

HABITAT COMPENSATION PLAN
DESERT SUNLIGHT SOLAR FARM PROJECT
BLM CASE FILE NUMBER CACA-48649
RIVERSIDE COUNTY, CALIFORNIA



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List of Acronyms

AC	Alternating Current
ARRA	American Recovery and Reinvestment Act
BLM	U.S. Bureau of Land Management
CDFG	California Department of Fish and Game
CHU	Critical Habitat Unit
DOI	U.S. Department of the Interior
DPV 1	SCE's Devers to Palo Verde 1 transmission line
DRECP	Desert Renewable Energy Conservation Plan
DWMA	Desert Wildlife Management Area
IMS	Interim Mitigation Strategy
kV	Kilovolt
MW	Megawatt
MWD	Metropolitan Water District
NECO	North and Eastern Colorado Plan and Final Environmental Impact Statement
NFWF	National Fish and Wildlife Federation
PEP	Potassium Excretion Potential
PV	Photovoltaic
SB	Senate Bill
SCE	Southern California Edison
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 Introduction

This discussion provides a brief summary of the project description for the Applicant and SCE project components of the Proposed Action. Complete details of project locations and description are found in the *Desert Sunlight Solar Farm Final Environmental Impact Statement* (BLM 2010) and in the Biological Assessment, *Desert Sunlight Solar Farm Project* (Ironwood 2010).

Desert Sunlight has applied to the BLM for an issuance of a right-of-way (ROW) grant that would authorize construction, operation, maintenance, and decommission of a commercial solar power-generating facility and new substation facility on over 7,600 hectares (19,000 acres) of BLM-managed lands. The proposed project is located in Riverside County, California, approximately 6 miles north of the rural community of Desert Center and approximately (10.5 kilometers or 6.5 miles north of the Interstate 10 corridor (Figure 1). Project components generally include construction, operation, and maintenance of the solar farm site, a gen-tie transmission line, and construction, operation and maintenance of the Southern California Edison (SCE) Red Bluff substation and related components (Figure 2). While the Red Bluff substation is included as part of this project description for planning and environmental considerations, it would be constructed, owned, and operated by SCE, not by the Applicant.

The Applicant and SCE have prepared this Mitigation Plan in accordance with regulatory agency guidance to provide further details regarding the proposed mitigation for impacts to biological, vegetation and other resources that potentially or actually will be affected by the Proposed Action.

The purposes of this document are to provide:

1. Ratios for mitigation of biological resources for the Solar Farm Site, Gen-Tie Line, and SCE Components of the Proposed Project;
2. A calculation of the number of acres that will be required of in-kind mitigation for the implementation of the Proposed Project and associated additional costs for burrowing owl burrow mitigation and raven management;
3. Applicant and SCE avoidance and minimization measures that will be implemented for the protection of biological resources or minimizing of impacts to these resources; and
4. Information on how obligations for providing mitigation and compensation will be met.

2.0 Calculation of Mitigation Requirements

The Applicant contemplates that the mitigation set forth in this document would compensate for all mitigation required by the BLM, U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and any other applicable agencies, in connection with potential or actual impacts to biological and vegetation resources that may or will be affected by the Proposed Action. This section provides calculations of ratios and mitigation requirements for such mitigation. Supporting data and maps for these calculations are presented in Appendix A.

2.1 Ratios

The ratios in Table 1 below were used to calculate mitigation acreage for the Solar Farm Site, Gen-Tie Line and SCE Project Components. The basis of the calculations is set forth in Appendix A. If more than one of these resources was present in the same location, the higher ratio was used for mitigation calculations.

Table 1. Mitigation Ratios for Desert Sunlight Solar Farm Project

Ratios	Type of Impact Areas
5:1	Desert Wildlife Management Area (DWMA) Designated Critical Habitat (CHU)
3:1	Desert wash woodland CDFG jurisdictional drainage areas
2:1	Areas of moderate desert tortoise density
2:1 for 6.5 acres each	Per occupied burrow of burrowing owls
1:1	Areas of low desert tortoise density

In addition to the above ratios, a fee of \$105 per acre is required for regional raven mitigation under the October 2010 Draft Summary *Renewable Energy Development in the California Desert: Common Raven Predation on the Desert Tortoise*.

2.2 Mitigation Requirements

2.2.1 Solar Farm Site and Gen-Tie Line

The total acreage for mitigation is calculated as 6,423 acres, based on the ratios above, as shown on Table 2 for the Solar Farm Site and Gen-Tie Line, assuming the Proposed Action will be represent the reduced Solar Farm footprint of 3,912 acres and Gen-Tie alternative A-1. At the completion of the Final EIS and selection of the final Proposed Action, final compensation will be calculated based on the footprint and acreage of the components of the final Proposed Action. If Gen-Tie alternative A-2 is chosen, impacts to the DWMA, CHU, drainages and desert tortoise habitat will be slightly less (totaling approximately 6,124 acres) because (1) Gen-Tie alternative A-2 is slightly shorter than A-1, and (2) portions of Gen-Tie A-2 cross areas that do not support habitat for desert tortoise or many other native species (abandoned agriculture).

Table 2. Proposed Mitigation for Desert Sunlight Solar Farm Site and Gen-Tie Line

Resource	Acres of Impact	Ratio	Acres of Mitigation
DWMA	50	5:1	250
CHU	37		185
Desert dry wash woodland	73	3:1	219
CDFG jurisdictional drainage areas	200		600
Occupied burrows of burrowing owls	2 occupied burrows	2:1 for 6.5 acres each	26
Areas of moderate desert tortoise density	1,214	2:1	2,428
Areas of low desert tortoise density – within the Solar Farm	2,698	1:1	2,698
Areas of low desert tortoise density – within the Other Project Components	17	1:1	17
TOTAL PROPOSED MITIGATION REQUIREMENT			6,423 acres

In addition to these requirements, the calculation for raven management fees is presented below in Table 3. These calculations are based on the October 2010 Draft Summary *Renewable Energy Development in the California Desert: Common Raven Predation on the Desert Tortoise*.

Table 3. Raven Management Acreages for Desert Sunlight Solar Farm and Gen-Tie Line

Resource	Acres of Impact
Solar Farm Site	3,912
Gen-Tie Line	104
TOTAL ACREAGE FOR RAVEN MITIGATION	4,016 acres

2.2.2 SCE Project Components

The total acreage for mitigation is calculated as shown on Table 4 for the SCE Project Components.

Table 4. Proposed Mitigation for SCE Project Components

Resource	Acres of Impact	Ratio	Acres of Mitigation
DWMA and CHU	149	5:1	745
Telecommunications Site (disturbed creosote bush scrub)	0.5	1:1	0.5
TOTAL PROPOSED MITIGATION REQUIREMENT			746 acres

In addition to these requirements, the calculation for raven management fees is presented below in Table 5. These calculations are based on the October 2010 Draft Summary *Renewable Energy Development in the California Desert: Common Raven Predation on the Desert Tortoise*.

