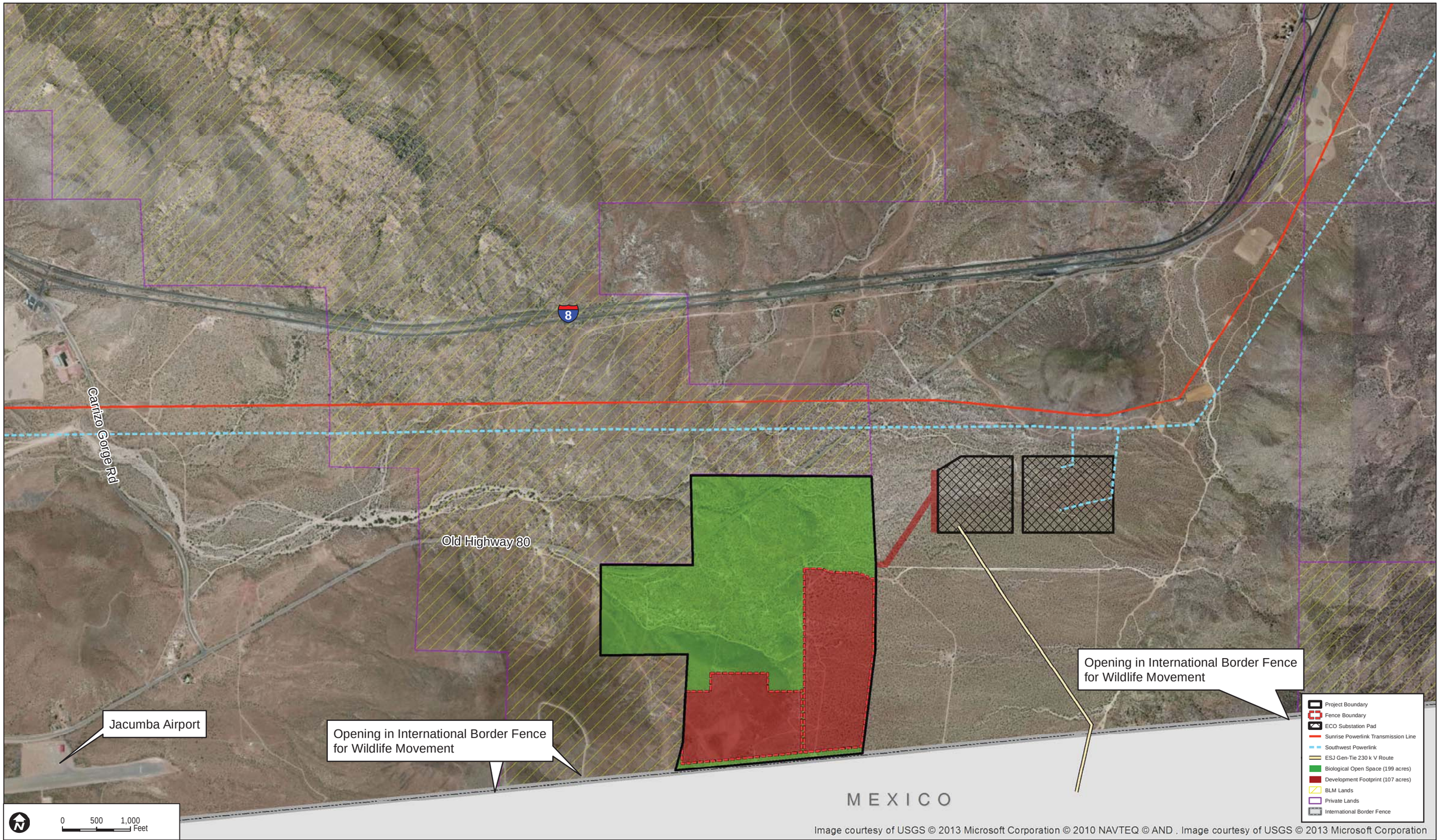

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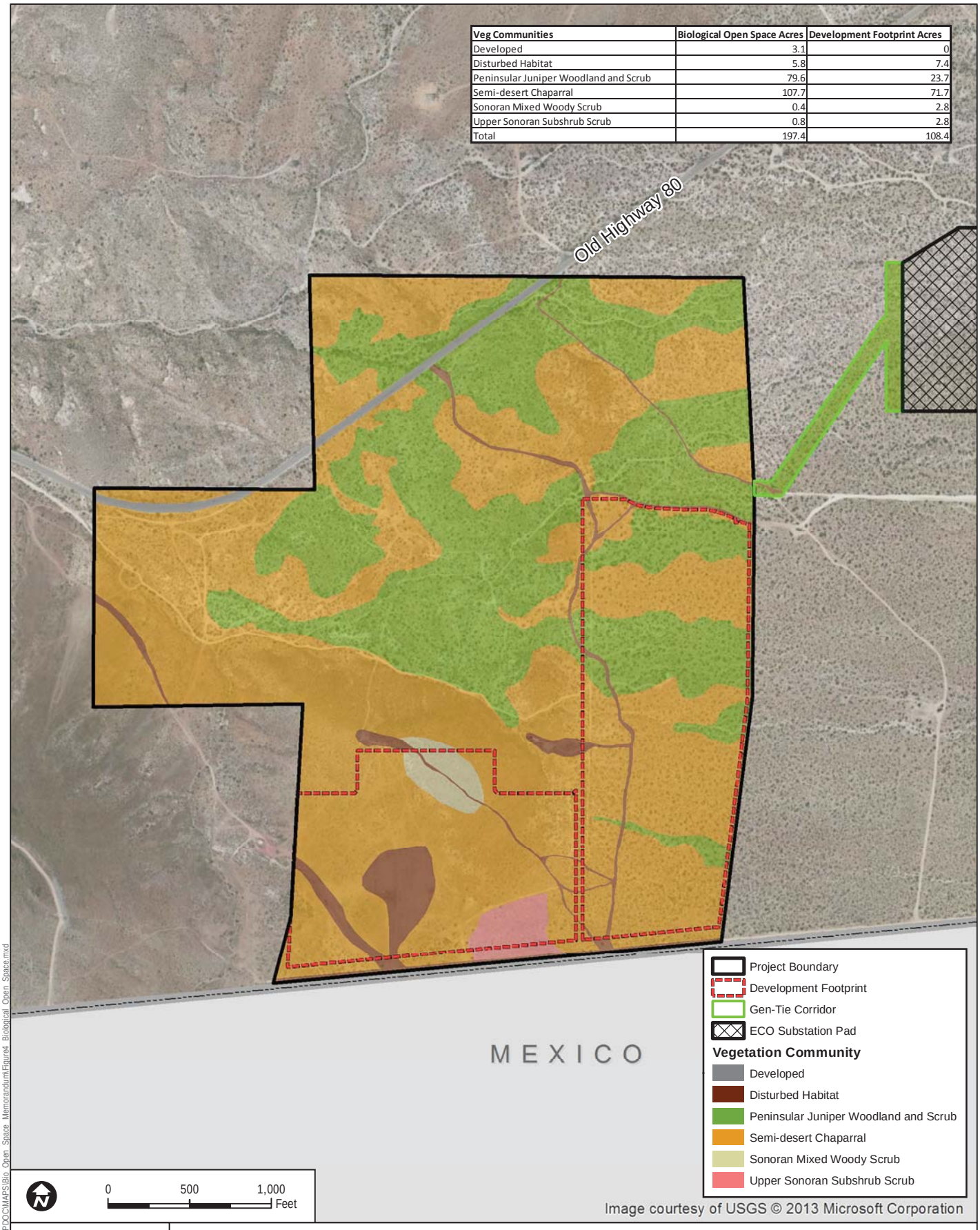
SOURCE: Bing 2013

FIGURE 3

Nearby Land Uses



Veg Communities	Biological Open Space Acres	Development Footprint Acres
Developed	3.1	0
Disturbed Habitat	5.8	7.4
Peninsular Juniper Woodland and Scrub	79.6	23.7
Semi-desert Chaparral	107.7	71.7
Sonoran Mixed Woody Scrub	0.4	2.8
Upper Sonoran Subshrub Scrub	0.8	2.8
Total	197.4	108.4

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SOURCE:Bing 2012, California Department of Fish and Wildlife 2012

FIGURE 4

Biological Open Space

Jacumba Solar - Biological Open Space Memorandum

General Mountain Zone

General Desert Transitional Zone

General Desert Slope Zone

General Desert Floor Zone

desert spike-moss
hairy stickleaf
Parish's desert-thorn
Mexican hulsea
Mountain Springs bush lupine
slender-leaved ipomopsis
Jacumba milk-vetch
pallid San Diego pocket mouse
San Diego button-celery
Mountain spear-leaf
Arizona pholistoma
Hanaworth's milk-vetch
desert spike-moss
Mountain Springs bush lupine
little-leaf elephant tree
spiny hair blazing star
curly herissantia
San Bernardino aster
sticky geraea
hairy stickleaf
Mountain Springs bush lupine
Desert Fan Palm Oasis Woodland
pygmy lotus
barefoot gecko
slender-leaved ipomopsis
Desert Fan Palm Oasis Woodland
barefoot gecko
Mountain Springs bush lupine
slender-leaved ipomopsis
prairie falcon
barefoot gecko
peninsular bighorn sheep
Desert Fan Palm Oasis Woodland
barefoot gecko
prairie falcon
Arizona spurge
Mountain Springs bush lupine
southern grasshopper mouse
southern jewel-flower
sticky geraea
pallid San Diego pocket mouse
Desert Fan Palm Oasis Woodland
southern grasshopper mouse
Mountain Springs bush lupine
slender-leaved ipomopsis
Jacumba milk-vetch
Mountain Springs bush lupine
sticky geraea
slender-leaved ipomopsis
Jacumba milk-vetch
sticky geraea
sticky geraea
Mountain Springs bush lupine
sticky geraea
Jacumba milk-vetch
sticky geraea
slender-leaved ipomopsis
southern jewel-flower
desert spike-moss
Jacumba milk-vetch
Arizona pholistoma
slender-leaved ipomopsis
sticky geraea
Fremont barberry
slender-leaved ipomopsis
Mexican hulsea
Jacumba milk-vetch
slender-leaved ipomopsis
Mountain Springs bush lupine
prairie falcon
slender-leaved ipomopsis
prairie falcon
sticky geraea
slender-leaved ipomopsis
Mountain Springs bush lupine
Arizona spurge
quino checkerspot butterfly
Jacumba milk-vetch
Fremont barberry
Tecate tarplant
Cooper's hawk
coast horned lizard
Mountain Springs bush lupine
tricolored blackbird
slender-leaved ipomopsis
chaparral ragwort
sticky geraea
Parry's tetracoccus
southern grasshopper mouse
desert beauty
slender-leaved ipomopsis
pallid bat
slender-leaved ipomopsis
Jacumba milk-vetch
Mount Laguna aster
Mountain Springs bush lupine
desert beauty
San Diego desert woodrat
Arizona pholistoma
slender-leaved ipomopsis
MEXICO
Anza-Borrego Desert State Park
Old Highway 80
Jacumba Airport
Blue Angels Peak
Project Boundary
Land Zones
Sensitive CNDDB Records within 5 Miles
Quino Checkerspot Butterfly Critical Habitat
Peninsular Bighorn Sheep Critical Habitat
0 0.5 1 Miles

