



April 27, 2010

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08-AFC-13	
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Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Mr. Jim Stobaugh
BLM Project Manager
Attn: Docket No. 08-AFC-13
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520

RE: Calico Solar (Formerly Solar One) Project
Applicant's Submittal of Suggested Revised Biological Resources Conditions of
Certification

Dear Mr. Meyer and Mr. Stobaugh,

Tessera Solar hereby submits the Applicant's suggested revised biological resources conditions of certification. I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development

DESIGNATED BIOLOGIST SELECTION¹

BIO-1. The project owner shall assign at least one Designated Biologist to the project. The project owner shall submit the resume of the proposed Designated Biologist, with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) and the Bureau of Land Management's (BLM's) Wildlife Biologist for approval in consultation with the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS).

The Designated Biologist must meet the following minimum qualifications: Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;

1. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society;
2. Have at least one year of field experience with biological resources found in or near the project area;
3. Meet the current USFWS Authorized Biologist qualifications criteria (www.fws.gov/ventura/speciesinfo/protocols_guidelines) demonstrate familiarity with protocols and guidelines for the desert tortoise, and be approved by the USFWS; and
4. Possess a California ESA Memorandum of Understanding pursuant to Section 2081(a) for desert tortoise.

In lieu of the above requirements, the resume shall demonstrate to the satisfaction of BLM's Wildlife Biologist and the CPM, in consultation with CDFG and USFWS, that the proposed Designated Biologist or alternate has the appropriate training and background to effectively implement the conditions of certification.

Verification: No fewer than 30 days prior to construction-related ground disturbance, the Designated Biologist(s) shall complete a USFWS Desert Tortoise Authorized Biologist Request Form (www.fws.gov/ventura/speciesinfo/protocols_guidelines) and

¹ USFWS <www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/dt> designates biologists who are approved to handle tortoises as "Authorized Biologists." Such biologists have demonstrated to USFWS that they possess sufficient desert tortoise knowledge and experience to handle and move tortoises appropriately, and have received USFWS approval. Authorized Biologists are permitted to then approve specific monitors to handle tortoises, at their discretion. The California Department of Fish and Game (CDFG) must also approve such biologists, potentially including individual approvals for monitors approved by the Authorized Biologist. Designated Biologists are the equivalent of Authorized Biologists. Only Designated Biologists and certain Biological Monitors who have been approved by the Designated Biologist would be allowed to handle desert tortoises.

submit it to the USFWS, BLM's Authorized Officer, and the CPM for review and final approval.

The project owner shall submit the resume of the Designated Biologist to the CPM and BLM within 7 days of receiving the Energy Commission Decision. No construction-related ground disturbance, grading, boring, or trenching shall commence until an approved Designated Biologist is available to be on site.

If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to BLM's Wildlife Biologist and the CPM as soon as possible preceding the Designated Biologist. In an emergency, the project owner shall immediately notify the BLM's Wildlife Biologist and the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to BLM's Wildlife Biologist and the CPM and for consideration.

DESIGNATED BIOLOGIST DUTIES

BIO-2. The project owner shall ensure that the Designated Biologist performs the activities described below during any site mobilization activities, construction-related ground disturbance, grading, boring, or trenching activities. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the project owner, BLM's Authorized Officer, and the CPM. The Designated Biologist Duties shall include the following:

1. Advise the project owner's Construction and Operation Managers on the implementation of the biological resources conditions of certification;
2. Consult on the preparation of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) to be submitted by the project owner;
3. Be available to supervise, conduct, and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special-status species or their habitat;
4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
5. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way. All such inspections may also be conducted by workers appropriately trained through the WEAP who will report to the Designated Biologist;

6. Notify the project owner, the BLM's Wildlife Biologist and the CPM of any non-compliance with any biological resources condition of certification;
7. Respond directly to inquiries of BLM's Wildlife Biologist and the CPM regarding biological resource issues;
8. Maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the Monthly Compliance Report and the Annual Compliance Report to both the CPM and BLM Wildlife Biologist;
9. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and USFWS guidelines on desert tortoise surveys and handling procedures <www.fws.gov/ventura/speciesinfo/protocols_guidelines>; and
10. Maintain the ability to be in regular, direct communication with representatives of CDFG, USFWS, BLM's Authorized Officer, and the CPM, including notifying these agencies of dead or injured listed species and reporting special-status species observations to the California Natural Diversity Data Base.

Verification: The Designated Biologist shall provide copies of all written reports and summaries that document biological resources compliance activities in the Monthly Compliance Reports submitted to BLM's Wildlife Biologist and the CPM. If actions may affect biological resources during operation a Designated Biologist shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless his or her duties cease, as approved by BLM's Wildlife Biologist and the CPM.

BIOLOGICAL MONITOR QUALIFICATIONS

- BIO-3.** The Designated Biologist shall submit the resume, at least three references, and contact information of each of the proposed Biological Monitors to BLM's Wildlife Biologist and the CPM. The resume shall demonstrate, to the satisfaction of the BLM's Wildlife Biologist and the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks. The Biological Monitor is the equivalent of the USFWS designated Desert Tortoise Monitor (USFWS 2008c).

Biological Monitor(s) training by the Designated Biologist shall include familiarity with the conditions of certification, BRMIMP, WEAP, and USFWS guidelines on desert tortoise surveys and handling procedures <www.fws.gov/ventura/speciesinfo/protocols_guidelines>.

Verification: The project owner shall submit the specified information to the BLM's Wildlife Biologist and the CPM for approval at least 30 days prior to the start of any site mobilization or construction-related ground disturbance, grading, boring, and trenching. The Designated Biologist shall submit a written statement to BLM's Wildlife Biologist and the CPM confirming that individual Biological Monitor(s) has been trained including the date when training was completed. If additional biological monitors are needed during construction, the specified information shall be submitted to BLM's Wildlife Biologist and the CPM for approval at least 5 days prior to their first day of monitoring activities.

BIOLOGICAL RESOURCES MITIGATION IMPLEMENTATION AND MONITORING PLAN

- BIO-7.** The project owner shall develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), and shall submit two copies of the proposed BRMIMP to the BLM-Wildlife Biologist and the CPM for review and approval.

The project owner shall implement the measures identified in the approved BRMIMP. The BRMIMP shall incorporate, as deemed necessary, avoidance and minimization measures described in final versions of the Hazardous Materials Plan; the Revegetation Plan; the Weed Management Plan; the Special-Status Plant Protection and Monitoring Plan (including measures for Special-Status Plant Remedial Action, Seed Collection, and Protected Plant Salvage); the Desert Tortoise Relocation/Translocation Plan; the Raven Monitoring, Management, and Control Plan; the Burrowing Owl Monitoring and Mitigation Plan (including measures for Burrowing Owl Relocation Area Management), the Bighorn Sheep Mitigation measures; the Streambed Management measures; and the Evaporation Pond Design, Monitoring, and Management Strategy.

The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include accurate and up-to-date maps depicting the location of sensitive biological resources that require temporary or permanent protection during construction and operation. The BRMIMP shall include complete and detailed descriptions of the following:

1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;
2. All biological resources conditions of certification identified as necessary to avoid or mitigate impacts;
3. All biological resource mitigation, monitoring, and compliance measures required in federal agency terms and conditions, such as

those provided in the USFWS Biological Opinion, the CDFG 2080.1 consultation, and BLM stipulations;

4. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure;

5. All required mitigation measures for each sensitive biological resource;

6. All measures that shall be taken to avoid or mitigate temporary disturbances from construction activities;

7. Duration for each type of monitoring and a description of monitoring methodologies and frequency;

8. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;

9. All performance standards and remedial measures to be implemented if performance standards are not met;

10. Biological resources-related facility closure measures including a description of funding mechanism(s);

11. A process for proposing plan modifications to BLM's Wildlife Biologist and the CPM and appropriate agencies for review and approval; and

12. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Data Base (CNDDDB) per CDFG requirements.

Verification: The project owner shall submit the final BRMIMP to BLM's Wildlife Biologist and the CPM at least 30 days prior to start of any preconstruction site mobilization and construction-related ground disturbance, grading, boring, and trenching. The BRMIMP shall contain all of the required measures included in all biological Conditions of Certification. No construction-related ground disturbance, grading, boring, or trenching may occur prior to approval of the final BRMIMP by BLM's Wildlife Biologist and the CPM.

If any permits have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to BLM's Wildlife Biologist and the CPM within five days of their receipt, and the BRMIMP shall be revised or supplemented to reflect the permit conditions within at least 10 days of their receipt by the project owner. Ten days prior to site and related facilities mobilization, the revised BRMIMP shall be resubmitted to BLM's Wildlife Biologist and the CPM.

To verify that the extent of construction disturbance does not exceed that described in this analysis, the project owner shall submit aerial photographs, at an approved scale, taken before and after construction to the CPM and BLM's Authorized Officer. The first set of aerial photographs shall reflect site conditions prior to any preconstruction site mobilization and construction-related ground disturbance, grading, boring, and trenching, and shall be submitted at least 60 days prior to initiation of such activities. The second set of aerial photographs shall be taken subsequent to completion of construction, and shall be submitted to the CPM and BLM's Wildlife Biologist no later than 90 days after completion of construction. The project owner shall also provide a final accounting of the acreages of vegetation communities/cover types present before and after construction and a depiction of the approved project boundaries superimposed on the post project aerial photograph. If final acreages and/or disturbance footprints exceed those previously approved, the project owner shall coordinate with staff, CDFG, and USFWS to determine appropriate mitigation for such impacts. Such mitigation may exceed the requirements as outlined in these Conditions of Certification (i.e., higher mitigation ratios may be imposed at the discretion of the wildlife agencies).

Any changes to the approved BRMIMP (including the project footprint) must be approved by BLM's Wildlife Biologist and the CPM and in consultation with CDFG and USFWS before such action is taken.

