

**Appendix**  
**Environmental Construction Compliance**  
**Monitoring Program Plan**

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# **DESERT SUNLIGHT SOLAR FARM PROJECT**

## **Environmental and Construction Compliance Monitoring Plan**

Desert Sunlight Holdings, LLC  
CACA-48649

DRAFT

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For the  
**Palm Springs – South Coast Field Office**

Palm Springs, California



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# Acronyms and Abbreviations

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AO	Authorized Officer
BLM	United States Bureau of Land Management
CBC	California Building Code
CBO	Chief Building Officer
CDFG	California Department of Fish and Game
CM	Compliance Monitor (Compliance Contractor)
CMO	Construction Monitor
CWA	Clean Water Act
DB	Designated Biologist
DSSF	Desert Sunlight Solar Farm
ECCMP	Environmental Construction Compliance Monitoring Plan
EI	Environmental Inspector
EIS	Environmental Impact Statement
EM	Environmental Manager (Holder's or Applicant's)
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy Management Act
Lead EIs	Lead Environmental Inspectors
LORS	laws, ordinances, regulations, and standards
MW	megawatt
NPS	United States Department of the Interior National Park Service
NIPs	Notices to Proceed
POD	Plan of Development
ROD	Record of Decision
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SWPPP	Storm Water Pollution Prevention Plan
USACE	United States Army Corps of Engineers

USFWS United States Fish and Wildlife Service

WEAP Worker Environmental Awareness Program

# Introduction

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## 1.1 Background

The U.S. Bureau of Land Management (BLM) may issue a right-of-way (ROW) grant authorizing the construction, operation, maintenance, and decommissioning of the Desert Sunlight Solar Farm Project (Project) to Desert Sunlight Holdings, LLC (hereafter referred to as “Holder” of ROW Grant). The Project covers approximately 4,144 acres (ac) and 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. The Project consists of two main components (1) a 550-megawatt (MW) solar photovoltaic (PV) generating facility (Solar Farm) and (2) a 220-kilovolt (kV) generation interconnection line (Gen-Tie Line). A complete description of the project is found in the Desert Sunlight Solar Farm (DSSF) Project California Desert Conservation Area Plan Amendment and Final Environmental Impact Statement (FEIS) (BLM 2011).

## 1.2 Purpose

The BLM requires holders of right-of-way grants to prepare and fund an environmental and construction compliance monitoring program to ensure compliance with the BLM terms, conditions, and stipulations in the right-of-way grants, the Plan of Development (POD), and required mitigation as provided for in the Record of Decision (listed in further detail in Section 2).

The purpose of this plan is to address the requirement found in Section 2.5 of the FEIS: Holder will develop an Environmental and Construction Compliance Monitoring Plan for the DSSF, covering both construction and operation. In addition, the Holder will establish a Compliance Monitoring Team, which will include a Compliance Manager, Construction Monitors, Environmental Inspectors (EIs), and a Designated Biologist. A qualified individual would be designated to serve as the Compliance Manager (CM). The Compliance Monitoring Team would be responsible for development and implementation of the DSSF’s compliance program. They would be responsible for communication and coordination with the applicable regulatory agencies and ensuring compliance with the various conditions and requirements of the full range of Project permits and approvals. They would be responsible for the necessary record keeping and reporting required by DSSF permits. They would ensure that all applicable plans are up to date. The CM’s role would include advising BLM and Project management of actual and potential compliance/non-compliance issues and for ensuring that Project planning takes appropriate account of compliance issues in advance.

This Environmental and Construction Compliance Monitoring Plan (ECCMP) includes the following:

- Description of the responsibilities of the Compliance Monitoring Team including the CM hired to report findings to the BLM

- Outline of the level of effort anticipated from the Compliance Monitoring Team in implementing this ECCMP
- Definition of the decision-making authority of the Compliance Monitoring Team
- Description of the Compliance Monitoring Team's participation in the Holder's Worker Environmental Awareness Program (WEAP)
- Descriptions of the responsibilities of the CM, Construction Monitors (CMOs), EIs, and Designated Biologist

This report also discusses the monitoring, reporting, and documentation requirements, stop work authority, and the variance process.

Appendixes to this document are as follows:

- Appendix A: Monitoring Report Cover Page Form
- Appendix B: Monitoring Report Form
- Appendix C: BLM Authorized Officer Weekly Report
- Appendix D: Certification of Completion of Worker Environmental Awareness Program
- Appendix E: Variance Request Form
- Appendix F: Mitigation and Monitoring Program Tracking Form

## SECTION 2

# Objectives of the Environmental and Construction Compliance Monitoring Program

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The overall objective of the ECCMP is to provide direction for the Compliance Monitoring Team on conducting inspections, evaluate compliance or noncompliance with the project measures and conditions during project construction, and document compliance or noncompliance. This ECCMP Plan focuses on both construction and operation phases of the DSSF.

The environmental mitigation requirements for Holder comprise the following:

- Mitigation measures, Project design features, and other measures documented in the FEIS and FEIS Errata to be included in the Record of Decision (ROD)
- Terms, conditions, and stipulations in the ROD, ROW grant, and Notices to Proceed (NTPs) for the Project
- Construction procedures and mitigation measures in the approved POD for the Project
- Stipulations, terms, conditions, and other measures from other authorizing Federal agencies' permits and approvals
- Stipulations, terms, conditions, and other measures from State and regional agencies' permits and approvals

During construction of the DSSF Project, the Environmental Inspectors (EIs) will conduct inspections of construction activities and the implementation of the required mitigation measures, and will provide regular feedback through the Construction Monitors (CMOs) to the Compliance Manager (CM) on compliance issues to the BLM. The CM will involve other agencies such as the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Game (CDFG) in the monitoring and documenting of environmental compliance to the extent requested by those agencies and authorized by the BLM. The CM will provide BLM with weekly status updates on the construction and monitoring efforts and will provide BLM with copies of the quarterly monitoring reports and the final monitoring report. Construction progress and environmental compliance will be tracked and documented in quarterly reports prepared and submitted as described in detail later in Section 4, Reporting and Documentation. The Construction Monitors (CMOs) will report directly to the CM. The CM will report directly to the BLM Compliance Project Manager (BLM CPM or Authorized Officer [AO]) and other identified Compliance Contacts as directed by the BLM. **NAME OF MONITORING CONTRACTOR COMPANY** is serving will serve as the BLM's designated CM.

Other objectives of the ECCMP Plan are to:

- Facilitate the timely resolution of compliance-related issues in the field
- Provide continuous information to the BLM and other agencies and parties as authorized regarding noncompliance issues and their resolution
- Review, process, and track construction-related changes to Project plans (as described later in Section 5, Variances, the CM will assist with implementation of the variance process in accordance with a predetermined level of decision-making authority granted by the BLM)
- Develop and implement a system for storing the information collected during the ECCMP in a format that will allow easy retrieval and search functions

The CM shall act as the BLM delegate and for monitoring of applicable local building codes; the California Building Code (CBC); the Facility Design, Geology and Transmission System Engineering Conditions of Certification; the Storm Water Pollution Prevention Plan (SWPPP) and Erosion Control Plan (as directed by the CPM); and other engineering laws, ordinances, regulations, and standards applicable to the DSSF to ensure health and safety. The CM is responsible for the design review, plan check, and construction inspection of the systems and equipment required for power generation, and equipment located either inside or outside of buildings. CMO, David Evans and Associates, will conduct review and inspection of the design and construction of the Project for compliance with local building codes, California Building Standards Code and other applicable laws, ordinances, regulations and standards and will be responsible for reporting compliance to CM.

Tables 1-1, 1-2, and 1-3 list the most significant environmentally-related Project permits and approvals and rules associated with each.

**TABLE 1-1**  
Federal Permits, Approvals and Authorizations

<b>Permit and Approval</b>	<b>Lead Agency</b>	<b>Rule Citation/Reference</b>
FLPMA ROW Grant	BLM	National Environmental Policy Act of 1969 (NEPA) Federal Land Policy and Management Act of 1976 (FLPMA)
California Desert Conservation Area Plan Amendment	BLM	BLM Planning Regulations (43 CFR Part 1600), and BLM Land Use Planning Handbook (H-1601-1).
Endangered/Threatened Species Consultation and Incidental Take Statement under the Federal ESA	USFWS	Federal Endangered Species Act (Title 16, United States Code, Section 1531 et seq., and Title 50, Code of Federal Regulations, part 17.1 et seq.)
National Historic Preservation Act Section 106 Compliance	BLM	Antiquities Act of 1906 16 United States Code (USC) 431–433 National Historic Preservation Act of 1966 (NHPA)

**TABLE 1-1**  
Federal Permits, Approvals and Authorizations

<b>Permit and Approval</b>	<b>Lead Agency</b>	<b>Rule Citation/Reference</b>
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**TABLE 1-2**  
State Permits, Approvals and Authorizations

<b>Permit and Approval</b>	<b>Lead Agency</b>	<b>Rule Citation/Reference</b>
Endangered/Threatened Species Take Authorization under CESA and Sections 2050 (general provision for endangered species) and 2080 (take of endangered species) of the California Fish and Game Code	CDFG	California Endangered Species Act of 1984 (Fish and Game Code, Sections 2050 through 2098) California Code of Regulations (Title 14, Sections 670.2 and 670.5) Fully Protected Species (Fish and Game Code, Sections 3511, 4700, 5050, and 5515)
Section 1600-1602 Streambed Alteration Agreement process under the California Fish and Game Code	CDFG	Streambed Alteration (Fish and Game Code Sections 1600 et seq.)

**TABLE 1-3**  
Local Permits and Approvals

<b>Permit and Approval</b>	<b>Lead Agency</b>	<b>Rule Citation/Reference</b>
Public Use Permit	Riverside County	Riverside County General Plan (2003), as amended through December 2008 Riverside County Zoning Ordinance #348, amended through Ord. #348.4647 (August 20, 2009)



## SECTION 3

# Environmental Compliance Monitoring and Management

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## 3.1 Construction Plan

In the event the United States Bureau of Land Management (BLM) approves the DSSF project, a ROW grant will be issued to the Applicant. The Applicant has filed an application with the BLM for a ROW grant pursuant to the Federal Land Policy and Management Act (FLPMA). Under FLPMA Title V (Rights-of-Way), the United States Secretary of the Interior is authorized to grant rights-of-way for the purpose of allowing systems for generation, transmission, and distribution of electric energy.

The Project covers approximately 4,144 acres (ac) and 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. The Project consists of two main components: (1) a 550-megawatt (MW) solar photovoltaic (PV) generating facility (Solar Farm) and (2) a 220-kilovolt (kV) generation interconnection line (Gen-Tie Line).

## 3.2 Compliance Monitoring and Management

The BLM's compliance representatives for the DSSF Project are as follows:

- BLM Authorized Officer (AO): the BLM Palm Springs-South Coast Field Office official with the administrative authority for the right-of-way grant issuance and authority for accepting and approving Project related changes.
- BLM Compliance Project Manager (BLM CPM): staff level position designated by the BLM AO as the point of contact for all compliance issues.
- Compliance Manager (CM): point of contact position for all compliance related issues; reports to the BLM Authorized Officer (AO) or the designated BLM Compliance Project Manager for all compliance related issues.
- Construction Monitors/Designated Biologists (CMOs/DBs): Construction Monitoring personnel responsible for observing and reporting compliance with the terms and conditions of the BLM right-of-way authorization for all phases of Project construction will report to the CM. In instances of monitoring related to biological resources, the DB will be BLM-approved (and in some instances require additional approval).

The Holder's Compliance team will consist of the following personnel:

- Environmental Inspectors (EIs): on the ground compliance personnel responsible for implementing the compliance program dictated under the terms and conditions of the BLM right-of-way authorization for all phases of Project construction.

- Palm Springs-South Coast Field Office Compliance Lead: The BLM may also identify additional persons as designated Compliance Contacts, as needed.

The CM will enter into a contract for the Project with the Holder for the payment of the BLM compliance monitoring services provided. Those fees will be based on hourly rates, or as otherwise agreed to by the CM and the Holder. Payments to the CM for work satisfactorily completed may be paid directly to the CM in advance, in arrears, or from a credit account established with the CM by the Holder. The contract between the Holder and the CM will include a provision that the Holder may not terminate the contract with, or payments to, the CM without prior authorization of the BLM AO.

### **3.2.1 Holder Contacts**

The following are contact persons for the construction of the DSSF:

- David Postma, Project Manager, (602) 317-9747
- Amanda Beck, Environmental Manager, (510) 786-7587

### **3.2.2 Compliance Manager**

The CM for the DSSF will oversee management of the ECCMP, prepare Project materials, participate in any BLM preconstruction meeting; participate in or conduct the Holders WEAP (WEAP may also be conducted by the Designated Biologist) supervise the monitoring activities, materials, and schedules; supervise the CMOs/DBs; monitor the EIs, provide guidance on and review of compliance issues; review and process variance requests; and review, provide weekly status updates, and distribute quarterly reports.

Specific CM responsibilities are as follows:

- Report directly to the BLM CPM or BLM AO or other designated BLM Compliance Contacts.
- Participate in the preconstruction meeting.
- Participate in and/or conduct the WEAP kick-off meeting.
- Verify the Holder's, compliance with the Project environmental requirements.
- Supervise the monitoring activities, materials, and schedules.
- Supervise the CMOs/DBs.
- Ensure that all reported noncompliance is tracked for resolution by the Holder.
- Review, approve, and distribute monitoring reports, correspondence, and scope of work and schedule changes.
- Review work progress, schedules, and budgets related to compliance monitoring activities.
- Confer with the BLM CPM and Compliance Contacts on a regular basis.
- Serve as the contact between BLM and the Holder, for compliance issues.

- Serve as BLM's representative to permitting agencies, private landowners, and special interest groups regarding the environmental mitigation efforts on the Project.
- Coordinate with the BLM and other agencies, as determined necessary, on reviewing and approving variance requests.

### **3.2.3 Construction Monitors/Designated Biologists**

The CM will supervise sufficient full-time on-the-ground CMOs/DBs during construction of all phases of the Project. The number of CMOs/DBs will be determined based on the specific activities during each construction phase. Specifically, the need for the full-time CMOs/DBs may be re-evaluated throughout the construction phase and a schedule adjusted, as necessary, as conditions demand.

During construction, many factors may affect the specific deployment of the CMOs/DBs. These include the activity occurring at specific times of inspection, any noncompliance or problem areas documented during previous inspections by the CMOs/DBs, site-specific conditions at the time of construction, skill levels and attitudes of the contractor crews and foremen, and the number of inspection team members.

The CM's planned monitoring coverage assumes that the construction contractors will demonstrate a high level of environmental compliance, and that the Holder's environmental inspectors (EIs) will be qualified and experienced.

The CM will regularly evaluate the effectiveness of the environmental compliance monitoring in consultation with the BLM and Compliance Contacts to ensure adequate staffing. If determined necessary, the CM will provide additional, adequately trained support staff to act as CMOs/DBs on an as-needed basis.

The primary responsibility of the CMOs/DBs will be to monitor and document the Holder's construction, compliance, and/or noncompliance with the Project building, engineering, installation, and environmental requirements. The CMOs/DBs will also review and approve variance requests, as appropriate to their authority level, for implementation of limited variations from mitigation measures previously agreed to by the Holder or stipulated by other agencies (refer to Section 5, Variances).

Prior to the start of construction, the CMOs/DBs will become familiar with the Holder's design review and approval, environmental compliance management program, participate in the preconstruction meeting, participate in the WEAP, and receive additional training as needed from the CM, as needed. The CMOs/DBs will become familiar with the roles and responsibilities of the Holder's field team(s), EIs, the required building codes, fire codes, construction documents, other relevant building standards, environmental reporting responsibilities, and the chain of communication. It is assumed that the Holder will provide the CMOs/DBs and the CM with copies of all permit requirements for the Project prior to initiation of construction.

At a minimum, the CMOs/DBs will maintain contact with the Holder staff. Construction activities will be inspected by the CMOs/DBs and environmentally sensitive areas will be regularly inspected to ensure protection of the identified resources.

The CMOs/DBs will communicate with the Holder's compliance staff on a regular basis. This approach will allow the Holder's inspectors and the CMOs/DBs to exchange information on the status of construction and to discuss any significant construction events scheduled over the next 2 or 3 days. The CMOs/DBs may inspect all activities either with the Holder's inspectors or independently. The CMOs/DBs will have the authority to order the halt of a specific noncompliance activity that is damaging, has the potential to damage a sensitive environmental resource, or is not being performed according to building and construction standards.

The CMOs will record observations, including digital photo documentation at each location visited. This process will ensure consistent and accurate reporting of site conditions at the time of inspection. Each activity monitored will be assigned a compliance level and documented in a quarterly report (refer to Section 4.1, Quarterly Reports).

### **3.2.4 Designated Biologists-specific Tasks**

#### **3.2.4.1 General**

BLM approval will be obtained for the DBs responsible for conducting construction monitoring during all construction activities to ensure that construction activities are contained within the staked and flagged construction areas at all times. The construction monitor shall also be present during all ground disturbing activities. The construction monitor shall also inspect fencing and netting at all construction ponds to ensure that the ponds are not accessible to potential avian or canid desert tortoise predators or to wildlife that could drown or become entrapped within the enclosures. The Designated Biologist will have the authority to stop work and report directly to the CM to ensure compliance with the Project Description, applicant-proposed measures, and mitigation measures. The Designated Biologist will also provide the CM with weekly updates and quarterly monitoring reports. After construction has been completed, the construction monitor will provide the CM with a final monitoring report. The CM will provide BLM with weekly status updates on the status of construction and monitoring efforts and will provide BLM with copies of the quarterly monitoring reports and the final monitoring report. BLM shall be responsible for ensuring that construction monitoring is conducted during all construction activities.