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SOURCE: BING 2013

FIGURE 5

CNDDB Map

Jacumba Solar - Biological Open Space Memorandum

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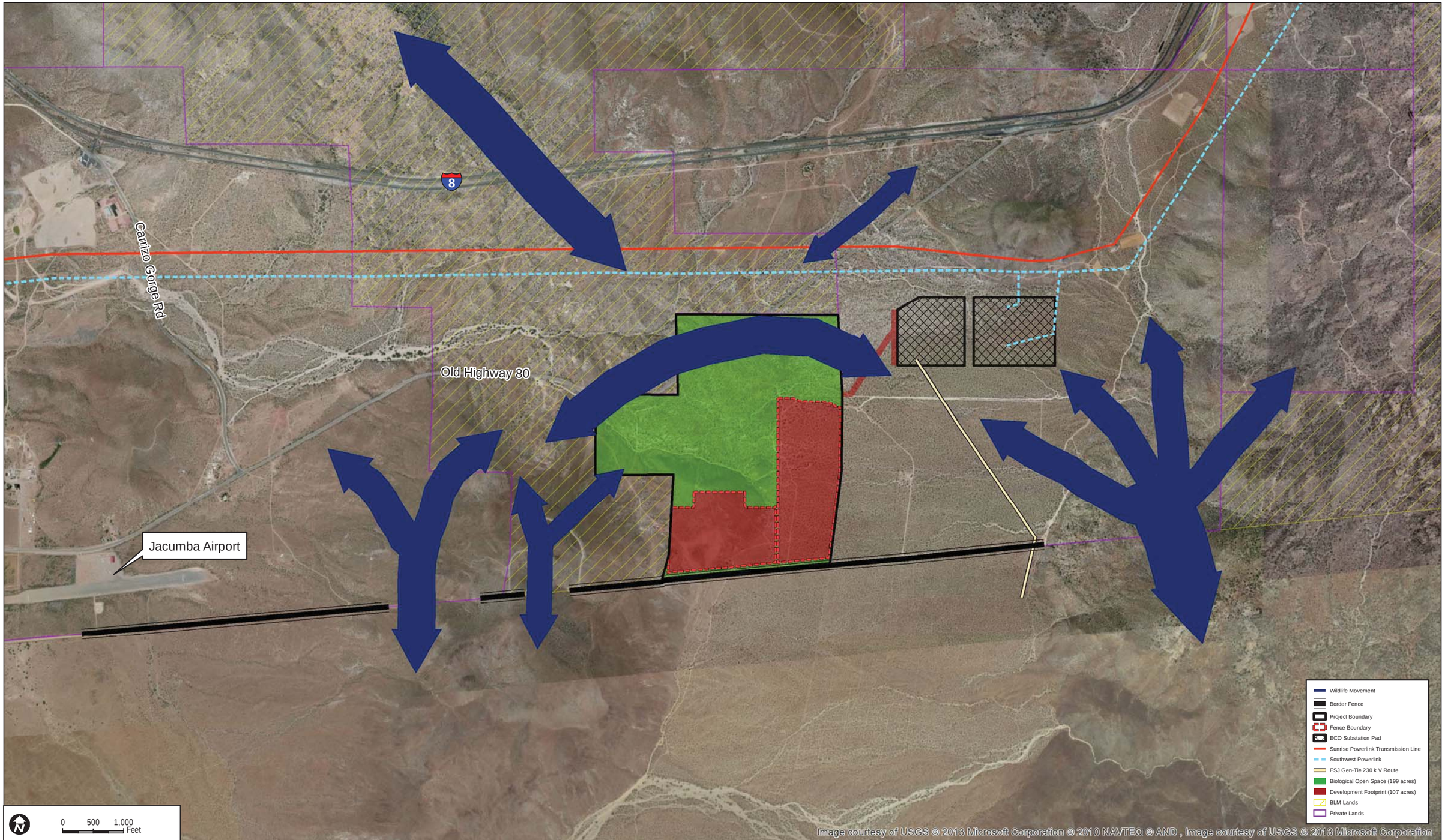

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SOURCE: Bing 2013

FIGURE 6

Nearby Land Uses

7524

Jacumba Solar - Biological Open Space Memorandum

APPENDIX J

Jacumba Solar
Conceptual Resource Management Plan

CONCEPTUAL RESOURCE MANAGEMENT PLAN
for the
Jacumba Solar Energy Project
Major Use Permit PDS2014-MUP-14-041
Environmental Review Project Number
PDS2014-ER-14-22-001
Jacumba, San Diego County, California

Prepared for:

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Department of Planning and Development Services
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Juno Beach, Florida 33408
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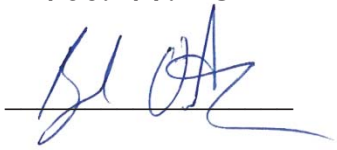

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APPENDIX

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TABLES

1 INTRODUCTION

This Conceptual Resource Management Plan (RMP) has been prepared to meet the mitigation requirement for the proposed Jacumba Solar Energy Project (Proposed Project). Approximately 183.5 acres of semi-desert chaparral, Peninsular juniper woodland and scrub, and disturbed habitat is proposed as open space as part of the mitigation for the Proposed Project. The RMP includes a description of management tasks for the 183.5 acres of on-site Open Space Preserve.

The Proposed Project site is situated south of Old Highway 80 and immediately north of the U.S./Mexico border in eastern San Diego County (County), California, approximately 3 miles to the east of the community of Jacumba Hot Springs within private lands located adjacent to the U.S./Mexico border (Figures 1 and 2). The Proposed Project area is generally an arid desert environment that supports a limited range of habitats and biological communities. These habitats and communities include juniper woodland, desert scrub and chaparral. Additionally, these habitats and communities may vary depending on the ecoregion, soils and substrate, and topography. Topography within the Proposed Project area varies from a gentle slope to steeper terrain on the southwest portion of the Project site.

1.1 Purpose of Biological Resources Management Plan

The purpose of this RMP is to provide guidance to ensure preservation and long-term management of the Open Space Preserve. The objectives of this RMP are to:

1. Guide management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values
2. Serve as a descriptive inventory of vegetation communities, habitats, and plant and animal species that occur on or use this property
3. Serve as a descriptive inventory of archaeological and/or historic resources that occur on this property
4. Establish the baseline conditions from which adaptive management will be determined and success will be measured
5. Provide an overview of the operation, maintenance, administrative, and personnel requirements to implement management goals and serve as a budget planning aid

The details of this Conceptual RMP may be modified when the Final 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.

A resource analysis is provided in the Biological Resources Report for the Proposed Project (Dudek 2014a) and Cultural Resources Report for the Proposed Project (Dudek 2014b). These reports include (1) a description of the existing biological resources on the Project site, including vegetation communities and land covers, jurisdictional resources, plants, wildlife, and wildlife corridors; (2) a description of the existing cultural resources; (3) a discussion of the potential impacts to biological and cultural resources that would result from development of the property and the biological significance of these impacts in the context of federal, state, and local laws and policies; and (4) recommended mitigation measures for reducing identified significant impacts to biological and cultural resources to less than significant. Mitigation recommendations follow federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA), the County's Guidelines for Determining Significance and Report Format and Content Requirements (County 2010), and the County's Resource Protection Ordinance (County 2007).

1.1.1 Conditions and/or Mitigation Measures that Require an RMP

The Project would impact approximately 103 acres of semi-desert chaparral, Sonoran mixed woody scrub, upper Sonoran subshrub scrub, and Peninsular juniper woodland and scrub; 0.21 acre of non-wetland waters; and 8.3 acres of disturbed lands, which would not require mitigation. Table 1 shows the impacts and required mitigation based on the County's mitigation ratios (County 2010, Table 5). A total of 147.9 acres of comparable habitat is required in order to meet the mitigation requirement. The Project proposes to meet this mitigation obligation through the preservation of 180.4 acres of semi-desert chaparral and Peninsular juniper woodland and scrub and 3.1 acres of disturbed lands located within proposed on-site Open Space Preserve.

Table 1
Proposed On-Site Mitigation for Impacts to Vegetation Communities and Land Covers

Habitat Types/ Vegetation Communities	Existing Acreage[1]	Total Impacts (Ac.)[2]	Mitigation Ratio	Mitigation Required (Ac.)	Open Space (Ac.)	Mitigation Excess (Deficit)
Non-Jurisdictional Vegetation Communities						
Upland Scrub and Chaparral						
Semi-desert chaparral[3]	179.5	74.9	1:1	74.9	101.2	26.3
Sonoran mixed woody scrub[3]	3.2	3.2	1:1	3.2	—	(3.2) Mitigated through excess SDC
Upper Sonoran subshrub scrub[3]	3.6	3.0	1:1	3.0	—	(3.0) Mitigated through excess SDC
Subtotal	*186.3*	*81.1*	—	*81.1*	*101.2*	*20.1*

Table 1
Proposed On-Site Mitigation for Impacts to Vegetation Communities and Land Covers

Habitat Types/ Vegetation Communities	Existing Acreage[1]	Total Impacts (Ac.)[2]	Mitigation Ratio	Mitigation Required (Ac.)	Open Space (Ac.)	Mitigation Excess (Deficit)
Woodland						
Peninsular juniper woodland and scrub[3]	101.5	22.2	3:1	66.6	79.2	12.6
Subtotal	*101.5*	*22.2*	—	*66.6*	*79.2*	*12.6*
Non-Natural Land Covers						
Disturbed land	13.2	8.3	N/A	—	3.1	N/A
Subtotal	*13.2*	*8.3*	—	—	*3.1*	*N/A*
Jurisdictional Vegetation Communities and Waters						
Non-Wetland ephemeral waters[4]	3.3	0.21	1:1	0.21	3.14	N/A
Subtotal	*3.3*	*0.21*	—	*0.21*	*3.14*	*N/A*
Total	**300.9**	**111.5**	**—**	**147.9**	**183.5**	**32.6**

1 Includes acreage from the gen-tie line.
2 Includes acreage from the fuel modification zones and gen-tie line.
3 Considered special-status by the County (2010a).
4 These features are overlays to the vegetation community layer and are not counted toward the total acreage.

1.2 Implementation

1.2.1 Resource Manager Qualifications and Responsible Parties

A resource manager must be designated to be responsible for the long-term management and maintenance of the Open Space Preserve. The resource manager shall be one of the following:

- Conservancy group
- Natural resource land manager (e.g., Center for Natural Lands Management, San Diego Habitat Conservancy)
- Natural resource consultant
- County Department of Park and Recreation (DPR)
- County Department of Public Works
- Federal or state wildlife agency (U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW))
- Federal land manager, such as Bureau of Land Management (BLM)

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 or proposed Pre-Approved Mitigation Area, 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.

The resource manager shall be approved in writing by the Director of Planning and Development Services, the Director of Public Works, or the DPR, depending on the resource manager. Any change in the designated resource manager shall also be approved in writing by the approving director. Appropriate qualifications for the resource manager include but are not limited to:

- Able to carry out habitat monitoring or mitigation activities
- Able to be fiscally stable, which includes being able to prepare an operational budget (using an appropriate analysis technique) for the management of this RMP
- Has at least one staff member with a biology, ecology, or wildlife management degree from an accredited college or university or have a Memorandum of Understanding with a qualified person with such a degree
- Have a cultural resource professional on staff or a Memorandum of Understanding with a cultural resources consultant
- Has experience with habitat management in Southern California

Potential entities identified as providing the labor under the direction of the resource manager for the Open Space Preserve include the Center of Natural Lands Management, Habitat Restoration Sciences Inc., or Habitat West.

Proposed Land Owner

Fee title of separate open space lots may be held by the land/resource manager or another appropriate land owner (e.g., land trust, conservancy, or public agency), depending on the particular circumstance.

Currently, the land is slated to be owned by Jacumba Solar LLC. Depending on the circumstances, the applicant may find an alternative fee title holder such as a state or federal agency or non-profit corporation.