Table 5. Raven Management Acreage for SCE Project Components

Resource	Acres of Impact
Red Bluff Substation	149

3.0 Mitigation

The Applicant and SCE will ensure that all impacts discussed in the *Biological Assessment for the Desert Sunlight Solar Farm Project* (Ironwood 2010a) are minimized and fully mitigated. Avoidance and minimization measures for the project are discussed in this section, as well as mitigation alternatives and funding to compensate for the identified impacts to biological resources.

3.1 Avoidance and Minimization Measures

The following measures are included in the Project's Biological Assessment (Ironwood 2010a) and Draft Environmental Impact Statement (DEIS; BLM 2010) and will be adopted by the project to ensure that all potential avoidance and minimization measures will be followed for biological resources. They also qualify as Mitigation Measures under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). This section summarizes both desert tortoise specific measures (as the only federally-and state-listed species at the project site), and general avoidance and minimization measures that will assist in the protection of many biological resources. A more detailed discussion of these measures is found in the Biological Assessment.

3.1.1 Desert Tortoise-Specific Protection Measures

- ◆ Desert Tortoise Translocation Plan
- ◆ Desert tortoise exclusion fencing
- ◆ Desert tortoise avoidance during construction of linear features
- ◆ Pre-construction clearance surveys
- ◆ Avoidance during operations and maintenance
- ◆ Common Raven Management Plan

3.1.2 General Protection Measures

- ◆ Environmental Inspection and Compliance Monitoring Program
- ◆ Worker Environmental Awareness Program
- ◆ Best Management Practices
- ◆ Integrated Weed Management Plan
- ◆ Dust Control Plan
- ◆ Storm Water Pollution Prevention Plan
- ◆ Spill Prevention Control and Countermeasure Plan
- ◆ Waste Management

3.2 Mitigation and Compensation

The Applicant and SCE are prepared to implement necessary mitigation and compensation for impacts to protected wildlife species as required by BLM, the CDFG and USFWS. The Applicant and SCE understand that at present CDFG and the other cooperating Renewable Energy Action Team (REAT) agencies are still in the process of developing and implementing the mitigation options available under SB X8 34 (SB 34). The Applicant and SCE also understands that the CDFG and REAT agencies want to provide flexibility to make decisions as to the appropriate pathway for providing mitigation, whether through the SB 34 options or through other means (e.g. land acquisition with enhancement and endowment fees). The Applicant and SCE expect that, simultaneous with the Section 7 consultation with USFWS, the SB 34 options will become more developed by CDFG and a final decision can be made by the Applicant and SCE. At present, Applicant and SCE evaluating and will be prepared to implement the following potential mitigation options.

3.2.1 Solar Farm and Gen-Tie Line

Mitigation and/or compensation will be accomplished either by (1) payment of an in lieu fee or use of the “advance mitigation” option, which are the two closely related, but distinct, mitigation pathways contained in SB 34, (2) acquiring mitigation land or conservation easements, or (3) a combination of the two. Adequate funding will be provided by the Applicant to accomplish both the avoidance and minimization measures listed above, and to provide the mitigation and compensation discussed in this section. The Applicant will provide a letter of credit, or other appropriate security to ensure the availability of funds for the required mitigation measures.

SB 34

SB 34 authorizes CDFG, in consultation with the BLM and USFWS, to develop mitigation actions, including advance mitigation and interim mitigation strategies, to fully mitigate the impacts of the potential or actual take of state-listed threatened, endangered, or candidate species associated with the development of solar energy projects that are eligible for federal American Recovery and Reinvestment Act (ARRA) funding, and are proposed for siting in the California Desert in the Desert Renewable Energy Conservation Plan (DRECP) planning area. The Applicant understands that BLM and USFWS are cooperating in establishing mitigation under SB 34 that will cover the mitigation requirements of all the REAT agencies.

An “in-lieu” fee or mitigation account option, whereby CDFG, BLM and USFWS would use mitigation fees to implement the individual permit specific project mitigations to assist the project in completing land acquisition obligations. The Project has paid the \$75,000 required to use this in-lieu fee option. The amount of in-lieu fee will be determined in cooperation with CDFG in accordance with the Interim Mitigation Strategy. The in-lieu fee may be used for some or all of the Project’s mitigation requirements and will follow Appendix E of the IMS, the *Biological Resource Compensation/Mitigation Costs for In-Lieu Fee Implementation* (presented as Appendix B to this document).

The second SB 34 mitigation option is known as “advance mitigation” and involves CDFG’s direct purchase of mitigation lands that will be used as a land bank in which qualified projects can purchase credits to meet all or a portion of their mitigation obligations. Applicant understands that CDFG is still in the process of setting up this land bank process and the precise details of this program are not yet fully known. Examples of these details include the amount of credits available, the schedule for their availability, and their price have not yet been set to the Applicant’s knowledge. Applicant is potentially interested in this approach and is actively monitoring its development and discussing this mitigation alternative with CDFG.

Land Acquisition

One other alternative for the Applicant to mitigate or compensate (alone or in combination with SB 34 mitigation) for the potential project impacts is traditional mitigation through direct land acquisition or establishment of conservation easements. Under this alternative, the Applicant would acquire mitigation land or conservation easements within the Eastern Colorado Recovery Unit for desert tortoise (USFWS 2008) and within the Chuckwalla Valley and BLM’s Northern and Eastern Colorado Desert (NECO) Plan area (BLM 2002), and enable the transfer of the land or easements to the National Fish and Wildlife Federation (NFWF) or to another third party land manager approved by the BLM, USFWS and CDFG.

The Applicant has researched many of the private land parcels in the region to determine their habitat comparability with habitats present at the Solar Farm Site and Gen-Tie Line and to evaluate other factors important to USFWS and CDFG for suitable mitigation land. Once the SB 34 options are better developed and Applicant’s mitigation ratios and key land requirements are discussed with USFWS and

CDFG, Applicant is prepared to proceed quickly with a land acquisition schedule and endowment funding strategy utilizing this option, if chosen.

Raven Mitigation

Table 6 calculates the amount of raven mitigation required by October 2010 Draft Summary *Renewable Energy Development in the California Desert: Common Raven Predation on the Desert Tortoise*.

Table 6. Raven Mitigation for Solar Farm and Gen-Tie Line

Total Acres	Cost Per Acre (based on 30-year lease)	Total Cost
4,016	\$105	\$421,680

3.2.2 SCE Project Components

SCE's Mitigation and/or compensation will be accomplished either by (1) payment of an in lieu fee or use of the "advance mitigation" option, (2) acquiring mitigation land or conservation easements, or (3) a combination of the two. Adequate funding will be provided by SCE to accomplish both the avoidance and minimization measures listed above, and to provide the mitigation and compensation discussed in this section. SCE will provide a letter of credit, or other appropriate security to ensure the availability of funds for the required mitigation measures.