#### **3.2.4.2 Desert Tortoise**

The Designated Biologist(s) responsible for desert tortoise translocation will be BLM-, USFWS-, and CDFG-approved.

#### **3.2.4.3 Special Status Plant Species and Cacti**

The Designated Biologist for surveying all areas of proposed ground disturbance for special status plant species and cacti during the appropriate blooming period for those species having the potential to occur in the construction areas will be BLM-approved.

## SECTION 4

# Reporting and Documentation

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It is anticipated that the CM and all compliance monitoring personnel will use a comprehensive quarterly summary database reporting system that is posted on a non-public, secure website (refer to Section 4.3, Non-Public and Public Project Website) and available for review to other approved jurisdictional agencies. Under this program, each entire quarterly report, consisting of all compliance levels and photographic documentation from logs, will be available each quarter and will provide the BLM Project personnel and applicable agencies with a readily accessible record of construction progress, photographic documentation, and documentation of compliance with the Project environmental requirements. The specifics of the reporting and documentation to be used for the DSSF are described in the following sections.

## 4.1 Weekly Updates

Each CMO/DB will compile his/her activity logs and contact information documents into a weekly update on the required cover and form provided in Attachments A and B, respectively. A weekly update will be maintained for the DSSF. The CMO/DB will document the construction level as a percent complete or other identifying method as agreed to by the BLM; the presence of sensitive species or habitat and culturally sensitive sites; and provide a brief description of the construction activities observed (such as road grading, erosion control, etc.). When appropriate, relevant digital photographs will be taken and included in the weekly update.

Each separate activity monitored and documented in a log will be assigned a compliance level. The compliance levels that will be used for the DSSF are as follows:

- Communication
- Acceptable
- Problem Area
- Noncompliance
- Serious Violation

### 4.1.1 Communication

A Communication Report will be prepared when necessary to document and track relevant meetings or discussions between the CM and agencies, the Holder monitors, inspectors, or other contractor personnel.

### 4.1.2 Acceptable

An Acceptable Report will be prepared when a CMO/DB determines that an inspected area or activity complies with the Project specifications and all mitigation measures have been adequately implemented.

### 4.1.3 Problem Area

The CMOs/DBs will prepare a Problem Area Report to record an observation that a location or activity does not meet the definition of acceptable but is not considered a noncompliance. The problem area category will be used to report a range of events and observations including the following:

- An incident that is accidental or unforeseeable but is not out of compliance with the Project specifications, and the Holder's, response is appropriate and timely. An example would be a fuel leak where Project personnel respond properly by stopping, containing, and cleaning up the spill in accordance with the Project specifications.
- A location where the Project is not out of compliance with the specifications but, in the judgment of the CMOs/DBs, damage to resources could occur if corrective actions are not taken. Some examples are:
  - A topsoil pile located on the bank of a drainage
  - An improperly constructed/located erosion control structure
- An activity that the CMOs/DBs determine is an unintentional and isolated departure from the Project specifications, with no damage to resources. An example would be a small amount of blading or mowing outside the access pathway that has no effect on sensitive resources such as sensitive plant habitat or a water body.

If a problem area is resolved in a timely manner, it will not be considered a noncompliance. If a problem area is found to be a repeat situation or multiple instances of a similar nature occur, is not corrected within the established time frame, or results in resource damage because timely corrective action failed to occur, the CMOs/DBs may document the problem area as a noncompliance as described in the following section.

### 4.1.4 Noncompliance

A Noncompliance Report will be issued when a CMO/DB observes an activity that violates (defined as not in compliance with) the Project specifications, building codes, or other requirements; results in damage to resources; or places sensitive resources, personal safety or worker safety at unnecessary risk. Some examples of noncompliance activities are:

- Failure to install or maintain required erosion control devices
- Surface-disturbing activities conducted without an appropriate biological, cultural, Native American/Tribal, or other resources monitor present, as necessary

The CMOs/DBs will notify the CM who will notify the Applicant's, or Holder's, compliance staff about a noncompliance before issuing a Noncompliance Report. The Noncompliance Report will include the name of the inspector or monitor and the time of notification. Where practicable and where the nature of the noncompliance activity warrants, the inspector or monitor will work closely and collaboratively with the CM to determine the appropriate corrective action.

Resolution of noncompliance activities will involve close coordination with the Holder's compliance staff, the BLM, and contractor construction supervisory personnel to ensure that the corrective measures are properly understood and implemented. It is the

responsibility of the Holder's compliance staff to provide follow-up documentation to the BLM and other agencies with appropriate jurisdiction over the issue as well as to the CM. Once the Holder documents the resolution of a noncompliance, the applicable CMO/DB will inspect the area and verify and document that the noncompliance has been adequately resolved.

#### **4.1.5 Serious Violation**

A Serious Violation Report will be issued by a CMO/DB immediately on observing an activity that is not in compliance with the Project specifications and causes substantial harm to resources or poses a serious threat to sensitive resources or worker/public safety. Examples of serious violations include deliberately conducting an activity that results in disturbance within an exclusion zone for a sensitive resource, repeated or cumulative noncompliance activities that could lead to a substantial impact on resources, and failure to correct previously identified noncompliance activities in an established time frame.

A Serious Violation Report requires that the CM and the BLM CPM participate in a conference call or meeting with the Holder's compliance staff for the Project to discuss the violation, the proper corrective actions, and possible follow-up actions that could be imposed. It will be the responsibility of the Holder's compliance staff to provide follow-up documentation to the BLM and other agencies with appropriate jurisdiction over the issue as well as to the CM. Once the Holder documents the resolution of a serious violation, the CMO/DB will inspect the area and verify that the issue has been adequately resolved.

## **4.2 Monthly Summary Reports**

Monthly Summary Reports may be issued that briefly describe construction activities during the reporting period and summarize by compliance level the number of reports completed by the CMOs/DBs during that reporting period and cumulatively for the construction period for that project phase. The Monthly Summary Report will also include a table of Problem Area and Noncompliance Reports issued by the CMOs/DBs during the reporting period and the Level 1, 2, and 3 variance requests approved by the CMOs/DBs and the CM during the reporting period. The Monthly Summary Report will also include a table summarizing the net acreage of land affected by approved variances on federal land and, for the Archeological Resources Protection Act and Endangered Species Act, nonfederal land for the reporting period as well as cumulatively. The CM's baseline electronic database reporting system will be designed to generate all the information in the tables of the Monthly Summary Report.

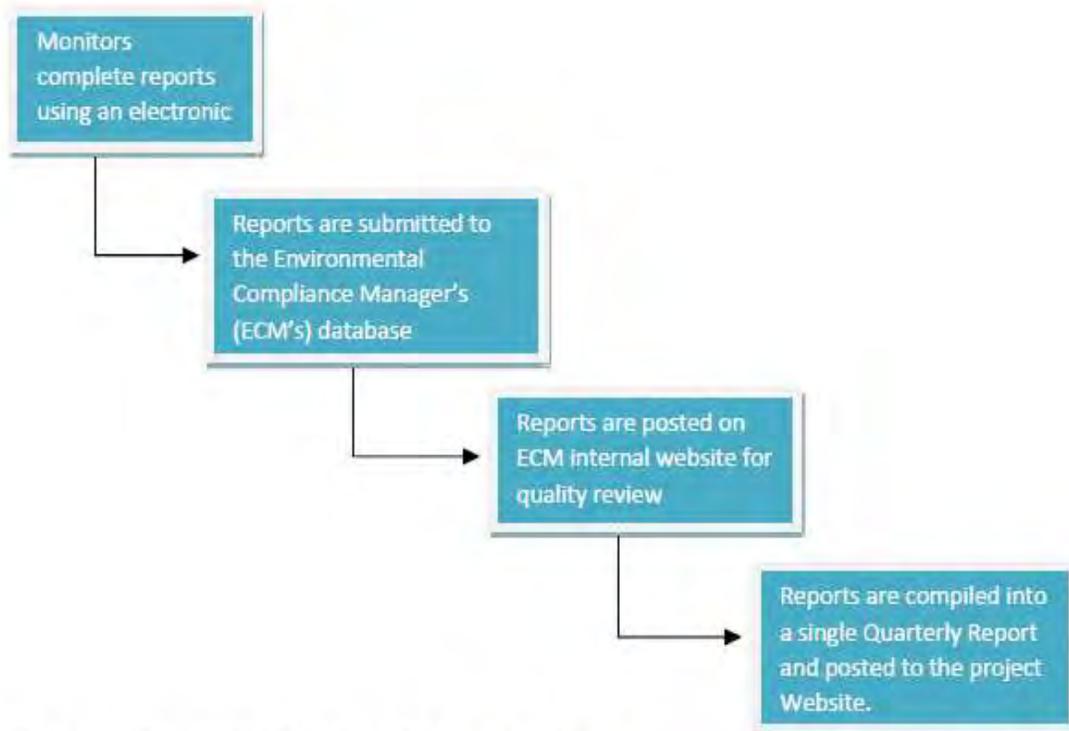
The Monthly Summary Reports will be posted on the non-public, secure Project website (refer to Section 4.3). When the Monthly Summary Report is posted, the CM will send an email to the authorized distribution that it is available. The email will include the link to the website. The BLM, CM, and the Holder representatives will be included in the distribution for the Monthly Summary Report. A sample Monthly Summary Report is provided in Attachment C.

### 4.3 Quarterly Monitoring Reports

Each CMO/DB will compile his/her weekly activity logs and contact information documents into a quarterly report on the required cover and form provided in Attachments A and B, respectively. A quarterly report will be maintained for the DSSF. The CMOs/DBs will document the construction level as a percent complete or other identifying method as agreed to by the BLM; the presence of sensitive species or habitat and culturally sensitive sites; and provide a brief description of the construction activities observed (such as road grading, erosion control, etc.). When appropriate, relevant digital photographs will be taken and included in the quarterly report.

Each separate activity monitored and documented in a log will be assigned a compliance level as stated in Section 4.1.

Inspections and relevant photo documentation completed by each CMO/DB will be sent electronically to the CM's database server at the end of each work week. At the end of each month, the separate reports will be compiled into one Quarterly Monitoring Report, reviewed by the CM, and posted on the non-public password-protected Project website (refer to Section 4.3, Non-Public and Public Project Website). A flow diagram of the electronic web-based reporting system is shown on Figure 1. When the reports are posted, the CM will send an email to the authorized distribution stating that the reports are available. The email will summarize the compliance levels for the reports issued each day and include the link to the website. The BLM, CM, and authorized Holder representatives will be included in the distribution for all reports.



**FIGURE 1**  
Electronic Web-based Reporting System

## 4.4 Non-Public and Public Project Website

The CM will establish and maintain a non-public, password-protected project website to display the weekly and monthly monitoring reports and the approved Level 1, 2, and 3 variances (refer to Section 5, Variances). The BLM and CM representatives will have access to the entire website. The Holder's representatives may have access to the website based on approval from the BLM.



## SECTION 5

# Variances

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During construction, unforeseen or unavoidable site conditions could result in the need for changes from the approved mitigation measures and construction procedures. Additionally, the need for route realignments, extra workspace, or changes to previously approved construction work areas may arise. Changes to previously approved mitigation measures, construction procedures, and construction work areas will be handled in the form of variance requests to be submitted by the Holder and reviewed and approved or denied by the BLM, with the delegation of some authority for variances to the CM. The variance process can also be a good mechanism to clarify discrepancies or inconsistencies discovered in project materials and/or to distribute information to the entire project team.

A system of three variance levels (Levels 1, 2, and 3) will be used to categorize and process variance requests. The three variance levels, the review and distribution process, and the decision-making authority proposed for each level are discussed in the following sections. A sample Variance Request Form is provided in Attachment I.

## 5.1 Level 1 Variances (Field Decisions)

Level 1 variances are site-specific, minor, performance-based changes to Project specifications, construction methods, or mitigation measures that provide equal or better protection to environmental resources or better constructability. These minor variance requests can be reviewed and either approved or denied by the CMOs/DBs in the field during normal construction operations.

Examples of Level 1 variance requests include the following:

- Allowing rubber-tired vehicles to use additional access roads that would not require any improvement to the road or repairs after construction (“like use”)
- Minor variations in site-specific plans that reflect differences in site conditions from those that were expected when the plan was developed (e.g., relocation of a spoil storage area within previously approved work areas)
- Minor changes to the Project design that are required due to site-specific restrictions

Level 1 variances may also be used to document and disseminate agency-directed changes to mitigation measures.

To initiate a Level 1 variance request, the Holder’s representative will fill out a Variance Request Form using the form in Attachment E and obtain the appropriate signatures. The Holder’s representative will then contact the CMO to review the proposed change. The Holder’s representative and the CMOs/DBs will work together to evaluate the site-specific situation and determine if the variance request is appropriate.

The CMOs/DBs may approve a Level 1 variance request if the results of implementing the change will provide equal or better protection for the resource than the original mitigation

measure or if the original mitigation measure is not applicable to that specific site. If a Level 1 variance request is approved in the field, the CMOs/DBs will sign the Variance Request Form. A Level 1 variance request can be implemented in the field as soon as it is approved by the CMO/DB.

The CMOs/DBs will document the variance approval in his/her log and will include the variance in the weekly status update (refer to Section 4.1, Weekly Status Update) and will transmit the approved form for posting on the project website (refer to Section 4.3, Non-Public and Non-Public Website).

If the requested variance exceeds the CMO's/DB's authority level, the CMO/DB will inform the Holder's representative that a Level 2 or Level 3 variance request is required.

## 5.2 Level 2 Variances

A Level 2 variance request exceeds the field decision authority of the CMO/DB and requires processing by the CM. Before the CM can issue approval of a Level 2 variance request on federal land, the CM must approve the request. Level 2 variance requests generally involve project changes that would affect an area outside the previously approved work area, but within the areas previously surveyed for cultural resources, sensitive species, and biological resources. Level 2 variance requests typically require the review of supplemental documents, correspondence, and records.

Examples of Level 2 variance requests include the following:

- The use of extra workspace outside the previously approved work area but within previously surveyed areas
- The use of existing access roads that have not been previously approved if the use would not be considered "like use" that could be approved as a Level 1 variance (refer to Section 5.1, Level 1 Variances)
- Modifications to the plans specifically different than those in the approved POD

To initiate a Level 2 variance request, the EI or other designated representative will fill out a Variance Request Form, prepare the appropriate supporting documentation, and obtain the required signatures.

The EI will complete and submit the Variance Request Form and supporting documentation by e-mail (scanned copy) or fax to the with a copy to the CM. Once the approval of the BLM CPM is obtained, the CM will process the request.

If the Level 2 variance request is approved, the CM will sign the variance request and e-mail the approved form (scanned copy) to the Holder's representatives, the EIs/CMOs/DBs, and the BLM CPM and other Compliance Contacts. The variance may be implemented in the field as soon as the approved variance is received. Verbal approval for Level 2 variance requests will not be granted. The CM will document the variance approval in the log and will include it in the weekly report (refer to Section 4.1) and post the approved Variance Request Form on the project website (refer to Section 4.3).

## 5.3 Level 3 Variances

Level 3 variance requests generally involve project changes that would affect an area outside the previously approved work area that are outside the areas previously surveyed for cultural resources, sensitive species, and biological resources, or one that would change the function, structure, technology required, or other part of the project previously approved in the POD. Level 3 variances may need to be implemented through an amendment to the ROW grant.

To initiate a Level 3 variance request, the EI or other designated representative will fill out a Variance Request Form, prepare the appropriate supporting documentation, and obtain the required signatures.

The EI will complete and submit the Variance Request Form and supporting documentation by e-mail (scanned copy) or fax to the CM. Once the approval of the BLM CPM is obtained, the CM will process the request.

Level 3 variance request approvals must be signed by the BLM CPM or the BLM AO in the case of a ROW grant amendment. The variance may be implemented in the field as soon as the approved variance is received. The CM will document the variance approval in the log and weekly status update (refer to Section 4.1) and post the approved Variance Request Form on the project website (refer to Section 4.3).



SECTION 6

# Stop Work Authority

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The BLM has the authority to stop construction of the DSSF if an activity is determined to be a deviation from the Project environmental and cultural resource protection requirements or approved construction plans authorized. This authority may be delegated to the CM as determined appropriate by the BLM.



## SECTION 7

# Training and Preconstruction Meeting

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The CM will ensure that the Holder prepares and conducts a WEAP for the construction contractor personnel prior to the start of construction. The BLM Project Manager and Compliance Contacts, CM, CMOs and DBs will participate in the WEAP to present an overview of the ECCMP and to become familiar with the Holder's environmental inspection program and personnel. The CM or the BLM CPM will explain the various components of the ECCMP, emphasizing the objectives of the ECCMP. The discussion will focus on the activities of the CMOs/DBs and their interactions with the Holder's compliance staff and construction personnel.

The monitoring and documentation of compliance issues and construction progress will be described. A clear and concise explanation will be presented with respect to the variance request decision authority that the CMOs/DBs will have in the field. Procedures that may be required to address variance requests will also be presented, as well as the time frame required for decisions to be made prior to implementation.

Before the Holder training, the CM will ensure that BLM and Holder participate in a preconstruction meeting. At that meeting, the BLM CPM will discuss the requirements of ROD, the additional stipulations, and the ROW grant as well as those of the POD. The CM and other members of the Compliance Monitoring Team will participate in this preconstruction meeting.

In addition to participation in the Holder's WEAP and the preconstruction meeting, the CM will train the CMOs/DBs in all project-specific procedures, duties, responsibilities, reporting requirements, and authorities, which includes the authority to grant variances, to complete their assigned tasks during monitoring of the DSSF construction activities.



## SECTION 8

# Equipment

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Personnel responsible for monitoring and documenting compliance with the measures in the ECCMP will require field support equipment such as notebook computers and associated software, digital cameras, cellular phones (smart phones), and vehicles for field personnel as described below. Specifically, the CM and each CMO/DB will be equipped with a digital camera and a cellular phone or other communication device.

