CONCEPTUAL RESOURCE MANAGEMENT PLAN
for the
Ocotillo Wells Solar Farm
Ocotillo Wells, California, San Diego County, California
Major Use Permit # 3992 11-003
Kiva Project # 11-0138055

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1.0 INTRODUCTION

This Conceptual Resource Management Plan (RMP) has been prepared to meet the mitigation requirement for the proposed Ocotillo Wells Solar Project. Approximately 331~~0~~.3 acres of Sonoran creosote scrub/Sonoran wash scrub vegetation, or comparable habitat, is required as part of the mitigation for the proposed project. The Conceptual RMP includes a description of management tasks for approximately 109.3 acres of on-site biological open space, and two options for off-site mitigation to meet the remaining mitigation requirements, collectively referred to as the Biological Open Space (BOS).

The project site is located in Ocotillo Wells, San Diego County, California (Figure 1). The site is bordered by privately owned property to the west and north, Anza-Borrego Desert State Park lands to the south, and federal Bureau of Land Management (BLM) property to the east. This Conceptual RMP provides direction for the permanent preservation and management of the BOS preserve in accordance with County of San Diego (County) regulations (County 2010a).

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 BOS. The objectives of this RMP are to:

A. 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.

B. Serve as a descriptive inventory of vegetation communities, habitats, and plant and animal species that occur on or use this property.

C. Establish the baseline conditions from which adaptive management will be determined and success will be measured.

D. 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 biological analysis is provided in the Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013). This report includes (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 discussion of the potential impacts to biological 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 (3) recommended mitigation measures for reducing identified significant impacts to biological resources to less than significant, including several alternative off-site mitigation locations. 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 2010b), and the County's Resource Protection Ordinance (RPO) (County 2007).

1.1.1 Conditions and/or Mitigation Measures that Require an RMP

The project would impact approximately 330.3 acres of Sonoran creosote bush scrub, as well as 0.9 acre of developed lands, which would not require mitigation. ~~There are no off-site impacts associated with this project.~~The off-site access road will impact approximately 0.9 acre of Sonoran creosote bush scrub and 0.1 acre of Sonoran wash scrub, as well as 0.7 acre of disturbed habitat, which would not require mitigation. Table 1 shows the impacts and required mitigation based on the County's mitigation ratios (County 2010b, Table 5). A total of 33~~0~~1.3 acres of comparable habitat shall be preserved in order to meet the mitigation requirement. The project proposes to meet this mitigation obligation through the preservation of 109.3 acres of Sonoran creosote bush scrub and Sonoran wash scrub located within proposed on-site biological open space, as well as an open space easement for off-site habitat. Table 2 shows the two options proposed for off-site mitigation. Option 1 includes providing an open space easement over the applicant-owned parcel located adjacent to the project site at the northeast corner in Imperial County (Figure 2). Option 2 includes providing an open space easement over several parcels in San Diego County; one applicant-owned parcel is located approximately 12.5 miles northwest of the project site, and the remaining parcels are located 16 miles northwest of the project site (Figure 2). These options are described in more detail in the Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013).

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

Vegetation Community/ Land Cover Type	Existing On-Site and Off-Site (acres)	Development Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	On-Site Biological Open Space (acres)
Disturbed Habitat	0.7	0.7			
Developed Land	0.9	0.9	None	0	—
Sonoran Creosote Bush Scrub	433.9~~0~~	331~~0~~.2~~3~~	1:1	331~~0~~.2~~3~~	102.7
Sonoran Wash Scrub	6.7~~6~~	—0.1	1~~2~~:1	—0.1	6.6
Total*	442~~0~~.2~~5~~	333~~1~~.0~~3~~	—	330~~1~~.3	109.3

Table 2
Proposed Off-Site Mitigation Options

Vegetation Community/Land Cover Type	San Diego County Parcels[1]	Imperial County Parcels
Sonoran Creosote Bush Scrub (or similar)	203	44.7
Sonoran Mixed Woody Scrub	36	—
Desert Saltbush Scrub	—	120.9
Unvegetated Playa	—	76.3
Total Acreage	239	241.9

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 BOS. The Resource Manager shall be one of the following:

- Conservancy group
- Natural resource land manager
- 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 the BLM
- City land managers, including but not limited to Departments of Public Utilities, Park and Recreation, and Environmental Services
- State land manager, such as California State Parks.

If the developer desires DPR to manage the land, the following criteria must be met:

- The land must be located inside a Pre-Approved Mitigation Area (PAMA) or proposed PAMA, or otherwise deemed acceptable by DPR.
- The land must allow for public access.
- The land must allow for passive recreational opportunities such as a trails system.

[1] Refer to Appendix E of the Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013) for more information.

The Resource Manager shall be approved in writing by the Director of Planning and Development Services (PDS), the Director of Public Works (DPW), or the DPR. 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:

- Ability to carry out habitat monitoring or mitigation activities;
- Fiscal stability, including preparation of an operational budget (using an appropriate analysis technique) for the management of this RMP;
- Have 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 (MOU) with a qualified person with such a degree;
- If cultural sites are present, have a cultural resource professional on staff or an MOU with cultural consultant;
- Experience with habitat management in Southern California.

Potential entities identified as providing the labor under the direction of the Resource Manager for the BOS include East County Transitional Living Center, Urban Corps of San Diego County, San Diego Habitat Conservancy, Anza-Borrego Desert State Park, and BLM.

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 either in fee title and/or through a conservation easement by The Gildred Companies. Depending on the circumstances, The Gildred Companies may find an alternative fee title holder such as a state or federal agency or non-profit corporation.

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 title to the land is transferred to the County or other public conservation entity, no easement is necessary.