Implementation of BRMIMP measures (for example, construction activities that were monitored, species observed) shall be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of project construction, the project owner shall provide to BLM's Wildlife Biologist and the CPM, for review and approval, a written construction termination report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's preconstruction site mobilization and construction-related ground disturbance, grading, boring, and trenching, and which mitigation and monitoring items are still outstanding as well as a timeline for implementing outstanding items.

IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-8. The project owner shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. Limit disturbance areas and perimeter fencing.
2. Minimize road impacts.
3. Minimize traffic impacts.
4. Monitor during construction.

5. Minimize impacts of transmission/pipeline alignments, roads, staging areas.
6. Avoid use of toxic substances.
7. Minimize lighting impacts.
8. Avoid vehicle impacts to desert tortoise.
9. Avoid wildlife pitfalls.
10. Minimize standing water.
11. Dispose of road-killed animals.
12. Minimize spills of hazardous materials.
13. Establish worker guidelines.
14. Implement erosion control measures.
15. Monitor ground-disturbing activities prior to pre-construction site mobilization.
16. Control and regulate fugitive dust.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the Monthly Compliance Reports by the Designated Biologist. The following avoidance and minimization measures shall be implemented:

1. **Limit Disturbance Areas and Perimeter Fencing.** The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Spoils and topsoil shall be stockpiled in disturbed areas lacking native vegetation and which do not provide habitat for special-status species. Parking areas, staging and disposal site locations shall similarly be located in areas without native vegetation or special-status species habitat. All disturbances, project vehicles, and equipment shall be confined to the flagged areas. Desert Tortoise exclusion fencing for the proposed detention basins will not be within the perimeter fencing, and shall be removed after their construction to provide passage and forage opportunities for Bighorn sheep and to facilitate movement of desert tortoise. Vegetation shall be placed along the northern fence line to act as a screen for wildlife.
2. **Minimize Road Impacts.** New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning

around would do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.

3. Minimize Traffic Impacts. Vehicular traffic during project construction and operation shall be confined to existing designated routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 25 miles per hour within the project area, on maintenance roads for linear facilities, or on access roads to the project site.
4. Monitor During Construction. In areas that have not been fenced with desert tortoise exclusion fencing and cleared, the Designated Biologist shall be present at the construction site during all project activities that have potential to disturb soil, vegetation, and wildlife. The Designated Biologist or Biological Monitor shall walk immediately ahead of equipment during brushing and grading activities.
5. Minimize Impacts of Transmission/Pipeline Alignments, Roads, Staging Areas. Staging areas for construction on the plant site shall be within the area that has been fenced with desert tortoise exclusion fencing and cleared. For construction activities outside of the plant site (transmission line, pipeline alignments) access roads, pulling sites, and storage and parking areas shall be designed, installed, and maintained with the goal of minimizing impacts to native plant communities and sensitive biological resources. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines (APLIC 2006) and Mitigating Bird Collisions with Power Lines (APLIC 2004) to reduce the likelihood of large bird electrocutions and collisions.
6. Avoid Use of Toxic Substances. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
7. Minimize Lighting Impacts. Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards wildlife habitat.
8. Avoid Vehicle Impacts to Desert Tortoise. Parking and storage shall occur within the area enclosed by desert tortoise exclusion fencing to the extent feasible. No vehicles or construction equipment parked outside the fenced area shall be moved prior to an inspection of the ground beneath the vehicle for the presence of desert tortoise. If a desert tortoise is observed, it shall be left to move on its own. If it does not move within 15 minutes, a Designated Biologist or Biological Monitor under the Designated Biologist's direct supervision may remove and relocate the animal to a safe location if

temperatures are within the range described in the USFWS' *2009 Desert Tortoise Field Manual* (http://www.fws.gov/ventura/speciesinfo/protocols_guidelines). All access roads outside of the fenced project footprint shall be delineated with temporary desert tortoise exclusion fencing on either side of the access road, unless otherwise authorized by the CPM, BLM Wildlife Biologist, USFWS, and CDFG.

9. Avoid Wildlife Pitfalls:

- a. Avoid Wildlife Entrapment in Trenches. At the end of each work day, the Designated Biologist shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled or all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access, or fully enclosed with desert tortoise-exclusion fencing. All trenches, bores, and other excavations outside the areas permanently fenced with desert tortoise exclusion fencing shall be inspected periodically throughout the day and at the end of each workday by the Designated Biologist or a Biological Monitor. Should a tortoise or other wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual as described in the Desert Tortoise Relocation/Translocation Plan. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.
- b. Avoid Entrapment of Desert Tortoise. Any construction pipe, culvert, or similar structure with a diameter greater than 3 inches, stored less than 8 inches aboveground, and within desert tortoise habitat (i.e., outside the permanently fenced area) for one or more nights, shall be inspected for tortoises before the material is moved, buried, or capped. As an alternative, all such structures may be capped before being stored outside the fenced area, or placed on pipe racks. These materials would not need to be inspected or capped if they are stored within the permanently fenced area after the clearance surveys have been completed. Design the retention basins to facilitate the passage of tortoise. Retention/detention basins located at the northern fence line near the foothills of the Cady Mountains shall be designed to allow for the passage of tortoise.

10. Minimize Standing Water. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract desert tortoises and common ravens to construction sites. A Biological Monitor shall patrol these areas to ensure water does not puddle and shall take appropriate action to reduce water application where necessary.

11. Dispose of Road-killed Animals. Road-killed animals or other carcasses detected on roads near the project area shall be picked up immediately and delivered to the Biological Monitor. For special-status species roadkill, the Biological Monitor shall contact USFWS and CDFG within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. The Biological Monitor shall report the special-status species record as described in Conditions of Certification 13IO-2 and 13IO-27.
12. Minimize Spills of Hazardous Materials. All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the project Hazardous Materials Plan. Hazardous spills shall be immediately cleaned up and the contaminated soil properly disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated area. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.
13. Worker Guidelines. During construction all trash and food-related waste shall be placed in self-closing containers and removed daily from the site. Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons. Vehicular traffic shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit when traveling on dirt access routes within desert tortoise habitat shall not exceed 25 miles per hour.
14. Implement Erosion Control Measures. Standard erosion control measures shall be implemented for all phases of construction and operation where sediment run-off from exposed slopes threatens to enter "Waters of the State". Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the stream. All disturbed soils and roads within the project site shall be stabilized to reduce erosion potential, both during and following construction. Areas of disturbed soils (access and staging areas) with slopes toward a drainage shall be stabilized to reduce erosion potential.
15. Monitor Ground-Disturbing Activities Prior to Pre-Construction Site Mobilization. If pre-construction site mobilization requires ground-disturbing activities such as for geotechnical borings or hazardous waste evaluations, a Designated Biologist or Biological Monitor shall be present to monitor any actions that could disturb soil, vegetation, or wildlife.

16. Control and Regulate Fugitive Dust. To reduce the potential for the transmission of fugitive dust the project owner shall implement dust control measures. These shall include:

- a. The project owner shall apply non-toxic soil binders, equivalent or better in efficiencies than the CARB-approved soil binders, to active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction to reduce fugitive dust emissions.
- b. Water the disturbed areas of the active construction sites as needed to control fugitive dust.
- c. Enclose, cover, water twice daily, and/or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a 5% or greater silt content when such piles are going to remain inactive for more than 10 days.
- d. Establish a vegetative ground cover (in compliance with biological resources impact conditions of certification) or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.
- e. Increase the frequency of watering, if water is used as a soil binder for disturbed surfaces, or implement other additional fugitive dust mitigation measures, to all active disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 mph.

Within 30 days after completion of project construction, the project owner shall provide to BLM's Wildlife Biologist and the CPM, for review and approval, a written construction termination report identifying how measures have been completed.

COMPLIANCE VERIFICATION

- BIO-9.** The project owner shall provide Energy Commission staff, BLM, CDFG, and USFWS with reasonable access to the project site and mitigation lands under the control of the project owner and shall otherwise fully cooperate with the Energy Commission's and BLM's efforts to verify the project owner's compliance with, or the effectiveness of, mitigation measures set forth in the conditions of certification. The project owner shall hold harmless the Designated Biologist, the Energy Commission and staff, BLM, and any other agencies with regulatory requirements addressed by the Energy Commission's sole permitting authority for any costs the project owner incurs in complying with the management measures, including stop work orders issued by the CPM or the Designated Biologist. The Designated Biologist shall do all of the following:

1. Provide notification of start of construction and any event constituting non-compliance with any condition of certification.
2. Conduct monitoring during grading activities.
3. Conduct monitoring of exclusion fences.
4. Complete monthly compliance inspections.
5. Prepare and submit annual listed species status reports.
6. Prepare and submit final listed species mitigation report.
7. Provide notification of injured, dead or relocated listed species.
8. Issue stop work orders if necessary to ensure compliance with conditions of certification or to prevent illegal take of listed or candidate species.

Verification: The BRMIMP shall specify the duties and responsibilities of the Designated Biologist which shall include the following:

1. **Notification.** Notify the CPM, BLM, CDFG, and USFWS at least 14 calendar days before initiating ground-disturbing activities. Immediately notify the CPM, BLM, CDFG, and USFWS in writing if the project owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods specified in the conditions of certification. CDFG shall be notified at their Southern Region Headquarters Office, 4949 Viewridge Avenue, San Diego, CA 92123; (858) 467-4201. USFWS shall be notified at their Ventura office at 2493 Portola Road, Suite B, Ventura, CA 93003; (805) 644-1766.
2. **Monitoring During Grading.** The Designated Biologist or Designated Biological Monitor is to remain on site daily while grubbing and grading are taking place to avoid or minimize take of listed species, to check for compliance with all impact avoidance and minimization measures, and to check all exclusion zones to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protected zones.
3. **Fence Monitoring.** During construction maintain and check desert tortoise exclusion fences on a daily basis to ensure the integrity of the fence is maintained. The Designated Biologist shall be present on site to monitor construction and determine fence placement during fence installation. During operation of the project, fence inspections shall occur at least once per month throughout the life of the project, and more frequently after storms or other events that might affect the integrity and function of desert tortoise exclusion fences. Fence repairs shall occur within two days (48 hours) of detecting problems that affect the functioning of the desert tortoise

exclusion fencing. All wildlife found entrapped or dead in the fence shall be reported to the BLM, CPM, CDFG, and USFWS.