Each Compliance Monitor will be equipped with a notebook computer and appropriate software to facilitate the compilation, transfer, and storage of data. Each Compliance Monitor will also be equipped with a digital camera, cellular phone or other communication device, and vehicle adapter. A 4-wheel drive vehicle will be provided to each full-time Compliance Monitor throughout construction to maintain access to all areas of the right-of-way.



## SECTION 9

# DSSF Operations

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Before operation of the DSSF begins, this ECCMP Plan will be modified to provide detail of roles and responsibilities for those operations, along with actions to be taken and maintained to ensure compliance with operational permits, approvals, plans and additional applicable rules. The revised document will include, at a minimum, provisions for the following:

- A Compliance Manager, in the role of ensuring compliance with the plan
- Adaptive management procedures to address change in conditions, regulations, etc.
- Means of accurately tracking compliance (e.g., compliance tracking database)
- Coordination with BLM and other agencies to report noncompliance issues
- Initial training and refresher training of personnel, commensurate with their roles and responsibilities
- Inspection and monitoring procedures
- Reporting and recordkeeping procedures
- Measures to address decommissioning of the DSSF at partial and final closure

Depending on the role and time required the CM may designate other appropriately trained staff to carry out his/her responsibilities.



**Attachment A**  
**Monitoring Report Cover Page Form**

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**PROJECT: DSSF**

**COMPLIANCE MONITORING PROGRAM**

**MONITORING REPORT COVER PAGE**

**SAMPLE MONITORING REPORT (COVER PAGE)**

The following report is a compilation of the monitoring reports issued by the Construction Monitors/Designated Biologists and/or Compliance Manager for activities conducted on [Month] [Day], 20[XX]. Should you have any questions regarding the information contained in this report, please contact MONITOR at (XXX) XXX-XXXX (office) or (XXX) XXX-XXXX (cell phone).

**Communication**  
**Acceptable**  
**Problem Area**  
**Noncompliance**  
**Serious Violation**

**Approved Level 1 Variance**  
**Approved Level 2 Variance**  
**Approved Level 3 Variance**

**Compliance Level**

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**Total Reports**



**Attachment B**  
**Monitoring Report Form**

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**PROJECT: DSSF**

**ENVIRONMENTAL INSPECTION AND MONITORING  
PROGRAM  
MONITORING REPORT**

Report Number: \_\_\_\_\_ Date of Report: \_\_\_\_\_

Construction Monitor/Designated Biologist: \_\_\_\_\_

Compliance Level: \_\_\_\_\_

Environmental Inspector: \_\_\_\_\_ Construction Method: \_\_\_\_\_

**Location**

Construction Spread: \_\_\_\_\_ Tract #: \_\_\_\_\_ Tract #: \_\_\_\_\_ Tract #: \_\_\_\_\_

Begin Milepost: \_\_\_\_\_ End Milepost: \_\_\_\_\_

Begin Station: \_\_\_\_\_ End Station: \_\_\_\_\_

Inspection Notes:

Photos:



**Attachment C**  
**BLM Authorized Officer Report**

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## **BLM Authorized Officer Weekly Report**

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Address:  
City, State Zip

Phone:  
Fax:

Website:

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**Project:** Desert Sunlight Solar Farm

### **Weekly Project Update**

**Project:**

**Week Ending:**

**Prepared By:**

### **1. Executive Summary of Current Issues**

The following construction activities were observed

onsite: **General:**

**Civil:**

**STG:**

**BOP Equipment:**

**Concrete Placement:**

**BLM Authorized Officer NOTE:**

**Plan Review Submittal Items**

Submittal Type	Description
Received, Review Pending	
Reviewed and Approved / Conditionally Approved	
Reviewed and Correction List Issues	

**Inspection:**

**2. General Activities Occurring at the Project Site**

**3. Completion Percentage of Overall Construction**

Week	Period of Projection	% Complete (projected)	% Complete (updated)

*Table Note 1:* The percentage complete is an estimate only and is not derived directly from the project schedule. *Table Note 2:* Number of weeks from Notice to Proceed/Start Date.

**4. Compliance Issues with Applicable LORS and Applicable Conditions of Certification (e.g., areas out of compliance, interpretational disagreements, etc.)**

**5. Issues of Concern with or by the Holder**

**6. Status of Interconnections (e.g., Fuel Gas, Water Connections, Electricity to Grid, etc.)**

**7. Scheduled Activities for Next Week**

**8. Potential Delays to the Online Date of the Project**

**9. Project Photographs from Week**



**Attachment D**  
**Certification of Completion of Worker**  
**Environmental Awareness Program**

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## Certification of Completion Worker Environmental Awareness Program

This is to certify these individuals have completed a mandatory Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Quarterly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			

Cultural Trainer: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Paleo Trainer: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Biological Trainer: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_



**Attachment E**  
**Variance Request Form**

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## Variance Request Form

LOGO

COMPANY  
ADDRESS  
CITY, STATE ZIP  
PHONE

Variance: \_\_\_\_\_  
Request No.: \_\_\_\_\_  
Date Submit: \_\_\_\_\_  
Date Approval Needed: \_\_\_\_\_  
Date Agency Received: \_\_\_\_\_  
Agency Approval Reference No.: \_\_\_\_\_

Request Prepared by: \_\_\_\_\_  
Spread/ Location (Milepost): \_\_\_\_\_  
Alignment Sheet / Sta. No.: \_\_\_\_\_  
Landowner: \_\_\_\_\_  
Current Land Use/ Vegetative Cover: \_\_\_\_\_  
Nearby Features (Water body, T&E Habitat, Wetland, Noxious Weed) Area, Residence, Cultural Resource Site (distance, etc.): \_\_\_\_\_

Net acreage affected: \_\_\_\_\_  
Tract No: \_\_\_\_\_

In or within 50 feet of a wetland:  Yes  No  
Within 50 feet of a water body:  Yes  No

Variance Level:  Level 1  Level 2  Level 3 (To Be Assigned by Designated Representative)

Variance From:  Permit  Plan/Procedure  Specification  Drawing  Mitigation Measure  Other:

---

**Detailed Description of Variance:** Attachments?  Yes  No Photos?  Yes  No

---

**Variance Justification:**

---

**For (Company Name) Use Only**

Additional Surveys Required	Surveyed Corridor Description	Additional Surveys Completed
Cultural Survey <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
T & E Survey <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
Report Documenting Survey:		
Sign-off (as appropriate)	Name (print)	Approval Signature
Contractor Sup't. or Env. Coordinator		<input type="checkbox"/> Yes <input type="checkbox"/> No
Lead Environmental Inspector		<input type="checkbox"/> Yes <input type="checkbox"/> No
Spread Supervisor		<input type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Field Manager		<input type="checkbox"/> Yes <input type="checkbox"/> No
ROW Agent		<input type="checkbox"/> Yes <input type="checkbox"/> No

---

**For BLM Project Manager or Compliance Contact Use Only**

Variance Approved:       Variance Denied:       Date: \_\_\_\_\_  
Signature: \_\_\_\_\_

---

**For Compliance Manager and Monitor Use Only**

Variance Approved: \_\_\_\_\_      Variance Denied: \_\_\_\_\_      Date: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Stipulations: \_\_\_\_\_

Spread:

OPPG Variance Request No.:

**VARIANCE CONDITIONS**

Name:

Title:

Organization:

Conditions:

Name:

Title:

Organization:

Conditions:

Name:

Title:

Organization:

Conditions:

**Summary of Bureau of Land Management  
Mitigation and Monitoring**

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Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>AM-AIR-1:</b> Sunlight shall develop and implement a dust control plan that includes the use of dust palliatives to ensure compliance with South Coast Air Quality Management District (SCAQMD) Rule 403.	Prior to construction	BLM	Develop and implement Dust Control Plan			
<b>AM-AIR-2:</b> Construction activity shall be phased across the Solar Farm site in a manner that would minimize the area disturbed on any single day.	During construction	See AM-AIR-1	See AM-AIR-1			
<b>AM-AIR-3:</b> Cut and fill quantities shall be balanced across the Solar Farm site to minimize emissions from grading activities and to avoid the need to import fill materials or to remove excess spoil.	During construction	See AM-AIR-1	See AM-AIR-1			
<b>AM-AIR-4:</b> Sunlight shall use power screeners to obtain sand and gravel requirements on-site.	During construction	BLM	Use power screeners			
<b>AM-AIR-5:</b> Sunlight shall arrange a shuttle bus program for construction workers, with assembly points in the Palm Springs and Blythe areas.	Prior to and during construction	BLM	Develop and implement a Shuttle Bus Program			
<p><b>MM-AIR-1:</b> Sunlight shall require all on-site construction equipment to meet EPA Tier 2 or higher emissions standards according to the following:</p> <ul style="list-style-type: none"> <li>April 1, 2010, to December 31, 2011: All off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 2 off-road emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by the California Air Resources Board (CARB). Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.</li> <li>January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.</li> <li>Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.</li> </ul> <p>A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided when each applicable unit of equipment is mobilized.</p> <p>The BLM shall require all on-site construction equipment to meet identified standards according to the schedule above, unless a good faith effort to the satisfaction of BLM demonstrates that such engines are not available for a particular item of equipment. In the event that a certain tier engine is not available for any off-road equipment larger than 50 hp, that equipment shall be equipped with the next lower tier engine (e.g., if Tier 3 is not available use Tier 2), or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than the next available tier unless certified by engine manufacturers that the use of such devices is not practical for specific engine types.</p> <p>For purposes of this condition, the use of such devices is "not practical" for the following reasons:</p> <ul style="list-style-type: none"> <li>There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to the applicable tier engine equivalent emission levels and the highest level of available control using retrofit or the applicable tier engines is being used for the engine in question; or</li> <li>The construction equipment is intended to be on site for 10 days or less.</li> </ul> <p>The BLM may grant relief from this requirement if Sunlight can demonstrate a good faith effort to comply with this requirement and that compliance is not practical.</p>	Prior to construction	BLM	<p><u>2011</u></p> <ul style="list-style-type: none"> <li>Equipment meets EPA Tier 2 emission standards</li> <li>Use BACT devices certified by CARB</li> </ul> <p><u>2012-2014</u></p> <ul style="list-style-type: none"> <li>Equipment meets EPA Tier 3 emission standards</li> <li>Use BACT devices certified by CARB</li> </ul> <p><u>Post-2015</u></p> <ul style="list-style-type: none"> <li>Equipment meets EPA Tier 4 emission standards</li> <li>Use BACT devices certified by CARB</li> <li>Documentation - Cert tier spec</li> <li>BACK doc</li> <li>CARB or SCAQMD permit</li> </ul>			
<b>MM-AIR-2:</b> Sunlight shall temporarily stockpile chipped or shredded vegetation debris from the Solar Farm site, then spread it on open areas of the site once construction activity has been completed on a subarea.	Prior to construction	BLM	Use of chipped vegetation debris			
<b>MM-AIR-3:</b> Sunlight shall provide up to four annual re-application of dust palliatives per year at the Solar Farm site to unpaved roads and parking areas and to the open areas between the rows of solar arrays.	Prior to construction	BLM	Apply dust palliatives			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>MM-AIR-4:</b> The Project construction contractor(s) shall:</p> <ul style="list-style-type: none"> <li>• Submit a transportation plan that describes how adherence to AM-AIR-5 will be achieved, thus minimizing daily construction worker trips to the maximum extent feasible;</li> <li>• Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of any issues related to PM10 generation;</li> <li>• Where available, use electricity from existing power poles rather than temporary diesel or gasoline power generators; and</li> <li>• Restrict construction delivery trucks to model year 2001 or newer.</li> </ul>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>• Develop and implement transportation plan</li> <li>• Appoint a construction relations officer</li> <li>• Minimize diesel or gasoline generators</li> <li>• Use model year 2001 or newer delivery trucks</li> </ul>			
<p><b>AM-BIO-1:</b> A <b>Habitat Compensation Plan</b> is being prepared and will be implemented by the Applicant to compensate for the loss of creosote desert scrub, desert dry wash woodland, and jurisdictional resources. Compensation will be accomplished by acquisition of mitigation land or conservation easements or by providing funding for specific land acquisition, endowment, restoration, and management actions under one of several programs including the recently approved mitigation program created by SB 34 and as required under MM-BIO-2, Off-site Compensation. The Habitat Compensation Plan will be reviewed and approved by Bureau of Land Management (BLM), the United State Fish and Wildlife Service (USFWS), and California Department of Fish and Game (CDFG). The precise details of the mitigation, including mitigation ratios, will be established in the BLM ROW grant, USFWS Biological Opinion, and CDFG 2080.1 Consistency Determination.</p> <p>At a minimum, mitigation ratios required in the NECO Plan/EIS are 1:1 for permanent impacts to creosote bush scrub, 3:1 for permanent impacts to desert dry wash woodland, and 5:1 for permanent impacts to the Chuckwalla DWMA and Chuckwalla CHU). Mitigation ratios may be greater based upon the requirements of the USFWS and CDFG. Finally, areas occupied by the burrowing owl will be mitigated at 6.5 acres per occupied burrow (which will be covered by mitigation of creosote bush scrub habitat) and creation or enhancement of two burrows will be implemented for every active burrow.</p>	Prior to construction	BLM, USFWS and CDFG	Develop and implement Habitat Compensation Plan			
<p><b>AM-BIO-2:</b> A <b>Draft Integrated Weed Management Plan (IWMP)</b> has been prepared pursuant to BLM's Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007) and the National Invasive Species Management Plan (The National Invasive Species Council 2008), and will be implemented by the Applicant to reduce the potential for the introduction of invasive species during construction, operation and maintenance, and decommissioning of the Project.</p> <p>The following measures are required in the Plan and will be implemented by the Applicant to monitor and control invasive species (details associated with these measures are provided in Section 4.3):</p> <ul style="list-style-type: none"> <li>• Preventative Measures During Construction</li> <li>• Containment and Control Measures</li> <li>• Monitoring</li> <li>• Reporting</li> <li>• Success Criteria</li> </ul>	Prior to construction	BLM	Develop and implement the IWMP			
<p><b>AM-BIO-3: Pre-Construction Surveys for Special Status Plant Species and Cacti.</b> Prior to construction, the Applicant will stake and flag the construction area boundaries, including the construction areas for the Solar Farm site and Gen-Tie Line, construction laydown, parking, and work areas; and the boundaries of all temporary and permanent access roads. A BLM-approved biologist will then survey all areas of proposed ground disturbance for special status plant species and cacti during the appropriate blooming period for those species having the potential to occur in the construction areas. All special status plant species and cacti observed will be flagged for transplantation. All cacti observed will be flagged for transplantation and special status plant species observed will be flagged for salvage.</p>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>• Stake and flag boundaries</li> <li>• Use BLM-approved biologist to conduct survey</li> <li>• Flag special status plant species and cacti</li> </ul>			
<p><b>AM-BIO-4: Worker Environmental Awareness Program (WEAP).</b> The Applicant will implement a WEAP to educate on-site workers about sensitive environmental issues associated with the Project. The program will be administered to all on-site personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The program will be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure.</p> <p>The training will place special emphasis on the special status species that have been observed in the Project locations or have a high likelihood to occur, including special status plant species, desert tortoise and other special status reptile species, Palm Springs round-tailed ground squirrel, burrowing owl, golden eagle, nesting bird species and bat species, and the American badger. BLM will be responsible for ensuring that each construction worker at the site, throughout the duration of construction activities, receives the above training.</p>	Prior to construction/ during construction	BLM	Develop and implement WEAP			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>AM-BIO-5:</b> The Applicant will prepare and implement a <b>Vegetation Resources Management Plan</b> that contains the following components (additional detail is provided in Section 4.3):</p> <ul style="list-style-type: none"> <li>A Vegetation Salvage Plan which discusses the methods that will be used to transplant cacti present within the Project locations following BLM's standard operating procedures, as well as methods that will be used to transplant special status plant species that occur in the Project locations if feasible.</li> </ul> <p>The Vegetation Salvage Plan and Restoration Plan will specify success criteria and performance standards as required per MM BIO-4, Salvage and Restoration Plan Performance Standards. BLM will be responsible for reviewing and approving the Plan and for ensuring that the Applicant implements the Plan including maintenance and monitoring required in the Plan.</p>	Prior to construction	BLM	Develop and implement Vegetation Salvage Plan			
<p><b>AM-BIO-5:</b> A <b>Restoration Plan</b> which discusses the methods that will be used to restore creosote bush scrub and desert dry wash woodland habitat that is temporarily disturbed by construction activities.</p> <p>The Vegetation Salvage Plan and Restoration Plan will specify success criteria and performance standards as required per MM BIO-4, Salvage and Restoration Plan Performance Standards. BLM will be responsible for reviewing and approving the Plan and for ensuring that the Applicant implements the Plan including maintenance and monitoring required in the Plan.</p>	Prior to construction	BLM	Develop and implement Restoration Plan			
<p><b>MM-BIO-1: Construction Monitoring.</b> A BLM approved biologist shall conduct construction monitoring during all construction activities to ensure that construction activities are contained within the staked and flagged construction areas at all times. The construction monitor shall also be present during all ground disturbing activities to either actively or passively relocate special status wildlife species, other than the desert tortoise, nesting bird species, and burrowing owl found within the construction zones to a suitable location outside of the project footprint. The construction monitor shall also inspect fencing and netting at all construction ponds to ensure that the ponds are not accessible to potential avian or canid desert tortoise predators or to wildlife that could drown or become entrapped within the enclosures. Netting and fencing must prevent the ponds from becoming water source "subsidies" to predators or from becoming hazards to native wildlife. The construction monitor shall have the authority to stop work and report directly to the Applicant's Environmental Manager (EM) to ensure compliance with the Project Description, applicant-proposed measures, and mitigation measures. The construction monitor shall provide the Applicant's EM with weekly updates and quarterly monitoring reports. After construction has been completed, the construction monitor shall provide the Applicant's EM with a field monitoring report. The Applicant's EM shall provide BLM with weekly status updates on the status of construction and monitoring efforts and shall provide BLM with copies of the quarterly monitoring reports and the final monitoring report. BLM shall be responsible for ensuring that construction monitoring is conducted during all construction activities.</p>	During construction	BLM	<ul style="list-style-type: none"> <li>Use BLM-approved biologist for monitoring</li> <li>Conduct construction monitoring</li> <li>Stop work if conditions warrant</li> <li>Provide weekly status updates to BLM</li> <li>Provide quarterly monitoring reports to BLM</li> <li>Provide final monitoring report to BLM</li> </ul>			
<p><b>MM-BIO-2, Off-site Compensation:</b></p> <p>1. This Mitigation Measure provides further detail and specificity to the habitat compensation land requirements described in Applicant Measure AM-BIO-1. The draft Habitat Compensation Plan shall be revised to reflect acreages and habitat types as described herein. The revised habitat Compensation Plan shall be submitted for approval to BLM, USFWS, and CDFG before its finalization and implementation. The Applicant shall acquire and protect, in perpetuity, compensation habitat to mitigate impacts to biological resources listed below. The compensation lands shall be placed under conservation management to be funded through the terms described herein. The acreages and ratios shall be based upon final calculation of impacted acreage for each resource and on ratios set forth in Applicant Measure AM-BIO-1 and in the draft Habitat Compensation Plan dated 17 Dec 2010. Acreages of anticipated compensation requirements as summarized throughout this measure are based on impacts analysis of Alternative 1 in Sections 4.3 and 4.4 and ratios described in Applicant Measure AM-BIO-1. Acreages shall be adjusted as appropriate for other alternatives.</p> <ul style="list-style-type: none"> <li>Desert dry wash woodland (101 acres at 3:1 ratio).</li> <li>Occupied desert tortoise habitat (2,757 acres at 1:1 ratio; 1,214 acres at 2:1 ratio; 191 acres at 5:1 ratio).</li> <li>Occupied or suitable habitat for breeding or wintering burrowing owls (13 acres for each occupied burrow, estimated as two burrows),</li> <li>State-jurisdictional streambeds (302 acres, including the desert dry wash woodland, above, at 3:1 ratio),</li> <li>Creosote bush scrub (4,072 acres at 1:1 ratio).</li> <li>Occupied foxtail cactus habitat (estimated as two acres, at 1:1 ratio),</li> <li>Undisturbed habitat for most wildlife species including desert kit fox and American badger (i.e., away from sources of noise or other disturbance such as highways, wind farms, etc.) (4,173 acres, at 1:1 ratio),</li> <li>Occupied chuckwalla and rosy boa habitat (Red Bluff Substation A site, 149 acres, at 1:1 ratio),</li> <li>Suitable/occupied upland shrubland nesting habitat for migratory birds (4,173 acres, at 1:1 ratio),</li> </ul>	Prior to construction	See AM-BIO-1	See AM-BIO-1			