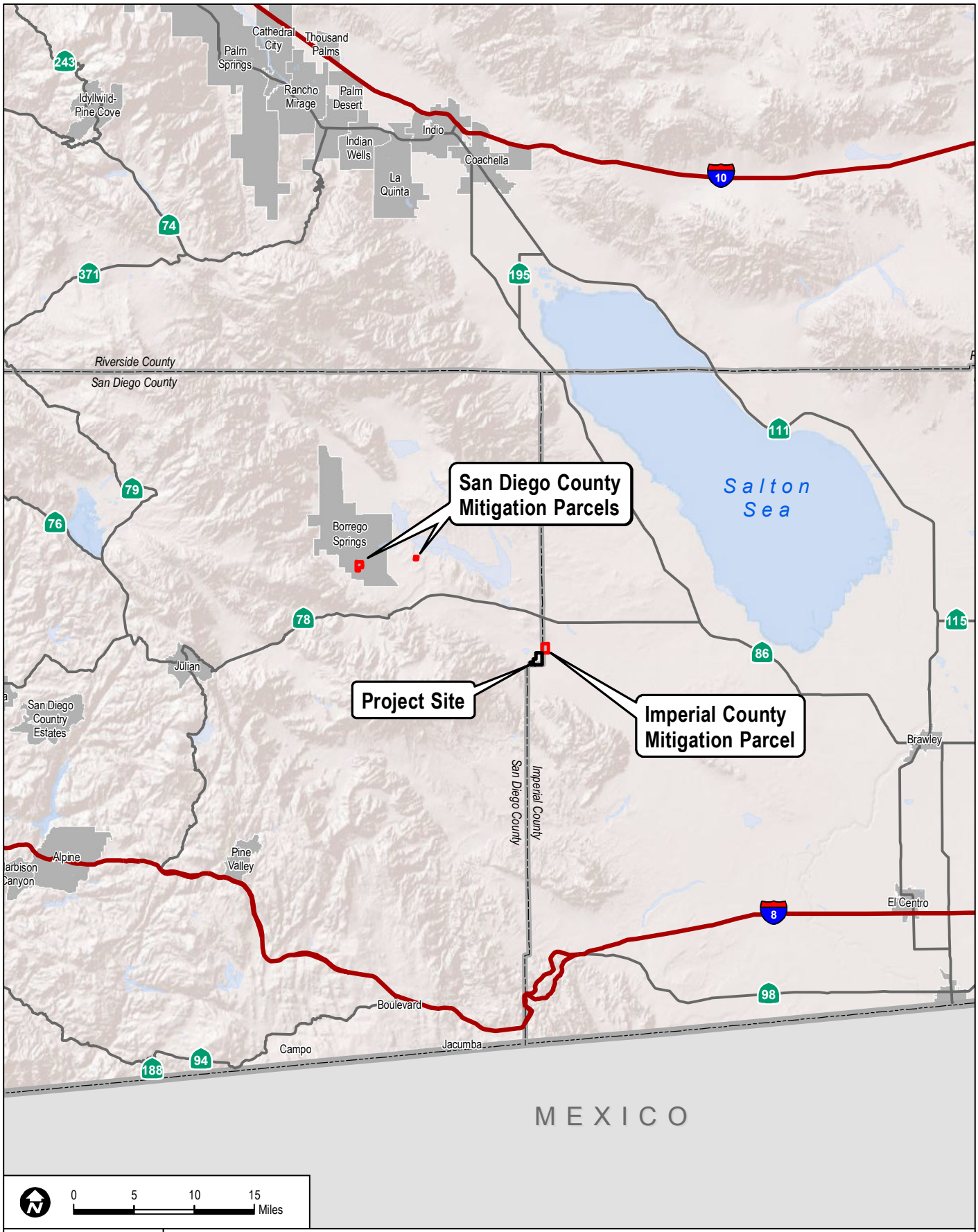

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FIGURE 1

Regional Map

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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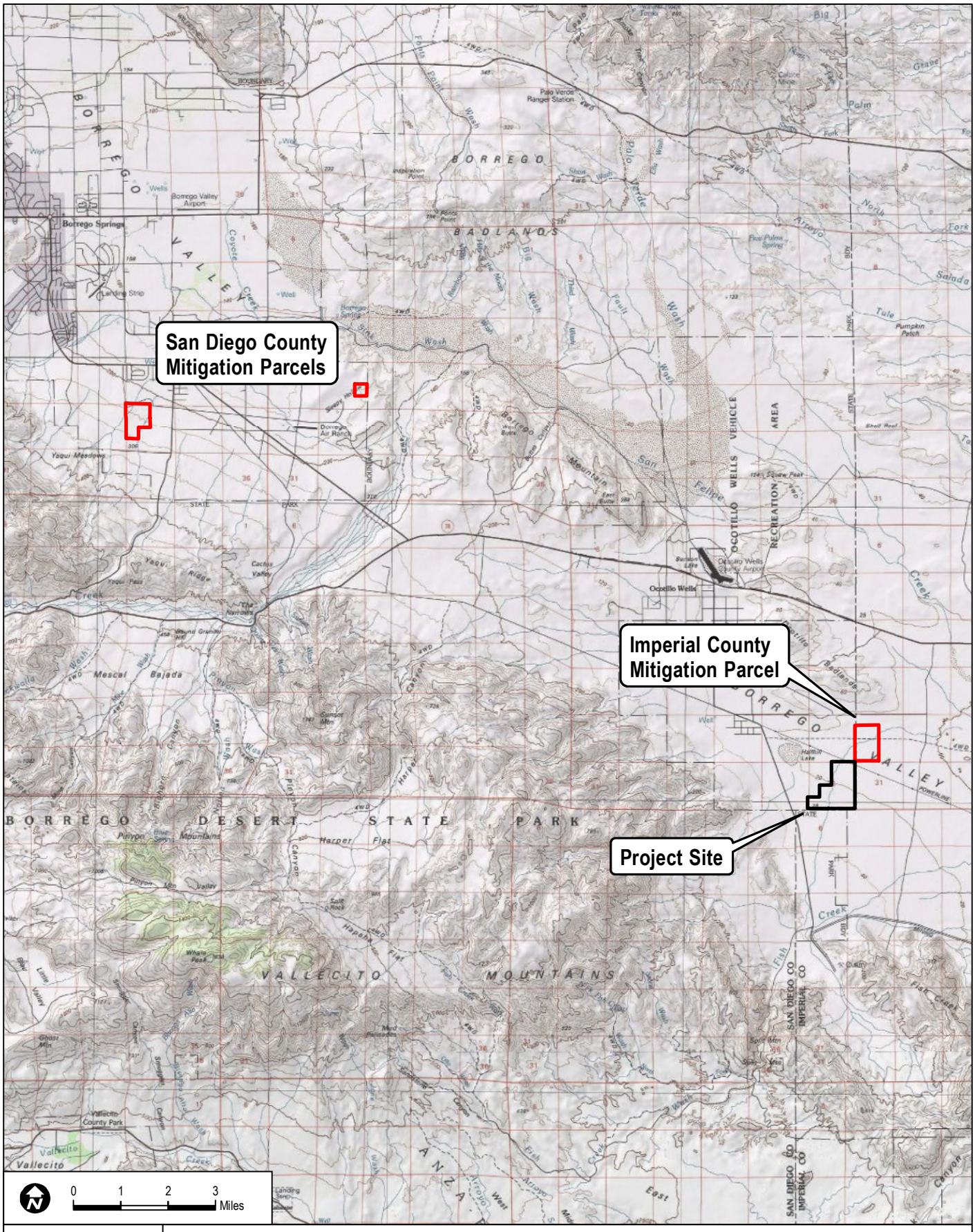

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SOURCE: USGS 7.5-Minute Series Borrego Mt., Borrego Mtn. SE, Borrego Sink, Harper Canyon, Shell Reed and Whale Park Quadrangles.