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FIGURE 1

Regional Map

Jacumba Solar Energy Project

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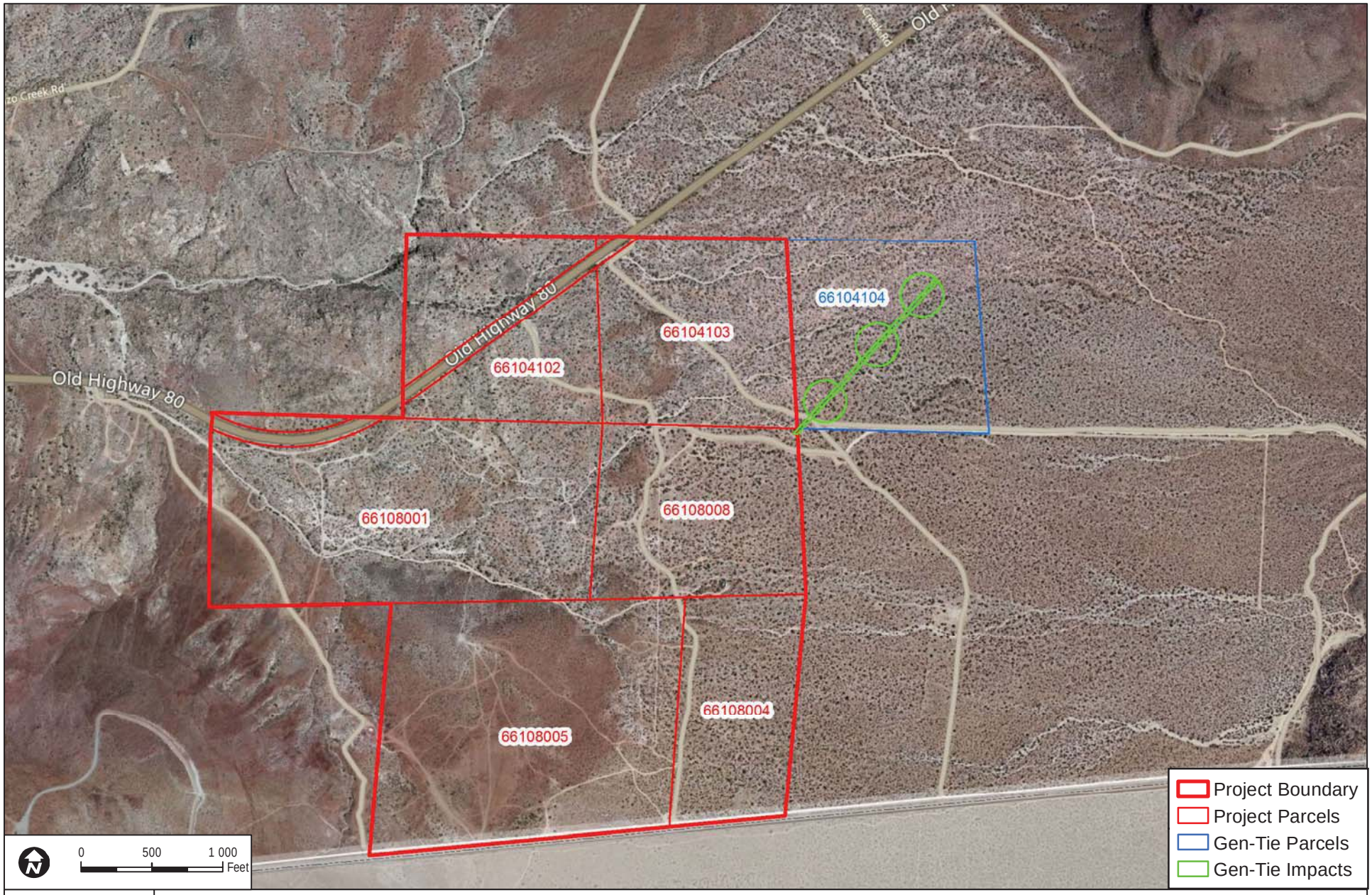

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SOURCE: SanGIS 2014 Bing Maps

FIGURE 2

Vicinity Map

Jacumba Solar Energy Project

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Proposed Easement Holder

If the land is transferred in fee title to a non-governmental entity, a Biological Open Space Easement or Conservation Easement must be recorded. This easement should be dedicated to the County, but it may also include other appropriate agencies as a grantee or third-party beneficiary. If the title to the land is transferred to the County or other public conservation entity, no easement 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 has been completed. Upon County/agency acceptance of the revegetated/restored area, management responsibility for the revegetation/restoration area will be transferred to the resource manager.

1.2.2 Financial Responsibility and 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 the Department of Planning and Development Services, Director of Public Works, or DPR
- **Endowment.** A one-time, non-wasting endowment, which is tied to the property and intended to be used by the resource manager to implement the RMP
- **Alternatives.** Other acceptable types of mechanisms including annual fees to be approved by the Director of Planning and Development Services, Director of Public Works, or DPR
- **Transfer.** Transfer of ownership to existing entity for management

The Project applicant is responsible for all RMP funding requirements, including direct funds to support the RMP start-up tasks as well as an ongoing funding source for annual tasks, which is tied to the property to fund long-term RMP implementation. Start-up tasks include sign installation around the on-site Open Space Preserve (where appropriate), barriers at select locations along the larger wash in the Open Space Preserve, and database compilation. Long-term tasks involve the management and maintenance of the Open Space Preserve in perpetuity, including habitat monitoring and mapping, exotic species control (if needed), and general

monitoring and reporting. These habitat management tasks commence immediately upon initiation of long-term management by the resource manager.

1.2.3 Conceptual Cost Estimate

An initial Property Analysis Record (PAR) was prepared based on the biological resource management tasks identified in this RMP, and is included as Appendix A. Table 2 includes the biological resource management tasks that are planned for the Open Space Preserve. A final PAR and cost estimate will be prepared for the Open Space Preserve when a resource manager has been selected and approved by the County.

Table 2
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (times per year)
	Biological Tasks	
✓	Baseline inventory of resources (if original inventory is over 5 years old)	Once every 5 years
✓	Update biological mapping	Once every 5 years
✓	Update aerial photography	Once every 5 years
✓	Removal of invasive species	As needed
	Predator control	
✓	Habitat restoration/installation	See Conceptual Wetlands Mitigation and Monitoring Plan
✓	Habitat restoration/monitoring and management	See Conceptual Wetlands Mitigation and Monitoring Plan
	Poaching control	
	Noise management, if required	
	For lands within the MSCP and outside PAMA, consult Table 3-5 of the MSCP Plan for required biological resource monitoring	
✓	Monitoring visits	Quarterly
	Operations, Maintenance, and Administration Tasks	
✓	Establish and maintain database and analysis of data	Annually
✓	Write and submit annual report to County	Annually
✓	Review fees for County review of annual report	Annually
✓	Review and, if necessary, update Management Plan	Every 5 years
✓	Construct permanent signs (up to 30 total)	One time
✓	Replace signs	Annually
✓	Construct permanent barriers as part of public access control (up to six total)	One time
✓	Maintain permanent barriers as part of public access control	Annually

Table 2
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (times per year)
✔	Remove trash and debris	Quarterly
✔	Coordinate with U.S. Customs and Border Protection and Sheriff	As needed
	Maintain access road	
	Install stormwater BMPs	
	Maintain stormwater BMPs	
	Restore built structure	
	Maintain built structure	
	Maintain regular office hours	
	Inspect and service heavy equipment and vehicles	
	Inspect and repair buildings, residences, and structures	
	Inspect and maintain fuel tanks	
	Coordinate with utility providers and easement holders	
	Manage hydrology (as required)	
	Coordinate with law enforcement and emergency services (e.g., fire)	
	Coordinate with adjacent land managers	
	Remove graffiti and repair vandalism	
Public Use Tasks		
	Construct trail(s)	
	Monitor, maintain/repair trails (unless a trail easement has been granted to the County)	
✔	Control public access	Quarterly
✔	Provide ranger patrol	Quarterly
	Manage fishing and/or hunting program (if one is allowed)	
	Provide Neighbor Education – Community Partnership	
	If HOA is funding management, provide annual presentation to HOA	
	Coordinate volunteer services	
	Provide emergency services access/response planning	
Fire Management Tasks		
	Coordinate with applicable fire agencies and access (gate keys, etc.) for these agencies	
	Plan fire evacuation for public use areas	
	Protect areas with high biological importance	
	Hand-clear vegetation	
	Mow vegetation	
Post-Fire Tasks		
	Control post-fire erosion	
	Remove post-fire sediment	

Table 2
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (times per year)
	Reseed after fire	
	Replant after fire	

Note: MSCP = Multiple Species Conservation Program; PAMA = Pre-Approved Mitigation Area; DEH = Department of Environmental Health; BMP = best management practice; HOA = Homeowners' Association

1.2.4 Reporting Requirements

An RMP Annual Report will be submitted to the County (and resource agencies, as applicable), along with the submittal fee to cover County staff review time. The annual report shall discuss the previous year's management and monitoring activities as well as management/monitoring activities anticipated in the upcoming year.

The annual report shall provide a concise but complete summary of management and monitoring methods, identify any new management issues, and address the success or failure of management approaches (based on monitoring). The report shall include a summary of changes from baseline or previous year conditions for species and habitats and address any monitoring and management limitations, including weather (e.g., drought). The report shall also address any management (changes) resulting from previous monitoring results and provide methods for measuring the success of adaptive management.

For new sensitive species observations or significant changes to previously reported species, the annual report shall include copies of completed California Natural Diversity Database 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 Planning and Development Services upon submittal of the annual report for staff's review time. The RMP 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.

1.2.5 RMP Agreement

The County will require an agreement with the applicant when an RMP is required. The RMP Agreement will be executed when the County accepts the Final RMP. The agreement will obligate the applicant to implement the RMP and provide a source of funding to pay the cost to

implement the RMP in perpetuity. The agreement shall also provide a mechanism for the funds to be transferred to the County if the resource manager fails to meet the goals of the RMP.

The agreement will specify that RMP funding or funding mechanism be established prior to construction or use of the property in reliance on the permit.

1.3 Limitations and Constraints

Management constraints that may affect meeting the RMP goals could include environmental, legal, political, social, or financial factors.

Increased Human Activity

The Project would be an unmanned facility that would be monitored remotely through a supervisory control and data acquisition system. Employees will be on site approximately twice per year for solar panel washing, and once per year for the first several years to reapply a soil binding stabilization agent. In addition, the on-site meteorological stations would be cleaned and adjusted on a regular basis. Fuel modification area vegetation management around the solar panels shall be completed quarterly each year or as often as needed for fire safety, as determined by the San Diego County Fire Authority (Dudek 2014c). Additionally, infrequent operations and maintenance activities may occur on site as needed to repair or replace equipment. Human presence can result in littering and introduction/expansion of non-native plants (e.g., bromes (*Bromus* spp.)). It can also disturb wildlife species, particularly during the breeding/nesting season.

Alteration of the Natural Fire Regime

The Proposed Project could potentially increase the risk of fire, including but not limited to fire associated with electrical shorts or electrical equipment malfunction. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities, such as annual grassland and weedy communities (Malanson and O'Leary 1982; Keeley 1987; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads, so when fires do occur, they are catastrophic. A Fire Protection Plan (Dudek 2014b) has been prepared pursuant to Section 4903 of the County Consolidated Fire Code to address the adverse environmental effects that the proposed Jacumba Solar Energy Project may have from wildland fire. Mitigation measures and design features have been prepared to minimize fire risk and provide adequate emergency response services.

No federally or state-threatened or endangered species have been observed or are expected to occur on site. All water will be imported and will not result in the drawdown of on-site water.

Appropriate permits for impacts to jurisdictional resources are currently being obtained pursuant to Sections 401 and 404 of the Clean Water Act and Section 1600 of the Fish and Game Code.

At this time, no legal, political, or financial constraints are known.

2 PROPERTY DESCRIPTION

2.1 Location

The Proposed Project properties encompass a total of approximately 304 acres within the Mountain Empire Subregional Plan Area of the County's General Plan (County 2011), in unincorporated San Diego County (Figure 1). The Proposed Project, including the gen-tie, would be located entirely on private lands. The Proposed Project site is situated south of Old Highway 80 and immediately north of the U.S./Mexico border in eastern San Diego County, California, approximately 3 miles to the east of the community of Jacumba Hot Springs within the Jacumba U.S. Geological Survey 7.5-minute quadrangle, Township 18 South, Range 8 East, and Sections 2 and 11 (Figure 2). The approximately 1,500-foot 138-kilovolt (kV) gen-tie line would travel from the Proposed Project site to the San Diego Gas & Electric East County Substation. The gen-tie line would be situated on three utility poles between the Jacumba Solar Energy site and the East County Substation. Regional access to the Proposed Project area is provided directly by Old Highway 80 and by Interstate 8, running east and west further to the north. The approximately 304-acre study area is situated within the following Assessor's Parcel Numbers: 661-080-01, 661-080-04, 661-080-05, 661-080-08, 661-041-02, 661-041-03, and 661-041-04. For further details, refer to the Biological Resources Report for the Proposed Project prepared by Dudek (2014a).

2.2 Environmental Setting

The study area is undeveloped, with elevation ranging between 3,114 and 3,176 feet above mean sea level. The site is relatively flat, except for a hill near the southwest corner and several unvegetated channels that generally flow to the northwest across the site.

According to the U.S. Department of Agriculture (2014), there are five soil types found in the Project area. Descriptions of these soil types, based on Bowman (1973) and the Web Soil Survey (USDA 2014), are discussed in the following paragraphs:

Acid igneous rock land soil is found in rough, broken terrain. The topography ranges from low hills to very steep mountains. Large boulders and rock outcrops of granite, quartz diorite, gabbro, basalt, and other rock types cover more than 50%–90% of the total area of this soil type. The soil material is very shallow and consists of loam to loamy course sand textures over decomposed granite or basic igneous rock. Pockets of deep soils are present between the rocks in some locales. Many areas are practically barren and have very rapid runoff. The vegetation for this soil type varies by elevation and climate. In the foothills and mountains, acid igneous rock land supports various chaparral vegetation communities.