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<ul style="list-style-type: none"> <li>Suitable foraging habitat for golden eagles, and within foraging range of a known nesting site (4,173 acres, at 1:1 ratio),</li> <li>Suitable or occupied roosting habitat for special status bats (101 acres desert dry wash woodland at Solar Farm B and 149 acres rocky slopes at Red Bluff Substation A), and</li> <li>Suitable or occupied habitat for Palm Springs round-tailed ground squirrel (estimated as 92 acres, based on Gen-Tie Line A-1 disturbance), Colorado Valley woodrat (estimated as 149 acres at Red Bluff Substation A location).</li> </ul> <p>Of the resources listed above, BLM's focus is on desert dry wash woodland, occupied desert tortoise habitat, occupied or suitable habitat for breeding or wintering burrowing owls, and state-jurisdictional streambeds.</p> <p>Under Alternative 1, a total of 4,176 acres would be disturbed. Total habitat compensation lands shall be no fewer than 6,707 acres, including, at minimum, 6,140 acres of occupied desert tortoise habitat and 819 acres of state-jurisdictional streambeds (including at least 288 acres of desert dry wash woodland). Further details are described in text and Table 4.3-10, below. Final compensation requirements shall be adjusted to account for any deviations in project disturbance, according to final design, as-built project footprint or, if a different Project alternative is approved, adjusted to reflect that alternative. Desert Sunlight shall be responsible for all compensation for habitat disturbance at the Solar Farm Layout and Gen-Tie Lines; SCE shall be responsible for all compensation for habitat disturbance at the Red Bluff Substation site.</p> <p><b>TABLE 4.3-10</b> Minimum Total Compensation Acreage</p> <table border="1"> <thead> <tr> <th>Resource</th> <th>Acres of Impact</th> <th>Compensation Ratio</th> <th>Compensation Acres</th> </tr> </thead> <tbody> <tr> <td>Previously disturbed (no compensation)</td> <td>3</td> <td>0</td> <td>0</td> </tr> <tr> <td>Desert tortoise habitat (moderate density)<sup>a</sup></td> <td>1,214</td> <td>2:1</td> <td>2,428</td> </tr> <tr> <td>State-jurisdictional desert dry wash and desert dry wash woodland (302 ac.), less 24 acres desert dry wash woodland within DWMA/ CHU<sup>b</sup></td> <td>278</td> <td>3:1</td> <td>834 (to include 288 acres dry wash woodland)</td> </tr> <tr> <td>Wildlife Management Areas Chuckwalla DWMA, Chuckwalla CH<sup>c</sup></td> <td>191</td> <td>5:1</td> <td>955</td> </tr> <tr> <td>Balance of total project disturbance 4,176 – (3 + 1,214 + 278 + 191) = 2,490</td> <td>2,490</td> <td>1:1</td> <td>2,490</td> </tr> <tr> <td><b>Minimum Total Habitat Compensation Requirement</b></td> <td></td> <td></td> <td><b>6,707</b></td> </tr> </tbody> </table> <p><sup>a</sup> Draft Habitat Compensation Plan, Table 2 (Desert Sunlight Holdings, 17 Dec 2010) <sup>b</sup> Table 4.3-5 Summary of Impacts on Jurisdictional Resources <sup>c</sup> Table 4.4-5</p> <p>2. Of the total acreage to be disturbed under Alternative 1, three (3) acres have been previously disturbed and no compensation is required; 1,214 acres are moderate-density occupied desert tortoise habitat to be compensated at a ratio of 2:1; 302 acres (including 101 acres of desert dry wash woodland) are state-jurisdictional streambeds to be compensated at a ratio of 3:1; and 191 acres are within the Chuckwalla DWMA and/or Chuckwalla Critical Habitat Unit, to be compensated at a ratio of 5:1.</p> <p>3. Compensation habitat for biological resources may be "nested." For example, compensation for the roosting habitat of bats that roost in desert dry wash woodland (Appendix H) would be fulfilled by desert dry wash woodland compensation lands, and would be counted as providing compensation for both the roosting bats and desert dry wash woodland. Similarly, compensation for the roosting habitat of bats that roost in rock crevices (Appendix H) may be fulfilled by compensation lands that also provide habitat for rosy boa and chuckwalla. Thus, compensation for impacts to bat roosting habitat may be fully nested within other compensation requirements.</p>	Resource	Acres of Impact	Compensation Ratio	Compensation Acres	Previously disturbed (no compensation)	3	0	0	Desert tortoise habitat (moderate density) <sup>a</sup>	1,214	2:1	2,428	State-jurisdictional desert dry wash and desert dry wash woodland (302 ac.), less 24 acres desert dry wash woodland within DWMA/ CHU <sup>b</sup>	278	3:1	834 (to include 288 acres dry wash woodland)	Wildlife Management Areas Chuckwalla DWMA, Chuckwalla CH <sup>c</sup>	191	5:1	955	Balance of total project disturbance 4,176 – (3 + 1,214 + 278 + 191) = 2,490	2,490	1:1	2,490	<b>Minimum Total Habitat Compensation Requirement</b>			<b>6,707</b>					
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<p>4. Where impacted habitats meet criteria as two or more compensation ratios, the highest ratio will apply. For example, the Red Bluff Substation A site would affect a total of 149 acres, all within the Chuckwalla DWMA and CHU (Table 4.4-5); impacts to the Chuckwalla DWMA and CHU would require mitigation at a 5:1 ratio. Although 29 of the 149 acres are desert dry wash woodland (Table 4.3-6) would require compensation at a lower, 3:1 ration (if they were outside the DWMA and CHU), all 149 acres of impacts to the Chuckwalla DWMA and CHU shall be compensated at the 5:1 ratio. However, compensation lands for desert dry wash woodland at the 3:1 ratio (i.e., 87 acres) may be nested within the overall 5:1 compensation,</p> <p>5. Compensation land selection criteria. Criteria for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of compensation lands for impacts to biological resources shall include all, or as many as practicable in the judgment of BLM, USFWS, and CDFG, of the following:</p> <ul style="list-style-type: none"> <li>a. compensation lands selected for acquisition to meet BLM, USFWS, CDFG, and CPUC requirements shall be equal to or better than the quality and function of the habitat impacted;</li> <li>b. provide habitat acreage with capacity to regenerate naturally when disturbances are removed;</li> <li>c. be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;</li> <li>d. be contiguous and biologically connected to lands currently occupied by the relevant species ideally with populations that are stable, recovering, or likely to recover;</li> <li>e. not have a history of intensive recreational use or other disturbance that might cause future erosional damage or other habitat damage, and make habitat recovery and restoration infeasible;</li> <li>f. not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;</li> <li>g. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat;</li> <li>h. must provide wildlife movement value equal to that on the Project site; and</li> <li>i. have <u>non-severed</u> water and mineral rights included as part of the acquisition, unless the BLM, in consultation with CDFG and USFWS, agree in writing to the acceptability of land without these rights.</li> <li>j. Additional selection criteria for desert tortoise compensation lands. <ul style="list-style-type: none"> <li>i. compensation lands for impacts to desert tortoise shall be within the Eastern Colorado Desert Tortoise Recovery Unit, and</li> <li>ii. shall have potential to contribute to desert tortoise habitat connectivity and build linkages between desert tortoise designated critical habitat, known populations of desert tortoise, and/or other preserve lands;</li> </ul> </li> <li>k. Additional Selection Criteria for special-status plant compensation lands. The compensation lands selected for acquisition for impacts to special-status plants shall include at least one of the following categories: <ul style="list-style-type: none"> <li>i. Occupied Habitat, No Habitat Threats: The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction).</li> <li>ii. Unoccupied but Adjacent. The Project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The Project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat.</li> </ul> </li> <li>l. If all or any portion of the acquired compensation lands meets the habitat occupancy or suitability requirement for more than one of the resources listed above, that portion of those compensation lands may also be used to fulfill that portion of the obligation to acquire compensation lands to mitigate impacts to those resources.</li> </ul>						



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<p>6. The total amount of compensation mitigation lands required under this measure may exceed the requirements of AM BIO-1, in order to provide mitigation for all of the resources identified in this measure.</p> <p>7. Review and Approval of Compensation Lands Prior to Acquisition. The Project owner shall submit a formal acquisition proposal to the BLM, USFWS, and CDFG describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands in relation to the selection criteria listed above, and must be approved by the BLM in coordination with CDFG and USFWS.</p> <p>8. Management Plan. The Project owner or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the biological resources. The Management Plan shall be submitted for review and approval to the BLM, in consultation with CDFG and USFWS.</p> <p>9. Compensation Lands Acquisition Requirements. The Project owner shall comply with the following requirements relating to acquisition of the compensation lands after the BLM, USFWS, and CDFG have approved the proposed compensation lands:</p> <p>a. Preliminary Report. The Project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the BLM, USFWS, and CDFG. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the BLM. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.</p> <p>b. Title/Conveyance. The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the BLM USFWS, and CDFG. Any transfer of a conservation easement or fee title must be to CDFG, to a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code Section 65965), or to BLM or other public agency approved by the BLM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the BLM. If an entity other than CDFG holds a conservation easement over the compensation lands, the BLM may require that CDFG or another entity approved by the BLM, USFWS, and CDFG, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the BLM, USFWS, and CDFG of the terms of any transfer of fee title or conservation easement to the compensation lands.</p> <p>c. Initial Protection and Habitat Improvement. The Project owner shall fund activities that the BLM require for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities are estimated to be \$330 per acre of compensation land, but actual costs will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code Section 65965), if it meets the approval of the BLM in consultation with USFWS and CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.</p> <p>d. Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the BLM before it can be used to establish funding levels or management activities for the compensation lands.</p>						



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<p>e. Long-term Maintenance and Management Funding. The Project owner shall provide money to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be \$1,450 for every acre of compensation lands. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment, the Project owner shall either: (i) provide initial payment equal to the amount of \$1,450 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the BLM under subsection (g), "Mitigation Security," below, in an amount equal to \$1,450 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area. If an initial payment is made based on the estimated per-acre costs, the Project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than \$1,450 per acquired acre will be required for long-term maintenance and management, the excess paid will be returned to the Project owner. The Project owner must obtain the BLM's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The BLM will consult with USFWS and CDFG before deciding whether to approve an entity to hold the Project's long-term maintenance and management funds.</p> <p>The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:</p> <p>i. Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the BLM and is designed to protect or improve the habitat values of the compensation lands.</p> <p>ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the BLM, USFWS, and CDFG or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.</p> <p>iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the BLM, USFWS, and CDFG.</p> <p>f. Other Expenses. In addition to the costs listed above, the Project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.</p> <p>g. Mitigation Security. No fewer than 30 days prior to ground disturbance, the Project owner shall provide financial assurances to the BLM to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing Project activities. Financial assurances shall be provided to the BLM, USFWS, and CDFG in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the BLM, USFWS, and CDFG. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the BLM, USFWS, and CDFG, the Project owner shall obtain BLM, USFWS, and CDFG approval of the form of the Security. The BLM, USFWS, and CDFG may draw on the Security if the BLM, USFWS, and CDFG determine the Project owner has failed to comply with the requirements specified in this condition. The BLM, USFWS, and CDFG may use money from the Security solely for implementation of the requirements of this condition. The BLM, USFWS, and CDFG use of the Security to implement measures in this condition may not fully satisfy the Project owner's obligations under this condition, and the Project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.</p> <p>Security for the requirements of this condition shall be calculated as shown in Table 4.3-11. However, regardless of the amount of the security or actual cost of implementation, the project owner shall be responsible for implementing all aspects of this condition, including acquisition and protection of additional habitat acreage if necessary to compensate for all impacts listed in Section 1 of this Mitigation Measure.</p>						



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<p><b>TABLE 4.3-11</b> Biological Resource Compensation/Mitigation Cost Estimate<sup>a</sup>/ Table of Estimated Costs<sup>b</sup></p> <table border="1"> <thead> <tr> <th>Task</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>1. Land Acquisition (6,707 acres)</td> <td>\$1,000 per acre<sup>c</sup></td> </tr> <tr> <td>2. Level 1 Environmental Site Assessment (42 parcels at estimated 160-acre average parcel size)</td> <td>\$3,000 per parcel<sup>d</sup></td> </tr> <tr> <td>3. Appraisal</td> <td>\$5,000 per parcel</td> </tr> <tr> <td>4. Initial site work - clean-up, enhancement, restoration</td> <td>\$330 per acre<sup>e</sup></td> </tr> <tr> <td>5. Closing and Escrow Costs – One transaction includes landowner to third party and third party to agency</td> <td>\$5,000 per transaction</td> </tr> <tr> <td>6. Biological survey for determining mitigation value of land (habitat based with species specific augmentation)</td> <td>\$5,000 per parcel</td> </tr> <tr> <td>7. Third party administrative costs - includes staff time to work with agencies and landowners; develop management plan; oversee land transaction; organizational reporting and due diligence; review of acquisition documents; assembling acres to acquire....</td> <td>10% of land acquisition cost (#1)</td> </tr> <tr> <td>8. Agency costs to review and determine accepting land donation - includes two physical inspections; review and approval of the Level 1 ESA assessment; review of all title documents; drafting deed and deed restrictions; issue escrow instructions; mapping the parcels.</td> <td>15% of land acquisition costs (#1) × 1.17 (17% of the 15% for overhead)</td> </tr> <tr> <td><b>Subtotal - Acquisition &amp; Initial Site Work</b></td> <td><b>\$11,524,000</b></td> </tr> <tr> <td>1 Long-term Management and Maintenance (LTMM) Fund - includes land management; enforcement and defense of easement or title [short and long term]; monitoring....</td> <td>\$1,450 per acre<sup>f</sup></td> </tr> <tr> <td><b>Total (if compensation not implemented through NFWF account)</b></td> <td><b>\$21,249,000</b></td> </tr> <tr> <td colspan="2"><b>NFWF Fees</b></td> </tr> <tr> <td>10. Establish the project specific account</td> <td>\$12,000</td> </tr> <tr> <td>11. NFWF management fee for acquisition &amp; initial site work</td> <td>3% of SUBTOTAL</td> </tr> <tr> <td>12. NFWF Management fee for LTMM Fund</td> <td>1% of LTMM Fund</td> </tr> <tr> <td><b>Total for deposit in REAT-NFWF Project Specific Account</b></td> <td><b>\$21,704,000</b></td> </tr> </tbody> </table> <p><sup>a</sup> All costs are best estimates as of spring 2011. Actual costs will be determined at the time of the transactions and may change the funding needed to implement the required mitigation obligation. Note: regardless of the estimates, the developer is responsible for providing adequate funding to implement the required mitigation.</p> <p><sup>b</sup> Companion table to the excel spreadsheet with formulas.</p> <p><sup>c</sup> Generalized estimate taking into consideration a likely jump in land costs due to demand, and an 18-24 month window to acquire the land after agency decisions are made. If the agencies, developer, or 3<sup>rd</sup> party has better, credible information on land costs in the specific area where project-specific mitigation lands are likely to be purchased, that data overrides this general estimate. Note: regardless of the estimates, the developer is responsible for providing adequate funding to implement the required mitigation.</p> <p><sup>d</sup> For the purposes of determining costs, a parcel is 160 acres.</p> <p><sup>e</sup> Based on information from CDFG.</p> <p><sup>f</sup> Estimate for purposes of calculating general costs. The actual long term management and maintenance costs will be determined using a Property Assessment Report (PAR) tailored to the specific acquisition.</p>							Task	Cost	1. Land Acquisition (6,707 acres)	\$1,000 per acre <sup>c</sup>	2. Level 1 Environmental Site Assessment (42 parcels at estimated 160-acre average parcel size)	\$3,000 per parcel <sup>d</sup>	3. Appraisal	\$5,000 per parcel	4. 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8. Agency costs to review and determine accepting land donation - includes two physical inspections; review and approval of the Level 1 ESA assessment; review of all title documents; drafting deed and deed restrictions; issue escrow instructions; mapping the parcels.	15% of land acquisition costs (#1) × 1.17 (17% of the 15% for overhead)																																												
<b>Subtotal - Acquisition &amp; Initial Site Work</b>	<b>\$11,524,000</b>																																												
1 Long-term Management and Maintenance (LTMM) Fund - includes land management; enforcement and defense of easement or title [short and long term]; monitoring....	\$1,450 per acre <sup>f</sup>																																												
<b>Total (if compensation not implemented through NFWF account)</b>	<b>\$21,249,000</b>																																												
<b>NFWF Fees</b>																																													
10. Establish the project specific account	\$12,000																																												
11. NFWF management fee for acquisition & initial site work	3% of SUBTOTAL																																												
12. NFWF Management fee for LTMM Fund	1% of LTMM Fund																																												
<b>Total for deposit in REAT-NFWF Project Specific Account</b>	<b>\$21,704,000</b>																																												