FIGURE 2
Vicinity Map

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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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 Land Use (DPLU), DPW or DPR.
- Endowment. A one-time, non-wasting endowment, which is tied to the property, and is intended to be used by the Resource Manager to implement the RMP.
- Other acceptable types of mechanisms including annual fees, to be approved by the Director of PDS, DPW or DPR.
- Transfer of ownership to existing entity (e.g., Anza-Borrego Foundation, Anza-Borrego Desert State Park, BLM) 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 fence and sign installation around the on-site BOS (where appropriate), and database compilation. Long-term tasks involve the management and maintenance of the BOS in perpetuity, including habitat monitoring and mapping, exotic species control, 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

A final Property Analysis Record (PAR) and cost estimate will be prepared for the BOS when a Resource Manager has been selected and off-site mitigation has been approved by the County. The estimated amount of endowment required to fund the ongoing activities will be determined at a later date. Table 3 includes the biological resource management tasks that are planned for the BOS.

Table 3
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (times per year)	Hours per Year
	Biological Tasks		
	Baseline inventory of resources (if original inventory is over 5 years old)		
✔	Update biological mapping	Once every 5 years	
✔	Update aerial photography	Once every 5 years	
✔	Removal of invasive species	Quarterly	
✔	Predator control	Annually	
	Habitat Restoration/Installation		
	Habitat Restoration/Monitoring and Management		
	Poaching control		
✔	Species Surveys (include a separate line for each species) 1. Focused protocol surveys for flat-tailed horned lizard	Once every 5 years	
✔	Species Management (include separate line for each specific task) 1. Flat-tailed horned lizard	Once every 5 years	
	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	Monthly	
	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	One time	
✔	Replace signs	Annually	
	Construct permanent fencing/gates	One time	
	Maintain permanent fencing/gates	Annually	
✔	Remove trash and debris	Quarterly	
	Coordinate with DEH and Sheriff		
	Maintain access road		
	Install stormwater BMPs		
	Maintain stormwater BMPs		
	Restore built structure		
	Maintain built structure		
	Maintain regular office hours		

Table 3
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (times per year)	Hours per Year
	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		
✔	Provide ranger patrol		
	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		
	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 (CNDDB) forms with evidence that they have been submitted to the state. The report shall also include copies of invasive plant species forms submitted to the state or County.

A fee will be collected by DPLU upon submittal of the Annual Report for staff's review time. The 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 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 factors; legal, political, or social factors; or financial factors.

Increased Human Activity. Employees will be on site approximately four times per year for solar panel washing. The proposed project includes an operation and maintenance building that would provide a base of operations and maintenance; however, it is not expected that the project will require regular, full-time employees. Human presence can result in littering, introduction/expansion of non-native plants (e.g., bromes (*Bromus* spp.)), and 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 that when fires do occur, they are catastrophic. However, the vegetation on site is so sparse that the proposed project is not expected to alter the natural fire regime of this area.

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

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2.0 PROPERTY DESCRIPTION

2.1 Location

The project site is located just southeast of the community of Ocotillo Wells, California, within northeastern San Diego County (Figures 1 and 2). The proposed project would affect a portion of two parcels totaling approximately 440 acres, located approximately 0.4 mile east of Split Mountain Road and approximately 3 miles south of State Route 78. There are two proposed options for off-site mitigation: Option 1 includes several parcels located between 12.5 and 16 miles northwest of the project site in Borrego Springs; Option 2 includes parcels located immediately adjacent to the project site in Imperial County. For further detail, refer to the Biological Resources Report for the Ocotillo Wells Solar Project prepared by Dudek (2013).

2.2 Environmental Setting

The project site is situated between approximately 50 and 90 feet above mean sea level (amsl) in elevation. The site is relatively flat and does not support much topographic diversity other than the washes on site.

According to Bowman (1973), three soil types within two soil series occur on the project site. Rositas fine sand, 0%–2% slopes, and Rositas fine sand, hummocky, 5%–9% slopes, occur on site. These soils are somewhat excessively drained, very deep loamy coarse sands that are derived from granitic alluvium (Bowman 1973). Typical plants associated with these soils include ocotillo (*Fouquieria splendens*), cholla (*Cylindropuntia* spp.), creosote bush (*Larrea tridentata*), saltbush (*Atriplex* spp.), and annual grasses. While Rositas fine sand, 0%–2% slopes, is nearly level, Rositas fine sand, hummocky, 5%–9% slopes, is gently rolling and has hummocks to low dunes less than 6 feet high. Rositas fine sand, 0%–2% slopes, dominates the site, and only a small amount of the hummocky soil type occurs along the northern boundary of the project site. The project site also supports sloping gullied land, which consists of a wide variety of materials derived from igneous, sedimentary, and metamorphic rocks that forms in the desert on alluvial fans adjacent to mountains (Bowman 1973). Vegetation is sparse and includes desert shrubs, cactus, and annual forbs and grasses, as described in Section 1.4.2 of the Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013). Runoff is medium to very rapid, making the erosion hazard moderate to high. Sloping gullied land occupies an area extending from the northeastern portion of the site southwest to the southwestern corner of the site (Bowman 1973). Several “blue-line” streams on the U.S. Geological Survey (USGS) quadrangle cross the property and are tributaries to San Felipe Wash.

The project site generally has a warm, dry desert climate. Average temperatures in the nearby community of Borrego Springs range from approximately 55°F to 90°F, with high daily temperatures in the summer months typically exceeding 100°F. Borrego Springs generally receives less than 1 inch of rainfall from April to November, and the average yearly precipitation typically does not exceed 2 inches. Humidity generally ranges from approximately 60% to 80% (Advameg Inc. 2011).

The project site is generally vacant, undeveloped land. Two (abandoned) mobile homes and several supporting miscellaneous outbuildings were recently present on site; however, all existing on-site structures, with the exception of a well house associated with an existing on-site well (not currently in use), have been demolished and removed from the property.