Raven Mitigation

Table 7 calculates the amount of raven mitigation required by October 2010 Draft Summary *Renewable Energy Development in the California Desert: Common Raven Predation on the Desert Tortoise*.

Table 7. Raven Mitigation for SCE Project Components

Total Acres	Cost Per Acre (based on 30-year lease)	Total Cost
149	\$105	\$15,645

4.0 References

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- Bureau of Land Management. (2010a). *Draft Environmental Impact Statement*. Prepared for BLM by Tetra Tech.
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- Bureau of Land Management (2002). *North and Eastern Colorado Plan and Final Environmental Impact Statement*.
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- Oftedal, O.T. (2002). Nutritional ecology of the desert tortoise in the Mohave and Sonoran deserts. in Van Devender, T.R. (Ed.) *The Sonoran Desert Tortoise: Natural History, Biology, and Conservation*. (194-241). Tuscon, AZ: University of Arizona Press.
- Renewable Energy Development in the California Desert: Common Raven Predation on the Desert Tortoise*. (2010). Draft Summary.
- U.S. Fish and Wildlife Service. (1992). *Field Survey Protocol for Any Federal Action that May Occur Within the Range of the Desert Tortoise*.
- U.S. Fish and Wildlife Service. (2008). *Draft Revised Recovery Plan for the Mojave Population of the Desert Tortoise*.
- U.S. Fish and Wildlife Service. (2009). *Pre-project Field Survey Protocol for Potential Desert Tortoise Habitats*.
- U.S. Fish and Wildlife Service. (2010). *Pre-project Field Survey Protocol for Potential Desert Tortoise Habitats*.

Appendix D-1

Detailed Explanation of Acreage Calculations

Detailed Explanation of Acreage Calculations

Methods

Information in the following determination was calculated in GIS and include the following reports, also listed in the reference section of this document:

- ◆ Calculations of plant community acreage (Ironwood Consulting 2010b);
- ◆ Calculations of desert washes and CDFG jurisdictional areas from the *Identification and Delineation of Areas Potentially Subject to Jurisdiction under the California Department of Fish and Game Lake and Streambed Alteration Agreement Program, Desert Sunlight Solar Farm Project* (Ironwood Consulting and Huffman-Broadway Group 2010);
- ◆ Calculations conducted for the acreage of DWMA and CHU within the footprint of the project components (BLM 2010);
- ◆ Focused survey data for desert tortoise surveys conducted in 2008 through 2010 following protocols created and approved by the USFWS and CDFG (Ironwood Consulting 2010b);
- ◆ Incidental data of desert tortoise sightings and sign found by other surveys including full coverage plant surveys, jurisdictional waters surveys, archaeological surveys of the Solar Farm site (Ironwood Consulting 2010b);
- ◆ Baseline data for general vegetation and wildlife resources at random fixed points within the Solar farm Site, proposed desert tortoise recipient sites, and additional control sites on BLM managed lands near the Project boundaries (Ironwood 2010b);
- ◆ Percent cover of high Potassium Excretion Potential (PEP) plants from baseline vegetation data (Oftedal 2002);
- ◆ Calculations of soil mapping (AECOM 2010);
- ◆ Modeling of desert tortoise habitat conducted by the U.S. Geological Survey (USGS) in 2009 (Nussear et al 2009); and
- ◆ The *Northern and Eastern Colorado Desert Coordinated Management Plan and EIS* (NECO; BLM 2002).

Definitions

DWMA and CHU

Areas previously designated by the BLM and/or USFWS as Chuckwalla DWMA and CHU which overlap with the Applicant Gen-Tie Line and the SCE project components.

Desert Wash Woodland

This community is described in *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) and the NECO Plan (BLM 2002) as drought-deciduous, small-leaved (microphyllous) trees, often leguminous, in association with sandy or gravelly washes with braided channels in active alluvial fans. Dominant plants species associated with this community include ironwood (*Olneya tesota*), blue palo verde (*Cercidium floridum*), and smoke tree (*Psoralea spinosa*).

CDFG Jurisdiction

These areas are defined by CDFG as features with:

- ◆ identifiable surface or subsurface flow;
- ◆ identifiable biological components associated with surface or subsurface flow;
- ◆ a recognizable lateral extent of surface or subsurface flow.

Burrowing Owl Burrows

For each occupied burrowing owl burrow found on the Project components, burrow enhancement or creation at a ratio of 2:1 is required. During all surveys of the site, two burrowing owls were observed on the Solar Farm Site. Assuming all owls observed could represent an occupied burrow at the time of pre-construction passive relocation, this would represent the maximum number required to offset impacts to occupied burrows.

Areas of Moderate and Low Desert Tortoise Density

It is appropriate to distinguish between moderate and low density desert tortoise habitat on the Solar Farm site. As described below, two areas of the Solar Farm provide significantly higher densities for desert tortoise than the majority of the site, which provides low densities. For this document, low densities were considered less than 1 tortoise per square kilometer and moderate densities between 1 and 10 tortoises per square kilometer, with the average for the larger Chuckwalla DWMA area estimated at 8.3 per square kilometer (USFWS 2008).