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p>The Project owner may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the Project owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement and additional fees, management funds, and other costs associated with the NFWF account. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the Project owner, the Project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, and the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the Project owner.</p> <p>i. The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the BLM, USFWS, and CDFG. Such delegation shall be subject to approval by the BLM, in consultation with CDFG and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months after the NTP and reflect that the compensation is for the acres covered under that NTP(s).</p> <p>j. The Applicant may choose to compensate and mitigate for impacts to state-listed endangered species pursuant to §2081 of the California Endangered Species Act using one or both of the "in-lieu fee" or "advance mitigation" mechanisms set forth in SB 34. Compensation lands acquired through SB 34 may in whole or in part satisfy the compensation habitat requirements set forth in this mitigation measure, only to the extent that they do in fact provide habitat values and mitigation for significant impacts to the species and biological resources identified above, and are consistent with the selection criteria described above.</p>						
<p><b>MM-BIO-3: Implement Transplantation.</b> Cacti flagged for transplantation per AM-BIO-3 shall be transplanted per the Vegetation Salvage Plan described in AM-BIO-5 and special status plant species shall be salvaged per the Vegetation Salvage Plan described in AM-BIO-5. The Applicant shall be responsible for ensuring that all workers at the site, throughout the duration of construction, operation, and decommissioning activities, receives the training described in AM-BIO-4, above. Specific language in Mitigation Measure BIO-3 will take precedence over any discrepancy with the Applicant Measures cited herein.</p>	Prior to construction	See AM-BIO-3, AM-BIO-4 and AM-BIO-5	See AM-BIO-3, AM-BIO-4 and AM-BIO-5 [BIO-3 will take precedence over any discrepancy with the Applicant Measures cited herein.]			
<p><b>MM-BIO-4: Salvage and Restoration Plan Performance Standards.</b> Salvage will occur prior to construction in any area of the proposed Project as described in the approved Vegetation Salvage Plan (described in AM-BIO-5). Post-Project seeding and planting (revegetation) will occur at the decommissioning phase of the Project as described under an approved Restoration Plan (AM- BIO-5). Both salvage and revegetation efforts shall be monitored yearly and shall continue for a period of no less than 10 years or until the defined performance standards are achieved (whichever is sooner).</p> <p>The following performance standards must be met by the end of the monitoring period: (a) at least 80% of the species and vegetative cover observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; (b) absolute cover and density of native plant species within the revegetated areas shall equal at least 60% of the pre-disturbance or reference vegetation cover; and (c) the site shall have gone without irrigation or remedial planting for a minimum of three years prior to completion of monitoring.</p> <p>Remediation activities (e.g., whether additional planting, removal of non-native invasive species, or erosion control) shall be taken during the 10-year period if necessary to ensure the success of the revegetation effort. If the mitigation fails to meet the established performance standards after the 10-year maintenance and monitoring period, monitoring and remedial activities shall extend beyond the 10-year period until the performance standards are met, unless otherwise specified by the BLM.</p> <p>As needed to achieve performance standards, the project owner shall be responsible for replacement planting or other remedial action as agreed to by BLM. Replacement plants shall be monitored with the same survival and growth requirements as required for original revegetation plantings.</p> <p>If a fire or flood damages a revegetation area within the 10-year monitoring period, the owner shall be responsible for a one-time replacement. If a second fire or flood occurs, no replanting is required, unless the event is caused by the owner's activity (as determined by BLM or other firefighting agency investigation).</p>	Prior to construction	See AM-BIO-5	See AM-BIO-5			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>MM-BIO-5, Desert Dry Wash Woodland Monitoring and Reporting Plan.</b> In addition to complying with MM-WAT-3 (Groundwater Level Monitoring, Mitigation, and Reporting), the Project owner shall prepare and submit a Desert Dry Wash Woodland Monitoring and Reporting Plan to BLM for review and approval prior to commencing project-related pumping activities. Upon approval, the Project owner shall finalize and implement the Plan. The Desert Dry Wash Woodland Monitoring and Reporting Plan shall outline the following information and actions:</p> <ol style="list-style-type: none"> <li>1. Prior to Project operations, the baseline health and vigor of three (3) potential groundwater dependent plant species (desert ironwood, blue palo verde, and smoke tree) shall be recorded within four zones: immediately off-site at the project boundary, and at ¼-mile, ½-mile and 1-mile distances from proposed Project production wells. At minimum, the baseline conditions for 10 individuals for each of the target species within each sampling zone shall be recorded. At least one "control" site, at least 2 miles from the project site, shall also be sampled.</li> <li>2. A qualified botanist or plant physiologist shall develop a sampling protocol to be carried out in desert dry wash woodland at each sampling zone (above) and control site to monitor stress and mortality of target plants once operations begin. The protocol shall include a measure of pre-dawn water potential, as measured by standard plant physiology techniques. Through corresponding this data to climate factors and groundwater monitoring data collected under MM-WAT-3 as well as the control site, the survey shall, where possible, identify under what circumstances each factor may have the greatest effect on plants. This protocol shall be developed in coordination with BLM and CDFG shall be approved by BLM and CDFG.</li> <li>3. If a significant difference in plant stress or mortality are shown in one or more sample locations in comparison to the control site, the Project owner shall coordinate with BLM and CDFG to determine if the plant stress is due to climate factors (e.g., drought), pathogens (disease, insect infestation, etc.), or project activities. The Desert Dry Wash Woodland Monitoring and Reporting Plan shall identify what constitutes a significant difference in plant stress or mortality under this mitigation measure. If it is related to project activities, then the Project owner shall either refrain from pumping, reduce groundwater pumping to allow for recovery of the groundwater table, or provide additional habitat compensation as described below.</li> </ol> <p>Quarterly Desert Dry Wash Woodland Monitoring summary memos shall be submitted to BLM and CDFG-during the construction period of the Project. In addition, a Desert Dry Wash Woodland Monitoring reports shall be submitted on the third year following completion of construction of the Project. The summary memos shall contain the monitoring data required as part of the monitoring program requirements under MM-WAT-3. In addition, each Desert Dry Wash Woodland Monitoring Report shall provide maps and text discussion of each study site, changes in plant health and vigor, changes in groundwater levels in the production wells, and the year's monitoring data.</p> <p>If results of the groundwater monitoring program under MM-WAT-3 indicate that the project pumping has resulted in water level decline of 5 feet or more below the baseline trend, and vegetation monitoring for plant stress, mortality, and water potential have documented one or more of the sampling sites for the four groundwater dependent plant species as reaching the threshold (above), the Project owner shall reduce groundwater pumping until water levels stabilize or recover, provide for temporary supplemental watering, or compensate for additional impacts to desert dry wash woodland at the ratio of 3:1, consistent with Mitigation Measure MM-BIO-2. Estimated acreage of additional dry wash woodland impacts shall be submitted to BLM and CDFG for approval. Upon approval, the Project owner shall initiate compensation according to the requirements and conditions for habitat compensation as described in Mitigation Measure MM-BIO-2.</p> <p>At the conclusion of the 3-year monitoring period for Desert Dry Wash Woodland following completion of Project construction, the Project owner and BLM shall jointly evaluate the effectiveness of the Desert Dry Wash Woodland Monitoring and Reporting Plan and determine if monitoring frequencies or procedures should be revised, extended to the operation and decommissioning periods, or eliminated. Should additional data be forthcoming to demonstrate that this potential impact is not verifiable or attributable to this specific project or found inconsistent with state or federal statute, it may be modified or eliminated.</p>	Prior to construction	BLM, CDFG	Develop and implement Desert Dry Wash Woodland Monitoring and Reporting Plan			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>AM-WIL-1: A Draft Desert Tortoise Translocation Plan</b> has been prepared for the Project and will be implemented by the Applicant to ensure that construction monitoring will be conducted by a BLM-, USFWS-, and CDFG-approved biologists during all construction activities and that any desert tortoise found with the construction zone will be translocated to a suitable location outside of the project footprint. The final plan will conform to the 2010 USFWS desert tortoise relocation guidelines entitled Translocation of Desert Tortoises (Mojave Population) From Project Sites: Plan Development Guidance. Unpublished Report dated August 2010.</p> <p>The Desert Tortoise Translocation Plan contains an analysis of several recipient sites for desert tortoises to be translocated from the Solar Farm site. The final selected recipient site will be determined by BLM, the USFWS, and CDFG. Desert tortoises found along the linear components of the Project, including the Gen-Tie Line, Telecommunications site, and access roads will be relocated out of harm's way pursuant to USFWS guidance (USFWS. 2009. Desert Tortoise Field Manual. Ventura Fish and Wildlife Office, Ventura, California). Specifically, biological monitors will be present during all construction activities to ensure that active burrows are avoided. If a desert tortoise is found, the tortoise will be allowed to passively traverse the site while construction in the immediate area is halted. If the tortoise does not move out of harm's way after approximately 20 minutes, a biologist authorized to handle desert tortoise, will actively move the animal out of harm's way. Vehicles parked in desert tortoise habitat will be inspected immediately prior to being moved. If a tortoise is found beneath a vehicle, a biologist authorized to handle desert tortoise will be contacted to move the animal out of harm's way, or the vehicle will not be moved until the desert tortoise leaves of its own accord.</p> <p>For desert tortoises in the Solar Farm site, they will be relocated using the following phased translocation process:</p> <ul style="list-style-type: none"> <li>• Installation of Perimeter Fencing</li> <li>• Clearance Surveys and Translocation</li> <li>• Long-term Monitoring</li> <li>• Reporting</li> </ul> <p>During the construction and operations and maintenance phases of the Project, additional BMPs will also be implemented by the Applicant.</p>	Prior to construction/ during construction	BLM, USFWS, CDFG	Implement Draft Desert Tortoise Translocation Plan			
<p><b>AM-WIL-2: Contribute to a USFWS Regional Raven Management Plan.</b> The Applicant shall contribute to the USFWS Regional Raven Management Program by making a one-time payment of \$105 per acre of Project disturbance to the national Fish and Wildlife Federation Renewable Energy Action Team raven control account. A Raven Management Plan has been prepared and will be implemented by the Applicant to minimize the potential for the Project to attract ravens to the Project site.</p>	Prior to construction/ during construction	BLM, USFWS, CDFG	<ul style="list-style-type: none"> <li>• Remit payment of \$105 per acre disturbed</li> <li>• Implement Raven Management Plan</li> </ul>			
<p><b>AM-WIL-3: A Draft Avian and Bat Protection Plan</b> has been prepared and will be implemented by the Applicant to specify necessary actions to be taken to protect nesting bird and bat species, including burrowing owls, nesting birds, and roosting bats. The final plan will conform to the 2010 USFWS avian and bat guidelines entitled Considerations for Avian and Bat Protection Plans USFWS White Paper.</p>	Prior to construction	BLM, USFWS, CDFG	Implement Draft Avian and Bat Protection Plan			
<p><b>AM-WIL-4: Construction Water Storage Pond Design.</b> The temporary construction water ponds shall be designed, constructed, and operated in compliance with all applicable regulatory requirements with respect to design, operation, and maintenance, protection of migratory waterfowl, and raven management.</p>	Prior to construction	BLM, USFWS, CDFG	<ul style="list-style-type: none"> <li>• Construction Water Storage Pond Design</li> <li>• Monitored daily during construction</li> <li>• Dismantled at end of construction</li> </ul>			
<p><b>MM-WIL-1. American Badger and Desert Kit Fox Protection Plan Monitoring and Mitigation.</b> To avoid direct impacts to American badgers or desert kit foxes, pre-construction surveys shall be conducted for these species concurrent with the desert tortoise surveys. Surveys shall be conducted as described below:</p> <p>Biological Monitors shall perform pre-construction surveys for badger and kit fox dens in the Project area, including areas within 90 feet of all Project facilities, utility corridors, and access roads. Surveys may be concurrent with desert tortoise surveys. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active.</p> <p>Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit foxes. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, and especially if high or low ambient temperatures could potentially result in harm to badger or kit fox from burrow exclusion, various passive hazing methods may be used to discourage occupants from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit foxes are trapped in the den. In the event that passive relocation techniques fail, the Applicant will contact the California Department of Fish and Game to explore other relocation options, which may include trapping.</p>	Prior to construction	BLM, CDFG	<ul style="list-style-type: none"> <li>• Conduct pre-construction surveys</li> <li>• Classify dens found</li> <li>• Excavate inactive dens</li> <li>• Monitor potentially and active dens</li> <li>• If needed, contact CDFG to discuss relocation options</li> </ul>			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>MM-WIL-2. Nelson's Bighorn Sheep Monitoring and Mitigation.</b> To avoid impacts to Nelson's Bighorn Sheep, pre-construction surveys shall be conducted within 30 days prior to the start of construction. If no occurrence is documented than no further mitigation, compensation, plans or other action would be required. If effects to Nelson's Bighorn Sheep cannot be avoided, the Applicant shall consult with the California Department of Fish and Game (CDFG) to determine the appropriate level of restoration and mitigation for effects to essential habitat and/or travel corridors for Nelson's bighorn sheep by implementing the following measures:</p> <p>(a) The project owner shall compensate or replace the permanent loss of Nelson's bighorn sheep habitat at a 1:1 ratio as approved by the CDFG. This may include monetary contributions or donations as mitigation which are tied to programs or activities designed to offset potential resource losses or for mitigation banking for habitat restoration, enhancement, and/or acquisition projects provided that an appropriate and cooperatively developed mitigation agreement has been finalized between the Applicant and CDFG.</p> <p>(b) Compensation or replacement mitigation should be oriented within or adjacent to the project area and designed to rectify the same functions, habitat types and species being impacted wherever possible. Off-site compensation should be considered when mitigation measures cannot be applied to adjacent areas or to benefit the same species that are impacted.</p> <p>(c) All final actions associated with compensation mitigation will be approved by CDFG to insure that agreements are consistent with the CDFG's Sonoran Desert Mountain Sheep Meta-Population Plan.</p> <p>(d) Any roads or permanent structures built in Nelson's bighorn sheep habitat or movement corridors must be constructed in such a way as to allow continued bighorn movement, except in the case of the Solar Farm and Substation facilities which will be fenced. Some strategies could include under or over passes, ramps cut into steep side slopes, alternatives to continuous guard rails and/or fence specifications along roads that allow sheep movement. Plans for these structures will be developed in coordination with CDFG.</p>	Prior to construction	BLM, CDFG	<ul style="list-style-type: none"> <li>Consult with CDFG for Nelson's bighorn sheep</li> <li>Compensate for habitat loss</li> <li>Minimize impact to bighorn movement</li> </ul>			
<p><b>MM-WIL-3: Palm Springs Round Tailed Ground Squirrel Protection Plan.</b> If effects to Palm Springs round tailed ground squirrel cannot be avoided, the Applicant shall consult with the CDFG to determine the appropriate level of restoration or mitigation for effects to essential habitat for Palm Springs round tailed ground squirrel.</p>	Prior to construction	BLM, CDFG	Consult with CDFG for Palm Springs round-tailed ground squirrel			
<p><b>MM-WIL-4. Mojave Fringed-toed Lizard Monitoring and Mitigation.</b> To avoid effects to the Mojave Fringe-toed Lizard, pre-construction surveys shall be conducted within 30 days prior to the start of construction. If no occurrence is documented than no further mitigation, compensation, plans or other action would be required. If effects to Mojave Fringed-toed Lizard cannot be avoided, the Applicant shall mitigate for direct and indirect impacts to stabilized and partially stabilized sand dunes and other Mojave fringe-toed lizard habitat by compensating for lost habitat at ratios ranging from 1:1 to 5:1 depending upon (as detailed in MM-BIO-2):</p> <p>A. Species known to be present on site  B. Habitat condition  C. Proximity of known disturbances  D. Vegetation type</p> <p>The Applicant shall provide funding for the acquisition, initial habitat improvements and long-term management of the compensation lands. The habitat compensation requirement, and associated funding requirements based on that acreage will be adjusted if there are changes in the final footprint of the Project. In lieu of acquiring lands itself, the Applicant may ensure funding to complete the land acquisition by providing CDFG and/or USFWS, as appropriate, prior to commencing ground-or vegetation- disturbing activities an irrevocable letter of credit or another form of security as approved by CDFG's Office of General Counsel before ground- or revegetation-disturbing activities begin.</p> <p>The requirements for acquisition, initial improvement and long-term management of compensation lands include all, or as many as practicable in the judgment of BLM, USFWS, and CDFG, of the following:</p> <p>1. Criteria for Compensation Lands: The compensation lands selected for acquisition shall:</p> <ol style="list-style-type: none"> <li>Provide suitable habitat for Mojave fringe-toed lizards that is equal to or better than that found in the Project disturbance area, and may include stabilized and partially stabilized desert dunes or sand drifts over playas or Sonoran creosote bush scrub;</li> <li>Be within the Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat;</li> <li>Be connected to lands that are either currently occupied or have high potential to be occupied by Mojave fringe-toed lizard based on patch size and habitat quality;</li> <li>Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;</li> </ol>	Prior to construction	BLM, USFWS, CDFG	Compensate for impacts to Mojave fringe-toed lizard			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p>e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;</p> <p>f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;</p> <p>g. Not contain hazardous wastes;</p> <p>h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and</p> <p>i. Be on land for which long-term management is feasible.</p> <p>2. Security for Implementation of Mitigation: The Applicant shall provide financial assurances to CDFG and/or USFWS that guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Mojave fringe-toed lizard habitat as described in this condition. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to DFG and/or USFWS in the form of an irrevocable letter of credit, a pledged savings account or Security prior to initiating ground-disturbing project activities. The Security shall be approved by the CDFG and USFWS, to ensure sufficient funding.</p> <p>3. Preparation of Management Plan: The Applicant shall submit to the CDFG and USFWS a draft Management Plan that that reflects site-specific enhancement measures for the Mojave fringe-toed lizard habitat on the acquired compensation lands. The objective of the Management Plan shall be to enhance the value of the compensation lands for Mojave fringe-toed lizards, and may include enhancement actions such as weed control, fencing to exclude livestock, erosion control, or protection of sand sources or sand transport corridors.</p>						
<p>MM-WIL-5. Prepare and Implement a <b>Bird Monitoring and Avoidance Plan</b>. Prior to the issuance of a ROW grant, the Applicant shall retain a BLM-approved, qualified biologist to prepare a Bird Monitoring and Avoidance Plan in consultation with CDFG and USFWS. This plan shall follow the Avian Protection Plan guidelines outlined by USFWS and Avian Power Line Interaction Committee (APLIC).</p> <p>The plan will require monitoring of (1) the death and injury of birds from collisions with facility features such as feeder/distribution lines and solar panels. The study design shall be approved by BLM in consultation with the CDFG and USFWS.</p> <p>Bird mortality study. The bird mortality component of the Bird Monitoring Study shall include at a minimum: detailed specifications on data, a carcass collection protocol, and a rationale justifying the proposed schedule of carcass searches. The study shall also include seasonal trials to assess bias from carcass removal by scavengers as well as searcher bias.</p> <p>During construction and for one year following the beginning of the solar farm operation the biologist shall submit annual reports to BLM, CDFG, and USFWS describing the dates, durations, and results of monitoring and data collection. The annual reports shall provide a detailed description of any project-related bird or wildlife deaths or injuries detected during the monitoring study. The report shall analyze any project-related bird fatalities or injuries detected, and provides recommendations (in consultation with the County) for future monitoring and any adaptive management actions needed.</p> <p>Thresholds. Thresholds will be determined by BLM in consultation with CDFG and USFWS. If BLM determines that bird mortality caused by solar facilities is substantial and is having potentially adverse impacts on special-status bird populations. The Applicant shall be required to implement some or all of the mitigation measures below.</p> <p>Implementation Measures. To minimize bird mortality caused by solar facilities, the Applicant may be required to install additional bird flight diverters, alterations to project components that have been identified as key mortality features, or implement other appropriate actions approved by BLM and regulatory agencies based on the findings of the Bird Monitoring and Avoidance Plan.</p> <p>If mitigation actions are required, the annual reporting shall continue until BLM, in consultation with CDFG and USFWS, determines whether more years of monitoring are needed, and whether additional mitigation and adaptive management measures are necessary. After the Bird Monitoring Study is determined by BLM to be complete, the Applicant shall prepare papers that describe the design and monitoring results of the study to be submitted to peer-reviewed scientific journals. Proof of submittal shall be provided to BLM, CDFG, and USFWS within one year after the monitoring study is complete.</p>	Prior to construction	BLM, USFWS, CDFG	Develop and implement Bird Monitoring and Avoidance Plan			
MM-WIL-5: Avian and Bat Protection Plan-repeat	Prior to construction	See MM-WIL-5	See MM-WIL-5			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>MM-WIL-6.</b> Prepare and Implement <b>Golden Eagle Nesting Surveys, Nest Site Monitoring, and Adaptive Management</b>, as described below. Where details of this Mitigation Measure may conflict with Applicant Measure AM-WIL-3, this measure (MM-WIL-6) shall take precedence.</p> <ol style="list-style-type: none"> <li>For each year during which construction will occur, an inventory of all golden eagle territories within ten miles of project facilities shall be conducted to determine if whether any territory is active. Survey methods for the inventory shall be as described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS. A nesting territory or shall be considered occupied or unoccupied based on criteria in Pagel (2010) or more current guidance from the USFWS.</li> <li>Inventory Data: Data collected during the inventory shall include at least the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; digital photographs; and substrate upon which nest is placed.</li> <li>Monitoring and Adaptive Management Plan: If an occupied nest (as defined by Pagel et al. 2010) is detected within 10 miles of any project component, the Project owner shall prepare and implement a Golden Eagle Monitoring and Management Plan for the duration of construction to ensure that Project construction activities do not result in injury or disturbance to golden eagles. The monitoring methods shall be consistent with those described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS. The Monitoring and Management Plan shall be prepared in consultation with BLM, USFWS, and CDFG. It shall be implemented by Desert Sunlight, according to project component; each applicant shall designate a biologist, to be approved by BLM, USFWS, and CDFG. Triggers for adaptive management shall include any evidence of Project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Monitoring and Management Plan shall include a description of adaptive management actions that are deemed by the Designated Biologist to be the source of golden eagle disturbance.</li> </ol>	Prior to construction	BLM, USFWS, CDFG	Develop and implement Golden Eagle Nesting Surveys, Nest Site Monitoring, and Adaptive Management			
<p><b>MM-WIL-7:</b> Alternate to long-distance (greater than 500 meters) desert tortoise translocation. The draft Desert Tortoise Translocation Plan defined under Applicant Measure AM-WIL-1 shall be updated to identify and describe, as an alternative to translocation, a strategy to remove desert tortoises on the project site from the wild and place them permanently in facilities approved by USFWS and CDFG, to be fully funded by the applicants. All suitable care or holding facilities for desert tortoises shall be listed and described in the draft plan, and capacity of each facility to accommodate desert tortoises from the project site shall be provided. The updated draft plan and shall be submitted to BLM, USFWS and CDFG for review and approval. Upon approval of a final Desert Tortoise Translocation Plan and issuance of state and federal approvals, the applicant (Sunlight), shall either translocate tortoises into the wild or shall permanently place them in approved facilities, consistent with the Final Desert Tortoise Translocation Plan.</p>	During construction	BLM, USFWS, CDFG	Develop and implement Final Desert Tortoise Translocation Plan			
<p><b>MM-WIL-8:</b> Plans required under Applicant Measures AM WIL-1, AM WIL-2, and AM WIL-3 shall be submitted for review and approval by USFWS, CDFG, and BLM in respect to the substation.</p>	Prior to construction	BLM, USFWS, CDFG	See AM WIL-1, AM WIL-2, and AM WIL-3			
<p><b>AM-CUL-1:</b> A Cultural Resources Monitoring and Mitigation Plan (MMP) has been included as a project design feature and BMP to minimize impacts on cultural resources.</p>	BLM	Implement the Cultural Resources MMP or Historic Properties Treatment Plan (HPTP)				
<p><b>MM-CUL-1:</b> The Memorandum of Agreement shall detail the process for activities to proceed in areas where historic properties are now known not to exist; the process for phased completion of field investigations for the evaluation of cultural resources and assessment of effects; a historic property treatment plan (HPTP); procedures to resolve adverse effects under Section 106; coordination between the CEQA process and Section 106 compliance; procedures for treatment of inadvertent discoveries; procedures for determining treatment and disposition of human remains; the process for treating human remains; compliance monitoring; dispute resolution; and tribal participation. Resolution of effects to cultural resources eligible for or listed on the NRHP may include research and documentation, data recovery excavations, curation, public interpretation, use or creation of historic contexts (especially for historic landscapes and the potential DTC-CAMA historic district), and/or report distribution.</p>	BLM	Develop and implement the Memorandum of Agreement (MOA)				
<p><b>MM-CUL-2:</b> On the basis of preliminary CRHR eligibility assessments, NRHP eligibility assessments made under the Memorandum of Agreement, or existing NRHP eligibility determinations, the BLM may require the relocation of project components to avoid or reduce damage to cultural resource values. Where operationally feasible, potentially NRHP-eligible resources shall be protected from direct project impacts by project redesign within previously surveyed and analyzed areas.</p>	See MM-CUL-1	See MM-CUL-1				