2.3 Land Use

The land use for the property in its current state is limited. There is no development, and while somewhat disturbed, the site is vacant. Similarly, there are limited land uses on nearby properties, which are generally used by off-highway vehicle (OHV) recreationists who store their vehicles and/or park their recreational vehicles (RVs) when using the nearby Ocotillo Wells State Vehicular Recreation Area. The RV users also traverse the project site on a routine basis and use the desert washes as access roads to other land. To the south of the site is Anza-Borrego Desert State Park land that also has no active uses on it (Figure 3). Immediately to the west and north of the site are numerous small parcels of private land owners with individual residences. The eastern property line is adjacent to Imperial County line, and the adjacent parcel is owned by BLM. It is also undeveloped with no active uses on it.

There are no legal trails or open space easements on the property. There is an easement across the Ocotillo Wells Solar Project's southern boundary that was granted to the neighboring property owners allowing for ongoing access to the BLM land.

Fuel load modification and management activities in a 30-foot-wide fuel modification zone (FMZ) associated with the proposed project will be conducted in accordance with the Fire Protection Plan (RBF Consulting 2012).

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SOURCE: BLM; USGS; Digital Globe 2008

FIGURE 3

Land Use

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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3.0 BIOLOGICAL RESOURCES DESCRIPTION

Refer to the Biological Resources Report for the Ocotillo Wells Solar Project prepared by Dudek (2013) for a more detailed description of the biological resources on site. Three vegetation communities and other land cover types were identified on site: Sonoran creosote bush scrub (433.0 acres), Sonoran wash scrub (6.6 acres), and developed land (0.9 acre); additional areas were mapped within the off-site access road easement, including 0.9 acre of Sonoran creosote bush scrub, 0.1 acre of Sonoran wash scrub, and 0.7 acre of disturbed habitat. These habitat types/vegetation communities are described below. Vegetation communities that are unique 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 (2010b).

3.1 Habitat Types

Sonoran Creosote Bush Scrub

Sonoran Creosote Bush Scrub is composed of a variety of shrubs ranging from 0.5 to 3 meters (2 to 10 feet) tall that are often widely spaced with the interstices filled by bare ground. Creosote bush scrub occurs in well-drained secondary soils of slopes, valleys, and fans. This vegetation community on site is dominated by creosote bush, white bur-sage (*Ambrosia dumosa*), and Saharan mustard (*Brassica tournefortii*). Other species present on site include athel (*Tamarix aphylla*), honey mesquite (*Prosopis glandulosa*), buckwheat (*Eriogonum* sp.), ocotillo, woolly plantain (*Plantago patagonica*), and Mediterranean grass (*Schismus barbatus*). Sonoran creosote bush scrub occupies more than 98% of the project site.

Sonoran creosote bush scrub is widespread throughout the Sonoran desert. Sonoran creosote bush scrub is considered special-status based on mitigation recommendations of the County (2010b).

Sonoran Wash Scrub

Sonoran wash scrub occupies the banks and islands within desert washes. Dominant plant species in this community on site include smoketree (*Psorothamnus spinosus*), Thurber's sandpaper plant (*Petalonyx thurberi*), honey mesquite, desert lavender (*Hyptis emoryi*), desert willow (*Chilopsis linearis*), cheesebush (*Ambrosia salsola*), and California croton (*Croton californicus*). Sonoran wash scrub occupies approximately 1.5% of the project site. Sonoran wash scrub occurs within washes on site. Though not specifically addressed within Holland (1986), Sonoran wash scrub was

added to the vegetation communities list by Oberbauer in 1996. Sonoran wash scrub is considered special-status based on mitigation recommendations of the County (2010b).

Disturbed Habitat

Disturbed habitat refers to areas that lack vegetation but still retain a pervious surface, or are dominated by a sparse cover of ruderal vegetation. These areas are generally the result of severe or repeated clearing or grading. Disturbed habitat refers to the existing dirt road within the off-site access road easement. Disturbed habitat is not considered a special-status community.

Developed Land

Developed land is a category that includes buildings, roads, and graded surfaces that lack vegetation entirely or include manicured landscaping. At the time of the survey, developed land on site consists of three buildings and associated ornamental vegetation. Developed land has very little ecological importance and is not considered a special-status community.

3.2 Jurisdictional Wetlands and Waters

During the 2011 jurisdictional wetlands delineation performed by Dudek, and a subsequent site visit with staff from the U.S. Army Corps of Engineers (ACOE) in 2013, approximately 10.03 acres (22,655 linear feet) of jurisdictional non-wetland waters of the U.S./State were mapped on the project site. An additional 0.06 acre (377 linear feet) were mapped within the off-site access road. These jurisdictional resources are under the joint jurisdiction of the ACOE, the Regional Water Quality Control Board (RWQCB), and the CDFW. This is based on the preliminary jurisdictional delineation approach described in the Biological Resources Report for the Ocotillo Wells Solar Project prepared by (Dudek 2013).

The waters are characterized by ephemeral, low-flow channels. They do not meet ACOE and RWQCB criteria for wetlands because they do not have hydrophytic vegetation or hydric soils; however, they do occur below the ordinary high water mark (OHWM) and have evidence of hydrology indicators (i.e., drift deposits and drainage patterns).

None of these areas meet the County's RPO wetland definition (County 2007), which includes lands that have one of the following attributes: (1) at least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soils; or (3) an ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

3.3 Flora

Twenty-six vascular plant species, consisting of 22 native species (85%) and 4 non-native species (15%), were recorded on site during the reconnaissance surveys and jurisdictional delineation. As noted in the discussion of survey limitations, the project vicinity had subnormal rainfall in winter of 2012 and annual plants exhibited poor production. Therefore, with sufficient rainfall, several undetected annual plant species may occur on site.

3.4 Fauna

Seventeen wildlife species were observed on site during surveys, consisting of eight reptile species, four bird species, and five mammal species. Commonly observed species include desert iguana (*Dipsosaurus dorsalis*) and black-tailed jackrabbit (*Lepus californicus*). Most of the wildlife observed are relatively common, widely distributed, and adapted to living in proximity to human development (e.g., turkey vulture (*Cathartes aura*), black-tailed jackrabbit, and coyote (*Canis latrans*)).

3.5 Sensitive Plant Species

Endangered, rare, or threatened plant species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "sensitive species" in this report and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (ESA); (2) plant species with a California Rare Plant Rank (CRPR) (CDFG 2012; CNPS 2012) (List 1 through 4); and (3) plant species considered sensitive by the County (2010b, Table 2).

Ten sensitive plant species have a moderate or high potential to occur on the project site, four County List A or B species, five County List D species, and one sensitive species that is not on the County of San Diego Sensitive Plant List (County 2010b). Each of these sensitive species is described in Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013).