The Mecca series consists of well-drained, very deep, coarse sandy loams derived from granitic alluvium. The A horizon is composed of brown to dark brown, moderately alkaline coarse sandy loam and is 8–12 inches thick. The C horizon ranges from yellowish-brown or dark yellowish-brown to light brown or reddish brown in color and a moderately alkaline calcareous coarse sandy loam to loam texture. This horizon extends to a depth of more than 60 inches. These soils are found on alluvial fans and alluvial plains with slopes of 0%–5% and contain moderate permeability. Mecca soils occur at elevations ranging from 200–2,000 feet above mean sea level. The Mecca soil inclusion within the Project area is the Mecca coarse sandy loam with 2%–5% slopes. This soil is gently sloping with slow runoff. Native vegetation expected on this soil type include cactus (*Cactaceae* ssp.), creosote bush (*Larrea tridentata*), ocotillo (*Fouquieria splendens*), and annual grasses. Mecca soils are also used for range, irrigated alfalfa, small grain, and truck crops.

The Rositas series consists of excessively drained, very deep loamy coarse sands derived from granitic alluvium. The A horizon is approximately 3–8 inches thick and ranges from light brownish gray to pale brown or very pale brown in color and from loamy coarse sand or fine sand to sandy in texture. The C horizon extends to a depth of more than 60 inches. It ranges from pale brown to very pale brown or light yellowish brown in color and from gravelly coarse sand to loamy fine sand in texture. The Rositas soil inclusion within the Project area is the Rositas loamy coarse sand with 2%–9% slopes. This soil is gently to moderately sloping and found on alluvial fans and alluvial plains with slopes averaging 5%. Rositas soils occur at elevations ranging from 100 to 2,000 feet above mean sea level. This soil series has a water holding capacity of 3–4 inches, with rapid permeability and slow to medium runoff. Native vegetation expected on this soil type is mainly ocotillo, cholla (*Cylindropuntia* sp.), creosote bush, saltbush (*Atriplex* sp.), and annual grasses.

The Rough Broken Land series is made up of well-drained to excessively drained soils associated with steep and very steep land. Areas of exposed raw sediments are commonly found within this soil series, including areas of very shallow soils. Runoff is rapid to very rapid and vegetation consists of sparse cover of low woody shrubs.

The Sloping Gullied Land series occurs on alluvial fans in the desert adjacent to mountains. This soil series is found within steep talus slopes and fans below basalt ledges in the vicinity of Jacumba. The texture ranges from clay loam to gravelly, cobbly sand derived from igneous, sedimentary, and metamorphic rocks. Limy material has been exposed where gullies have dissected areas of old alluvium. The soils are shallow to moderately deep underlain by basalt, volcanic tuff, and gravel with medium to very rapid runoff. Native vegetation expected on this soil type is primarily desert shrubs, cactus, and annual forbs and grasses with sparse cover.

One land cover type and four native vegetation communities were mapped by Dudek within the Proposed Project area. Native vegetation communities within the Project area include Peninsular juniper woodland and scrub, semi-desert chaparral, Sonoran mixed woody scrub, and upper Sonoran subshrub scrub. One land cover type (non-vegetated area) occurs within the Project area: disturbed land. Of these, Peninsular juniper woodland and scrub, semi-desert chaparral, and disturbed land are within the Open Space Preserve.

The Proposed Project is located approximately 4,000 feet west of the Sierra Juarez Mountains. Runoff discharging from the Sierra Juarez Mountains generally flows in the westerly direction toward the Proposed Project. A hill located at the western portion of the Proposed Project also flows toward the Proposed Project to the south, west, and east.

Multiple "blue-line" streams on the U.S. Geological Survey quadrangle cross the property and are tributaries to Carrizo Creek.

Generally, the Project site has a warm, arid climate. Average temperatures in 2013 and 2014 from the nearby community of Campo range from approximately 21 degrees Fahrenheit (°F) to 106°F, with high daily temperatures in the summer months typically exceeding 90°F (Weather Underground 2014). In Campo, an annual precipitation of 6.8 inches was recorded in 2013 and 6.2 inches was recorded in 2014 (Weather Underground 2014).

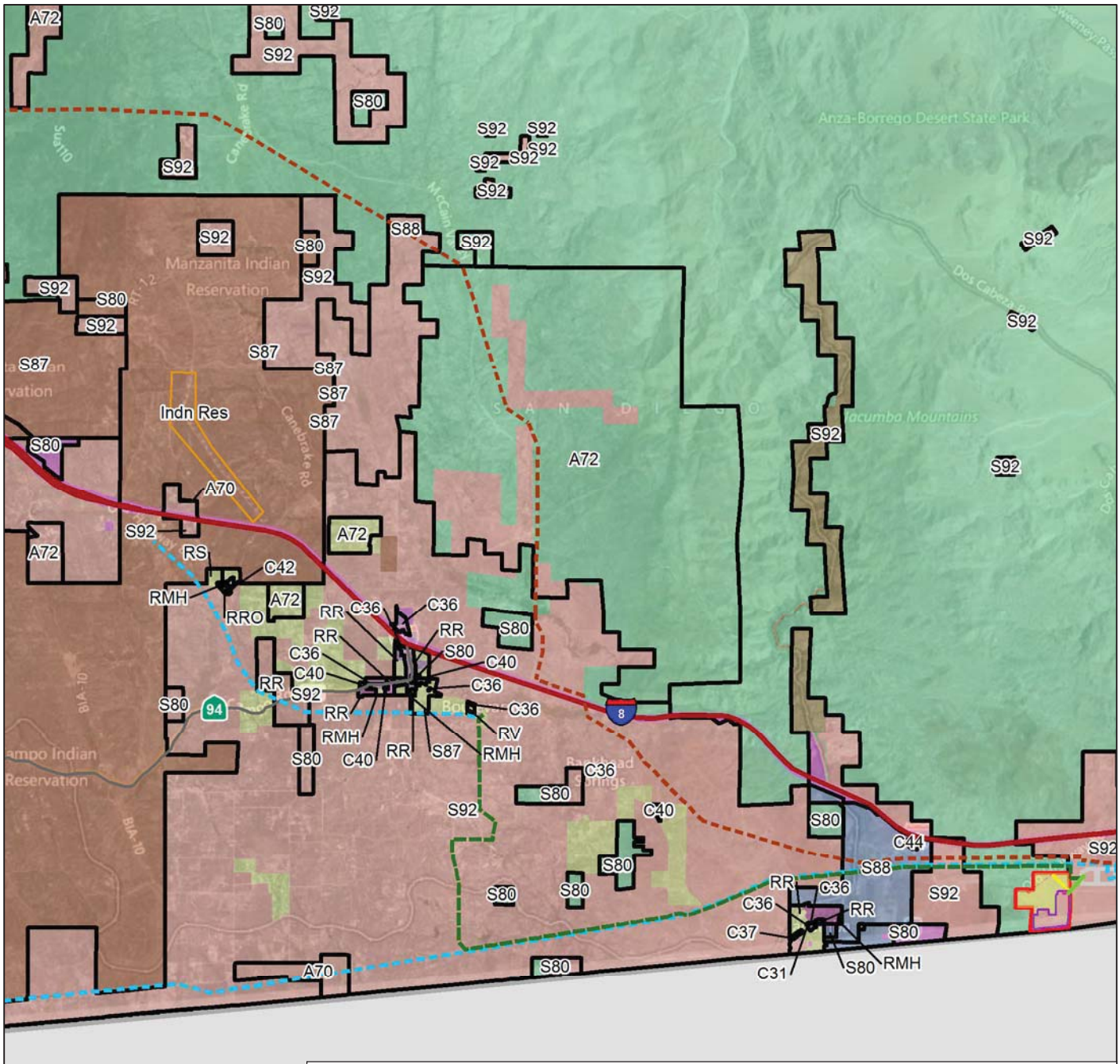
2.3 Land Use

The surrounding Jacumba area, which includes the community of Jacumba Hot Springs, can be characterized as a predominantly rural landscape featuring large-lot ranches and single-family homes with a mixture of small-scale agriculture, recreational opportunities, and vast areas of undeveloped lands. The community also has an old rail line running to the north, with the town characterized by Old Highway 80 as its main street, single-family homes throughout the town, and agricultural uses to the east. Very few single-family homes are scattered amongst the mountainous landscape; however, recent developments have resulted in a variable physical setting that includes both rural and major infrastructure elements, including the East County Substation, Kumeyaay Wind Energy Facility, and Sunrise Powerlink (Figure 3).

South of Interstate 8 are major infrastructure elements of the landscape. These infrastructure elements include the Sunrise Powerlink, which consists of a 500-kV electric transmission line supported by 150-foot-tall steel lattice structures, and the Southwest Powerlink, which also consists of a 500-kV electric transmission line supported by 150-foot-tall steel lattice structures. Several large, vertical, metallic communication towers located at the White Star Communication Facility and the linear, rust-colored U.S./Mexico International Border Fence located immediately

south of the Proposed Project are also infrastructure elements of the landscape. BLM lands surround the Project site to the west and north (Figure 3).

In addition, the Golden Acorn Casino and Travel Center is located south of Interstate 8 near the Tecate Divide on reservation lands of the Campo Kumeyaay Nation and the existing Boulevard Border Protection Station. The adjacent Lux Motel is located south of the interstate near the Ribbonwood Road exit.



MEXICO

Project Property Boundary
Gen-Tie Line
Collector Substation and Battery Storage Area
Security Fence
ECO Access Road
ECO Substation
Kumeyaay Wind Energy Facility
Setback Area
Open Space
East County 138 kV Alignment
500 kV Sunrise Powerlink Alignment
500 kV Southwest Powerlink Alignment

San Diego County General Plan Designations

GENERAL COMMERCIAL
OPEN SPACE (CONSERVATION)
OPEN SPACE (RECREATION)
BUREAU OF LAND MANAGEMENT LANDS
PUBLIC/SEMI-PUBLIC FACILITIES
RURAL COMMERCIAL
RURAL LANDS
SEMI-RURAL RESIDENTIAL
TRIBAL LANDS
VILLAGE RESIDENTIAL
SPECIFIC PLAN AREA
Zoning
A70, Limited Agriculture
A72, General Agriculture
C31, Commercial and Office
C36, Commercial and Office
C37, Commercial and Office
C40, Commercial and Office
C42, Commercial and Office
C44, Commercial and Office
Indn Res, Indian Reservation
RMH, Residential Mobilehome
RR, Rural Residential
RRO, Residential-Oriented Residential
RS, Residential-Single
RV, Residential-Variable
S80, Open Space
S87, Limited Control
S88, Specific Plan
S92, General Rural

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SOURCE:Bing 2014

FIGURE 3
Land Use

Jacumba Solar Energy Project

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3 BIOLOGICAL RESOURCES DESCRIPTION

Three vegetation communities and land covers were identified within the Open Space Preserve: semi-desert chaparral (101.2 acres), Peninsular juniper woodland and scrub (79.2 acres), and disturbed land (3.1 acres) (Figure 4). These habitat types/vegetation communities are described in the following section, 3.1 Habitat Types. Unique vegetation communities are of relatively limited distribution, are of particular value to wildlife, or are recognized by local and/or regional resource agencies as special-status. The status of vegetation communities was determined using Holland (1986), as modified by Oberbauer et al. (2008), and the County's Guidelines for Determining Significance and Report Format and Content Requirements (2010). Refer to the Biological Resources Report for the Proposed Project prepared by Dudek (2014a) for a more detailed description of the biological resources on site.

3.1 Habitat Types

3.1.1 Semi-Desert Chaparral (37400)

According to Holland (1986), semi-desert chaparral is similar to northern mixed chaparral (37710), but it is typically not quite as tall (4.9–10 feet) and is more open. Dominant taxa within this community include juniper (*Juniperus* sp.), buckwheat (*Eriogonum* sp.), and pricklypear (*Opuntia* sp.) Characteristic species include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* sp.), ceanothus (*Ceanothus* sp.), oak (*Quercus* sp.), and a variety of other shrubs and subshrubs. This community is found on the high desert plateaus and escarpment of the Peninsular Range in the County associated with drier, cooler winters (Holland 1986). On site, semi-desert chaparral is found within areas where California juniper (*Juniperus californica*) is less prominent (less than 4% absolute cover), including areas where California junipers have burned in the past and have not yet recovered. The semi-desert chaparral on site includes jointfir (*Ephedra* sp.), goldenbush (*Ericameria* sp.), Eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*), creosote bush, and common deerweed (*Acmispon glaber*).