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>MM-CUL-3:</b> Where the BLM decides that CRHR or NRHP-eligible or -listed cultural resources cannot be protected from direct impacts by project redesign, the Applicant shall comply with appropriate mitigative treatment(s) that will be detailed in the Memorandum of Agreement and cultural resources mitigation and monitoring plan.	During construction	BLM	Develop and implement the MOA and HPTP			
<b>MM-CUL-4:</b> All CRHR-listed or eligible cultural resources and all NRHP-listed or eligible cultural resources (as determined by the BLM) that will not be affected by direct impacts, but are within 50 feet of project locations will be monitored by a qualified archaeologist. Protective fencing, or other markers, at the BLM's discretion, shall be erected and maintained to protect these resources from inadvertent trespass for the duration of construction in the vicinity.	During construction	BLM	Develop and implement the MOA and HPTP Monitor to avoid cultural resources.			
<b>MM-CUL-5:</b> The <b>Historic Property Treatment Plan</b> that will be included in the Memorandum of Agreement will, at a minimum, employ avoidance, mitigation, and data recovery as mitigation alternatives. As part of the historic property treatment plan, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP-listed or eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided. Additional content of the treatment plan will be dictated by the consultations associated with the Memorandum of Agreement.	Prior to construction	BLM (SHPO)	Develop and implement HPTP			
<b>AM-CUL-6:</b> Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM.	Prior to construction	BLM	Obtain BLM approval if construction work within 100 feet of cultural resources			
<b>AM-CUL-7:</b> Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project area, and under direct supervision of a principal archaeologist. All cultural resources personnel will be approved by the BLM through the agency's Cultural Resource Use Permitting process. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Indian tribes. The monitoring plan shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.	Prior/During construction	BLM	Archaeological monitoring Native American Monitoring			
<b>MM-CUL-8:</b> In the event of inadvertent discoveries during construction, operation and maintenance, or decommissioning, procedures outlined in the Memorandum of Agreement and the MMP will be adhered to. At a minimum, this will include stop work orders in the vicinity of the find, recordation and evaluation of the find by a qualified archaeologist, notification of the find to BLM, and appropriate treatment measures, possibly including data recovery or avoidance.	During construction	BLM (SHPO)	Develop and implement the MOA and HPTP			
<b>MM-CUL-9:</b> The BLM will continue to consult with Indian tribes to identify sacred sites, TCPs and traditional use areas that might be affected by the Project. If such places are identified, the BLM will consult further with tribes to resolve access impediments or other identified impacts.	Prior to construction	BLM (NAHC)	As needed, consult with Native American tribes			
<b>AM-PR-1:</b> The Applicant shall be responsible for the following measures (more details are provided in Section 4.7). <ul style="list-style-type: none"> <li>A qualified paleontologist will conduct a study to further characterize the paleontological sensitivity of the Project Study Area.</li> <li>Should the site characterization and or the site reconnaissance identify areas of high potential for paleontological resources, additional measures could be implemented, as determined by the BLM.</li> <li>A qualified paleontologist will develop a MMP prior to construction to mitigate adverse impacts on paleontological resources if excavation is to occur in an area of high paleontological sensitivity. The plan will include measures to be followed in the event that fossil materials are encountered during construction.</li> </ul>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>Develop Paleontological study</li> <li>Develop and implement Paleontological MMP</li> </ul>			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>AM-GEO-1:</b> The Applicant shall include, as part of the construction design plans for the Solar Farm and Gen-Tie Line, the mitigation measures provided in the Earth Systems Southwest (2010) geotechnical survey. These mitigations are summarized in Section 4.8 and in Appendix F, and are subject to BLM approval. The Applicant shall be responsible for implementing these mitigations.	Prior to construction	BLM	Implement measures from Earth Systems Southwest (2010) geotechnical survey			
<b>AM-GEO-2:</b> The Applicant shall implement the following mitigation measures to reduce impacts from wind and water erosion to soils (additional details are in Section 4.8): <ul style="list-style-type: none"> <li>Implement Mitigation Measures MM-WAT-6 and MM-WAT-7, discussed in Section 4.17, Water Resources.</li> <li>Obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) Water Quality Order 2009-0009 DWQ;</li> <li>Use nonhazardous dust suppressants approved by the BLM and water on an as-needed basis to suppress wind-blown dust generated at the site during construction. Dust palliatives also would be applied between rows of solar panels for dust suppression during operation;</li> <li>Implement erosion control measures during construction; and</li> <li>Use silt fences for erosion control in the event of a storm event along neighboring properties, Power Line Road and along the main drainage to the east of the Solar Farm Site.</li> </ul>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>Obtain coverage under NPDES</li> <li>Use dust suppressants</li> <li>Use erosion control measures</li> </ul>			
<b>AM-LAND-1:</b> Property owners within 300 feet of the Project <b>shall be notified of all major Project construction milestones</b> , such as start of Project construction. Said property owners shall be provided with a <b>detailed construction schedule at least 30 days before construction</b> so that they are informed as to the time and location of disturbance. Updates shall be provided as necessary.	Prior to construction	BLM	Notify at least 30 days before construction			
<b>AM-LAND-2:</b> The Project shall be designed to minimize disturbance or modification of existing uses such as transmission lines, pipelines, and underground cables. If disturbance or modification of existing uses were necessary, Sunlight shall coordinate with the owners to determine an acceptable solution. Sunlight shall fund any necessary avoidance measures or modifications.	Prior to construction	BLM	Minimize disturbance to existing uses			
<b>AM-NZ-1:</b> Sunlight shall limit most construction activity to daytime hours consistent with Riverside County noise ordinance limitations. Certain electrical connection activities at the Solar Farm site would occur at night for safety reasons, but would not require any heavy equipment operations.	During construction	BLM	Minimize night work			
<b>MM-NOI-1:</b> Sunlight shall limit construction activity within a quarter mile of an inhabited dwelling to 6:00 a.m. to 6:00 p.m. during June through September and 7:00 a.m. to 6:00 p.m. during October through May. Certain electrical connection activities at the Solar Farm site would occur at night for safety reasons, but would not require any heavy equipment operations.	During construction	BLM	Minimize night work			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>AM-HAZ-1a:</b> Appropriate spill containment and clean-up kits shall be kept on site during construction and maintained during the operation of the Solar Farm and Gen-Tie Line.	During construction/During Operations	BLM	<ul style="list-style-type: none"> <li>Maintain appropriate spill containment and clean-up kits</li> <li>Develop implement SPCC Plan</li> </ul>			
<b>AM-HAZ-1b:</b> In accordance with the Emergency Planning and Community Right to Know Act, the Applicant shall supply the local emergency response agencies with a <b>Hazardous Materials Management Plan</b> and an associated emergency response plan and inventory specific to the site. The Applicant Shall prepare the plan for approval by the BLM and review and comment by the County of Riverside.	Prior to construction	BLM, Riverside County	Develop, submit, and implement HMMP			
<b>AM-HAZ-1c:</b> During construction of the Solar Farm and Gen-Tie Line, BMPs for handling, storing, and disposing of hazardous materials and waste shall be followed.	During construction	BLM	Develop and implement HMMP			
<b>AM-HAZ-1d:</b> An <b>SPCC Plan</b> shall be developed and implemented that would identify primary and secondary containment for oil products stored on site as well as training in spill management in the event of an unexpected release. The Applicant shall prepare the plan for approval by the BLM and review and comment by the County of Riverside. The Applicant shall be responsible for implementing the approved plan.	Prior to construction	BLM, Riverside County	Develop and implement a SPCC			
<b>AM-HAZ-1e:</b> The Applicant shall develop an <b>Environmental Health and Safety Plan</b> for the construction and operation of the project to ensure it includes all activities and compliance to all local, state and federal regulatory requirements. <b>Illness and Injury Prevention Programs</b> will be developed for construction and operation. The Applicant shall prepare the plan for approval by the BLM.	Prior to construction	BLM, Riverside County	<ul style="list-style-type: none"> <li>Develop and implement an Environmental Health and Safety Plan</li> <li>Develop and implement an Illness and Injury Prevention Programs</li> </ul>			
<b>AM-HAZ-2:</b> Based on the preliminary information provided in the Phase I ESA and the Class I cultural inventory of the Project Site, the Applicant proposes to take the following steps to better determine the nature and extent of potential MEC issues and then take appropriate corrective action measures. The first step is to better determine the history of military activities within the proposed Project footprint. This would include further research regarding prior MEC removals that may have been issued in the past for certain areas by military or other investigating entities, and may include consultations with DOD personnel and archival research. As a result of the historical occurrence of military training activities throughout the DTC-CAMA, potentially including the Project area, this MEC consultation and archival research will address the entire Project footprint, including the specific areas of concern identified by the Phase I ESA and cultural resource surveys. With that more comprehensive understanding, the Applicant will propose, as necessary, further appropriate above and below-ground assessments, under the direction of an expert consultant team, to delineate areas for further investigation and then removal. The Applicant, under direction from the BLM, will determine which site-specific in-field investigative techniques and methodologies will be utilized to investigate and resolve potential <b>MEC issues</b> prior to Project construction. Finally, all construction workers will receive appropriate MEC health and safety awareness training to ensure that they know what actions to take if unanticipated MEC or other suspicious articles are encountered during construction.	Prior to construction	BLM	<ul style="list-style-type: none"> <li>Determine the history of military activities</li> <li>As necessary, further investigate, remove</li> <li>Provide MEC health and safety awareness training</li> </ul>			
<b>AM-HAZ-3:</b> The Applicant shall provide the County of Riverside with a project specific <b>Emergency Response and Inventory Plan</b> prior to initiating construction. The Applicant shall prepare the plan for approval by the BLM and review and comment by the County of Riverside.	Prior to construction	BLM, Riverside County	Emergency Response and Inventory Plan			
<b>AM-HAZ-4:</b> Project facilities shall be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health and safety requirements. In compliance with County of Riverside requirements, a project-specific fire prevention plan for both construction and operation of the Solar Farm and Gen-Tie Line will be completed prior to initiation of construction. The fire protection plan shall be approved by the BLM and provided to Riverside County for review and comment. Sunlight shall have a Project-specific <b>fire prevention plan</b> in place during construction, operation and decommissioning of the Project. This plan shall comply with applicable County of Riverside regulations and would be coordinated with the BLM Fire Management Officer and the local Fire Department in the Chuckwalla Valley at Tamarisk Park.	Prior to construction	BLM, Riverside County	Develop and implement Fire Prevention Plan			
<b>AM-HAZ-5:</b> An <b>Emergency Response Plan And Site Security Plan</b> shall be completed for the project facilities by qualified professionals. These plans shall be developed in accordance with the BLM and DOE requirements. Due to the sensitive nature of information contained in these plans, these documents will not be available for general public review. These plans shall be developed in accordance with BLM and DOE.	Prior to construction	BLM, DOE	Develop and implement emergency response plan and site security plan			
<b>AM-HAZ-6d:</b> Hazardous materials shall be used or stored and disposed of in accordance with Federal, State, and local regulations.	During construction	BLM, Riverside County	Develop and implement Hazardous Materials Management Plan			
<b>AM-HAZ-6f:</b> All construction and demolition waste shall be removed and transported to an appropriately permitted disposal facility.	During construction	BLM, Riverside County	Develop and implement Hazardous Materials Management Plan			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>AM-HAZ-10:</b> Develop and implement a <b>Fire Prevention Plan</b> . Before the construction permit is issued, the Applicant shall develop and implement a fire protection plan for use during construction and operation. The Applicant shall submit the fire plan, along with maps of the Project site and access roads, to CAL FIRE/Riverside County Fire Department for review and approval before construction begins.	Prior to construction	BLM, Riverside County Fire Department	Develop and implement a fire prevention plan			
<b>AM-SOCIO-1:</b> The <b>public shall be notified of Project activities and scheduling</b> to inform the public of projected impacts on the surrounding area. This notification shall provide the public with the opportunity to plan their personal and business activities appropriately.	Prior to construction	See AM-LAND-1	See AM-LAND-1			
<b>AM-SOCIO-2:</b> Sunlight shall align Gen-Tie lines along existing linear features (such as Kaiser Road) to minimize the social effects of potential visual impacts.	Prior to construction	See AM-LAND-2	See AM-LAND-2			
<b>MM-SD-01.</b> The NPS shall be afforded the opportunity to review and comment on the following pre-construction plans required for the Project prior to approval of the plans by the BLM: the Vegetation Resources Management Plan, the Lighting Mitigation Plan, the Dust Control Plan, the Integrated Weed Management Plan, the Construction Traffic Control Plan, and <u>Visual BMPs as required by MM-VR-6</u> . Review and comment by the NPS must be within time frames specified by the BLM.	Prior to construction	Provide NPS opportunity to review and comment on plans				
<p><b>MM-SD-02.</b> The Applicant shall enter into a Memorandum of Agreement or other financial mechanism, as may be specified in the Record of Decision or Right-of-Way Grant, to reimburse the NPS for reasonable costs incurred in the monitoring of the following measures (whether applicant-proposed or BLM-recommended) to address temporary indirect impacts on the Joshua Tree National Park:</p> <ul style="list-style-type: none"> <li>Fugitive dust: AM-AIR 1, AM-AIR 6 and MM-VR-3, concerning the development and implementation of a dust control plan that includes the use of dust palliatives to ensure compliance with SCAQMD Rule 403; MM-AIR 3, requiring annual re-application of dust palliatives at the Solar Farm site; and AM-GEO-2 and AM-GEO-4, as they relate to the suppression of fugitive dust during construction and operation.</li> <li>Noise: AM-NZ-1, limiting most construction activity to daytime hours.</li> <li>Nighttime lighting: MM-VR-4, requiring the design and installation of a lighting mitigation plan concerning temporary and permanent exterior lighting.</li> </ul>	Prior to construction	Develop funding agreement				
<p><b>MM-SD-03.</b> A <b>Signage and Guidance Plan</b> shall be developed for JTNP by the Applicant and reviewed and approved by both the NPS and the BLM prior to the start of construction of the Project. The intent of this plan is to address the potential indirect effects on NPS land as a result of the influx of workers associated with the mobilization, construction, and demobilization of the Project. The plan shall include the following elements:</p> <ul style="list-style-type: none"> <li>Design and installation of directional and informational signage that identify areas of JTNP available for day, overnight, and long-term stays; off-limit areas; and pertinent park rules and regulations;</li> <li>Design and installation of strategically placed gates, bollards, wire fencing or the like, inside the boundary of JTNP, where deemed necessary, for the purpose of vehicular control on NPS parkland located nearest the Project boundary;</li> <li>Educational instruction for Project construction workers by Park Rangers, including but not limited to, on park rules and regulations pertinent to JTNP and Joshua Tree Wilderness Area. This instruction shall be integrated into the Worker Environmental Awareness Program;</li> <li>Requirements for the retention and/or removal of any items installed as part of the plan following completion of construction of the Project; and,</li> <li>Funding mechanism for implementing the plan.</li> </ul> <p>Items installed as part of the plan shall have a nexus to the NPS's need to address the likely impacts associated with above normal numbers of users of JTNP facilities during the mobilization, construction, and demobilization period of the Project.</p>	Prior to construction	Develop and implement Signage and Guidance Plan				