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 "sensitive species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of the

CESA and ESA; (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFG (2011); (3) mammals and birds that are fully protected (FP) species, as described in California Fish and Game Code, Sections 4700 and 3511; (4) Birds of Conservation Concern (BCC), as designated by the USFWS (2008); and (5) wildlife species considered sensitive by the County (2010b, Table 3).

Focused surveys and habitat assessments for the following special-status wildlife species were conducted in 2012: burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), loggerhead shrike (*Lanius ludovicianus*), prairie falcon (*Falco mexicanus*), Peninsular bighorn sheep (*Ovis canadensis nelsoni*), flat-tailed horned lizard (*Phrynosoma mcallii*), alkali skipper (*Pseudocopaeodes eunus eunus*), and Colorado Desert fringe-toed lizard (*Uma notata*). In addition, winter raptor surveys were conducted in winter 2011/2012 (Dudek 2013).

Special-status species observed on site include burrowing owl, turkey vulture, loggerhead shrike, desert kit fox (*Vulpes macrotis arsipus*) burrows/scat, flat-tailed horned lizards, and unidentified horned lizard (*Phrynosoma* spp.) scat and individual. Additional special-status species that have potential to occur are described in more detail in the Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013).

Critical Habitat

There is no USFWS designated critical habitat for wildlife species within the project site. The eastern border of the critical habitat for peninsular bighorn sheep is located approximately 1 mile west of the project site.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of wildlife, as well as dispersal corridors for some plants. Habitat linkages may function as corridors for some wildlife and plant species and permanent habitat for others. Wildlife corridors and habitat linkages contribute to population viability in several ways: (1) they assure the regular exchange of genes between populations, which helps maintain genetic diversity; (2) they provide access to adjacent habitat areas representing additional territory for foraging and mating; (3) they allow for a greater carrying capacity of species populations; and (4) they provide routes for colonization of habitat lands following local populations extinctions or habitat recovery from ecological catastrophes (e.g., fires).

The southern portion of the project boundary is adjacent to Anza-Borrego Desert State Park (see Figure 3), which encompasses approximately 600,000 acres. Vallecito Mountain is part of the

Peninsular Range and is located a few miles to the west of the project site. Numerous wildlife species use and travel through the Peninsular Range, including mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), Peninsular bighorn sheep, coyote, bobcat (*Lynx rufus*), and a variety of bird species. The closest documented occurrence of bighorn sheep to the project site is a 1991 observation approximately 1.5 miles west of the project boundary (USFWS 2012). The closest recent records (2006) are located more than 15 miles northwest of the project site. The project site, however, likely is too removed from mountainous terrain to provide high-quality habitat attractive to bighorn sheep and also does not provide inter-mountain connectivity habitat between occupied mountain ranges. In addition, there are no water sources near the project site that would attract bighorn sheep to the area. The project site and surrounding open areas are likely used for local wildlife movement for species that do not require heavy cover of vegetation and/or mountainous terrain. These species could include bobcat, coyote, kit fox, mule deer, and possibly mountain lion, as well as many small mammals such as rodents, rabbits, and squirrels. Because there is very little development in the area, virtually the entire project site and surrounding vicinity is available for wildlife use and movement, although wildlife may trend toward using the washes on site because they provide flat, even terrain for easy movement. Their distribution on site and in the general vicinity would be related more to the distribution of resources (e.g., prey, cover) than any physical obstacles to movement. Wildlife species are also currently able to move between the flatter terrain of the project site to the rocky and nearby hills, ridges, and mountains with little or no constraint.

3.7 Overall Biological Value

The on-site open space supports native desert habitats and is adjacent to contiguous areas of undeveloped habitat, providing habitat connectivity to both BLM lands and Anza-Borrego Desert State Park (Figure 4).

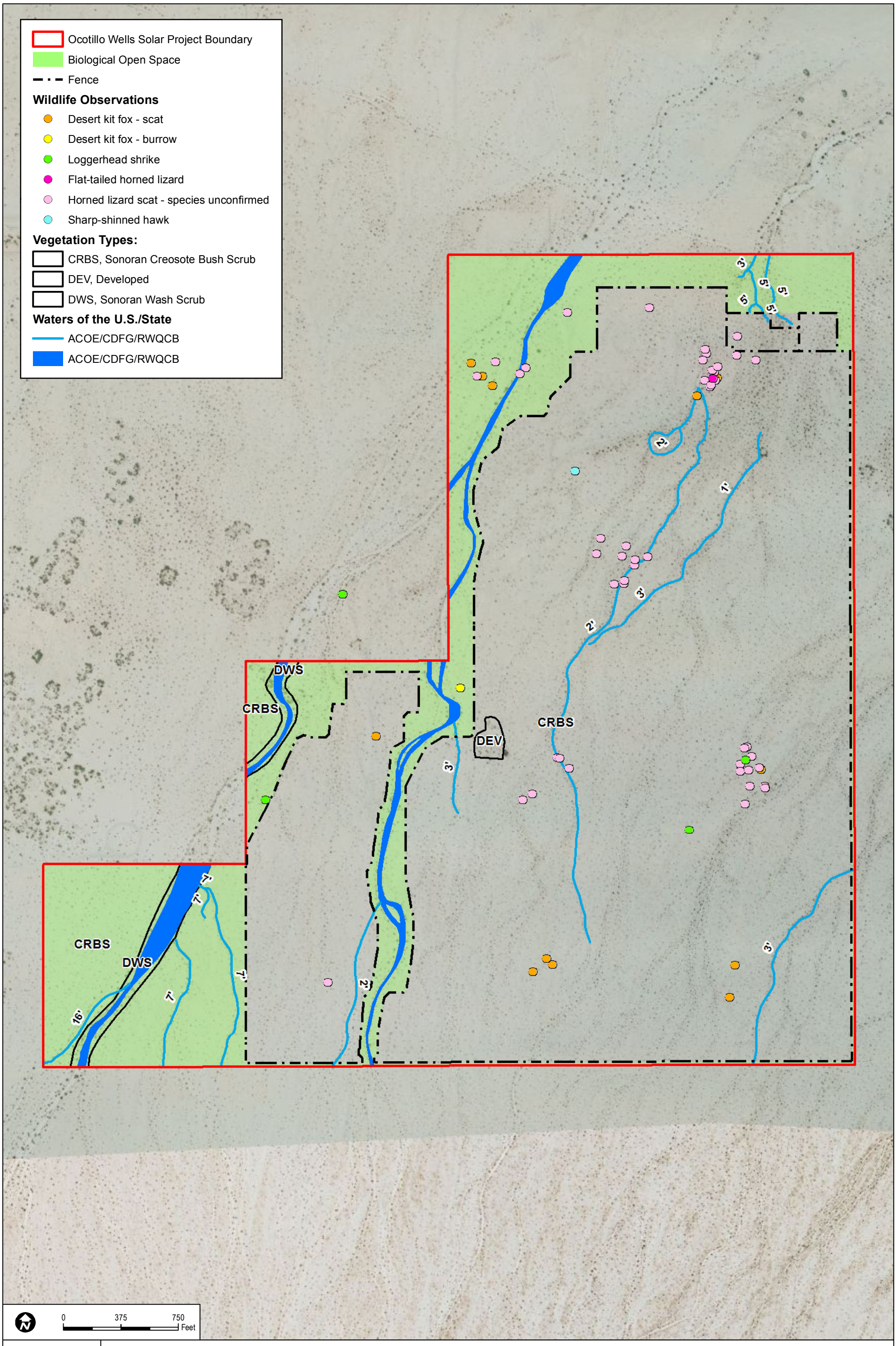
Option 1 of the off-site mitigation includes preservation of an applicant-owned parcel adjacent to the project site (Figure 5). This area is ranked within the draft Desert Renewable Energy Conservation Plan as a Moderate Biological Sensitivity (MBS) Conservation Area. The existing land use and biological resources are similar to the project site and include undeveloped land adjacent to BLM land. There is approximately 241.9 acres of Sonoran creosote bush scrub, unvegetated playa, and desert saltbush scrub in these parcels. This parcel also includes washes and ephemeral stream channels similar to the project site.