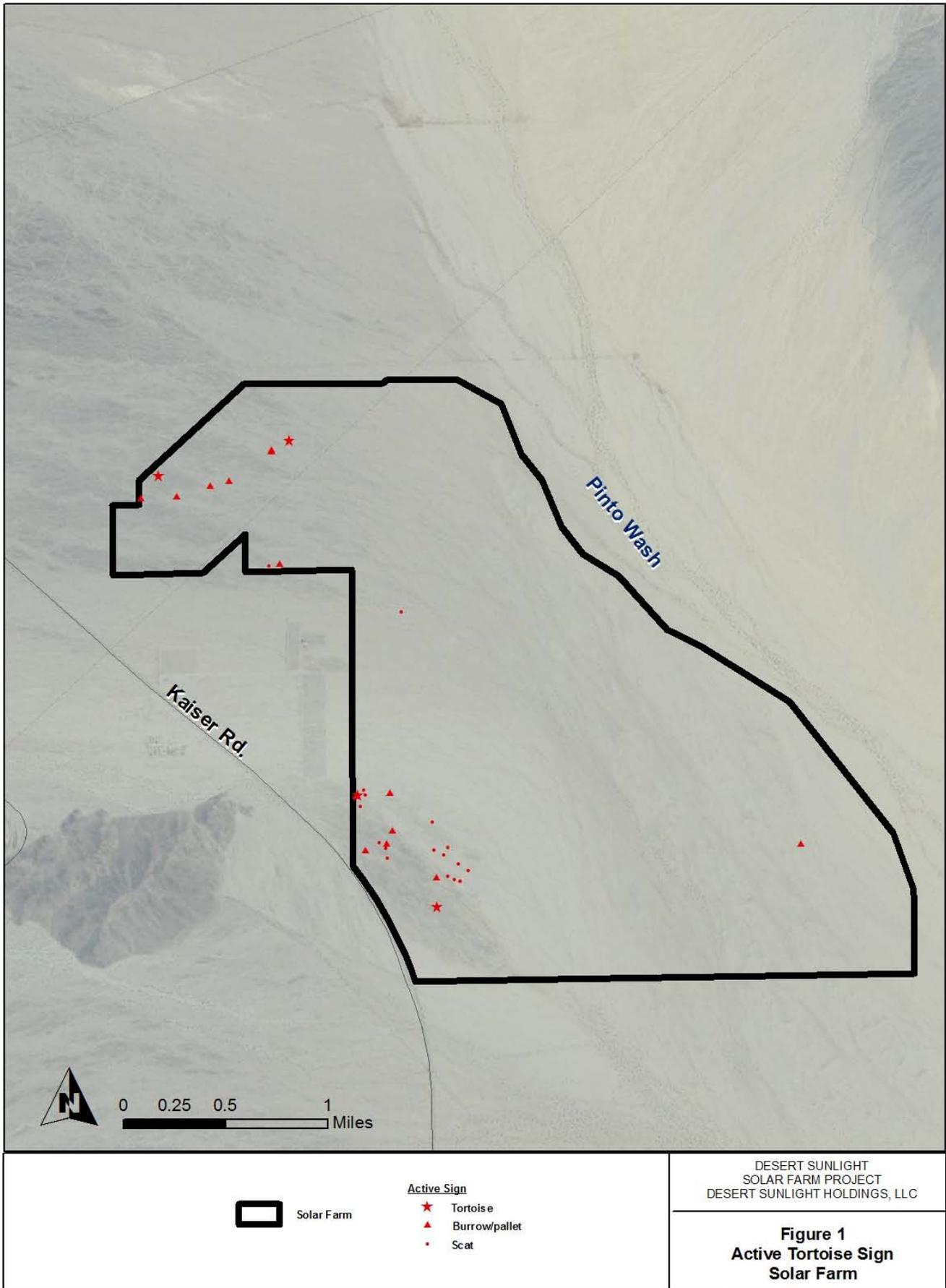
This distinction did not need to be made for the other Project components for the following reasons:

1. The majority of the Gen-Tie Line is located within DWMA and/or CHU and thus has a mitigation ratio of 5:1. Areas outside DWMA and CHU (and those other criteria above such as desert wash woodland and CDFG jurisdiction) were calculated at 1:1.
2. All SCE project components (except the telecommunication site discussed below) are within DWMA and CHU and are calculated at a 5:1 mitigation ratio.
3. The SCE telecommunications site is in a moderately disturbed area, near extensively used roads (including State Route 177), and supported no tortoise sign on or within the action area for the site. Mitigation for this area was calculated at 1:1 given the low habitat quality.

Background Information

Focused surveys of each project component were conducted between 2008 and 2010 according to then-current protocols (USFWS 1992, 2009, and 2010). Each area was only surveyed once with most areas surveyed in 2008 and additional areas surveyed in 2009 and 2010 as project components were added or altered. These surveys recorded two distinct concentrations of active tortoise sign (Figure 1) within the Solar Farm, with two live tortoises found in northern concentration and two in the southern concentration. A total of eight individual tortoises (four in the northern concentration and four in the southern concentration) were estimated to occur within the Solar Farm Site based on calculations using the formula described in the 2010 USFWS protocol.

Although the USGS habitat model for desert tortoise is useful in predicting desert tortoise density on a range-wide basis, it is not effective in closely assessing habitat suitability on a particular site. In conducting a site-specific assessment of habitat characteristics, we started with the habitat preferences



of the desert tortoise as they are briefly summarized in the following excerpt from the 2008 Draft Recovery Plan (USFWS 2008):

“Tortoises occur most commonly on gently sloping terrain with sandy-gravel soils and where there is sparse cover of low-growing shrubs, which allows establishment of herbaceous plants. Soils must be friable enough for digging of burrows, but firm enough so that burrows do not collapse. Typical habitat for the desert tortoise in the Mojave Desert has been characterized as *Larrea tridentata* scrub where precipitation ranges from 5 to 20 centimeters (2 to 8 inches), the diversity of perennial plants is relatively high, and production of ephemerals is high.”

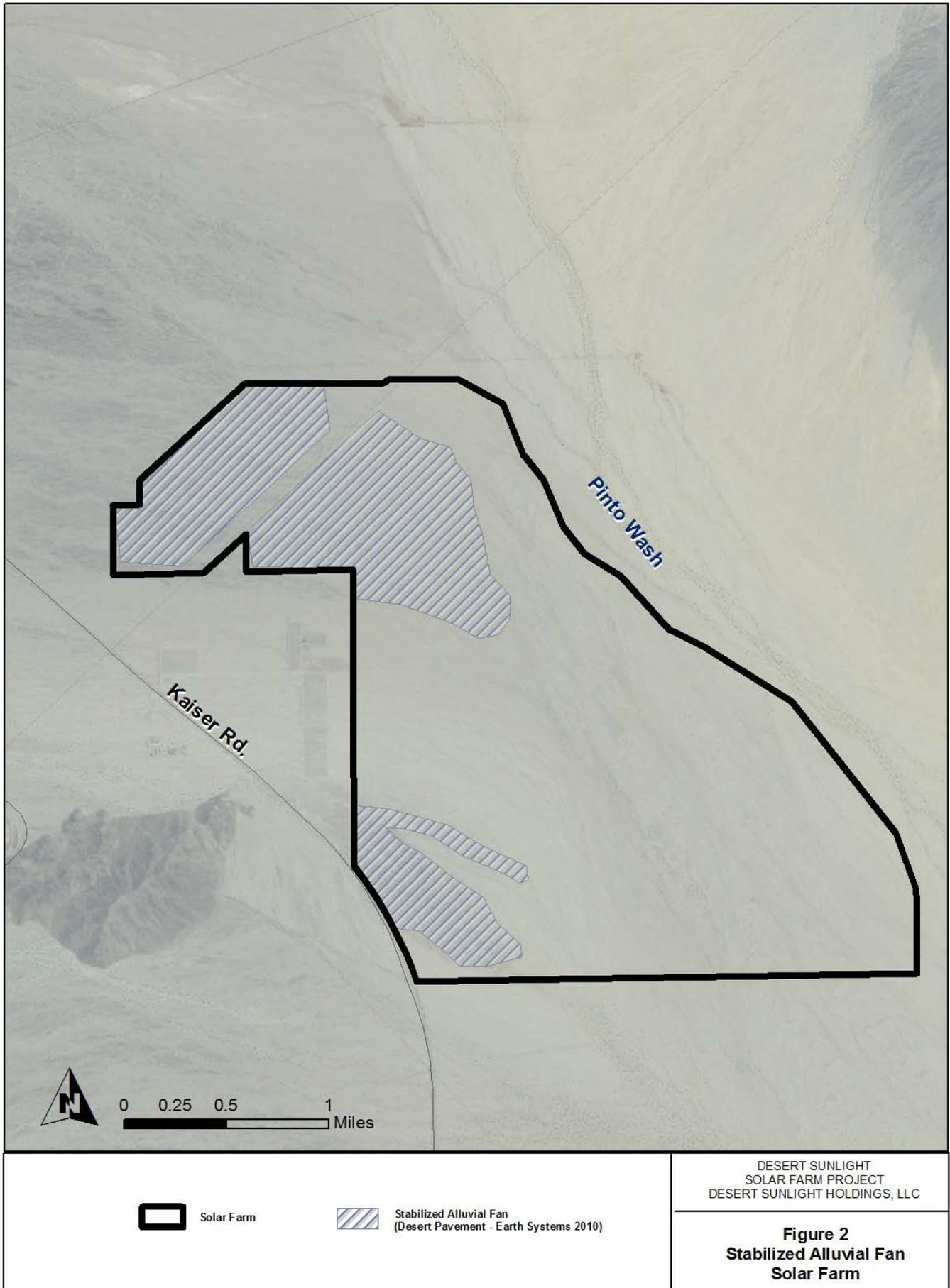
Accordingly, consistent with this summary and studies that have examined the habitat requirements and limiting factors for this species (such as the numerous studies used to develop the USGS habitat model), we examined the site-specific geology and soils data, vegetation data (including data for plant species with high PEP values), drainage mapping, recent USGS modeling of desert tortoise habitat, and relevant data from site studies relating to other wildlife species.