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
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<b>AM-TRANS-1:</b> Sunlight shall prepare a <b>Construction Traffic Control Plan</b> in conjunction with Riverside County and/or Caltrans in accordance with Caltrans Manual on Uniform Traffic Control Devices and the California Joint Utility Traffic Control Manual (2010).	Prior to construction	BLM, Caltrans	Develop and implement Construction Traffic Control Plan			
<b>AM-TRANS-2:</b> Sunlight shall document road conditions at the beginning and end of Project construction and decommissioning and contribute fair share cost for pavement maintenance and other needed repairs.	During construction	BLM	<ul style="list-style-type: none"> <li>Document conditions</li> <li>Contribute to repairs</li> </ul>			
<b>AM-TRANS-3:</b> Sunlight shall share Project information with the airport owners if a transmission line alternative that runs near the former Desert Center Airport's runway is selected to assure that no special precautions are needed.	Prior to construction	BLM	Notify airport owners			
<b>AM-TRANS-4:</b> BLM shall coordinate with the DOD R-2508 Complex Sustainability Office, Region IX, based in San Diego, California, and with local regional military installations regarding low-level flight operations relative to the Project to assure that no special precautions are needed.	Prior to construction	BLM, DOD	If applicable, use special precautions for flight operations			
<p><b>MM-VR-1:</b> Revegetation. The Applicant shall minimize the amount of ground surface to be disturbed and revegetate disturbed soil areas (additional details provided in Section 4.16).</p> <p>No less than 30 days following the publication of the BLM's Record of Decision/ROW Issuance, whichever comes first, the Applicant shall submit to the BLM a <b>final agency-approved revegetation plan</b> that has been reviewed and approved by the BLM.</p> <p>Within 30 days after completion of project construction, the Applicant each shall provide to the BLM for review and approval a <b>written report</b> identifying which items of the revegetation plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding. It shall also include a <b>plan for revegetation monitoring</b>.</p>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>Develop and implement Revegetation Plan</li> <li>Prepare as-built report</li> <li>Develop and implement plan for revegetation monitoring</li> </ul>			
<b>MM-VR-2:</b> Litter and Trash Control. During construction, all trash and food-related waste shall be placed in self-closing containers and removed weekly, as needed, from the site.	During construction	BLM	Properly dispose trash			
<b>MM-VR-3:</b> Fugitive Dust Control. To minimize fugitive dust on the Project site, a <b>dust control plan</b> shall be developed that will impose limits on the speed of travel for construction vehicles, and will require that dust palliatives be applied to the site, as described in AM-AIR-1 and AM-AIR6, and in compliance with SCAQMD Rule 403.	During construction	BLM	Develop and implement a Dust Control Plan			
<p><b>MM-VR-4:</b> Lighting Control. Consistent with safety and security considerations, the Applicant shall design and install all permanent exterior lighting and all temporary construction lighting such that (a) lamps and reflectors are not visible from beyond the Solar Farm site, including any off-site security buffer areas; (b) lighting shall not cause excessive reflected glare; (c) direct lighting shall not illuminate the nighttime sky, except for required FAA aircraft safety lighting; (d) illumination of the Project and its immediate vicinity shall be minimized; (e) skyglow caused by Project lighting will be avoided, and f) the plan shall comply with local policies and ordinances. All permanent light sources shall be below 3,500 Kelvin color temperature (warm white) and shall have cutoff angles not to exceed 45 degrees of nadir. The Applicant shall submit to the BLM for review and approval a Lighting Mitigation Plan that includes the following:</p> <ul style="list-style-type: none"> <li>Specification that LPS or amber LED lighting will be emphasized, and that white lighting (metal halide) would (a) only be used when necessitated by specific work tasks, (b) not be used for dusk-to-dawn lighting, and (c) would be less than 3,500 Kelvin color temperature;</li> <li>Specification and map of all lamp locations, orientations, and intensities, including security, roadway, and task lighting;</li> <li>Specification of each light fixture and each light shield;</li> <li>Total estimated outdoor lighting footprint, expressed as lumens or lumens per acre;</li> <li>Definition of the threshold for substantial contribution to light pollution in Joshua Tree National Park, in coordination with the Night Sky Program Manager (see below);</li> <li>Specifications on the use of portable truck-mounted lighting;</li> <li>Lighting design shall consider setbacks of Project features from the site boundary to help satisfy the lighting mitigation requirements;</li> <li>Light fixtures that are visible from beyond the Project boundary shall have cutoff angles sufficient to prevent lamps and reflectors from being visible beyond the Project boundary;</li> <li>Specification of motion sensors and other controls to be used, especially for security lighting;</li> <li>Surface treatment specification that will be employed to minimize glare and skyglow;</li> </ul>	Prior to construction	BLM	Develop and implement Lighting Mitigation Plan			



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				Initials	Date	Remarks
<ul style="list-style-type: none"> <li>Results of a Lumen Analysis (based on final lighting plans), in consultation with the National Park Service (NPS) Night Sky Program Manager (Chad Moore – (970) 491-3700), in order to determine the extent of night lighting exposures in the surrounding NPS lands. If the lighting exposure on NPS lands exceeds the allowable threshold (which is to be determined in consultation with the NPS Night Sky Program Manager and BLM), additional control measures will be instituted to reduce the lighting exposures to levels below the threshold; and</li> <li>Documentation that coordination with the NPS Night Sky Program Manager and the BLM has occurred.</li> </ul>						
<b>MM-VR-5:</b> Surface Treatment of Project Structures/Buildings. The Applicant shall treat the surfaces of all project structures and buildings visible to the public such that a) their colors minimize visual contrast by blending with the characteristic landscape colors; b) their colors and finishes do not create excessive glare; and c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. The Applicant shall comply with BLM requirements regarding appropriate surface treatments for Project elements.	Prior/During construction	BLM	Comply with surface treatment requirements			
<b>MM-VR-6: Project Design.</b> The Applicant shall use proper design fundamentals to reduce the visual contrast to the characteristic landscape. These include proper siting and location; reduction of visibility; repetition of form, line, color (see Mitigation MM-VR-5) and texture of the landscape; and reduction of unnecessary disturbance.	Prior/During construction	BLM	Use proper design fundamentals			
<b>AM-WAT-1:</b> Training construction staff in the management of hazardous materials and use of spill control and cleanup equipment	Prior to construction	BLM	Develop and implement worker training			
<b>AM-WAT-2:</b> Having a clear chain of command within the organizational structure with responsibility for implementing, monitoring, and correcting BMPs	During construction	BLM	Develop and implement SWPPP			
<b>AM-WAT-3:</b> Covering and containing hazardous materials so that they are not in contact with precipitation or runoff	During construction	BLM	Develop and implement Hazardous Materials Management Plan			
<b>AM-WAT-4:</b> Storing hazardous materials in one or more central areas, and instituting rules requiring all hazardous materials to be secured at the end of the day	During construction	BLM	Develop and implement Hazardous Materials Management Plan			
<b>AM-WAT-5:</b> Maintaining good inventory records; storing hazardous liquids and dispensing equipment in secondary containment	During construction	BLM	Develop and implement Hazardous Materials Management Plan			
<b>AM-WAT-6:</b> Maintaining adequate quantities of spill containment and response equipment at readily accessible points throughout the site	During construction	BLM	Develop and implement a SPCC			
<b>AM-WAT-7:</b> Identifying the worst case and most likely spill scenarios, and providing spill response equipment adequate to respond to these scenarios	During construction	BLM	Develop and implement a SPCC			
<b>AM-WAT-8:</b> Using chemicals presenting the least environmental hazard wherever possible	During construction	BLM	Develop and implement Hazardous Materials Management Plan			
<b>AM-WAT-9:</b> Storing the smallest quantities of hazardous materials possible on the site	During construction	BLM	Develop and implement Hazardous Materials Management Plan			
<b>AM-WAT-10:</b> Maintaining site security to reduce vandalism	During construction	BLM	Develop and implement Hazardous Materials Management Plan			
<p><b>AM-WAT-11:</b> requiring all contractors to abide by the program BMPs and to identify any hazardous materials and specific BMPs pertaining to their trade or activity.</p> <p>The SPCC Plan for the site would address storage of mineral oil contained in transformers. A SPCC Plan is required when 10,000 gallons or more of mineral oil in electrical equipment is contained on site, or when 1,320 gallons of petroleum is stored on the site, although an SPCC Plan can be voluntarily implemented for lesser quantities. The SPCC Plan would address methods and procedures for managing these products, lighting, security, containment requirements, training requirements, staff responsibilities for inspecting storage and dispensing equipment; and equipment and procedures for responding to a spill or release of stored petroleum products.</p> <p>Among the features that are incorporated into the Project design to address potential impacts on water resources are the measures identified in the Storm Water Hydrology Report for Alternative B (AECOM. 2010b; Appendix G) to reduce flooding and erosion effects associated with the 100-year design runoff event. The modeling results indicate that the most effective measure to reduce runoff depth and velocity would be</p>	During construction	BLM	<ul style="list-style-type: none"> <li>Develop and implement SWPPP</li> <li>Develop and implement SPCC</li> </ul>			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>AM-WAT-12:</b> Decompacting the soil between solar panels to increase infiltration potential.	During construction	BLM	Implement hydromodification requirements			
<b>AM-WAT-13:</b> Riprap increases surface roughness and slows runoff velocities, decreasing sediment transport, and increasing flow depth. Riprap would be used in conjunction with decompaction, as riprap would not mitigate flow or volume.	During construction	BLM	Implement hydromodification requirements			
<b>AM-WAT-14:</b> Retention basins could be located along the upstream western boundary of the Project site to intercept run on storm water flows. The intent of this measure is to reduce overall flow depths, velocities and outflow volume by retaining run-on storm water volume. They would also reduce sediment transport within the Project site.	During construction	BLM	Implement hydromodification requirements			
<b>AM-WAT-15:</b> Check dams can be constructed to address specific post-development hydraulic characteristics that remain after implementation of the decompaction measure. Check dams could be located near the downstream southern boundary of the Project site to intercept run off. Check dams would have an effect on the storm water upstream of each dam because the storm water would back up behind each dam. Check dams would also reduce flow velocities and would retain sediment.	During construction	BLM	Implement hydromodification requirements			
<b>AM-WAT-16:</b> Strip detention basins would be approximately 6 inches deep and 70 feet wide, and would be designed to follow the topographic contours of the site, so their lengths would be dependent on the locations of the basins on the site. These detention basins could be located near the downstream southern boundary of the Project site to intercept run off storm water flows. The intent of this measure is to reduce outflow volume by detaining run-off storm water volume, similar to the check dam measures. Strip detention basins would not have an effect on the storm water upstream of each basin but would reduce flow velocities and sediment transport leaving the Project site.	During construction	BLM	Implement hydromodification requirements			
<b>MM-WAT-1: Groundwater Wells, Installation.</b> The Applicant proposes to construct new groundwater wells in support of the Project, that would produce water from the Chuckwalla Valley Groundwater Basin (CVGB). The Project owner shall ensure that the wells are completed in accordance with all applicable state and local water well construction permits and requirements. Prior to initiation of well construction activities, the Project owner shall submit for review and comment a well construction packet to the County of Riverside and fees normally required for the County's well permit, with copies to the Compliance Project Manager (CPM). The Project shall not construct a well or extract and use groundwater until approval has been issued by the county and the CPM to construct and operate the well. Wells permitted and installed as part of pre-construction field investigations that subsequently are planned for use as Project water supply wells require CPM approval prior to their use to supply water to the Project.  <b>Post-Well Installation.</b> The Project owner shall provide documentation as required under County permit conditions to the CPM that the well has been properly completed. In accordance with California's Water Code Section 13754, the driller of the well shall submit to the Department of Water Resources (DWR) a Well Completion Report for each well installed. The Project owner shall ensure the Well Completion reports are submitted. The Project owner shall ensure compliance with all County water well standards and the County requirements for the life of the wells, and shall provide the CPM with two copies each of all monitoring or other reports required for compliance with the County of Riverside water well standards and operation requirements, as well as any changes made to the operation of the well.	Prior to construction	BLM, Riverside County, DWR	<ul style="list-style-type: none"> <li>Obtain coverage under and comply with Riverside County's well permit</li> <li>Prepare Well Completion Reports</li> </ul>			
<b>MM-WAT-2: Construction Water Use.</b> The proposed Project's use of groundwater during construction shall not exceed a total of 1,400 af during the 26 month construction period. Before groundwater can be used for construction, the Applicant shall install and maintain metering devices as part of the water supply and distribution system to document Project water use and to monitor and record in gallons per day the total volume of water supplied to the Project from this water source. The metering devices shall be operational for the life of the Project.	During construction	BLM	Develop and implement Groundwater Level Monitoring, Mitigation, and Reporting Plan			



Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<p><b>MM-WAT-3: Groundwater Level Monitoring, Mitigation, and Reporting.</b> The Project owner/Applicant shall submit a Groundwater Level Monitoring, Mitigation, and Reporting Plan to the BLM and CPM for review and approval in advance of construction activities and before operation of on-site groundwater supply wells are operated. The Groundwater Level Monitoring, Mitigation, and Reporting Plan shall provide detailed methodology for monitoring background and site groundwater levels. Monitoring shall include pre-construction, construction, and Project operation water use. The plan shall establish pre-construction and Project-related groundwater level and water quality trends that can be quantitatively compared against observed and simulated trends near the Project pumping wells and near potentially impacted existing wells.</p> <p>A. Prior to Project Construction</p> <ol style="list-style-type: none"> <li>1. A well reconnaissance shall be conducted to investigate and document the condition of existing water supply wells located within three miles of the Project site, provided that access is granted by the well owners. The reconnaissance shall include sending notices by Sunlight via registered mail to all property owners within a three-mile radius of any production wells used for the Project. Reconnaissance shall include sending two (2) notices by registered mail. If no response is received from the property owner within 30 days of the first notice, a second notice shall be sent. If no response from the property owner is received within 30 days of the second notice, it shall be determined that the respective property owner will not participate in any compensation program associated with potential groundwater impacts from the Project. To further establish baseline conditions in the Project area, historic and current local well data available at federal, state, and local agencies (e.g., USGS, DWR, Riverside County) shall be reviewed and used in the documentation of existing groundwater conditions. A minimum of three existing water supply wells shall be identified and accessible for monitoring purposes. If there is an inadequate number of existing wells, new monitoring wells shall be installed by the Project owner, to equal a total of three groundwater monitoring wells, at locations to be approved by the BLM.</li> <li>2. Monitor to establish preconstruction conditions. The monitoring plan and network of monitoring wells shall use existing wells in the basin that would satisfy the requirements for the monitoring program. The monitoring network shall be defined by existing available data as the area predicted to show a water level change of one foot or more at the end of construction. The projected area of groundwater drawdown shall be refined on an annual basis during Project construction. If the area predicted to show a water level change of one foot increases, the Project owner will be required to submit a revised monitoring plan with additional monitoring wells (if required).</li> <li>3. Identified additional wells shall be located outside of this area to serve as background monitoring wells. Abandoned wells, or wells no longer in use, that are accessible and provide reliable water level data within the potentially impacted area shall also be included as part of the monitoring network. A site reconnaissance shall be performed to identify wells that could be accessible for monitoring. As access to these wells is available, historical water level, water quality, well construction and well performance information shall be obtained for both pumping and non-pumping conditions.</li> <li>4. Measure groundwater levels from the off-site and on-site wells within the network and background wells to provide initial groundwater levels for pre-Project trend analysis.</li> <li>5. Construct water level maps within the CVGB within three miles of the site from the groundwater data collected before construction. Update trend plots and statistical analyses, as data are available.</li> </ol> <p>B. During Construction:</p> <ol style="list-style-type: none"> <li>1. Collect water levels from wells within the monitoring network and flows from seeps and/or springs within three miles of the production wells on a quarterly basis throughout the construction period and at the end of the construction period. Perform statistical trend analysis for water levels. Assess the significance of an apparent trend and estimate the magnitude of that trend.</li> <li>2. On a quarterly basis during construction, collect water level measurements from any wells identified in the groundwater monitoring program to evaluate operational influence from the Project. Quarterly operational parameters (pumping rate) of the water supply wells shall be monitored. Additionally, quarterly groundwater use in the CVGB shall be estimated based on available data.</li> <li>3. On an annual basis, perform statistical trend analysis for water level data and comparison to predicted water level declines caused by Project pumping. Analysis of the significance of an apparent trend shall be determined and the magnitude of that trend estimated. Based on the results of the statistical trend analyses and comparison to predicted water level declines due to Project pumping, the Project owner shall determine the area where the Project pumping has induced a drawdown in the water supply at a level of five feet or more below the baseline trend.</li> </ol>	Prior to construction	BLM	Develop and implement Groundwater Level Monitoring, Mitigation, and Reporting Plan			



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<p>4. If water levels have been lowered more than five feet below pre-site operational trends, and monitoring data provided by the Project owner show these water level changes are different from background trends and are caused by Project pumping, then the Project owner shall provide mitigation to the impacted well owner or owners. Mitigation shall be provided to the impacted well owners that experience five feet or more of Project-induced drawdown if the Compliance Manager's (CM) inspection of the well monitoring data confirms changes to water levels and water level trends relative to measured pre-Project water levels, and the well (private owner's well in question) yield or performance has been significantly affected by Project pumping. The type and extent of mitigation shall be determined by the amount of water level decline induced by the Project, the type of impact, and site-specific well construction and water use characteristics. If an impact is determined to be caused by drawdown from more than one source, the level of mitigation provided shall be proportional to the amount of drawdown induced by the Project relative to other sources. To be eligible, a well owner must provide documentation of the well location and construction, including pump intake depth, and that the well was constructed and usable before Project pumping was initiated. The mitigation of impacts shall be determined as follows:</p> <p>a. If groundwater monitoring data indicate Project pumping has lowered water levels below the top of the well screen, and the well yield is shown to have decreased by 10 percent or more of the pre-Project average seasonal yield, compensation shall be provided for the diagnosis and maintenance to treat and remove encrustation from the well screen. Reimbursement shall be provided at an amount equal to the customary local cost of performing the necessary diagnosis and maintenance for well screen encrustation. If with treatment the well yield is incapable of meeting 110 percent of the well owner's maximum daily demand, dry season demand, or annual demand, the well owner should be compensated by reimbursement or well replacement.</p> <p>b. If Project pumping has lowered water levels to significantly affect well yield so that it can no longer meet its intended purpose, causes the well to go dry, or causes casing collapse, payment or reimbursement of an amount equal to the cost of deepening or replacing the well shall be provided to accommodate these effects. Payment or reimbursement shall be at an amount equal to the customary local cost of deepening the existing well or constructing a new well of comparable design and yield (only deeper). The demand for water, which determines the required well yield, shall be determined on a per-well basis using well owner interviews and field verification of property conditions and water requirements compiled as part of the pre-Project well reconnaissance. Well yield shall be considered significantly impacted if it is incapable of meeting 110 percent of the well owner's maximum daily demand, dry-season demand, or annual demand – assuming the pre-Project well yield documented by the initial well reconnaissance met or exceeded these yield levels.</p> <p>c. Pump lowering – In the event that groundwater is lowered as a result of Project pumping to an extent where pumps are exposed but well screens remain submerged, the pumps shall be lowered to maintain production in the well. The Project shall reimburse the impacted well owner for the costs associated with lowering pumps.</p> <p>d. Deepening of wells – If the groundwater is lowered enough as a result of Project pumping that well screens or pump intakes are exposed, and pump lowering is not an option, such affected wells shall be deepened or new wells constructed. The Project owner shall reimburse the impacted well owner for all costs associated with deepening existing wells or constructing new wells.</p> <p>5. Groundwater monitoring required per this mitigation measure shall continue for a minimum of three years after Project construction is complete. At that time, the BLM shall evaluate the data and determine if the monitoring program for water level measurements should be revised or eliminated. Revision or elimination of any monitoring program elements shall be based on the consistency of the data collected. The determination of whether the monitoring program should be revised or eliminated shall be made by the BLMC.</p> <p>6. If mitigation includes monetary compensation, the Project owner shall provide documentation to the CM that compensation has been made by March 31 of the year compensation is determined to be required. Within 30 days after compensation is paid, the Project owner shall submit to the CM documentation that the compensation has been paid.</p> <p>7. During the life of the groundwater monitoring program, the Project owner shall provide to the CM all monitoring reports, complaints, studies, and other relevant data within 10 days after they have been received by the Project owner.</p> <p><b>Reason for Modification</b></p> <p>The revised language is added to stipulate that existing well owners within three miles of the production wells used by the Project must agree to participate in the documentation of existing conditions of their supply wells to be eligible to participate in any compensation program associated with any potential groundwater impacts. The groundwater monitoring network related to MM-WAT-3 is a three-mile radius from the production wells used for the project.</p> <p>During the operational phase there would be a minimal amount of groundwater demand – estimated at 0.2 acre-foot per year, which amounts to less than one percent of the Project's groundwater pumping during construction. For this reason, the monitoring of groundwater levels for three years after project construction is deemed to be adequate. At that time, the responsible agencies have the opportunity to determine if further monitoring is necessary. Section B(5) has been revised to recognize this modification.</p> <p>The title Compliance Program Manager (CPM) is changed to Compliance Manager (CM).</p>						



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<p><b>MM-WAT-4: Mitigation for the Use of Fencing.</b> Desert tortoise exclusion fencing and security fencing shall be installed around the entire perimeter of the Project site as described in AM-WIL-1. During construction the desert tortoise exclusion fence will be inspected on a daily basis to ensure the integrity of the fence is maintained. During operation of the Project, fence inspections shall occur at least once per month throughout the life of the Project, and within 24 hours after storms or other events that might affect the integrity and function of desert tortoise exclusion fences. Fence repairs shall be completed within two days (48 hours) of detecting problems that affect the functioning of the desert tortoise exclusion fencing. If fence damage occurs during any time of year when tortoises may be active, the Project owner shall be responsible for monitoring the site of the damaged fence until it is fully repaired, to prevent a desert tortoise from entering the Project area. All incidents of damaged tortoise exclusion fence, including dates of damage and repair; extent of damage, and monitoring summaries (methods and results), shall be reported to the BLM, CPM, CDFG, and USFWS. All wildlife found entrapped or dead in the fence shall be reported to the BLM, CPM, CDFG, and USFWS. Fencing shall be installed with breakaway design features so as not to interfere with or impede storm water or flood flows, or associated sediment loads.</p>	During construction	See AM-WIL-1	See AM-WIL-1			
<p><b>MM-WAT-5: Construction Period Storm Water Quality.</b> As discussed previously, the waterways that would be affected as a result of Project implementation would not be considered jurisdictional waters under the federal Clean Water Act. As a result, no NPDES permits would be required within the Project area during construction or operation. Therefore, a comprehensive construction-period water quality control plan shall be generated, and recommendations of the plan shall be adhered to. The plan shall be completed by the Applicant before Project construction begins and shall include an evaluation of potential for construction-related storm water pollutant loading that could result from Project construction. The plan shall address and implement all of the issues and recommendations of the Storm Water Pollution Prevention Plan (SWPPP). This mitigation measure requires that a SWPPP for Project construction and decommissioning is prepared prior to commencing with either action.</p> <p>The plan shall evaluate potential for erosion and sedimentation to occur on site and downstream as a result of construction, as well as potential for construction-related releases of fuels, oils, solvents, concrete wash-out, greases, paints, and other potential water quality pollutants to become entrained in storm water, or otherwise result in the degradation of surface water or groundwater quality. The evaluation shall implement specific measures to minimize potential effects on water quality. These measures may include, but would not be limited to, installation of temporary settling basins, stabilization of disturbed soils, replanting vegetation after disturbance, limitations on construction during wet periods, installation of temporary erosion control devices (fiber rolls, staked straw bales, detention basins, check dams, geofabric, dikes, and temporary revegetation), covering stockpiled loose material during rain events, equipment maintenance to prevent leaks, application of erosion protection to cut and fill slopes, and other BMPs. Sediment shall be retained on site by sediment basins, traps, or other measures. No disturbed surfaces shall be left without erosion control measures in place during the rainy season. Recommendations from the plan shall be applied during construction of all Project-related components.</p>	BLM	<ul style="list-style-type: none"> <li>Develop and implement Construction-Period Water Quality Control Plan</li> <li>Develop and implement SWPPP</li> </ul>				
<p><b>MM-WAT-6: Operation Period Storm Water Flows and Quality.</b> As discussed previously, the waterways that would be affected as a result of Project implementation would not be considered jurisdictional waters under the federal Clean Water Act. As a result, no NPDES permits would be required within the Project area during Project construction or operation. Therefore, the following mitigation measure provides for the explicit implementation of an operations period water quality control program to minimize storm water-related discharges of sediment and other pollutants from the Project site during Project operations.</p> <p>A comprehensive operation-period storm water and flood drainage and water quality control plan shall be completed, and the recommendations of the plan shall be implemented by the Applicant. The plan shall evaluate potential for the Project to exceed storm water discharges during 10-year and 100-year storm events, and shall ensure that the volume of discharge emanating from the Project site during these events is limited to an increase of no more than one percent, in comparison to existing conditions. To meet this condition, storm water shall be retained in on-site storm water retention ponds, infiltration basins, or other storm water control facilities. Channel design for flood control along the Project perimeter shall be sized and designed to minimize scour and disruption to upstream and downstream hydrology, including measures to prevent headcutting, migration of channels, erosion, and downstream sedimentation, under conditions equivalent to a 100-year flood.</p> <p>The plan shall also evaluate and mitigate relevant potential sources of water quality pollution associated with Project operation. These sources include, but are not limited to, release of sediment, oils, greases, transformer fluid, fuels, paint, trash, pollutants from impervious surfaces (asphalt oils, greases, and brake dust) and other water quality pollutants arising during operation. The plan shall identify operation-period BMPs, including but not limited to implementation of operation period settlement basins, swales, infiltration basins, regularly scheduled maintenance of proposed drainage and flood control facilities to prevent erosion and sedimentation, and storm water quality control BMPs including, but not limited to, regular sweeping of impervious surfaces, equipment maintenance to prevent leaks, replanting native vegetation, and other measures as applicable to minimize potential impacts to storm water quality.</p>	Prior to Operation	BLM	Develop and implement Operation-Period Storm Water and Flood Drainage and Water Quality Control Plan			



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<b>SULFUR HEXAFLUORIDE (SF6) MANAGEMENT PLAN.</b> Sunlight will prepare a management plan, incorporating appropriate best practices for management of SF6, in accordance with EPA guidelines.	Prior to Operations	BLM	Develop and implement Sulfur Hexafluoride (SF6) Management Plan			
<b>Waste Management Plan.</b> All construction and operational wastes produced at the Project locations would be properly collected, recycled (if possible), treated (if necessary), and disposed of in an appropriate manner and in full compliance with all regulatory requirements. Project wastes would include sanitary wastewater, nonhazardous waste, and potentially small quantities of hazardous waste, primarily liquid. Domestic waste streams such as showers and toilets would be treated using a septic tank and leach field. Heavy solids would settle to the bottom of the septic tank to undergo anaerobic decomposition and slight compaction, and will be removed, as necessary. Liquid effluent from the septic tanks will be distributed to a leach field. It is expected that the leach field will satisfy the needs of the DSSF for its entire service life. The leach field would be constructed of open tile drains laid in trenches filled with gravel or crushed stone. The trenches permit downward percolation or upward evaporation and transpiration.	Prior to construction	BLM	Develop and implement Waste Management Plan			
<b>Environmental Inspection and Compliance Monitoring Plan.</b> Sunlight will develop an Environmental Inspection and Compliance Monitoring program and plan for the DSSF, covering both construction and operation. A qualified individual would be designated to serve as the DSSF's Environmental Manager. The Environmental Manager would be responsible for development and implementation of the DSSF's compliance program. They would be responsible for communication and coordination with the applicable regulatory agencies and ensuring compliance with the various conditions and requirements of the full range of Project permits and approvals. The Environmental Manager would be responsible for the necessary record keeping and reporting required by DSSF permits. They would ensure that all applicable plans are up to date (e.g., DSSF SPCC Plan). The Environmental Manager's role would include advising Project management of actual and potential compliance/non-compliance issues and for ensuring that Project planning takes appropriate account of compliance issues in advance.	Prior to construction	BLM	Develop and implement Environmental Inspection and Compliance Monitoring Plan			