Option 2 of the off-site mitigation includes parcels located 12.5 and 16 miles northwest of the project site. There are no topographic barriers between the project site and these proposed mitigation parcels (i.e., mountains), and all of the parcels support relatively similar biological resources. One of the mitigation parcels is surrounded by undeveloped land and is located near

the base of some slopes and washes (Figure 6A). The other parcels are surrounded by undeveloped land to the west and south, and residential communities to the north and east (Figure 6B). There are approximately 239 acres of native desert vegetation communities in these parcels (see Table 2).3.8

Enhancement and Restoration Opportunities

The 109.3 acres of on-site and 239 or 241.9 acres of off-site open space will be preserved in their natural state. Areas on the project site are disturbed by OHV use, especially the washes, and increased site-access controls would help reduce the impact of human uses on the land. Selected areas of the properties would also benefit from removal of non-native species, such as tamarisk.



DUDEK

7111-3

SOURCE: Digital Globe 2008

FIGURE 4

On-Site Biological Open Space

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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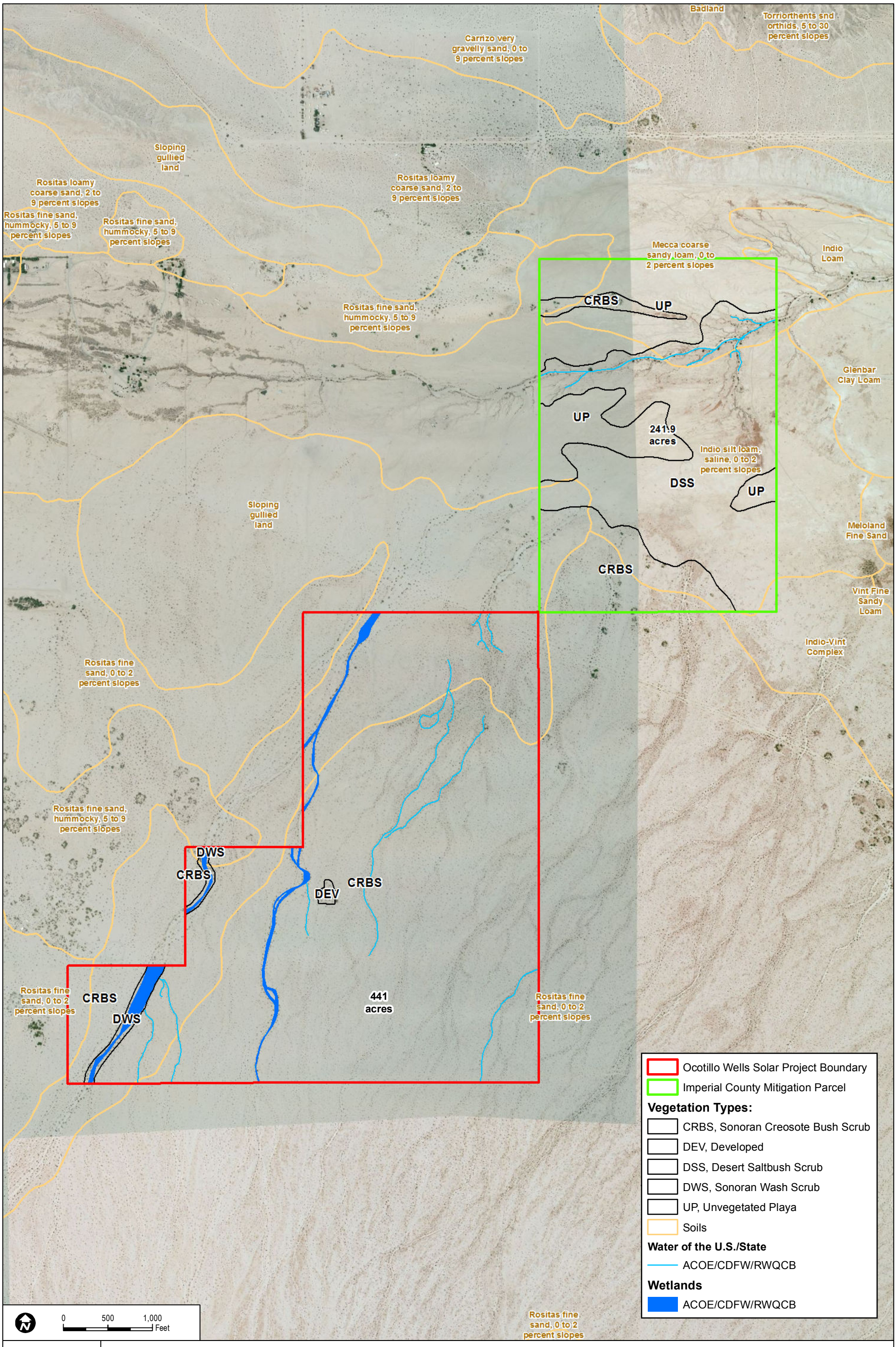

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SOURCE: CDFW; NRCS; Bing Maps