4. Monthly Compliance Inspections. Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to the CPM, BLM, USFWS, and CDFG. All observations of listed species and their sign shall be reported to the Designated Biologist for inclusion in the monthly compliance report.
5. Annual Listed Species Status Report. No later than January 31 of every year the Project facility remains in operation, provide the CPM, BLM, USFWS, and CDFG an annual Listed Species Status Report, which shall include, at a minimum: 1) a general description of the status of the project site and construction/operation activities, including actual or projected completion dates, if known; 2) a copy of the table in the BRMIMP with notes showing the current implementation status of each mitigation measure; 3) an assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and compensating for project impacts, 4) recommendations on how effectiveness of mitigation measures might be improved, and 5) a summary of any agency approved modifications to the BRMIMP.
6. Final Listed Species Mitigation Report. No later than 45 days after initiation of project operation, provide the CPM a Final Listed Species Mitigation Report that shall include, at a minimum: 1) a copy of the table in the BRMIMP with notes showing when each of the mitigation measures was implemented; 2) all available information about project-related incidental take of listed species; 3) information about other project impacts on the listed species; 4) construction dates; 5) an assessment of the effectiveness of conditions of certification in minimizing and compensating for project impacts; 6) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects on the listed species; and 7) any other pertinent information, including the level of take of the listed species associated with the project.
7. Notification of Injured, Dead, or Relocated Listed Species. In the event of a sighting in an active construction area (e.g., with equipment, vehicles, or workers), injury, kill, or relocation of any listed species, the CPM, BLM, CDFG, and USFWS shall be notified immediately by phone by the Designated Biologist or Biological Monitor. Notification shall occur no later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine if further actions are required to protect listed species. Written follow-up notification via FAX or electronic communication shall be submitted to these agencies within five calendar days of the incident and include the following information as relevant:

- a. Injured Desert Tortoise. If a desert tortoise is injured as a result of project-related activities during construction, the Designated Biologist shall immediately take it to a CDFG-approved wildlife rehabilitation and/or veterinarian clinic. Any veterinarian bills for such injured animals shall be paid by the project owner. Following phone notification as required above, the CPM, BLM, CDFG, and USFWS shall determine the final disposition of the injured animal, if it recovers. Written notification shall include, at a minimum, the date, time, location, circumstances of the incident, and the name of the facility where the animal was taken.
 - b. Desert Tortoise Fatality. If a desert tortoise is killed by project-related activities during construction or operation, or if a desert tortoise is otherwise found dead, submit a written report with the same information as an injury report. These desert tortoises shall be salvaged according to guidelines described in Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoise (Berry 2001). The project owner shall pay to have the desert tortoises transported and necropsied. The report shall include the date and time of the finding or incident.
8. Stop Work Order. The CPM/BLM may issue the project owner a written stop work order to suspend any activity related to the construction or operation of the project to prevent or remedy a violation of one or more conditions of certification (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. The project owner shall comply with the stop work order immediately upon receipt thereof.

REVEGETATION PLAN AND COMPENSATION FOR IMPACTS TO NATIVE VEGETATION COMMUNITIES

- BIO-10.** The project owner shall provide restoration/compensation for impacts to native vegetation communities and develop and implement a Revegetation Plan, as deemed necessary, for all areas subject to temporary project disturbance. Upon completion of construction, all temporarily disturbed areas shall be restored to pre-project grade and conditions. Temporarily disturbed areas within the project area include, but are not limited to: all areas where underground infrastructure was installed, temporary access roads, construction work temporary lay-down areas, and construction equipment staging areas.

Verification: The project owner shall submit to the BLM's Wildlife Biologist and the CPM for approval at least 30 days prior to start of any construction-related ground disturbing activities a Revegetation Plan. The Revegetation Plan shall include the following measures:

1. **Plan Details.** The plans shall include at minimum: (a) locations and details for top soil storage; (b) methods to salvage and replant cacti and the plant species to be used in restoration; (c) seed collection guidelines; (d) a schematic depicting the mitigation area; (e) time of year that the planting will occur and the methodology of the planting; (f) a description of the irrigation methodology if used; (g) measures to control exotic vegetation on site; (h) success criteria; and (i) a detailed monitoring program. All habitats dominated by non-native species prior to project disturbance shall be revegetated using appropriate native species. This plan shall also contain contingency measures for failed restoration efforts (efforts not meeting success criteria).
2. **Topsoil Salvage.** Topsoil shall be stockpiled from the project site for use in revegetation of the disturbed soils, as necessary and feasible. The topsoil excavated shall be segregated, kept intact, and protected, under conditions shown to sustain seed bank viability, as necessary and feasible. The upper 1 inch of topsoil which contains the seed bank shall be scraped and stockpiled for use as the top-dressing for the revegetation area, as necessary and feasible. An additional 6 to 8 inches of soil below the top 1 inch of soil shall also be scraped and separately stockpiled for use in revegetation areas, as necessary and feasible. Topsoil shall be replaced in its original vertical orientation following ground disturbance, ensuring the integrity of the top one inch in particular. All other elements of soil stockpiling shall be conducted as described on pages 39-40 of *Rehabilitation of Disturbed Lands in California* (Newton and Claassen 2003).
3. **Seed Stock.** Only seed of locally occurring native species shall be used for revegetation. Seeds shall contain a mix of short-lived early pioneer species such as native annuals and perennials and subshrubs. Seeding shall be conducted as described in Chapter 5 of *Rehabilitation of Disturbed Lands in California* (Newton and Claassen 2003). A list of plant species suitable for Mojave Desert region revegetation projects, including recommended seed treatments, are included in Appendix A-8 of the same report. The list of plants observed during the 2010 special-status plant surveys of the Project area can also be used as a guide to site-specific plant selection for revegetation.
4. **Monitoring Requirement and Success Criteria.** Post-seeding and planting monitoring will be yearly and shall continue for a period of no less than 10 years until the defined success criteria are achieved. If the survival and cover requirements have not been met, the project owner is responsible for

replacement planting to achieve these requirements or other remedial action as agreed to by BLM and CPM. Replacement plants shall be monitored with the same survival and growth requirements as required for original revegetation plantings. Remediation activities (e.g., 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 restoration effort. If the mitigation fails to meet the established performance criteria after the 10-year maintenance and monitoring period, monitoring and remedial activities shall extend beyond the 10-year period until the criteria are met or unless otherwise specified by the Energy Commission and BLM. The following performance standards must be met by the end of monitoring year two: (a) at least 80% of the species observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; and (b) Relative cover and density of plant species within the temporarily disturbed areas shall equal at least 60%.

All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Within 90 days after completion of each year of project construction, the project owner shall provide to the CPM verification of the total vegetation and community subject to temporary and permanent disturbance. To monitor and evaluate the success of the restoration, the project owner shall submit annual reports of the restoration including the status of the site, percent cover of native and exotics, and any remedial actions conducted by the owner to the CPM and BLM Authorized Officer.

Within 90 days after completion of each year of project construction, the project owner shall provide to the CPM for review and approval, a written report 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.

On January 31st of each year following construction until the completion of the revegetation monitoring specified in the Revegetation Plan, the Designated Biologist shall provide a report to the CPM and BLM's Wildlife Biologist that includes: a summary of revegetation activities for the year, a discussion of whether revegetation performance standards for the year were met; and recommendations for revegetation remedial action, if warranted, are planned for the upcoming year.

SPECIAL-STATUS PLANT IMPACT AVOIDANCE AND MINIMIZATION

BIO-12. BIO-12 The project owner shall implement the following measures to avoid and minimize impacts to federally listed, state listed, and CNPS List 1B or List 2 plant species. As used in this condition, the term special status plants includes all federally listed, state listed and CNPS List 1B and List 2 plant species.

1. Conduct on-site pre-construction surveys.

2. Avoid/minimize impacts to federally listed, state listed, and CNPS List 1 B or List 2 plant species.
3. Conduct surveys on Acquired Compensation Lands, as necessary and feasible.
4. Establish onsite protection goals.
5. Identify and establish Special-Status Plant Protection Areas and Environmentally Sensitive Areas.
6. Prepare and implement a Special-Status Plant Protection and Monitoring Plan.
7. Develop measures to address Special-Status Plant Remedial Actions.
8. Implement the collection and storage of seed for impacted federally listed, state listed, and CNPS List 1 B or List 2 plant species.
9. Provide security for implementation of plans.
10. Implement San Bernardino County Plant Protection and Management Ordinance, as necessary and feasible.

Verification:

1. On-Site Pre-Construction Surveys:

Survey results for on-site pre-construction surveys shall be reported to the CPM, BLM's Authorized Officer, and CDFG, and shall follow CDFG and BLM plant survey guidelines, and shall include complete descriptions of survey methodology, including field dates and staff for each date, summaries of field conditions (e.g., rainfall or other factors that may affect ability to locate special-status plants), locations and condition of special-status plant reference locations visited for verification, the locations of any special-status species found during the surveys, delineations of acreage of occupied habitat, and copies of California Natural Diversity Data Base field forms submitted to the CDFG; surveys shall be approved by the CPM and BLM's Wildlife Biologist.

Following completion of pre-construction clearance surveys, the CPM shall review and modify onsite plant avoidance and minimization measures (below), to the extent feasible, to avoid or minimize loss or degradation of occupied special-status plant habitat on site.