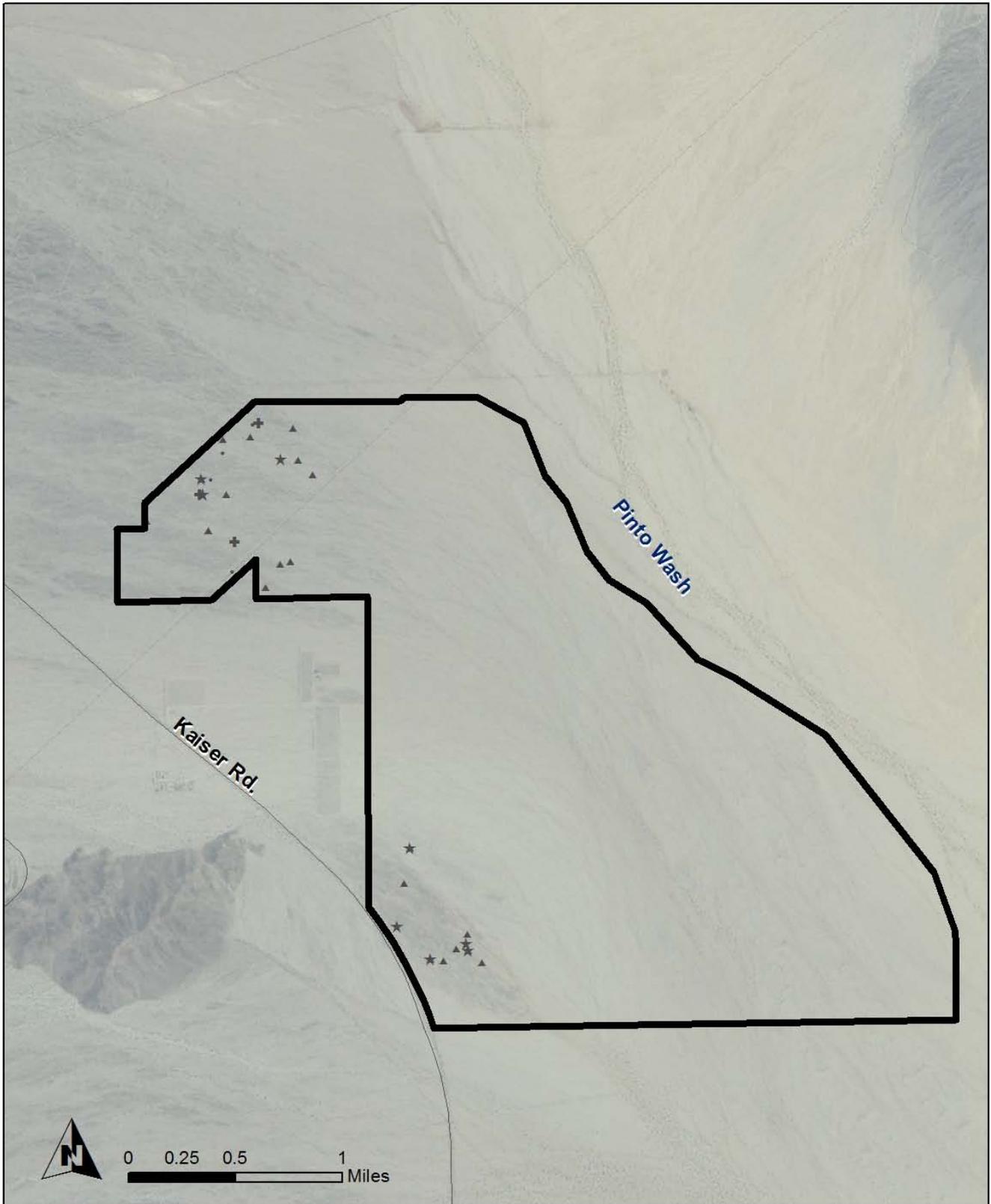
Moderate Desert Tortoise Density

The locations where concentrations of desert tortoise appear to correlate with numerous other resources:

- ◆ Desert pavement areas (Figure 2) of older stabilized alluvial fan systems and well developed desert pavement where drainages were well defined and vegetation was more diverse.
- ◆ Incidental tortoise data (Figure 3) collected during additional full coverage and other surveys mimic those areas where desert tortoise sign was found during the focused tortoise surveys (two independent full-coverage survey efforts at 10-meter transect intervals resulted in the same distribution and pattern of active tortoise sign).
- ◆ Carcass data (Figure 4) from all biological surveys suggest that desert tortoises also inhabited the same areas in the past.
- ◆ Baseline sampling data from sampling stations (Figure 5) provided additional information on the value of habitat. The number of species observed during avian point counts were generally higher in habitats that correlated with active tortoise sign concentrations. Baseline vegetation sampling, which measured percent cover by species, was analyzed in terms of high PEP plant species. High PEP plants have been theorized as being critical to desert tortoise diet and nutrition. Plants with traditionally high PEP values that were recorded during baseline sampling and analyzed include *Camissonia brevipes*, *Camissonia claviformis*, *Chaenactis carpoclinia*, *Chaenactis fremontii*, *Chaenactis stevioides*, *Malacothrix glabrata*, and *Phacelia distans*. Percent cover of high PEP plants were found to be generally higher in habitats that correlated with active tortoise sign concentrations.