FIGURE 5

Off-Site Biological Open Space - Imperial County Parcels

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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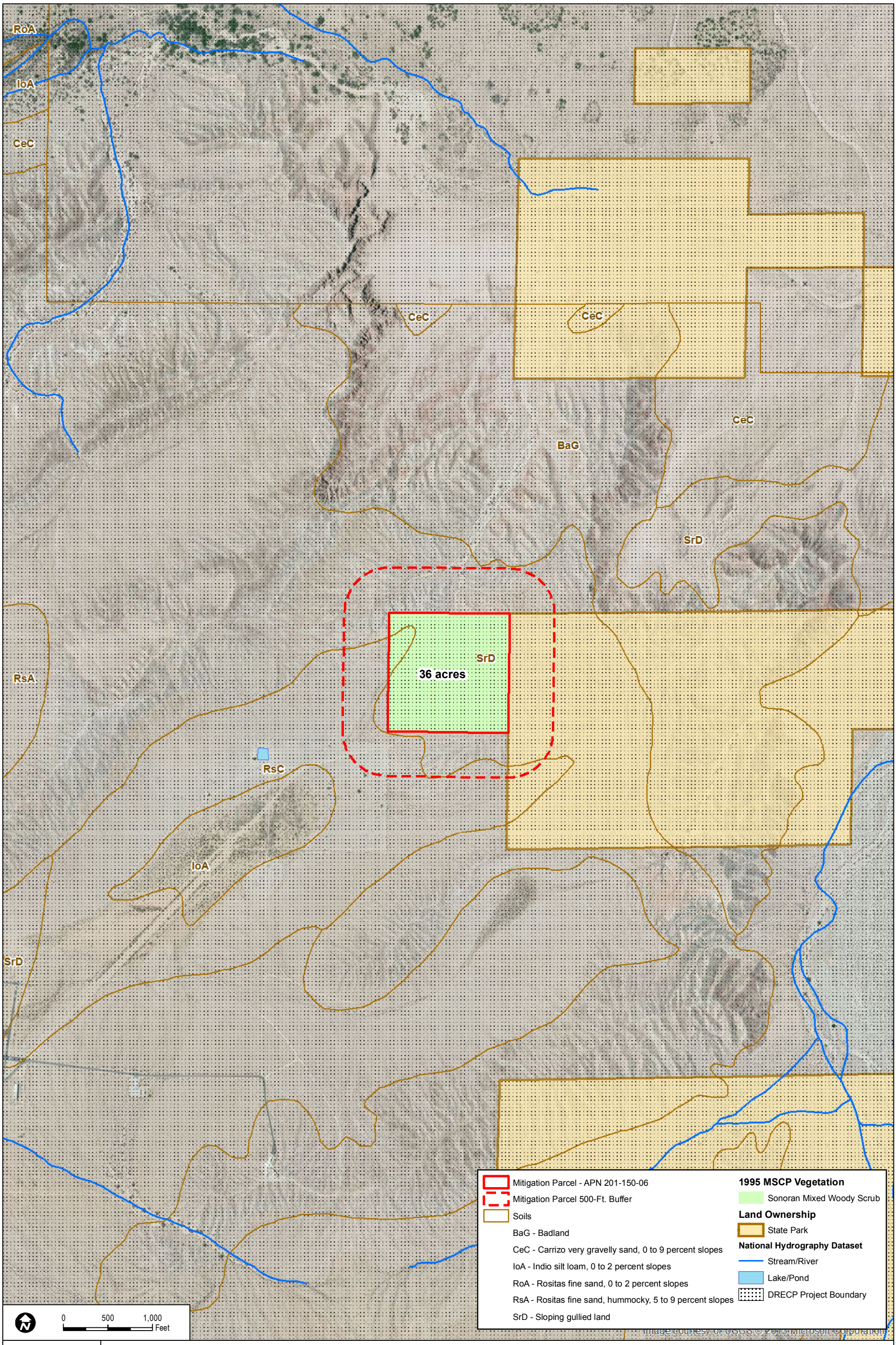

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SOURCE: USGS; SanGIS 2012; SANDAG 1995; Bing Maps

FIGURE 6A

Off-Site Biological Open Space - San Diego County Parcels

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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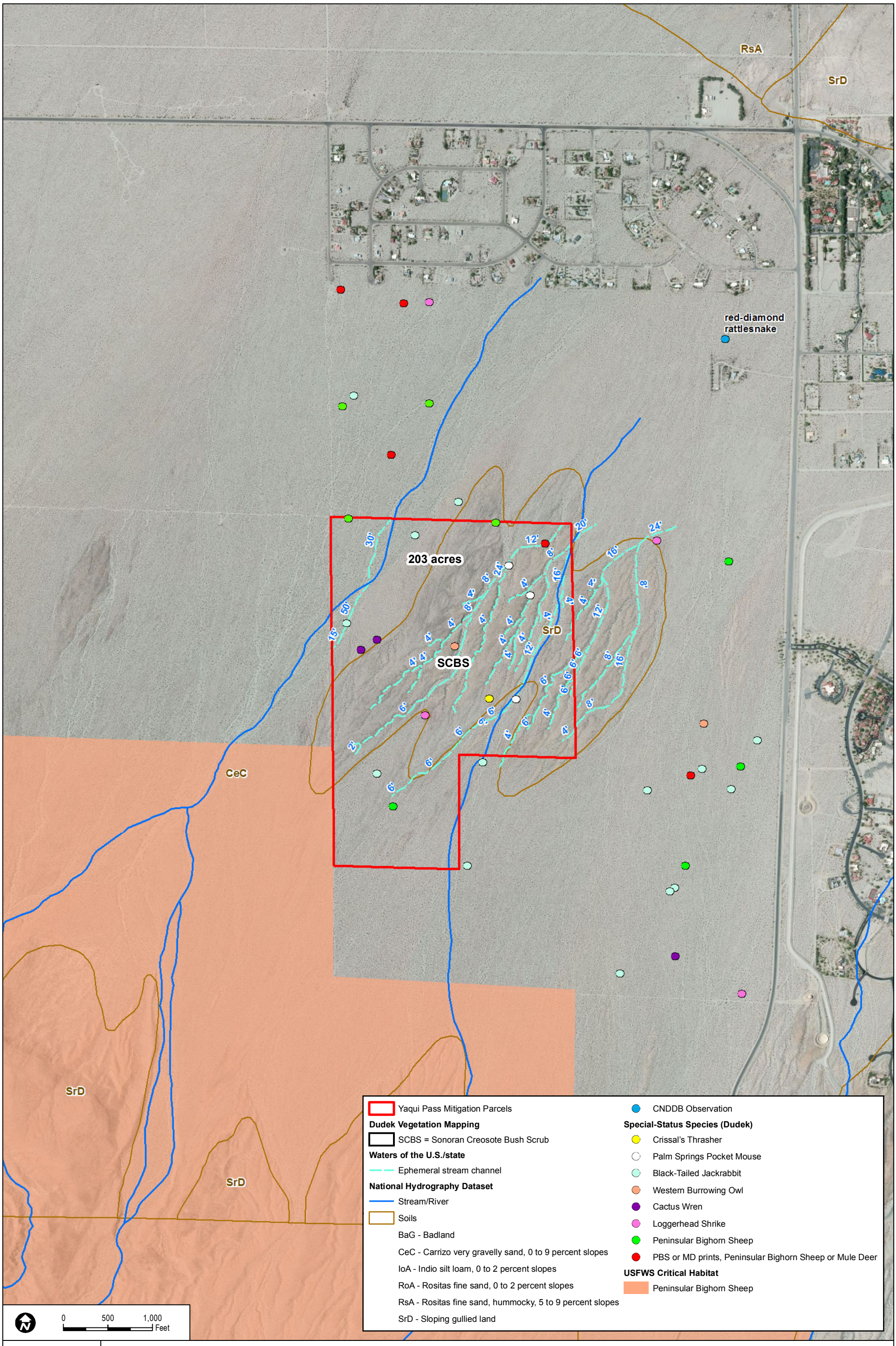