- a. Special-status plant occurrences in the 250-foot buffer areas surrounding construction sites shall be marked on the ground by field botanists and shall be designated as Environmentally Sensitive Areas on plans and specifications, and shall be protected from accidental impacts during construction (e.g., vehicle traffic, temporary placement of soils or vegetation)

and from the indirect impacts of project operation (herbicide spraying, changes in upstream hydrology, etc).;

- b. Avoid/Minimize Impacts to federally listed, state listed, and CNPS List 1 B or List 2 taxa plant species: The project owner shall avoid and minimize disturbance to all white-margined beardtongue occurrences on the project site and within a 250 foot buffer area, and, to the extent feasible, shall avoid and minimize disturbance to 75% of all Emery's crucifixion thorn, Coves' cassia, small-flowered sand-verbena, and any other CNPS List 1 B or List 2 taxa (excluding small-flowered androstephium) occurring on the site. Specific requirements for on-site plant avoidance and protection are set forth below, in measures 4 through 9.

Surveys shall be conducted as follows:

- During the calendar year 2010, the project owner shall conduct floristic surveys for special-status plant species, including all special-status species listed in Biological Resources Table 1, to provide conclusive evidence of presence or absence of the federally listed Lane Mountain milk-vetch and to quantify acres of occupied habitat for all other special-status plants that could be lost or degraded by construction.
- All surveys shall be conducted by a qualified botanist in accordance with BLM (2009) and CDFG (2009) plant survey guidelines and shall be conducted during appropriate seasons (including both spring and summer blooming periods);
- The survey area shall be delineated using GPS and GIS tools. Botanical surveys shall cover each marked area and shall extend over a 250-foot surrounding buffer area (to extend off-site beyond the project area fenceline and limits of grading as appropriate);
- Energy Commission offers its staff to assist in planning, managing, and conducting the required surveys. Staff anticipates that rainfall during 2010 should provide for good detectability of most special-status plants. Furthermore, staff notes that time is of the essence and anticipates completing all or most of these field surveys, in coordination with the applicant, before finalizing the Staff Assessment;

2. Surveys on Acquired Compensation Lands:

For each year surveys are conducted, yearly survey results shall be provided to the CPM, BLM's Authorized Officer, and CDFG, and shall include CNDDDB field survey forms for all special-status plant species encountered during the surveys; and

All field survey forms shall be submitted to the CNDDDB at the time of submittal to the CPM, BLM and CDFG.

For each of the species for which surveys were conducted, the project owner's qualified botanist shall submit a completion report documenting fulfillment of the target goals and

which describe the number of new, previously undiscovered occurrences identified and mapped. Locations shall be reported with GPS coordinates compatible with inclusion in a GIS database.

On January 31st of each year following initiation of construction the project owner's qualified botanist shall submit a report, including CNDDDB field survey forms, describing the results of off-site plant surveys to the BLM's Authorized Officer, the CPM, CDFG, and CNDDDB. Submittal of survey reports shall continue until the same number of occurrences and areal extent of occupied habitat impacted by the project for small-flowered androstephium, white-margined beard-tongue, and any other federally listed, state listed, and CNPS List 1 B or List 2 plant species are identified on these off-site lands. For each of the species for which surveys were conducted, the project owner's qualified botanist shall submit a completion report documenting fulfillment of the target goals and describing the number of new, previously undiscovered occurrences identified and mapped using GPS/GIS techniques for each species. Mapping results shall include GPS coordinates of the plants found. Surveys shall be approved by the CPM and BLM's Wildlife Biologist.

- Surveys shall be conducted according to methods described for pre-construction surveys above, and shall be conducted in seasons of adequate rainfall to verify ability to find the target species in condition for confident identifications
- The project owner shall conduct floristic surveys for special-status plants on all lands acquired by the owner as part of the desert tortoise compensatory mitigation requirements (see Condition of Certification BIO-17), as necessary and feasible. Target species for the surveys shall be white-margined beardtongue, Emery's crucifixion thorn, Coves' cassia, small-flowered sand-verbena, and any other special-status plants located on the project site during onsite pre-construction surveys described above. The purpose of the surveys shall be (1) to document biological resource values of the compensation lands, and (2) to determine presence of special-status plant occurrences that may serve to mitigate project impacts to Emery's crucifixion thorn, Coves' cassia, small-flowered sand-verbena, and any other special-status plants located on the project site. If these species are documented on compensation lands, then the occurrences may serve to replace requirements for on-site avoidance. Note that off-site occurrences of white-margined beardtongue may not substitute for on-site avoidance.

3. Establish Onsite Protection Goals:

The project owner shall implement all feasible measures to protect 75% of the occupied habitat of white-margined beard-tongue, Emery's crucifixion thorn, Coves' cassia, small-flowered sand-verbena, and any other CNPS List 1 B or List 2 taxa (excluding small-flowered androstephium) found during pre-construction clearance surveys within the project area. Each year during construction the measurement of percent protection achieved shall be calculated based on a comparison of extent of occupied habitat of each species present in this area identified before construction compared to the extent of occupied habitat remaining post-construction. These pre- and post-construction

acreages shall be based on floristic surveys conducted by a qualified botanist following survey methodology described above.

4. Identify and Establish Special-Status Plant Protection Areas and Environmentally Sensitive Areas:

No more than 30 days following the publication of the Energy Commission Decision the project owner shall submit final maps and design drawings depicting the location of Special-Status Plant Protection Areas within and Environmentally Sensitive Areas adjacent to the project site, and shall identify the species and numbers of plants within each of the Special-Status Plant Protection Areas and Environmentally Sensitive Areas.

The project owner shall identify Special-Status Plant Protection Areas within the project footprint as needed to achieve the 75% protection goal, based on pre-construction surveys described above. The locations of the Special-Status Plant Protection Areas shall be clearly depicted on all final maps and project drawings and descriptions. The areal extent of special-status plants shall be mapped and the designated Special-Status Plant Protection Area shall provide a 250-foot buffer from all project activities wherever feasible. In addition, the project owner shall identify special-status plant occurrences within 250 feet of the project fence line during the pre-construction plant surveys described above. A qualified botanist shall delineate the boundaries of these special-status plant occurrences at least 30 days prior to the initiation of ground-disturbing activities. These flagged special-status plant occurrences shall be designated as Environmentally Sensitive Areas on plans and specifications, and shall be protected from accidental impacts during construction (e.g., vehicle traffic, temporary placement of soils or vegetation) and from the indirect impacts of project operation (herbicide spraying, changes in upstream hydrology, etc).

5. Prepare and Implement a Special-Status Plant Protection and Monitoring Plan:

No more than 30 days following the publication of the Energy Commission Decision the project owner shall submit draft versions of the Special-Status Plant Protection and Monitoring Plan for review by the CPM, BLM's Authorized Officer, and CDFG. The project owner shall also provide a cost estimate for implementation of the plans which shall be subject to approval by the CPM, BLM's Authorized Officer, and the CDFG. The final plan shall be submitted for approval by the CPM, in consultation with BLM's Authorized Officer, CDFG, and CNPS within 90 days of the publication of the Commission Decision. The final plans shall be incorporated into the BRMIMP. At this time, the project owner shall also provide security sufficient to fund the implementation of the plans.

The project owner shall prepare and implement the Special-Status Plant Protection and Monitoring Plan for special-status plants occurring within the Special-Status Plant Protection Areas. The goal of the Special-Status Plant Protection and Monitoring Plan shall be to maintain the special-status plant species within the Special-Status Plant Protection Areas as healthy, reproductive populations that can be sustained in perpetuity. At a minimum, the Special-Status Plant Protection and Monitoring Plan shall:

- Establish baseline conditions, including numbers and areal extent of special-status plant occurrences within the Special-Status Plant Protection Areas;
- Establish success standards for protection of special-status plant occurrences within the Plant Protection Areas;
- Provide any available information about microhabitat preferences and fecundity, essential pollinators, reproductive biology, and propagation and culture requirements for each special-status species;
- Describe measures (e.g., fencing, signage) to avoid direct construction and operation impacts to special-status plants within the Special-Status Plant Protection Areas;
- Describe measures to avoid or minimize indirect construction and operations impacts to special-status plants within the Special-Status Plant Protection Areas (e.g., runoff from mirror-washing, use of soil stabilizers/tackifiers, alterations of hydrology from drainage diversions, erosion/sedimentation from disturbed soils upslope, herbicide drift, the spread of non-native plants, etc).
- Provide a monitoring schedule and plan for assessing the numbers and condition of special-status plants within the Special-Status Plant Protection Areas; and
- Identify specific triggers for remedial action (e.g., numbers of plants dropping below a threshold).

7. Develop Special-Status Plant Remedial Action Measures and include in the Development of the Special-Status Plant Protection and Monitoring Plan:

No more than 30 days following the publication of the Energy Commission Decision the project owner shall submit draft versions of the Special-Status Plant Remedial Action measures for review by the CPM, BLM's Authorized Officer, and CDFG. The project owner shall also provide a cost estimate for implementation of the measures which shall be subject to approval by the CPM, BLM's Authorized Officer, and the CDFG. The final measures shall be submitted for approval by the CPM, in consultation with BLM's Authorized Officer, CDFG, and CNPS within 90 days of the publication of the Commission Decision. The final measures shall be incorporated into the BRMIMP. At this time, the project owner shall also provide security sufficient to fund the implementation of the measures.