The jointfir, Eastern Mojave buckwheat, and creosote bush were codominant species in this community; the *Ephedra* was not keyed to species, but the *Eriogonum fasciculatum* (California buckwheat scrub) and *Larrea tridentata* (creosote bush scrub) alliances have a rank of G5S5 in CDFG (2010), meaning they are secure globally and in the state. Semi-desert chaparral is not considered special status by CDFW but is considered special status based on mitigation recommendations from the County (2010).

3.1.2 Peninsular Juniper Woodland and Scrub (72320)

Peninsular juniper woodland and scrub consists of relatively dense pinyon woodland dominated by Parry pinyon (*Pinus quadrifolia*) with California juniper occurring within xeric sites below the trees' dripline. This community occurs in alluvial fans and desert slopes that are slightly lower and more xeric than the Peninsular pinyon woodland community (72310) with which it intergrades (Holland 1986). Other dominant species include Parry's beargrass (*Nolina parryi*), shrub live oak (*Quercus turbinella*), Mojave yucca (*Yucca schidigera*), and big sagebrush (*Artemisia tridentata*).

Peninsular juniper woodland and scrub observed on site contains California juniper at greater than 4% absolute cover and lacks pines (*Pinus* sp.). Other commonly occurring species include creosote bush, jointfir, goldenbush, and snakeweed (*Gutierrezia* sp.). Peninsular juniper woodland and scrub occurs in large patches throughout the Open Space Preserve (Figure 4).

The California juniper woodland alliance has a rank of G4S4 in CDFG (2010), meaning it is considered secure globally and in the state. Peninsular juniper woodland and scrub is not considered special status by CDFW but is considered special status based on mitigation recommendations from the County (2010).

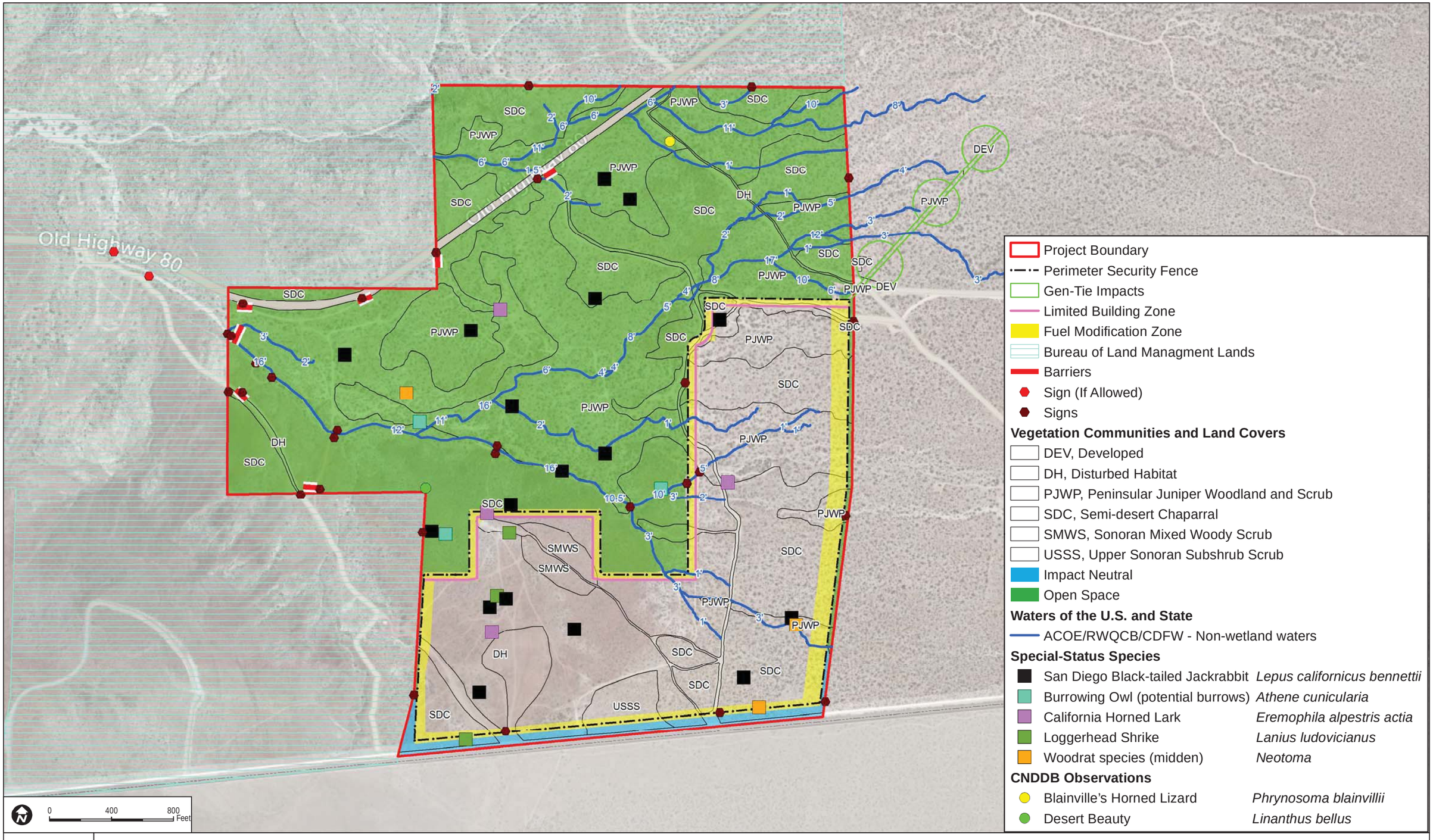
3.1.3 Disturbed Land (11300)

Disturbed land refers to areas that have been permanently altered by previous human activity that has eliminated all future biological value of the land for most species. The native or naturalized vegetation is no longer present, and the land lacks habitat value for special-status wildlife, including potential raptor foraging. Disturbed land found throughout the Open Space Preserve consists primarily of unpaved roads (Figure 4). These roads have been graded and contain little native vegetation.

Disturbed land is not considered special status by CDFW or the County (2010).

3.2 Jurisdictional Wetlands and Waters

During the 2013 and 2014 jurisdictional wetlands delineation performed by Dudek and a subsequent site visit with staff from the U.S. Army Corps of Engineers in November 2014, approximately 3.14-acres (20,205 linear feet) of potential jurisdictional waters of the United States/State were identified within the Open Space Preserve. These jurisdictional resources are under the joint jurisdiction of the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the CDFW. This is based on the preliminary jurisdictional delineation approach described in the Biological Resources Report for the Proposed Project prepared by Dudek (2014a).



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SOURCE: CNDDB 2014; Bing Maps 2014

FIGURE 4

On-Site Biological Open Space

Jacumba Solar Energy Project

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Non-wetland waters were mapped based on the presence of an ordinary high water mark along several potential drainage channels. An ordinary high water mark was identified along several ephemeral unvegetated stream channels based on an observed defined bed and bank and other evidence of hydrology (Figure 4). According to the National Hydrographic Database, an unnamed stream/river flows along an east–west direction through the central portion of the Open Space Preserve (USGS 2014). All drainages mapped within the Open Space Preserve had a defined bed and bank, evidence of an ordinary high water mark, and a channel bed of 1 to 17 feet wide. The drainages were continuous for greater than 250 linear feet as well; thus, they were determined to be jurisdictional non-wetland waters. Flows within these drainages are directed northwest from the site and into a tributary to Carrizo Creek, which flows into Carrizo Creek, turns into Carrizo Wash, and connects to San Felipe Wash and eventually the Salton Sea (USGS 2014), and therefore forms a significant nexus to a traditional navigable water of the United States. These waters do not meet any one of the three criteria required to be considered a County Resource Protection Ordinance wetland.

3.3 Flora

Twenty-nine vascular plant species, consisting of 26 native species (90%) and 3 non-native species (10%), were recorded within the study area during the reconnaissance surveys and jurisdictional delineation. As noted in the discussion of survey limitations of the Biological Resources Report (Dudek 2014a), the Project vicinity had subnormal rainfall in winter of 2013, and annual plants were expected to exhibit poor production. Therefore, several undetected annual plant species may occur on site.

3.4 Fauna

The Project area supports habitat for common upland species. Scrub, chaparral, and woodland habitats within the study area provide foraging and nesting habitat for migratory and resident bird species and other wildlife species. Rock outcroppings are present north of Old Highway 80 within the Project area and provide cover and foraging opportunities for wildlife species, including reptiles and mammals.

There were 101 wildlife species observed in the study area. Species richness in the Project area is moderate due to the property size, the amount of undeveloped land, and the number of native upland habitats. Species richness is generally increased with the presence of more habitat types and ecotones. Although species richness is moderate, the number of species and the wildlife population levels (i.e., number of individuals) is typical for undeveloped areas in this region, particularly those areas that support multiple upland habitat types.

3.5 Sensitive Plant Species

Endangered, rare, or threatened plant species, as defined in CEQA Guideline 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act and the federal Endangered Species Act, (2) plant species with a CRPR 1 through 4 (CDFW 2014a; CNPS 2014), and (3) plant species considered "sensitive" by the County of San Diego (County 2010, Table 2).

Fourteen special-status plant species have a moderate or high potential to occur on the study area. They include nine County List A or B species, one County List C species, and four County List D species (County 2010). Each of these sensitive species is described in the Biological Resources Report for the Proposed Project (Dudek 2014a).

Critical Habitat

There is no USFWS-designated critical habitat for plant species within 5 miles of the Project site.

3.6 Sensitive Animal Species

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" in this report and include (1) endangered or threatened wildlife species recognized in the context of the California Endangered Species Act and federal Endangered Species Act; (2) California Species of Special Concern and Watch List species, as designated by the CDFW (2014b); (3) mammals and birds that are fully protected species, as described in Fish and Game Code, Sections 4700 and 3511; (4) Birds of Conservation Concern, as designated by the USFWS (2008); and (5) wildlife species considered "sensitive" by the County of San Diego (County 2010, Table 3).

Five special-status wildlife species were directly observed within the study area: Bell's sparrow (*Artemisiospiza belli*), turkey vulture (*Cathartes aura*), California horned lark (*Eremophila alpestris actia*), loggerhead shrike (*Lanius ludovicianus*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Due to the high mobility of these species, not all observations were mapped. However, generally mapped special-status species points are depicted in Figure 4. Although not directly observed during biological surveys, three potential suitable burrowing owl (*Athene cunicularia*) locations were observed along with three woodrat (*Neotoma* sp.) middens. In addition, Blainville's horned lizard (*Phrynosoma blainvillii*) was recorded in the CNDDB within the northern section of the site (Figure 4). Each of these sensitive species is described in the Biological Resources Report for the Proposed Project (Dudek 2014a).

A raptor survey and habitat assessment was conducted for the solar site in winter 2013 and 2014. Special-status wildlife species known to occur in the surrounding region and their potential to occur on site are presented in Appendices F and G. This list includes the potentially occurring special-status wildlife species provided in the County's pre-application meeting letter for the Proposed Project (County of San Diego 2014), which was used as a reference document for this report; the species listed in the Draft East County Plan, Species List (County of San Diego 2009); and the wildlife species recorded in the Jacumba quadrangle and the incorporated six surrounding quadrangles (CDFW 2014c; USFWS 2014). The evaluation of each species' potential to occur on site is based on the habitat present on site and Dudek's knowledge of biological resources of the area and regional distribution of each species.

Critical Habitat

USFWS-designated critical habitat for Peninsular bighorn sheep (*Ovis canadensis nelsoni DPS*) and Quino checkerspot butterfly (*Euphydryas editha quino*) occurs within 5 miles of the Project area (USFWS 2014), but no critical habitats for wildlife species occur on site.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors are defined as areas that connect suitable wildlife habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyon drainages, ridgelines, or areas with vegetation cover, provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of wildlife from high-density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife corridors are considered sensitive by resource and conservation agencies. For the most part, the amount of human disturbance (i.e., limited disturbance) and vegetation communities are similar both within and surrounding the Project site. Although rugged terrain generally surrounds the Project area to the north, east, and southwest, the area is not readily identifiable as a corridor because wildlife movement is not constrained or directed through the Project area.

To satisfy habitat loss mitigation requirements for the development of solar facilities on this Project, the applicant is proposing to balance development with on-site preservation of habitat, providing a contiguous block of habitat consisting of 180.4[1] acres of habitat of equivalent function or value in an Open Space Preserve.

[1] Only considers habitat with equivalent function or value. An additional 3.1 acres are disturbed land (not included in open space acreage).