Once the moderate density areas were identified using the factors above, calculations of the size of active tortoise areas and subsequent estimated densities were based on the median desert tortoise home range sizes as described in the 2010 USFWS protocol (USFWS 2010): “The annual home range of a female desert tortoise averages around 0.15 to 0.16 km² (35 to 40 acres), about one third the size of male home ranges, which are variable.”





 Solar Farm

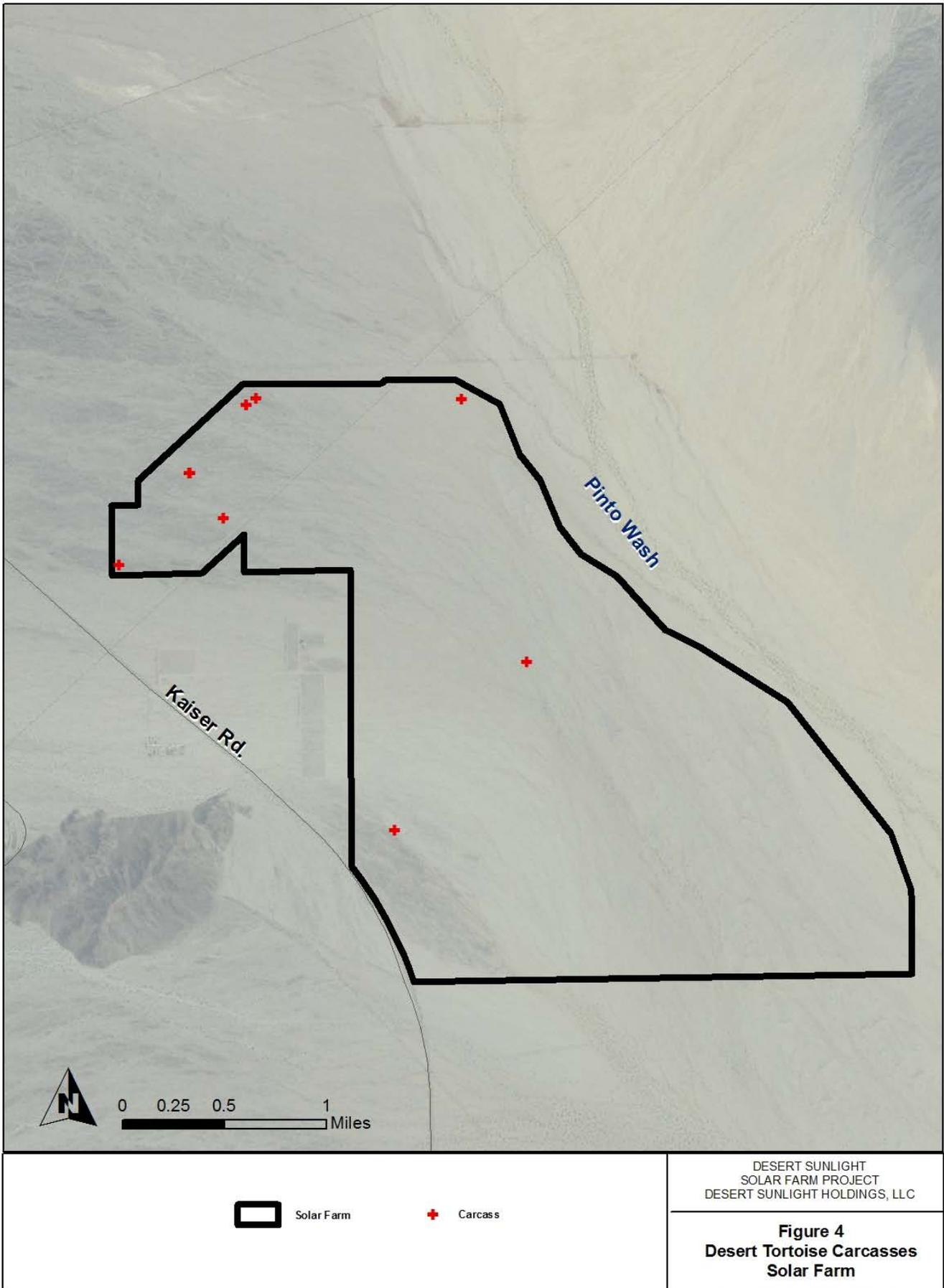
Incidental Active Sign 2010

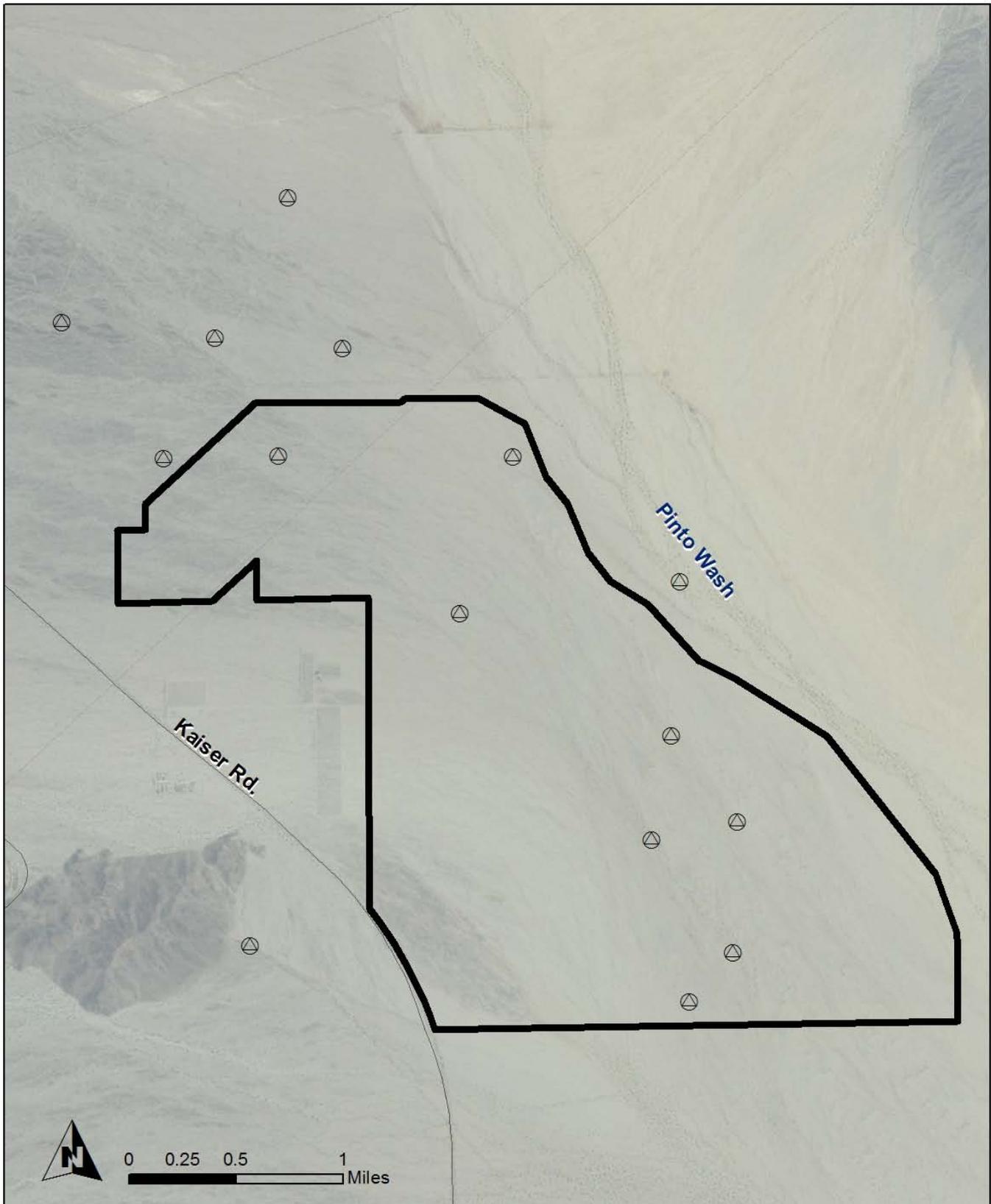
- ★ Tortoise
- ▲ Burrow/pallet
- Scat
- + Carcass

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Figure 3
Incidental Tortoise Sign
Solar Farm

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 Solar Farm	 Baseline Sampling Location	<p>Active Sign</p> <ul style="list-style-type: none">  Tortoise  Burrow/pallet  Scat 	<p>Incidental Active Sign 2010</p> <ul style="list-style-type: none">  