The project owner shall develop detailed Special-Status Plant Remedial Action Measures to be implemented if special-status plants within the Plant Protection Areas fail to meet success standards described in the Special-Status Plant Protection and Monitoring Plan. The Plant Remedial Action measures shall include specifications for

ex-situ/offsite conservation of seed and other propagules, and the seed bank and other symbionts contained in the topsoil where these plants occur. The plant remedial measures shall not substitute for plant protection or other mitigation measures. The Special-Status Plant Remedial Action measures shall include, at a minimum:

- Guidelines for pre-construction seed collection (and/or other propagules) for each special-status species;
- Specifications for collecting, storing, and preserving the upper layer of soil containing seed and important soil organisms;
- Detailed replacement planting program with biologically meaningful quantitative and qualitative success criteria (see Pavlik 1996), monitoring specifications, and triggers for remedial action; and
- Ecological specifications for suitable planting sites.

8. Implement Seed Collection measures within the Special-Status Plant Protection and Monitoring Plan:

No more than 30 days following the publication of the Energy Commission Decision the project owner shall submit draft versions of the Seed Collection measures for review by the CPM, BLM's Authorized Officer, and CDFG. The project owner shall also provide a cost estimate for implementation of the measures which shall be subject to approval by the CPM, BLM's Authorized Officer, and the CDFG. The final measures shall be submitted for approval by the CPM, in consultation with BLM's Authorized Officer, CDFG, and CNPS within 90 days of the publication of the Commission Decision. The final measures shall be incorporated into the BRMIMP. At this time, the project owner shall also provide security sufficient to fund the implementation of the measures.

Within 30 days of the start of construction, the project owner shall submit a copy of the contract with the CPM-approved seed contractor and the check for seed collection and curation fees to the CPM.

Implementation of the Special-Status Plant Remedial Action measures would require a local source of seeds/propagules. In addition, seed collection would serve to preserve germplasm in the event that all mitigation fails. The project owner shall develop and implement Seed Collection measures to collect and store seed for white-margined beard-tongue, Emery's crucifixion thorn, Coves' cassia, small-flowered sand-verbena, and any other CNPS List 1 B or List 2 taxa (excluding small-flowered androstephium) found during pre-construction clearance surveys within the project area. The source of these seeds shall be from plants proposed for removal within the project footprint. The project owner shall engage the services of a qualified contractor approved by the CPM to undertake seed collection and storage. The results of seed collection shall be summarized in the annual compliance report.

9. Security Shall be Provided for Implementation of Special-Status Plant Protection and Monitoring Plan:

The project owner shall provide security adequate to fund implementation of the Special-Status Plant Protection and Monitoring Plan inclusive of Special-Status Plant Remedial Action measures for the life of the project, and the Seed Collection measures in an amount deemed acceptable by BLM and CDFG.

10. Implement San Bernardino County Plant Protection and Management Ordinance, as necessary and feasible within the Special-Status Plant Protection and Monitoring Plan:

No more than 30 days following the publication of the Energy Commission Decision the project owner shall submit draft versions of the Protected Plant Salvage measures for review by the CPM. The project owner shall also provide a cost estimate for implementation of the measures which shall be subject to approval by the CPM. The final measures shall be submitted for approval by the CPM within 90 days of the publication of the Commission Decision. The final measures shall be incorporated into the BRMIMP. At this time, the project owner shall also provide security sufficient to fund the implementation of the measures.

The San Bernardino County Plant Protection and Management Ordinance regulates the following where they occur on non-government land (San Bernardino County Code 88.01): desert native plants with stems 2 inches or greater in diameter or 6 feet or greater in height: *Psoralea* [Dalea] *spinosa* (smoke tree), *Prosopis* spp. (mesquites), all species of the family *Agavaceae* (century plants, nolin, yuccas), creosote rings 10 feet or greater in diameter, all Joshua trees; and any part of any of the following species, whether living or dead: *Olneya tesota* (desert ironwood), all species of the genus *Prosopis* (mesquites), and all species of the genus *Cercidium* (palo verdes). Staff recognizes that the project site is on public land and thus not strictly subject to the County ordinance. However, staff notes that the proposed project would convert the site to exclusive private use and is, in effect, a private project. Staff recommends conformance with County standards, as follows:

- a. The project owner shall inventory all plants on the project site that would be removed or damaged by proposed project construction.
- b. Prior to initiating any ground-disturbing activities on the project site, the project owner shall implement the Protected Plant Replacement Measures as approved by the CPM and the County.

The Designated Biologist shall submit monthly and annual compliance reports to the CPM, BLM Authorized Officer, and CDFG describing all project activities pertinent to mitigation measures listed above. Compliance reports shall include summaries of written and photographic records of the tasks described above. Compliance reports shall be submitted monthly and annually for a period not less than 5 years for the Protected Plant Replacement Measures and for the life of the project for the Special-

Status Plant Protection and Monitoring Plan and the Special-Status Plant Remedial Action measures, including funding for the seed storage.

The Designated Biologist shall maintain written and photographic records of the tasks described above, and make these records available to the CPM, County, BLM Authorized Officer, and CDFG upon request.

MOJAVE FRINGE-TOED LIZARD MITIGATION

BIO-13. To mitigate for habitat loss and direct impacts to Mojave fringe-toed lizards the project owner shall provide compensatory mitigation at a 5:1 ratio for impacts to the 16.9 acres of stabilized or partially stabilized desert dune habitat present in the project footprint. Mitigation is required because even if avoided, the population in this area is not expected to persist. The mitigation shall be provided either through the acquisition and perpetual management of suitable compensation lands or through the payment of funding to an approved in-lieu fee mitigation program. An in-lieu fee program must be approved by BLM, CDFG and the CPM, and shall only be approved if these agencies determine that the funds will be used to acquire land of similar mitigation value.

Verification: If feasible, the project owner or an approved third party shall complete acquisition of the proposed compensation lands prior to initiating ground-disturbing project activities. The terms and conditions of this acquisition or easement, including Security requirements, shall be as described in BIO-17 [Desert Tortoise Compensatory Mitigation]. The compensation lands selected for acquisition shall:

1. Be sand dune or partially stabilized sand dune habitat 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;
2. Be connected to lands currently occupied by Mojave fringe-toed lizard;
3. 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;
4. Provide quality habitat for Mojave fringe-toed lizard, that has the capacity to regenerate naturally when disturbances are removed;
5. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;

6. 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;
7. Not contain hazardous wastes;
8. Not be subject to property constraints (i.e., mineral leases, cultural resources); and
9. Be on land for which long-term management is feasible.

Alternatively, financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") in the amount of \$212,095 prior to initiating ground-disturbing project activities. This Security amount was calculated as described in BIO-17 and may be revised upon completion of a Property Analysis Record (PAR) or PAR-like analysis of the proposed compensation lands. Prior to submittal to the CPM and the BLM Authorized Officer, the Security shall be approved by the CPM and the BLM Authorized Officer, in consultation with CDFG, to ensure funding in an amount determined by a PAR or PAR-like analysis of the proposed compensation lands.

To the extent suitable, compensatory lands obtained to mitigate for impacts and habitat loss to the Desert Tortoise may be deemed to mitigate for impacts and habitat loss to the Mojave Fringe-Toed Lizard as well.

A minimum of 30 days prior to acquisition of the property, the project owner shall submit a formal acquisition proposal to BLM's Wildlife Biologist, the CPM, and CDFG describing the parcels intended for purchase.

No later than 30 days prior to beginning project ground-disturbing activities, the project owner shall provide written verification of Security in accordance with this condition of certification. The project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities. Within six months of the land or easement purchase, as determined by the date on the title, the project owner, or an approved third party, shall provide the CPM, BLM's Wildlife Biologist, and CDFG with a management strategy for the compensation lands and associated funds. The CPM and BLM's Wildlife Biologist shall review and approve the management strategy, in consultation with CDFG. Alternatively, if the project owner satisfies this condition through the payment of funds into an approved in-lieu fee program, the project owner shall provide written verification of the payment of such funds no later than 30 days prior to beginning project ground-disturbing activities.

Within 90 days after completion of project construction, the project owner shall provide to the CPM and BLM's Wildlife Biologist an analysis with the final accounting of the amount of sand dune/stabilized sand dune habitat disturbed during project construction.

DESERT TORTOISE CLEARANCE SURVEYS AND EXCLUSION FENCING

BIO-15. The project owner shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise. Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling and other procedures shall be consistent with those described in the USFWS' 2009 *Desert Tortoise Field Manual* <http://www.fws.gov/venture/speciesinfo/protocols_guidelines> or more current guidance provided by CDFG and USFWS. The project owner shall also implement all terms and conditions described in the Biological Opinion for the Project prepared by USFWS. These measures include, but are not limited to, the following:

1. Installation of desert tortoise exclusion fence.
2. Desert tortoise clearance surveys within the plant site.
3. Monitoring during and following vegetation clearing and as needed during site construction.
4. Reporting.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the Monthly Compliance Reports by the Designated Biologist. To ensure that impacts to the desert tortoise are avoided and minimized, the project owner shall implement the following measures:

1. Desert Tortoise Exclusion Fence Installation. To avoid impacts to desert tortoises, permanent desert tortoise exclusion fencing shall be installed along the permanent perimeter security fence and temporarily installed along the Applicant's utility corridors. The proposed alignments for the permanent perimeter fence and utility rights-of-way fencing shall be flagged and surveyed within 24 hours prior to the initiation of fence construction. Clearance surveys of the perimeter fence and utility rights-of-way alignments shall be conducted by the Designated Biologist(s) using techniques approved by the USFWS and CDFG and may be conducted in any season with USFWS and CDFG approval. Biological Monitors may assist the Designated Biologist under his or her supervision with the approval of the CPM, BLM, USFWS, and CDFG. These fence clearance surveys shall provide 100-percent coverage of all areas to be disturbed and an additional transect along both sides of the fence line. This fence line transect shall cover an area approximately 90 feet wide centered on the fence alignment. Transects shall be no greater than 15 feet apart. All desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined to assess occupancy of each

burrow by desert tortoises and handled in accordance with the USFWS' 2009 Desert Tortoise Field Manual. Any desert tortoise located during fence clearance surveys shall be handled by the Designated Biologist(s) in accordance with the USFWS' 2009 Desert Tortoise Field Manual.