The Proposed Project vicinity is generally surrounded by undeveloped landscapes to the north, east, and west. Old Highway 80, a two-lane highway, traverses the Project site in a northeast–southwest direction along the northern portion of the Project site. There are no wildlife crossings along the highway, but wildlife is generally able to make at-grade crossings over the highway, particularly where terrain is not steep. Wildlife currently are able to traverse the Project site and surrounding undeveloped areas in an unencumbered manner until they arrive at the International Border Fence south of the site. The Project site is located near three breaks in the International Border Fence. Two are located approximately 1,400 feet to the west and the other is located approximately 3,000 feet to the east (see the Biological Resources Report for more information). These breaks are due to the steep terrain and associated difficulties in building a fence in those areas. However, this topography does not pose difficulties for most wildlife use. Mule deer (*Odocoileus hemionus*), coyotes (*Canis latrans*), cougars (*Puma concolor*), bobcats (*Lynx rufus*), and other species are readily able to scale steep slopes. Further, the Project site is situated adjacent to, or near, BLM holdings, which allows for unhindered movement.

The Peninsular Ranges are located east of the Project area. The Project site is located approximately 2.6 miles southeast of designated critical habitat for Peninsular bighorn sheep and 1 mile from the western slope of the Peninsular Ranges. The Project site is likely too far removed from mountainous terrain to provide high quality habitat attractive to bighorn sheep. Also, the Project site does not provide intermountain connectivity habitat between occupied mountain ranges, and Peninsular bighorn sheet have not been identified in the area previously. In addition, there are no water sources near the Project site that would attract bighorn sheep to the area. Based on their known range, USFWS Critical Habitat, and unsuitable habitat between the site and known range, this species is not expected to occur.

As shown on Figure 4, the Proposed Project is designed as a single contiguous development adjacent to the border fence along the southern and southeastern portions of the site. It is designed to be consistent with current wildlife movement constraints and movement areas, with the development proposed along the southern edge of the site where wildlife cannot currently move through due to the border fence. The Project design maintains a large contiguous block of habitat to be left in the Open Space Preserve within a larger regional landscape where wildlife is more likely to move through. The Open Space Preserve is configured to compliment the adjacent BLM lands to the north and west, and the configuration of the open space allows for continued utilization of the breaks in the border fence to the east and west by wildlife (Figure 3). It is expected that the configuration of the open space will allow for viable preservation of species and movement in the vicinity and region.

The Laguna Mountains are north of the Proposed Project area, and the Anza-Borrego Desert and the eastern slope of the Peninsular Range are east of the site.

3.7 Overall Biological Value

The on-site open space supports native semi-desert habitats and non-wetland ephemeral waters. It is adjacent to contiguous areas of undeveloped habitat, providing habitat connectivity to BLM land (Figure 3).

3.8 Enhancement and Restoration Opportunities

The 183.5 acres of open space will be preserved in their natural state. Areas on the Project site are disturbed by off-highway vehicle (OHV) use within washes, but increased site-access controls would help reduce the impact of human uses on the land.

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4 BIOLOGICAL RESOURCE MANAGEMENT

This RMP identifies activities to manage and preserve the sensitive biological resources within the Open Space Preserve. The main goal is to preserve the 183.5 acres of on-site open space described, including the sensitive plant and animal species they support.

4.1 Management Goals

Goal: To preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the Open Space Preserve.

A baseline inventory has been collected during the evaluation of the Project under CEQA. As such, ongoing species and habitat monitoring shall occur in accordance with County and regional standards. These standards typically include vegetation mapping every 5 years. Habitat maintenance may be required if vegetation mapping indicates habitat conversion that is detrimental to the preservation of native ecosystem functions. Specific management tasks are described in the following section, 4.2 Biological Management Tasks.

4.2 Biological Management Tasks

4.2.1 Baseline Biological Inventory

The quantity and quality of vegetation communities within both the on-site and off-site Open Space Preserve will be documented during the first year of active management. This inventory will incorporate data from the Project's Biological Resources Report with the findings of an initial baseline inventory field survey. These data will allow the resource manager to measure habitat changes caused by natural and human effects and to evaluate management efforts during subsequent years.

The baseline inventory update will be conducted during the first year of active management. To optimize the probability of detecting sensitive species reported or expected to occur within the on-site and off-site Open Space Preserve, this survey should be conducted between March and June, when the majority of sensitive plant and animal species are most likely to be detected.

4.2.2 Update Biological Mapping

Every 5 years, the resource manager will update the vegetation and sensitive resources mapping on a current aerial photograph of the site or in the field if updated aerial photography is not available. If mapping will be done from aerial photographs, sampling ground-truthing should occur to verify desktop mapping.

4.2.3 Sensitive Species Monitoring

Several special-status species were documented throughout the Project site, including in the proposed on-site open space areas. These species include Bell's sparrow, turkey vulture, California horned lark, loggerhead shrike, and San Diego black-tailed jackrabbit. Protective measures to monitor and manage these species should be implemented, as necessary, to help ensure the persistence of preserved biological resources in the Open Space Preserve. These measures may include nesting bird surveys if any management tasks, such as exotic plant control, are required. The resource manager will confirm the presence of sensitive species during regular site visits at the appropriate time of year. Field notes and maps will be updated following each visit.

4.2.4 Exotic Plant Control

The resource manager will identify and track exotic species infestations if they should occur. Weed control measures will be implemented, as necessary, to prevent establishment of new exotic species in the Open Space Preserve.

If the use of herbicide is deemed necessary, application should be minimal and may only occur in compliance with all federal and state laws. Use of chemical herbicides should be determined in coordination with the County Department of Environmental Health. All herbicide use will be applied by backpack sprayers or stump painting directly on target weeds and will involve short-duration, biodegradable chemicals.

4.2.5 Predator/Pest Control

Non-native predator/pest species are not anticipated to be an issue within the Open Space Preserve. The resource manager will evaluate the need for predator/pest control and identify appropriate measures (e.g., pesticides and traps) to reduce/eliminate the problem. In general, a moderate to high tolerance of predator/pest species will be afforded before action is taken. If significant predator/pest eradication actions are determined to be necessary, the resource manager will notify the appropriate regulatory oversight agencies. To the extent practicable, predator/pest control will be coordinated with similar activities conducted on adjacent lands.

4.2.6 Off-Highway Vehicle Control

Signs will be posted along all open space edges where open space is adjacent to Old Highway 80, along the perimeter of the Open Space Preserve, and at existing dirt roads within the Open Space Preserve to prevent OHV use (Figure 4). The signs must be corrosion resistant, 12 inches by 18 inches in size, on posts not less than 3 feet in height from the ground surface, and state "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited." Signage placement will be consistent

with California Penal Code Part 1, Title 14, Section 602.8 regarding the placement of "No Trespassing" signs to be posted "at intervals not less than three to the mile along all exterior boundaries and at all roads and trails entering the lands."

Barriers will be constructed at select areas along the preserve boundary and within the Open Space Preserve in order to prevent access to the wider wash located in the western portion of the Open Space Preserve. These barriers may consist of large boulders, K-Rail, fencing, or similar material that will prevent OHV use, but will allow natural water flow to occur. Where barriers occur at drainages, ACOE and CDFW will be consulted regarding their placement such that no additional permitting is required. The resource manager will report unauthorized OHV use to the local sheriff and will identify additional measures that may be necessary should OHV use become a problem. Potential measures to keep OHVs out of the Open Space Preserve include additional signs, dispersal of educational materials to nearby residents, enforcement partnerships with BLM, and additional strategic installation of barriers at OHV access points.

4.3 Cultural Resources Management

A Phase I cultural resources inventory was conducted by Dudek in December 2012 and in July and August 2014. The inventory consisted of a records search conducted at the South Coastal Information Center for a 1-mile radius around the Project site, initiation of Native American consultation (Sacred Lands Check) through the Native American Heritage Commission, and an intensive pedestrian survey of the entire Project parcel. The records search involved a review of previously recorded cultural resources, previous cultural resources investigations and their limits within the site, historic addresses, and a historic maps database. A geographic information system (GIS) database and site forms for resources identified in the records search and pedestrian survey were prepared, but a formal inventory report was not completed. The records search identified 18 previously recorded archaeological sites within or intersecting the Project parcel (Table 3). An additional nine newly recorded sites were identified during the overall study (JS14-1 through JS14-9). Twenty of these archaeological sites are located within the Open Space Preserve. More information on the cultural resources is provided in the Cultural Resources Report for the Proposed Project (Dudek 2014c).

Table 3
Cultural Resources Located Within the Open Space Preserve

Resource Number	Period	Type	Dimensions	Report Reference
CA-SDI-176	Prehistoric	Habitation	230 x 120 m	Dudek 2014b
CA-SDI-4448	Prehistoric	Artifact scatter and roasting pit	51-250 sq. m	Dudek 2014b
CA-SDI-4477	Prehistoric	Temporary camp	1001-5000 sq. m	Dudek 2014b
CA-SDI-7060	Prehistoric	Habitation	635 x 396 m	Dudek 2014b

Table 3
Cultural Resources Located Within the Open Space Preserve

Resource Number	Period	Type	Dimensions	Report Reference
CA-SDI-7079/7080/7081	Multicomponent	Artifact scatter and refuse scatter		Dudek 2014b
CA-SDI-20169	Historic	Refuse scatter	70 x 85 m	Dudek 2014b
CA-SDI-20276	Multicomponent	Temporary camp and refuse scatter	190 x 120 m	Dudek 2014b
CA-SDI-20279	Multicomponent	Refuse scatter and artifact scatter	45 x 40 m	Dudek 2014b
CA-SDI-20280	Prehistoric	Lithic scatter	10 x 15 m	Dudek 2014b
CA-SDI-20282	Prehistoric	Lithic scatter	30 x 20 m	Dudek 2014b
CA-SDI-20283	Prehistoric	Artifact scatter	25 x 25 m	Dudek 2014b
CA-SDI-20284	Prehistoric	Artifact scatter	10 x 20 m	Dudek 2014b
CA-SDI-20285	Prehistoric	Artifact scatter	20 x 25 m	Dudek 2014b
CA-SDI-20286	Prehistoric	Artifact scatter	40 x 35 m	Dudek 2014b
CA-SDI-20287	Prehistoric	Lithic scatter	12 x 8 m	Dudek 2014b
CA-SDI-20300	Prehistoric	Temporary camp	175 x 35 m	Dudek 2014b
JS14-4	Prehistoric	Human remains	2 x 2 m	Dudek 2014b
JS14-7	Prehistoric	Lithic scatter/roasting pits	60 x 104 m	Dudek 2014b
JS14-8	Prehistoric	Artifact scatter	32 x 59 m	Dudek 2014b
JS14-9	Prehistoric	Artifact scatter	40 x 32 m	Dudek 2014b

Source: Report references as cited in Dudek 2014c.
Notes: m = meters; sq. m = square meters

4.4 Fire and Flood Management

Fire is an important element in the ecology of Southern California but can also present potential hazards to habitat within the Open Space Preserve. Following natural fire events, vegetation within the Open Space Preserve will be allowed to recover naturally; however, seeding may be required at the discretion of the resource manager.

While the washes do flood, generally the Open Space Preserve parcels are not located in an area prone to flooding. Therefore, flooding is not anticipated to be a significant issue. Should flooding occur, the effect upon sensitive resources within the Open Space Preserve will be evaluated. In general, it is anticipated that the habitat within the Open Space Preserve will be allowed to regenerate naturally following a flood event. Adaptive measures may be recommended if the resource manager determines them to be necessary.

4.5 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 wildlife agencies for approval, as required.

4.6 Operations, Maintenance, and Administrative Tasks

Table 2 and Section 4, Biological Resources Management, describe a list of tasks such as baseline inventory, vegetation mapping, and regular visits to be conducted by the resource manager. Regular visits will occur quarterly.

4.6.1 Goals

Goal: To manage, maintain, and administer the proposed project in an ongoing setting to ensure the integrity of the preserved Open Space Preserve.

4.6.2 Tasks

The general operations, maintenance, and administrative tasks to be conducted by the resource manager will include the following tasks:

Annual Monitoring Reports

A letter report will be submitted to the County that will summarize the overall condition of vegetation communities and sensitive species in the Open Space Preserve, outline proposed management tasks for the following year, and provide results of management activities proposed in the previous report. Submitted annually by the end of January, this letter report will compare the most recent data with those collected in previous years, evaluate sensitive species status and local wildlife corridor use, and outline appropriate remedial measures. Fees for County review will also be included with submittal of the annual report.

The results of all updated vegetation mapping (every fifth year) and sensitive species monitoring should be included in the appropriate annual letter reports.