Tortoise  Burrow/pallet  Scat 	<p>DESERT SUNLIGHT SOLAR FARM PROJECT DESERT SUNLIGHT HOLDINGS, LLC</p> <p>Figure 5 Baseline Sampling Locations Solar Farm</p>
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To calculate acreages to be mitigated at a ratio other than 1:1, the following criteria was used: median diameter of the female and male desert tortoise home range from any active desert tortoise burrow. These areas were modified to the final areas calculated for mitigation by the inclusion of:

- ◆ all factors listed above that appear to correlate with moderate density areas of the Solar Farm Site
- ◆ any small inclusions within these areas of the project site
- ◆ edge smoothing to create comprehensive polygons

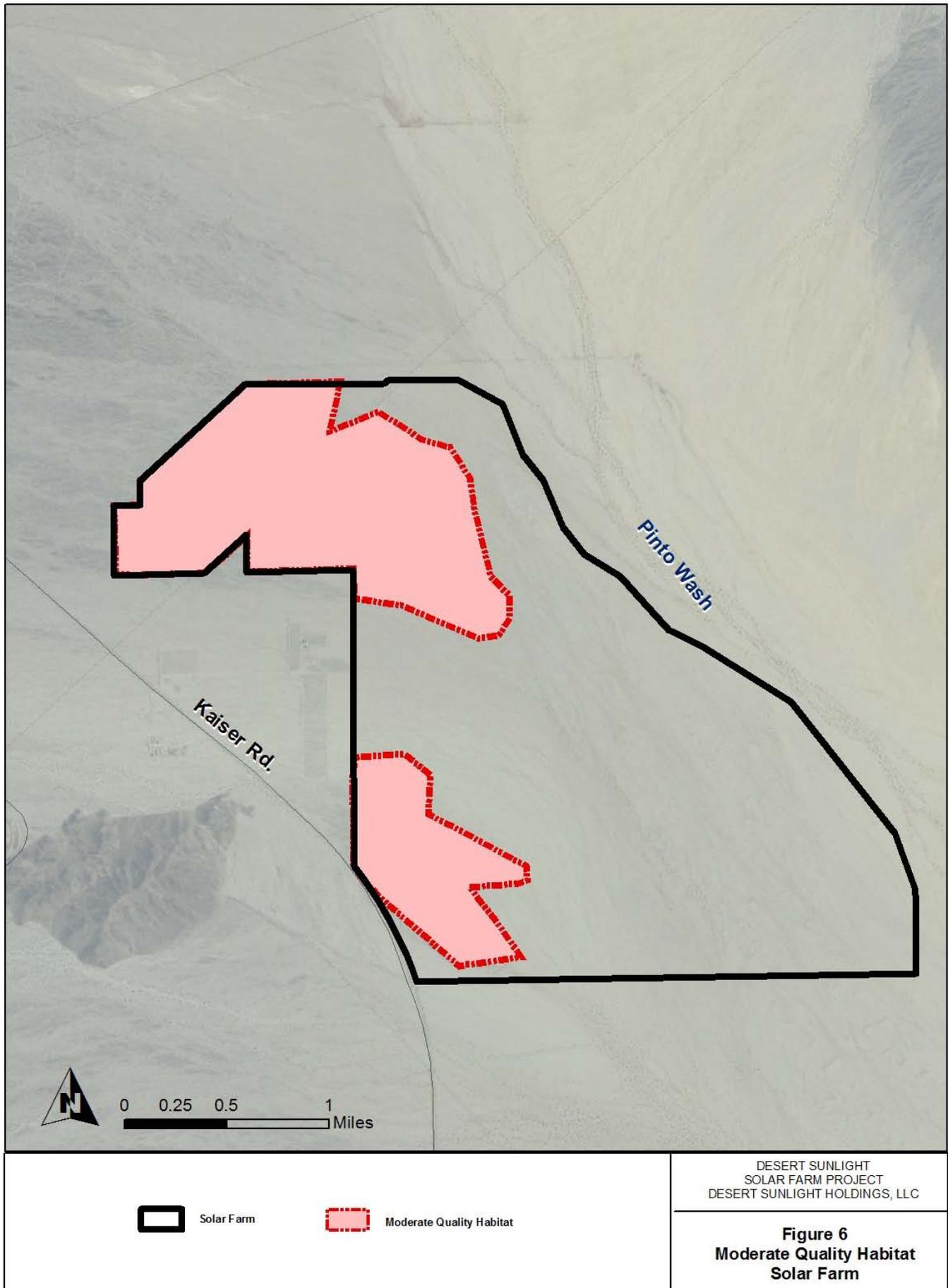
The resulting total area of moderate desert tortoise habitat in the two locations within the Solar Farm is 1,214 acres, with density of approximately 0.55 individuals per square kilometer (Figure 6).