- a. Timing, Supervision of Fence Installation. The exclusion fencing shall be installed prior to the onset of site clearing and grubbing. Fencing shall also be placed on the proposed access roads in tortoise habitat unless otherwise approved by the CPM, BLM Wildlife Biologist, USFWS, and CDFG. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present.
- b. Fence Material and Installation. The permanent tortoise exclusionary fencing shall be constructed in accordance with the USFWS' 2009 Desert Tortoise Field Manual (Chapter 8 – Desert Tortoise Exclusion Fence).
- c. Security Gates. Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. The gates may be electronically activated to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time. Cattle grating designed to safely exclude desert tortoise shall be installed at the gated entries to discourage tortoises from gaining entry
- d. Fence Inspections. Following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing in the utility corridors, the fencing shall be regularly inspected.

If tortoise were moved out of harm's way during fence construction, permanent and temporary fencing shall be inspected at least two times a day for the first 7 days to ensure a recently moved tortoise has not been trapped within the fence. Thereafter, permanent fencing shall be inspected monthly and during and within 24 hours following all major rainfall events. A major rainfall event is defined as one for which flow is detectable within the fenced drainage. Any damage to the fencing shall be temporarily repaired immediately to keep tortoises out of the site, and permanently repaired within 48 hours of observing damage. Inspections of permanent site fencing shall occur for the life of the project. Temporary fencing shall be inspected weekly and, where drainages intersect the fencing, during and within 24 hours following major rainfall events. All temporary fencing shall be repaired immediately upon discovery and, if the fence may have permitted tortoise entry while damaged, the Designated Biologist shall inspect the area for tortoise.

2. Desert Tortoise Clearance Surveys within the Plant Site. Following construction of the permanent perimeter security fence and the attached tortoise exclusion fence, the permanently fenced power plant site shall be cleared of tortoises by the Designated Biologist, who may be assisted by the Biological Monitors. Clearance surveys shall be conducted in accordance with the USFWS' 2009 Desert Tortoise Field Manual (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) and shall consist of two surveys covering 100% the project area by walking transects no more than 15-feet apart. If a desert tortoise is located on the second survey, a third survey shall be conducted. Each separate survey shall be walked in a different direction to allow opposing angles of observation. Clearance surveys of the power plant site may only be conducted when tortoises are most active (April through May or September through October). Surveys outside of these time periods require approval by USFWS and CDFG. Any tortoise located during clearance surveys of the power plant site shall be relocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan (Condition of Certification BIO-16).
 - a. Burrow Searches. During clearance surveys all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined by the Designated Biologist, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by desert tortoises and handled in accordance with the USFWS' 2009 Desert Tortoise Field Manual. To prevent reentry by a tortoise or other wildlife, all burrows shall be collapsed once absence has been determined. Tortoises taken from burrows and from elsewhere on the power plant site shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.
 - b. Burrow Excavation/Handling. All potential desert tortoise burrows located during clearance surveys would be excavated by hand, tortoises removed, and collapsed or blocked to prevent occupation by desert tortoises. All desert tortoise handling and removal, and burrow excavations, including nests, would be conducted by the Designated Biologist, who may be assisted by a Biological Monitor in accordance with the USFWS' 2009 Desert Tortoise Field Manual.
3. Monitoring Following Clearing. Following the desert tortoise clearance and removal from the power plant site and utility corridors, workers and heavy equipment shall be allowed to enter the project site to perform clearing, grubbing, leveling, and trenching. A Designated Biologist shall monitor clearing and grading activities to find and move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan to an area approved by the Designated Biologist.

4. Reporting. The Designated Biologist shall record the following information for any desert tortoises handled: a) the locations (narrative and maps) and dates of observation; b) general condition and health, including injuries, state of healing and whether desert tortoise voided their bladders; c) location moved from and location moved to (using GPS technology); d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); e) ambient temperature when handled and released; and f) digital photograph of each handled desert tortoise as described in the paragraph below. Desert tortoise moved from within project areas shall be marked and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan.

. Within 30 days after completion of desert tortoise clearance surveys the Designated Biologist shall submit a report to BLM's Authorized Officer, the CPM, USFWS, and CDFG describing implementation of each of the mitigation measures listed above. The report shall include the desert tortoise survey results, capture and release locations of any relocated desert tortoises, and any other information needed to demonstrate compliance with the measures described above.

DESERT TORTOISE RELOCATION/TRANSLOCATION PLAN

- BIO-16.** The project owner shall develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines, and meets the approval of BLM's Wildlife Biologist and the CPM. The goal of the Plan shall be to safely exclude desert tortoises from within the fenced project area and relocate/translocate them to suitable habitat capable of supporting them, while minimizing stress and potential for disease transmission. The final Plan shall be based on the draft Desert Tortoise Relocation/Translocation Plan prepared by the applicant and shall include all revisions deemed necessary by USFWS, CDFG and staff. The Plan shall include but not be limited to, a list of the authorized handlers, protocols for disease testing and assessing tortoise health, proposed translocation locations and procedures, schedule of translocations, a habitat assessment of translocation lands, monitoring and reporting, and contingency planning.

Verification: Within 7 days of publication of the Energy Commission License Decision Record of Decision/ROW Issuance, whichever comes first, the project owner shall provide BLM's Wildlife Biologist and the CPM with the final version of a Desert Tortoise Relocation/Translocation Plan that has been reviewed and approved by BLM's Authorized Office and the CPM in consultation with USFWS and CDFG. All modifications to the approved Plan shall be made only after approval by BLM's Wildlife Biologist and the CPM, in consultation with USFWS and CDFG.

Within 90 days after initiation of relocation and/or translocation activities, the Designated Biologist shall provide to BLM's Wildlife Biologist and the CPM for review and approval, a written report identifying which items of the Plan have been completed, and a summary of all modifications to measures made during implementation of the Plan. Written monthly progress reports shall be provided to the BLM's Wildlife Biologist and CPM for the duration of the Plan implementation.

DESERT TORTOISE COMPENSATORY MITIGATION

BIO-17. To fully mitigate for habitat loss and potential take of desert tortoise, the project owner shall provide compensatory mitigation for impacts to 8,219 acres. Impacts to the area south of the BNSF Railroad shall be mitigated at a 1:1 ratio. Impacts to the area north of the BNSF Railroad tracks shall be mitigated at a 3:1 ratio. The BLM's compensatory mitigation plan (fee based) serves as all of the 1:1 mitigation ratio below the railroad tracks, and one-third of the 3:1 mitigation ratio required to satisfy CESA above the railroad tracks. This 1:1 component of the total compensatory mitigation (calculated for 8,230 acres) shall be provided in fee to the BLM. The remaining two-thirds of the 3:1 compensation mitigation above the railroad tracks (coming to 11,658 acres) shall satisfy the requirements of the Energy Commission Complementary Mitigation Measures described in this condition. Alternatively, the project owner could satisfy this condition by providing funding to an approved in-lieu mitigation program. Any in-lieu fee program must be approved by BLM, CDFG and the CPM, and shall only be approved if these agencies determine that the funds will be used to acquire land that meets the requirements of this condition. Any Energy Commission compensation shall include the following:

1. Designation of the party responsible for the acquisition of the compensation lands.
2. Selection criteria for compensation lands to meet Energy Commission and CESA requirements.
3. Review and approval of compensation lands prior to acquisition.
4. Commission mitigation security to guarantee that an adequate level of funding is available to implement the Energy Commission Complementary Mitigation Measures described in this condition.

Verification:

No less than 30 days prior to acquisition of the property, the project owner shall submit a formal acquisition proposal to BLM's Wildlife Biologist, the CPM, CDFG, and USFWS

describing the parcels intended for purchase to comply with the requirement to acquire compensation lands.

The project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities. Within 180 days of the land or easement purchase, as determined by the date on the title, the project owner, or an approved third party, shall provide BLM's Wildlife Biologist, the CPM, CDFG, and USFWS with a management plan for the compensation lands and associated funds. BLM's Wildlife Biologist and the CPM shall review and approve the management plan, in consultation with CDFG and the USFWS.

Within 90 days after completion of project construction, the project owner shall provide to the CPM and CDFG an analysis with the final accounting of the amount of habitat disturbed during project construction.

Land acquisition shall proceed as follows:

1. Designation of the party responsible for the acquisition of the compensation lands: The responsibility for acquisition of lands may be delegated by written agreement from the Energy Commission and CDFG to a third party, such as a non-governmental organization supportive of habitat conservation or approved governmental agencies such as the NPS. Such delegation shall be subject to approval by the CPM and CDFG, in consultation with BLM and USFWS, prior to land acquisition, enhancement, or management activities. If habitat disturbance exceeds that described in this analysis, the project owner shall be responsible for funding acquisition, habitat improvements, and long-term management of additional compensation lands or additional funds required to compensate for any additional habitat disturbances. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. Water and mineral rights shall be included as part of the land acquisition. Agreements to delegate land acquisition to CDFG or an approved third party and to manage compensation lands shall be implemented within 18 months of the Energy Commission's License Decision.
2. Selection Criteria for Compensation Lands. The compensation lands selected for acquisition to meet Energy Commission and CESA requirements shall:
 - a. be within the Western Mojave Recovery Unit, with 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;

- b. provide habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed;
 - 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;
 - d. be connected to lands currently occupied by desert tortoise, ideally with populations that are stable, recovering, or likely to recover;
 - e. not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;
 - 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; and
 - g. not contain hazardous wastes.
3. Review and Approval of Compensation Lands Prior to Acquisition. A minimum of three months prior to acquisition of the property, the project owner shall submit a formal acquisition proposal to the CPM, CDFG, USFWS, and BLM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for desert tortoise in relation to the criteria listed above. Approval from CDFG and the CPM, in consultation with BLM and the USFWS, shall be required for acquisition of all parcels comprising the 11658 acres.