Management Plan Review

This RMP will be reviewed every 5 years to determine the need for revisions or updates. Due to changing conditions within the Open Space Preserve, it may be necessary to revise the tasks outlined in this plan to ensure continued success of the stated goals.

Access Control

To prevent human-induced degradation of the Open Space Preserve due to illegal occupancy, trespassing (especially OHV activity), removal of resources, or dumping of trash or debris, the resource manager will restrict public access to the Open Space Preserve. Permanent signage will be posted consistent with California Penal Code requirements at locations of unauthorized trails entering the Open Space Preserve and shall be maintained by the resource manager. All signs will be corrosion-resistant, measure at a minimum 12 inches by 18 inches in size, be posted on a metal post or on the fencing at least 3 feet above ground level, and state "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited" in both Spanish and English. Proposed sign locations are shown on Figure 4.

Fencing/Barriers

Because the Open Space Preserve parcels are located in a relatively isolated location with few adjacent users, perimeter fencing around the Open Space Preserve is not planned. However, some barriers will be constructed at select areas along the preserve boundary and within the Open Space Preserve in order to prevent access to the wider wash located in the western portion of the Open Space Preserve (Figure 4). These barriers may consist of large boulders, K-Rail, fencing, or similar material that will prevent OHV use, but allow natural water flow to occur. Where barriers occur at drainages, ACOE and CDFW will be consulted regarding their placement such that no additional permitting is required. The entire solar footprint will be fenced, which will help prevent inadvertent access into open space areas.

Illegal Occupancy

Illegal occupancy is not anticipated to be an issue on this site because of the relatively flat and open, semi-desert nature of the habitat. Additionally, the area is frequently patrolled by the U.S. Customs and Border Protection (Border Patrol), which discourages illegal use of the site. The resource manager will survey the Open Space Preserve for evidence of illegal access concurrently with other site management activities and file a report with the local sheriff and/or Border Protection, if necessary, to ensure the Open Space Preserve remains free of human occupancy.

Removal of Resources

Removal of any plants, animals, rocks, minerals, or other natural resources from the Open Space Preserve is prohibited unless determined to be beneficial to the management of the Open Space Preserve and allowed by the wildlife agencies. No archaeological artifacts shall be removed from the Open Space Preserve, and no archaeological resources shall be damaged during removal of

plants or habitat remediation without formal significance evaluation and mitigation, if necessary prior to the undertaking. The resource manager will maintain a log of illegal collecting and may report individuals caught removing natural resources from the Open Space Preserve to the USFWS, CDFW, County, and/or sheriff's office. The resource manager may allow and supervise seed collection and plant cuttings as part of revegetation efforts within the Open Space Preserve and/or in nearby areas. Any such collected plant materials should be limited to such that is necessary and in accordance with state law to ensure successful revegetation while not adversely affecting local plant populations.

Trash Removal and Vandalism Repair

The resource manager will also conduct general trash removal within the Open Space Preserve during regular management site visits. Additionally, damage caused by vandalism will be repaired. Trash removal and vandalism repair will occur as needed during regular site visits every other month. Upon initiation of the Open Space Preserve, existing trash will be removed to provide for a clean baseline.

4.7 Management Constraints

This RMP has been written to satisfy the requirements of the County and attempts to identify possible issues in the future; however, unforeseeable changes may occur that are out of the control of the resource manager. For example, changes in rainfall patterns may affect the populations of sensitive plant and animal species within the Open Space Preserve. Likewise, changes in other environmental factors such as air pollution, hazardous waste runoff, and erosion could have detrimental effects on the habitat within the management areas. An adaptive management approach will be taken to provide the flexibility to address unforeseen conditions.

4.8 Public Use Tasks

The Open Space Preserve will not have public trails or other facilities. The Open Space Preserve is intended to serve as a habitat preserve and as such is not compatible with most activities.

Activities that will be specifically prohibited include:

- Use of herbicides (except to remove non-native species, as necessary), pesticides, rodenticides, biocides, fertilizers, or other agricultural chemicals
- Use of OHVs and any other motorized vehicles except in the execution of management duties
- Grazing or other agricultural activity of any kind

- Recreational activities including, but not limited to horseback riding, biking, target shooting, hunting, or fishing
- Commercial or industrial uses
- Construction, reconstruction, or placement of any building or other improvement, billboard, or sign
- Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other material
- Planting, introduction, or dispersal of non-native or exotic plant or animal species
- Altering the general topography of the Open Space Preserve, including but not limited to building of roads and flood control work
- Removing, destroying, or cutting of trees, shrubs, or other vegetation, except as required by federal, state, or local law or by governmental order for (1) emergency fire breaks, (2) maintenance of existing roads, (3) prevention or treatment of disease, or (4) required mitigation programs
- Manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the open space, except as specified for restoration activities, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or subsurface waters.

4.9 Fire Management Element

The on-site open space is located away from developed areas and structures that could be destroyed by wildfire. The Proposed Project will have fuel modification activities adjacent to the open space areas in accordance with the Fire Protection Plan (Dudek 2014c). No additional fire management tasks are anticipated for the Open Space Preserve.

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APPENDIX A

Property Analysis Record (PAR)

APPENDIX A
Property Analysis Record (PAR)

INTRODUCTION

The Property Analysis Record (PAR) for the proposed Jacumba Solar Energy Project (Jacumba Solar Project) is based on management activities described in the Conceptual Resource Management Plan (RMP) prepared by Dudek (2015a). A task list summary table is included in the RMP, which summarizes management tasks and frequency. This PAR includes Initial & Capital Tasks and Costs (I&Cs), as well as long-term Ongoing Tasks and Costs (OTCs) associated with managing the proposed open space preserve (Preserve) in perpetuity. This PAR assumes that the I&Cs will be funded directly by Jacumba Solar LLC (Jacumba Solar), and the OTCs will be funded from an endowment established by Jacumba Solar.

The PAR is generally based on typical preserve management costs as provided in the Center for Natural Lands Management's (CNLM) PAR3 software, with some minor modifications where necessary to conform to site-specific conditions and updated or estimated costs. Additionally, where staff time for various field tasks was estimated, Dudek relied on the opinions of staff who conducted biological resource inventories on the property, and who are familiar with the access and terrain of the proposed Preserve.

Analysis Overview

The Preserve location is situated south of Old Highway 80 and north of the U.S.–Mexico border in eastern San Diego County (County), California, approximately 3 miles to the east of the community of Jacumba Hot Springs within private lands. Approximately 183.5 acres of semi-desert chaparral, Peninsular juniper woodland and scrub, and disturbed habitat is proposed to be preserved as part of the mitigation for the Jacumba Solar Project. The RMP describes the habitats proposed for preservation, and provides maps of known resources within the proposed Preserve (Dudek 2015a).

Mitigation for the Jacumba Solar Project also includes implementation of a conceptual wetlands mitigation and monitoring plan (CWMMP; Dudek 2015b). The CWMMP includes rehabilitation of 0.93 acre of non-wetland waters and 1.93 acres of upland habitat. The implementation costs for the CWMMP will be funded directly by Jacumba Solar. While implementation of the CWMMP is not a component of the PAR, responsibilit7 for managing the area that is rehabilitated under the CWMMP will be transferred to the resource manager upon successful completion (estimated to be approximately 5 years after Preserve establishment).

Rates and Assumptions

The RMP specifies that a resource manager must be designated to be responsible for the long-term management and maintenance of the Preserve. Several options were provided for a resource

manager in the RMP, but a specific resource manager was not identified. For the purposes of this PAR, Dudek assumed that the resource manager would be a natural resource land management entity (such as the CNLM, the San Diego Habitat Conservancy, or comparable).

Because a resource manager is not yet identified, staff rates for the PAR were not available. Therefore, Dudek used an average staff rate that took into consideration the rates provided in the CNLM PAR3 software (which tend to be lower than current rates used by land managers) and rates used by land management organizations. As staff rates can vary significantly between land management entities, when a final PAR is prepared, it should take into consideration the actual staff rates for the land management entity that will be responsible for managing the Preserve.

Dudek retained the default rates in the PAR3 software for contingency costs and for administrative costs at 10% and 24%, respectively. Contingency costs cover unanticipated expenses or implementation of adaptive management measures beyond those outlined in the RMP and PAR, and could include such items as additional weed control activities, erosion repairs, heightened survey efforts for special-status species, etc. Administrative costs include non-direct expenses that affect preserve management costs such as office space rental, computers, secretarial assistance, printers, phone lines, etc. Dudek assumed a capitalization rate of 3.5% for the income provided by the endowment to manage the Preserve, which is midway between typical capitalization rates between 2.5% and 4.5%.

For field supplies (e.g., binoculars, notebooks, measuring tapes, cameras, GPS unit), rather than itemize specific items, the PAR includes an annual allotment for miscellaneous supplies. The same approach was used for office supplies (e.g., paper, staplers, pens, tape, printer ink) wherein an annual allotment for miscellaneous office supplies is provided in the PAR. This approach provides the manager with flexibility to purchase the supplies that are needed to accomplish work for each year, rather than purchasing supplies on a timeline as scheduled by the PAR. Similarly, for travel, the PAR includes a simple mileage allotment, which includes all costs associated with owning and operating a vehicle (e.g., vehicle, fuel, registration, insurance, maintenance). The mileage allotment is based on the Internal Revenue Service mileage rate, which is $0.57 per mile for 2015. The number of miles included in the PAR is based on the number of travel days necessary to complete patrolling, weed control, and surveys on average for each year based on round-trip travel from the San Diego area. The daily mileage amount also includes an average of approximately 20 miles per day for travel within or around the Preserve, for a total of approximately 150 miles per field day.

Description of Tasks/Activities

Initial and Capital Tasks and Costs

Table 1 of this PAR itemizes the I&Cs. The I&Cs are for the first year of land management activities as outlined in the RMP and include tasks associated with setting up the Preserve, installation of signs around perimeter, installation of barriers at key access points, and baseline surveys. The I&Cs also include costs for the first year of management, so that the endowment can accrue interest to cover ongoing costs beyond the first year.

1. **Start-up Costs.** Includes start-up costs for setting up the endowment, preparing a management agreement, and managing the database.
2. **Sign Installation.** A total of 20 signs will be installed around the perimeter of the Preserve.
3. **Installation of Barriers.** The CWMMP includes the initial installation of permanent barriers. Therefore this task is not included in the I&Cs.
4. **Baseline Surveys.** Baseline surveys of the Preserve will occur after the management agreement is executed and the endowment is funded. The baseline surveys of the property will establish a baseline for ongoing management. Included as a component of the baseline survey is photo-documentation for permanent photo points that provide an overview of the condition of the Preserve.
5. **Ongoing Tasks for 1 Year.** The I&Cs include ongoing tasks and costs for the first year of management. After the first year, the ongoing tasks will be funded by the endowment.

Ongoing Tasks and Costs

The PAR provides a table itemizing OTCs. OTCs are provided to cover costs of in-perpetuity land management and form the basis of the endowment amount. For each task, the default contingency and administrative fees are calculated in the PAR. The OTCs outlined in the RMP include ongoing management activities, such as patrolling, habitat monitoring, habitat mapping, exotic species control, and reporting. Each task is provided an assumption of frequency (quarterly, annually, every 5 years, etc.).

1. **Quarterly Patrolling.** Monitoring visits will be performed quarterly to evaluate natural conditions and identify potential management issues. These monitoring visits will focus on the status of signage, site disturbance, access control, trash accumulation, and the general status of the Preserve. Minor trash will be removed and minor repairs to signage will be conducted during quarterly monitoring, as needed.