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SOURCE: CDFW/CNDDB 2012; USFWS; USGS; SanGIS 2012; SANDAG 1995; Bing Maps

FIGURE 6B

Off-Site Biological Open Space - San Diego County Parcels

OCOTILLO WELLS SOLAR PROJECT - CONCEPTUAL RESOURCE MANAGEMENT PLAN

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4.0 BIOLOGICAL RESOURCE MANAGEMENT

This RMP identifies activities to manage and preserve the sensitive biological resources within the BOS. The main goal is to preserve the 109.3 acres of on-site open space and the off-site parcels described above, including the sensitive plant and animal species they support.

4.1 Management Goals

Goal 1: 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 below.

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 BOS 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 BOS, 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 mapped 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 loggerhead shrike, desert kit fox burrows/scat, and horned lizard scat and individual. In addition, flat-tailed horned lizards were observed on site and will be surveyed for during pre-construction surveys within the project footprint. All flat-tailed horned lizards will be relocated by the biological monitor outside of harm's way, and potentially into the open space areas. No plant or wildlife surveys have occurred in the Imperial County parcels, but sensitive species may be present there. Several special-status species were observed in the Yaqui Pass parcels (part of off-site mitigation Option 1), including burrowing owl, turkey vulture, loggerhead shrike, and Palm Springs pocket mouse (*Perognathus longimembris bangsi*) (refer to Appendix E of the Biological Resources Report for the Ocotillo Wells Solar Project (Dudek 2013) for more information on these parcels). Protective measures to monitor and manage these species should be implemented, as necessary, to help ensure the persistence of preserved biological resources in the BOS. 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.

The Resource Manager shall establish protocols for dealing with injured, sick, or dead species, particularly desert kit fox. Recent canine distemper virus outbreaks near Blythe and surrounding portions of the Chuckwalla Valley indicate a need for monitoring desert kit fox in order to minimize the potential for spread of the disease. Recent direction from CDFW is for all dead kit fox to be delivered to the State Veterinarian for necropsy.

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 expansion of existing or establishment of new exotic species in the BOS.

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 BOS. The Resource Manager will evaluate the need for predator/pest control and identify appropriate measures

(pesticides, traps, etc.) 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 the perimeter of the BOS and at trail locations to help prevent OHV use. The Resource Manager will report to the local sheriff unauthorized OHV use and will identify additional measures that may be necessary should OHV use become a problem. Potential measures to keep OHVs out of the BOS include additional signs, dispersal of educational materials to nearby residents, enforcement partnerships with the BLM and State Parks staff, and strategic installation of barriers at OHV access points.

4.3 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 BOS. Following fire events, vegetation within the BOS 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 BOS 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 BOS will be evaluated. In general, it is anticipated that the habitat within the BOS will be allowed to regenerate naturally following a flood event. Adaptive measures may be recommended if the Resource Manager determines them to be necessary.

4.4 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.

4.5 Operations, Maintenance, and Administrative Tasks

Section 4.2.1 describes a list of tasks such as baseline inventory, vegetation mapping, and regular visits to be conducted by the Resource Manager. Regular visits will occur twice each year, once in the spring and once in the fall.

4.5.1 Goals

The Resource Manager will be responsible for ongoing management, maintenance, and administration to ensure the integrity of the preserved BOS.

4.5.2 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 BOS, propose management tasks for the following year, and discuss 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 BOS, 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 BOS due to illegal occupancy, trespassing (especially OHV activity), removal of resources, or dumping of trash or debris, the Resource Manager will restrict access to the BOS. Permanent signage will be posted every 200 feet and at locations of unauthorized trails entering the BOS and shall be maintained by the Resource Manager. All signs will be corrosion-resistant, measure at a minimum 6 by 9 inches in size, be posted on a metal post at least 3 feet above ground level, and provide notice in both Spanish and English that the area is an ecological preserve with trespassing prohibited.

Fencing

Because the BOS parcels are located in a relatively isolated location with few adjacent users, fencing around the BOS is not planned. However, signs will be posted along the limits of the BOS to clearly identify it as a preserve and help prevent trespassing. A final fencing and signage plan shall be developed for the Final RMP and will determine if fencing is required for the off-site mitigation parcels. 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 flat, open, desert nature of the habitat. The Resource Manager will survey the BOS for evidence of illegal access concurrently with other site management activities and file a report with the local sheriff, if necessary, to ensure the BOS remains free of human occupancy.

Removal of Resources

Removal of any plants, animals, rocks, minerals, or other natural resources from the BOS is prohibited unless determined to be beneficial to the management of the BOS and allowed by the wildlife agencies. The Resource Manager will maintain a log of illegal collecting and may report individuals caught removing natural resources from the BOS 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 BOS and/or in nearby areas. Any such collected plant materials should be limited to that 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 BOS 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.

4.6 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 BOS. 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.

4.7 Public Use Tasks

The BOS will not have public trails or other facilities. The BOS 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 BOS, 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; and
- Manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the open space, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

4.8 Fire Management Element

The on-site open space is located in the desert, 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 (RBF Consulting 2012). No additional fire management tasks are anticipated for the on-site open space. All of the off-site parcels are located in relatively undeveloped areas, and fire management tasks will likely not be required.

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