4. Commission Mitigation Security:

No later than 30 days prior to beginning project ground-disturbing activities, the project owner shall provide written verification of Security in accordance with this condition of certification.

The project owner shall provide financial assurances to the CPM and CDFG with copies of the document(s) to BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the Energy Commission Complementary Mitigation Measures described in this condition. These funds shall be used solely for implementation of the measures associated with the project. Alternatively, financial assurance can be provided to the CPM and CDFG in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") prior to initiating ground-disturbing project activities.

Prior to submittal to the CPM, the Security shall be approved by CDFG and the CPM, in consultation with BLM and the USFWS, to ensure funding in the amount of \$29,261,580.00. This Security amount was calculated as follows and may be revised upon completion of a Property Analysis Record (PAR) or PAR-like analysis of the proposed compensation lands:

- a. land acquisition costs for compensation lands (11,658 acres), calculated at \$910/acre = \$10,608,780;
- b. costs of initial habitat improvements to compensation lands (11,658 acres), calculated at \$250/acre = \$2,644,500;
- c. costs of establishing an endowment for long-term management of compensation lands (11,658 acres), calculated at \$1,350/acre = \$14,280,300.

The total mitigation fee amount for the total 19,888 acres, including the BLM fee of \$8,534,510, shall be \$37,796,090.

5. Compensation Lands Acquisition Conditions: The project owner shall comply with the following conditions relating to acquisition of the compensation lands after the CDFG and the CPM, in consultation with BLM and the USFWS, have approved the proposed compensation lands and received Security as applicable and as described above.
 - a. Preliminary Report: The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed 11,658 acres. All documents conveying or conserving compensation lands and all conditions of title/easement are subject to a field review and approval by CDFG and the CPM, in consultation with BLM and the USFWS, California Department of General Services and, if applicable, the Fish and Game Commission and/or the Wildlife Conservation Board.
 - b. Title/Conveyance: The project owner shall transfer fee title or a conservation easement to the 11,658 acres of compensation lands to CDFG under terms approved by CDFG. Alternatively, a non-profit organization qualified to manage compensation lands (pursuant to California Government Code section 65965) and approved by CDFG and the CPM may hold fee title or a conservation easement over the habitat mitigation lands. If the approved non-profit organization holds title, a conservation easement shall be recorded in favor of CDFG in a form approved by CDFG. If the approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary. If a Security is provided, the project owner or an approved

third party shall complete the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities.

- c. Initial Habitat Improvement Fund. The project owner shall fund the initial protection and habitat improvement of the 11,658 acres. Alternatively, a non-profit organization may hold the habitat improvement funds if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of CDFG and the CPM. If CDFG takes fee title to the compensation lands, the habitat improvement fund must go to CDFG.
- d. Long-Term Management Endowment Fund. Prior to ground-disturbing project activities, the project owner shall provide to CDFG a non-wasting capital endowment in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis that would be conducted for the 11,658 acres. Alternatively, a non-profit organization may hold the endowment fees if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of CDFG and the CPM. If CDFG takes fee title to the compensation lands, the endowment must go to CDFG, where it would be held in the special deposit fund established pursuant to California Government Code section 16370. If the special deposit fund is not used to manage the endowment, the California Wildlife Foundation or similarly approved entity identified by CDFG shall manage the endowment for CDFG and with CDFG supervision.
- e. Interest, Principal, and Pooling of Funds. The project owner, CDFG and the CPM shall ensure that an agreement is in place with the endowment holder/manager to ensure the following conditions:
 - i. Interest. Interest generated from the initial capital endowment 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 approved by CDFG designed to protect or improve the habitat values of the compensation lands.
 - ii. Withdrawal of Principal. The endowment principal shall not be drawn upon unless such withdrawal is deemed necessary by the CDFG or the approved third-party endowment manager to ensure the continued viability of the species on the 11,658 acres. If CDFG takes fee title to the compensation lands, monies received by CDFG pursuant to this provision shall be deposited in a special deposit fund established pursuant to Government Code section

16370. If the special deposit fund is not used to manage the endowment, the California Wildlife Foundation or similarly approved entity identified by CDFG would manage the endowment for CDFG with CDFG supervision.

- iii. Pooling Endowment Funds. CDFG, or a CPM and CDFG approved non-profit organization qualified to hold endowments pursuant to California Government Code section 65965, may pool the endowment with other endowments for the operation, management, and protection of the 11,658 acres for local populations of desert tortoise. However, for reporting purposes, the endowment fund must be tracked and reported individually to the CDFG and CPM.
- iv. Reimbursement Fund. The project owner shall provide reimbursement to CDFG or an approved third party for reasonable expenses incurred during title, easement, and documentation review; expenses incurred from other State or State-approved federal agency reviews; and overhead related to providing compensation lands.

The project owner is responsible for all compensation lands acquisition/ easement costs, including but not limited to, title and document review costs, as well as expenses incurred from other State agency reviews and overhead related to providing compensation lands to the department or approved third party; escrow fees or costs; environmental contaminants clearance; and other site cleanup measures. If an in-lieu fee program is in place, in-lieu fees may be used to meet the requirements above. To the extent suitable, land acquired through an in-lieu fee program may meet any applicable mitigation requirements for multiple species.

RAVEN MONITORING, MANAGEMENT, AND CONTROL PLAN

- BIO-18.** The project owner shall design and implement a Raven Monitoring, Management, and Control Plan (Raven Plan) that is consistent with the most current USFWS-approved raven management guidelines and that meets the approval of the USFWS, CDFG, and the CPM. The goal of the Raven Plan shall be to minimize predation on desert tortoises by minimizing project-related increases in raven abundance. The Raven Plan shall identify conditions associated with the project that might provide raven subsidies or attractants; describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities; describe control practices for ravens; address monitoring during construction and for the life of the project; and discuss reporting requirements. For the first year of reporting the project owner shall provide quarterly reports describing implementation of the Raven Plan. Thereafter the reports shall be submitted annually

for the life of the project. The Raven Plan shall also include a requirement for payment of an in-lieu fee of not more than \$50,000 to a third-party account established by the USFWS to support a regional raven monitoring and management plan (USFWS 2009b) if it is implemented.

Verification: At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide the CPM, the BLM's Wildlife Biologist, USFWS, and CDFG with the final version of the Raven Plan that has been reviewed and approved by USFWS and CDFG. All modifications to the approved Raven Plan must be made only after consultation with staff, USFWS, and CDFG. The project owner shall notify the CPM and the BLM's Wildlife Biologist no less than five working days before implementing any CPM- and BLM-approved modifications to the Raven Plan.

Within 30 days after completion of project construction, the project owner shall provide to the CPM and the BLM's Wildlife Biologist for review and approval a report identifying which items of the Raven 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.

PRE-CONSTRUCTION NEST SURVEYS AND IMPACT AVOIDANCE MEASURES FOR MIGRATORY BIRDS

BIO-19. Pre-construction nest surveys shall be conducted if vegetation clearance will occur within 50-feet of potential nesting sites during the bird breeding period (from February 1 through August 15). The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors and familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). Surveys shall be conducted in accordance with the following guidelines:

1. Surveys shall cover all potential nesting habitat in the project site and within 250 feet of the boundaries of the plant site and linear facilities;
2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. One of the surveys shall be conducted within the 10 days preceding initiation of vegetation clearing. Additional follow-up surveys may be required if periods of site inactivity exceed one week in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation;
3. If active nests are detected during the survey, a 50 foot no-disturbance buffer zone shall be implemented and a monitoring plan shall be developed. This protected area surrounding the nest may be adjusted by the Designated Biologist in consultation with CDFG, BLM, USFWS, and CPM. Nest locations shall be mapped using GPS technology and submitted, along

with a weekly report stating the survey results, to the CPM and BLM Authorized Officer; and

4. The Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed. Activities that might, in the opinion of the Designated Biologist and in consultation with the CPM and BLM, disturb nesting activities shall be prohibited within the buffer zone until such a determination is made.

Verification: At least 10 days prior to the start of any project-related ground disturbance activities, the project owner shall provide the CPM and BLM a letter-report describing the findings of the pre-vegetation clearing nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the no-disturbance buffer zone around the nest.

PRE CONSTRUCTION SURVEYS FOR GOLDEN EAGLES

BIO-20. Pre-construction nest surveys for Golden Eagles shall be conducted annually if construction activities will occur within 0.2 mile of potential nesting sites during the breeding period (from February 1 through August 15). The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors familiar with the ecology and nesting habits of Golden Eagles. Surveys shall be conducted in accordance with the following guidelines unless approved by the BLM, CPM, CDFG, and USFWS:

1. Surveys shall cover all potential nesting habitat in the project site and within 1 mile of the boundaries of the plant site and linear facilities;
2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. One of the surveys shall be conducted within the 10 days preceding initiation of construction activity.
3. If active nests are detected during the survey, a 0.2-mile no-disturbance buffer zone shall be implemented within the project boundaries if the active nest site is within the line of sight of the project area. This protected area surrounding the nest may be adjusted by the Designated Biologist in consultation with CDFG, BLM, USFWS, and CPM. If present a monitoring plan shall be developed identifying the schedule of monitoring required to ensure nest protection. Nest locations shall be mapped using GPS technology and submitted, along with a weekly report stating the survey results, to the CPM and BLM Wildlife Biologist; and
4. The Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed. Activities that might, in the

opinion of the Designated Biologist and in consultation with the CPM and BLM, disturb nesting activities shall be prohibited within the buffer zone until such a determination is made.

Verification: At least 10 days prior to the start of any project-related ground disturbance activities, the project owner shall provide the CPM and BLM a letter-report describing the findings of the pre-construction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the no-disturbance buffer zone around the nest.