2. **Annual Inspection.** An annual reconnaissance-level survey will be conducted to evaluate the general conditions within the Preserve, the presence of sensitive plant and wildlife species, the location of exotic plant species, and photo-documentation. A more rigorous survey will be conducted every 5 years to update baseline biological conditions.
3. **Exotic Plant Species Control.** The RMP requires exotic plant species control on an as-needed basis. Because it is not known how much exotic plant species control will be needed, the PAR provides an annual allotment of 32 hours to conduct exotic plant species control. The exotic plant species control will occur in the spring, with an intent to control weeds prior to seed set. Exotic plant species will be controlled if they are considered a threat to the habitat value of native communities. Invasive control measures may include hand removal, mechanical removal, and/or herbicide application, and will be determined based upon the most effective method for the species and stage of plant development. In areas where weed removal results in bare patches of soil exceeding 500 square feet in size, remedial seeding will be conducted in the fall or early winter (November through January). The seed mix will be spread by hand and then raked into the soil.
4. **Maintenance of Barriers.** The resource manager will be responsible for the ongoing maintenance and eventual replacement of barriers that will be installed by Jacumba Solar prior to the beginning of long-term management. Maintenance of barriers includes such tasks as repositioning k-rail or boulders, and mending fencing. This PAR assumes that maintenance of the barriers will be necessary on average every 5 years, and that replacement or addition of new barriers will be necessary on average every 30 years.
5. **Maintenance of Signs.** The resource manager will be responsible for the ongoing maintenance and replacement of the 20 signs that will be installed around the perimeter of the Preserve. The signs will include 14-inch by 20-inch signs attached to posts at least 3 feet high which state in English and Spanish, "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited." This PAR assumes the signs will be replaced every 5 years, as needed.
6. **Erosion Control.** Due to the topography of the site and presence of several drainages within the Preserve, some occasional erosion control prevention or treatment is anticipated. Erosion control measures are expected to be minimal, as the condition of the Preserve is mostly natural and undisturbed. Erosion control includes localized soil stabilization that will be implemented as needed and may include installing water bars, silt fencing, straw wattles, filter fabric, or other appropriate material. Because the amount of erosion control work that may be needed on site cannot be predicted, an erosion control allotment of $500 per year is provided in the PAR.

7. **Biological Inventory and RMP Updates.** Every 5 years, the PAR provides funding to update the biological inventory and site mapping. The PAR also provides funding to update the RMP, if necessary.
8. **Access Control and Law Enforcement Coordination.** The PAR provides funding to coordinate with law enforcement and the Border Patrol for authorized and unauthorized access into the Preserve. This task item also includes a cost provision for additional signage or development and distribution of educational materials.
9. **Adaptive Management.** The RMP requires that the management of the Preserve include provisions for adaptive management. Adaptive management will be achieved within the confines of the contingency funds available at the time as budgeted in the PAR.
10. **Annual Report.** The Resource Manager will prepare an annual report on the condition of the Preserve for submittal to the County and resource agencies. The annual reports will discuss the previous year's management and monitoring activities as well as management/monitoring activities anticipated in the upcoming year. Specific details about items to be included in the annual monitoring reports are provided in the RMP.
11. **Annual County Review Fees.** An allotment of $400 per year is provided to establish an ongoing deposit account for reviewing annual reports and addressing management issues.

Summary

The total estimated cost for the I&Cs for the first year of Preserve management is $15,724. It is assumed that this cost will be directly funded by Jacumba Solar. The estimated annual ongoing management cost is $14,134, or approximately $77 per acre. The total endowment to provide the estimated annual management cost is $403,818.

As noted earlier, land management entities will likely need to update the estimated management costs for the Preserve, as their staff rates will differ from those used in this PAR. Additionally, they may have separate fees or costs not included in this PAR, such as emergency or legal fund fees. However, this PAR should provide a reasonably good estimate of the funding needed to manage the Preserve in perpetuity based on tasks summarized in the RMP and the assumptions outlined in this document.

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TABLE 1

PAR

Habitat Planning In Perpetuity

The Property Analysis Record

Title: Jacumba Solar

Par Code: JS

Prepared by:

Dudek

Date: 03/20/2015

The Center for Natural Lands Management prepared this software to assist habitat conservation planners to develop the management tasks and costs of long-term stewardship. While the sources are thought to be reliable, the Center makes no representations about the accuracy of cost estimates. The date of the cost information is 2007. The operation of the program is not guaranteed by the Center. Management requirements are determined by the user. Users should consult with their own financial advisors before relying on the results of their analysis.

Section 14 - Initial & Capital Tasks and Costs

Property Title: Jacumba Solar PAR ID: JS 03/20/2015

Task List	Specific Description	Unit	Quantity	Cost / Unit	Annual Cost	Times Years	Cont %	Total Cost
BIOTIC SURVEYS								
Plant Ecologist	Plant Inventory	L. Hours	10.00	75.00	750.00	1.0	10.0	825.00
Plant Ecologist	Vegetation Mapping	L. Hours	4.00	75.00	300.00	1.0	10.0	330.00
Wildlife Biologist	Wildlife Inventory	L. Hours	10.00	75.00	750.00	1.0	10.0	825.00
Sub-Total								1,980.00
GENERAL MAINTENANCE								
Hauling, Truck	Dump fees	Item	1.00	150.00	150.00	1.0	10.0	165.00
Sanitation Control	Trash Collection	L. Hours	8.00	40.00	320.00	1.0	10.0	352.00
Site Inspections	Annual Site Inspection	Hour	8.00	75.00	600.00	1.0	10.0	660.00
Site Inspections	Quartery Patrol	Hour	32.00	40.00	1,280.00	1.0	10.0	1,408.00
Sub-Total								2,585.00
HABITAT MAINTENANCE								
Erosion Control	BMPs	Annual	1.00	500.00	500.00	1.0	10.0	550.00
Exotic Plant Control	Weed Control	L. Hours	32.00	35.00	1,120.00	1.0	10.0	1,232.00
Other	Misc. Supplies	Item	1.00	500.00	500.00	1.0	10.0	550.00
Sub-Total								2,332.00
OFFICE MAINTENANCE								
Office Supplies, Annually	Misc. Supplies	Annual	1.00	250.00	250.00	1.0	10.0	275.00
Sub-Total								275.00
OPERATIONS								
Audit	CPA Audit	Fee	1.00	650.00	650.00	1.0	10.0	715.00
Budgeting	Budget & Reconcile	L. Hours	2.00	90.00	180.00	1.0	10.0	198.00
Contracts	Produce Agreement	L. Hours	4.00	90.00	360.00	1.0	10.0	396.00
Insurance	General Liability	Annual	1.00	200.00	200.00	1.0	10.0	220.00
Project Accounting	Book Keeping	L. Hours	4.00	90.00	360.00	1.0	10.0	396.00
Travel	Mileage	Miles	800.00	0.57	456.00	1.0	10.0	501.60
Sub-Total								2,426.60
PUBLIC SERVICES								
Access Control	Coordinate Enforcement	L. Hours	8.00	90.00	720.00	1.0	10.0	792.00
Sign, Aluminum	Aluminum 14" X 20"	Item	20.00	24.20	484.00	1.0	10.0	532.40
Sign, Aluminum	Sign Installation	Item	20.00	25.00	500.00	1.0	10.0	550.00
Sign, Aluminum	Sign Posts	Item	20.00	5.00	100.00	1.0	10.0	110.00
Sub-Total								1,984.40
REPORTING								
Annual Reports	County Fees - Review	Annual	1.00	400.00	400.00	1.0	10.0	440.00
Annual Reports	Summary	L. Hours	12.00	90.00	1,080.00	1.0	10.0	1,188.00
Database Management	Data Input	L. Hours	4.00	80.00	320.00	1.0	10.0	352.00
Photodocumentation	Field Survey	L. Hours	2.00	75.00	150.00	1.0	10.0	165.00
Sub-Total								2,145.00

Section 14 - Initial & Capital Tasks and Costs

Property Title: Jacumba Solar PAR ID: JS 03/20/2015

Task List	Specific Description	Unit	Quantity	Cost / Unit	Annual Cost	Times Years	Cont %	Total Cost
Subtotal								13,728.00
Administration								2,132.63
Total								15,860.63

Section 15 - Ongoing Tasks and Costs

Property Title: Jacumba Solar PAR ID: JS 03/20/2015

Task List	Specific Description	Unit	Number of Units	Cost / Unit	Annual Cost	Years Divide	Cont %	Total Cost
BIOTIC SURVEYS								
Plant Ecologist	Plant Inventory	L. Hours	10.00	75.00	750.00	5.0	10.0	165.00
Plant Ecologist	Vegetation Mapping	L. Hours	4.00	75.00	300.00	5.0	10.0	66.00
Wildlife Biologist	Wildlife Inventory	L. Hours	10.00	75.00	750.00	5.0	10.0	165.00
Sub-Total								396.00
GENERAL MAINTENANCE								
Hauling, Truck	Dump fees	Item	1.00	150.00	150.00	1.0	10.0	165.00
Sanitation Control	Trash Collection	L. Hours	8.00	40.00	320.00	1.0	10.0	352.00
Site Inspections	Annual Site Inspection	Hour	8.00	75.00	600.00	1.0	10.0	660.00
Site Inspections	Quartery Patrol	Hour	32.00	40.00	1,280.00	1.0	10.0	1,408.00
Sub-Total								2,585.00
HABITAT MAINTENANCE								
Erosion Control	BMPs	Annual	1.00	500.00	500.00	1.0	10.0	550.00
Exotic Plant Control	Weed Control	Hour	32.00	35.00	1,120.00	1.0	10.0	1,232.00
Other	Misc. Supplies	Item	1.00	500.00	500.00	1.0	10.0	550.00
Sub-Total								2,332.00
OFFICE MAINTENANCE								
Office Supplies,	Misc. Supplies	Person	1.00	250.00	250.00	1.0	10.0	275.00
Sub-Total								275.00
OPERATIONS								
Audit	CPA Audit	Fee	1.00	650.00	650.00	1.0	10.0	715.00
Budgeting	Budget & Reconcile	L. Hours	2.00	90.00	180.00	1.0	10.0	198.00
Insurance	General Liability	Percent	1.00	200.00	200.00	1.0	10.0	220.00
Project Accounting	Book Keeping	L. Hours	4.00	90.00	360.00	1.0	10.0	396.00
Travel	Mileage	Miles	800.00	0.57	456.00	1.0	10.0	501.73
Sub-Total								2,030.73
PUBLIC SERVICES								
Access Control	Coordinate Enforcement	L. Hours	8.00	90.00	720.00	1.0	10.0	792.00
Community Outreach	Educational Brochure	L. Hours	2.00	90.00	180.00	5.0	10.0	39.60
Sign, Aluminum	Aluminum 14" X 20"	Item	20.00	24.20	484.00	5.0	10.0	106.48
Sign, Aluminum	Sign Installation	Item	20.00	25.00	500.00	5.0	10.0	110.00
Sign, Aluminum	Sign Posts	Item	20.00	5.00	100.00	5.0	10.0	22.00
Sub-Total								1,070.08
REPORTING								
Annual Reports	County Fees - Review	L. Hours	1.00	400.00	400.00	1.0	10.0	440.00
Annual Reports	Summary	L. Hours	12.00	90.00	1,080.00	1.0	10.0	1,188.00
Database Management	Data Input	L. Hours	2.00	80.00	160.00	1.0	10.0	176.00
Management Plan	Plan Update	L. Hours	8.00	90.00	720.00	5.0	10.0	158.40
Photodocumentation	Field Survey	L. Hours	2.00	75.00	150.00	1.0	10.0	165.00
Sub-Total								2,127.40

Section 15 - Ongoing Tasks and Costs

Property Title: Jacumba Solar PAR ID: JS 03/20/2015

Task List	Specific Description	Unit	Number of Units	Cost / Unit	Annual Cost	Years Divide	Cont %	Total Cost
SITE CONSTRUCTION/MAINT.								
Vehicle Barrier	Barrier Installation	Each	6.00	2,000.00	12,000.00	30.0	10.0	440.00
Vehicle Barrier	Barrier Repair	Each	6.00	500.00	3,000.00	5.0	10.0	660.00
Sub-Total								1,100.00
Subtotal								11,916.21
Administration								1,971.90
Total								13,888.12

Section 16 - Financial Summary

Property Title: Jacumba Solar Date: 03/20/2015

1st Budget Year: 2015 ***State: CA*** ***PAR Code: JS***

Item Descriptions	*Total*
Initial & Capital Financial Requirements	
Revenues	$0
Management Costs	$12,480
Contingency Expense	$1,248
Initial & Capital Management Total Costs	$13,728
Administrative Costs of Total Management Costs	$2,133
Initial & Capital Gross Costs	$15,861
Initial & Capital Net Costs	$15,861
Annual Ongoing Financial Requirements	
Revenues	$0
Ongoing Costs	$10,833
Contingency Expense	$1,083
Ongoing Management Total Costs	$11,916
Administrative Costs of Total Management Costs	$1,972
Ongoing Gross Costs	$13,888
Ongoing Net Costs	$13,888
Endowment Requirements for Ongoing Stewardship	
Endowment to Produce Income of $13,888	$396,804
Endowment per acre $2,162	
Stewardship costs are based on 3.50% of Endowment Earnings per Year	
Ongoing management funding per year is $13,888	
Resulting in a per acre per year cost of $76	
Total Funding Required	$412,664