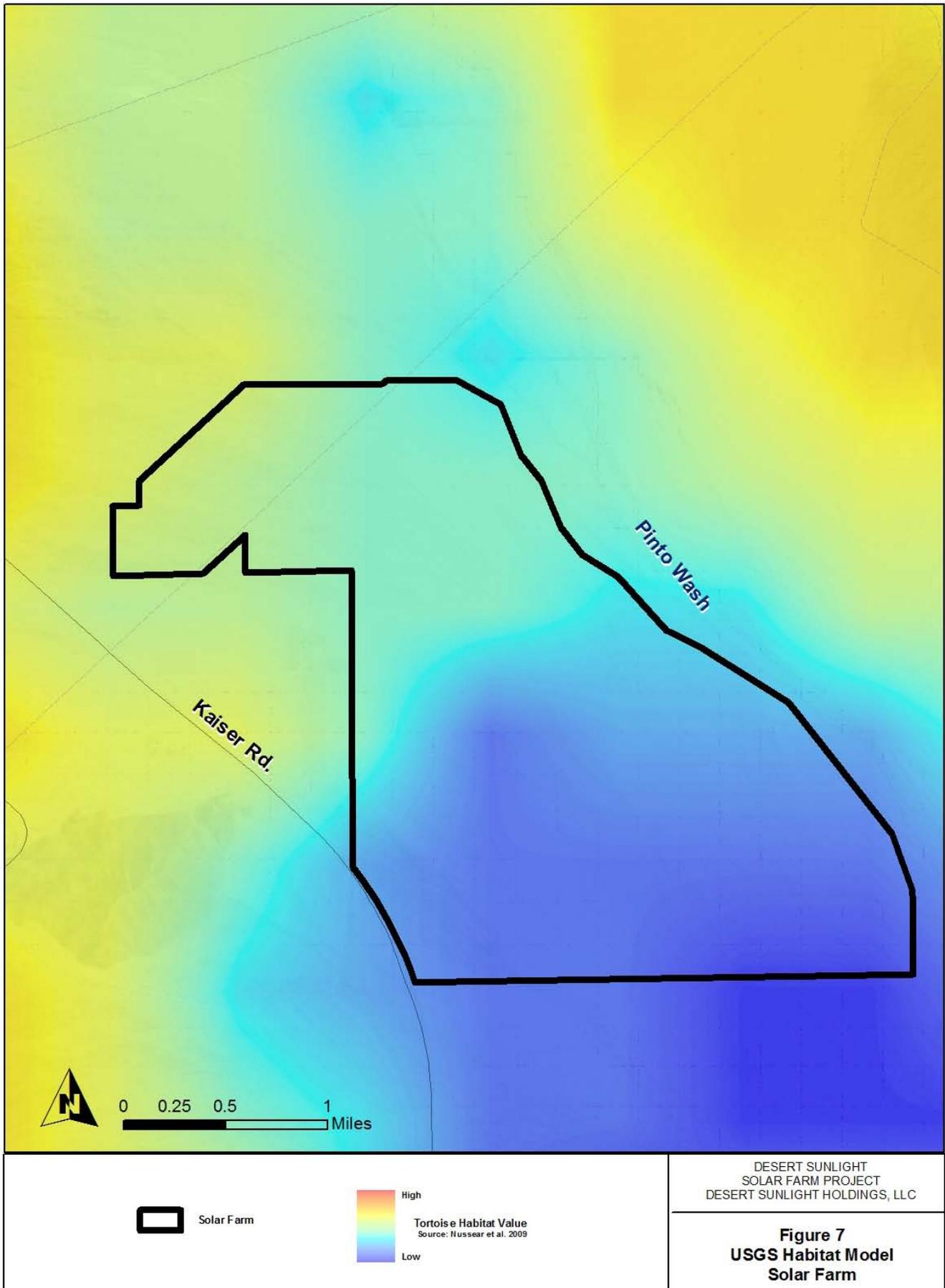
Low Desert Tortoise Density

The locations where concentrations of desert tortoise were not found to correlate with:

1. Areas of younger, active alluvial deposits with less defined channels that support vegetation similar to that found in upland areas.
2. Areas are described by the USGS habitat model as potentially low predicted desert tortoise presence based on climate, topography, soils and biological characteristics of the site. As noted above, incidental active tortoise sign and carcass sign also correlated with these data and focused survey data (Figure 7).

The area of low desert tortoise habitat within the Solar Farm is 2,698 acres (Figure 6).





Appendix D-2

Biological Resource Compensation/ Mitigation Costs for In-Lieu Fee Implementation

Senate Bill 34
Interim Mitigation Strategy
Biological Resource Compensation/Mitigation Costs for In-Lieu Fee Implementation

	Task	Cost		
		Imperial, Riverside (excluding Coachella Valley), San Bernardino Counties	Kern County	LA County
1.	Land Acquisition ¹	\$1,000	\$3,000	\$10,000
2.	Level 1 Environmental Site Assessment (per acre)	\$75/acre		
3.	Appraisal	\$5,000/parcel ²		
4.	Initial site work – clean-up, enhancement, restoration (per acre)	\$290/acre		
5.	Closing and Escrow Costs – 2 transactions at \$2,500 each; landowner to 3 rd party and 3 rd party to agency	\$5,000 for 2 transactions \$2,500 for single transaction if lands come to DFG		
6.	Endowment for long-term Management and Maintenance (LTMM) – includes land management; enforcement and defense of easement or title (short and long term); region-wide raven management; monitoring, etc. (per acre)	\$1,450/acre ³		
7.	Fund management costs ⁴	\$1.5% of LTMM No fee if Special Deposit Fund is used.		
TOTAL land acquisition mitigation cost		\$		

1 The per acre costs estimates represent the average for all Wildlife Conservation Board land transactions where acquisitions consisted of parcels greater than 40 acres in size within the respective counties.

2 Parcel sizes may range from 1 acre to 640 acres and above. The general location of the land acquisition(s) will determine the generalized parcel size for determining project specific estimates.

3 The endowment for long-term management and maintenance is based on PAR like analysis calculating management costs estimates with a 3% annual capitalization rate.

4 NFWF-related fees (“REAT-NFWF Mitigation Account Additions” identified in the attached table) will apply if the NFWF accounts are used for fund management.

Note: If compensation lands are accepted by BLM (rather than the state), applicable fees in the REAT Biological Mitigation Cost Table (attached) may apply.