DOCUMENTATION OF BALD AND GOLDEN EAGLE PROTECTION ACT COMPLIANCE

BIO-21. The project owner shall provide documentation to the CPM, BLM, CDFG, and USFWS that the project is in compliance with the Bald and Golden Eagle Protection Act (Title 16, United States Code, sections 668-668c).

Verification: No more than 60 days following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first, the project owner shall submit to the CPM, BLM's Authorized Officer, USFWS, and CDFG documentation that the project is in compliance with the Bald and Golden Eagle Protection Act (Title 16, United States Code, sections 668-668c). This shall include documentation from the USFWS in the form of written or electronic transmittal indicating the status of the permit, if required, and any follow up actions required by the applicant.

BURROWING OWL IMPACT AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

BIO-22. The project owner shall implement the following measures to avoid and offset impacts to burrowing owls:

1. Pre-construction surveys for burrowing owls.
2. Preparation of a Burrowing Owl Monitoring and Mitigation Plan.
3. Installation of artificial burrows.
4. Adoption and implementation of Burrowing Owl Relocation Area Management measures to be included in the Burrowing Owl Monitoring and Mitigation Plan.
5. Surveys shall be conducted of the relocation area containing artificial burrows.

Verification:

Within 30 days of publication of the Energy Commission Decision, the project owner shall submit to the CPM, BLM Wildlife Biologist, CDFG, and USFWS draft Burrowing Owl Relocation Area Management measures if burrowing owls will need to be relocated. At least 30 days prior to the start of any ground-disturbing activities on the project site, the project owner shall submit to the CPM final Burrowing Owl Monitoring and Mitigation Plan that reflect burrowing owl relocation area management measures that have been reviewed and approval by staff in consultation with CDFG and USFWS.

If pre-construction surveys detect burrowing owls within 250 feet of proposed construction activities, the Designated Biologist shall provide to CDFG, USFWS, BLM Wildlife Biologist, and the CPM a Burrowing Owl Monitoring and Mitigation Plan at least 30 days prior to the start of any project-related site disturbance activities. The project owner shall report monthly to CDFG, USFWS, the BLM Wildlife Biologist, and the CPM for the duration of construction on the implementation of burrowing owl avoidance and minimization measures described in the Burrowing Owl Monitoring and Mitigation Plan. Within 30 days after completion of construction the project owner shall provide to the CDFG, the BLM Wildlife Biologist, and the CPM a written construction termination report identifying how mitigation measures described in the plan have been completed.

1. Pre-Construction Surveys. Concurrent with desert tortoise clearance surveys, the Designated Biologist shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to the start of ground disturbing activities. Surveys shall be conducted within the project site and along all linear facilities in accordance with CDFG guidelines (CBOC 1993). Surveys shall also be completed within 500 feet of all project disturbances.
2. Burrowing Owl Monitoring and Mitigation Plan. The Designated Biologist shall prepare a Burrowing Owl Monitoring and Mitigation Plan in consultation with CDFG, USFWS, and staff. This plan shall include detailed measures to avoid and minimize impacts to burrowing owls in and near the construction areas and shall be consistent with CDFG guidance (CDFG 1995).
3. Artificial Burrow Installation. Prior to any ground-disturbing activities, the project owner shall install no less than four artificial burrows, or at least two burrows for each owl displaced by the project as close as possible to the existing location if owls are detected in the project footprint or within 250 feet of construction. Design of the artificial burrows shall be consistent with CDFG guidelines (CDFG 1995). The Designated Biologist shall survey the site selected for artificial burrow construction to verify that such construction will not affect desert tortoise. The design of the burrows shall be approved by the CPM and BLM Wildlife Biologist in consultation with CDFG and USFWS. If artificial burrows are required, the project owner shall obtain by purchase the land required to support the burrows or ensure the burrows are located in an area such as the transmission line easement where construction/development would not occur.

4. Burrowing Owl Relocation Area Management Measures. If artificial burrows are constructed, the project owner shall develop Burrowing Owl Relocation Area Management measures that will be included in the Burrowing Owl Monitoring and Mitigation Plan. The Burrowing Owl Relocation Area Management measures shall include monitoring and maintenance requirements, details on methods for measuring compliance goals, and remedial actions to be taken if management goals are not met. A report describing results of monitoring and management of the relocation area shall be submitted to the CPM, BLM Authorized Officer, CDFG, and USFWS no later than January 31st of each year for the life of the project.
5. Surveys of Relocation Area. The Designated Biologist shall survey the relocation area(s) containing the artificial burrows installed in accordance with Item 2 above during the nesting season to assess use of the artificial burrows by owls using methods consistent with Phase II and Phase III California Burrowing Owl Consortium Guideline protocols (CBOC 1993). Surveys shall start upon completion of artificial burrow construction and shall continue for a period of five years. If survey results indicate burrowing owls are not nesting on the relocation area, remedial actions shall be developed and implemented in consultation with the CPM, BLM Authorized Officer, CDFG, and USFWS to correct conditions at the site that might be preventing owls from nesting there. A report describing survey results and remedial actions taken shall be submitted to the CPM, BLM Authorized Officer, CDFG, and USFWS no later than January 31st of each year for five years.

MONITORING BIRD IMPACTS FROM SOLAR TECHNOLOGY

- BIO-23.** The project owner shall prepare and implement a Bird Monitoring Study to monitor the death and injury of birds from collisions with facility features such as reflective mirror-like surfaces and from heat, and bright light from concentrating sunlight. The study design shall be approved by BLM's Wildlife Biologist and the CPM in consultation with CDFG and USFWS, and shall be incorporated into the project's BRMIMP and implemented. The Bird Monitoring Study shall include detailed specifications on data and 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. The Plan shall include adaptive management strategies that include the placement of bird flight diverters, aerial markers, or other strategies to minimize collisions with the SunCatcher units.

Verification: No more than 30 days following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first, the project owner shall submit to the CPM, BLM's Authorized Officer, USFWS and CDFG a

final Bird Monitoring Study. Modifications to the Bird Monitoring Study shall be made only after approval from BLM's Wildlife Biologist and the CPM.

For one year following the beginning of power plant operation the Designated Biologist shall submit quarterly reports to BLM's Authorized Officer, CPM, CDFG, and USFWS describing the dates, durations, and results of monitoring. The quarterly reports shall provide a detailed description of any project-related bird or wildlife deaths or injuries detected during the monitoring study or at any other time. Following the completion of the fourth quarter of monitoring the Designated Biologist shall prepare an Annual Report that summarizes the year's data, analyzes any project-related bird fatalities or injuries detected, and provides recommendations for future monitoring and any adaptive management actions needed. The Annual Report shall be provided to the CPM, BLM's Authorized Officer, CDFG, and USFWS. Quarterly reporting shall continue until BLM's Wildlife Biologist and the CPM, in consultation with CDFG and USFWS determine whether more years of monitoring are needed, and whether mitigation and adaptive management measures are necessary. After the Bird Monitoring Study is determined by BLM's Wildlife Biologist and the CPM to be complete, the project owner or contractor shall prepare a paper that describes the study design and monitoring results to be submitted to a peer-reviewed scientific journal. Proof of submittal shall be provided to BLM's Wildlife Biologist and the CPM within one year of concluding the monitoring study.

NELSON'S BIGHORN SHEEP MITIGATION

BIO-24. To compensate for project impacts to Nelson's bighorn sheep the project owner shall finance the construction and management of three artificial water sources (guzzlers) in the eastern part of the Cady Mountains for the life of the project. The project owner will maintain access to the existing guzzler in the Cady Mountains that is currently accessed through the proposed project site. This access will be maintained post development. In addition, all construction activities shall be monitored as described in staff's proposed Conditions of Certification BIO-4 and BIO-8. All construction activities within 500 feet of Nelson's bighorn sheep shall cease until the animals have moved farther than 500 feet away from construction activities, even if construction is occurring within an area that had been fenced with tortoise exclusion fencing. This buffer may be modified with the approval of the CPM, BLM, and CDFG.

Verification: Within 60 days of publication of the Energy Commission Decision the project owner shall submit to the BLM's Wildlife Biologist, the CPM, and CDFG Draft Bighorn Sheep Mitigation measures identifying a proposed location for the artificial water sources and providing plans for their construction and management. At least 30 days prior to start of any project-related ground disturbance activities, the project owner shall provide BLM's Wildlife Biologist and the CPM with the final version of the Bighorn Sheep Mitigation measures that have been reviewed and approved by CDFG and staff. BLM's Wildlife Biologist and the CPM will determine acceptability within 30 days of

receipt of the final measures. No later than 18 months following the publication of the Energy Commission Decision, the project owner shall provide written verification to BLM's Wildlife Biologist and the CPM that the construction of the artificial water sources has been completed. At the same time, the project owner shall provide evidence of an agreement (Memorandum of Understanding) and a funding mechanism to provide ongoing maintenance of the water sources by CDFG or some other party approved by BLM's Authorized Office and the CPM.

Impact minimization measures for Nelson's bighorn sheep and their implementation methods shall be included in the final BRMIMP and implemented. Implementation of the measures shall be reported in the Monthly Compliance Reports by the Designated Biologist.

AMERICAN BADGER AND DESERT KIT FOX IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-25. Prior to ground disturbance the project owner shall conduct pre-construction surveys for American badgers and desert kit fox. These surveys may be conducted concurrent with the desert tortoise or burrowing owl clearance surveys. Surveys shall be conducted as described below:

Biological Monitors shall perform pre-construction surveys for badger and kit fox dens in the project area, including areas within 250 feet of all project facilities, utility corridors, and access roads. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active.

Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox. Potentially 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 present, occupied badger dens shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (15 February through 1 July) and a minimum 100-foot disturbance-free buffer established. Buffers may be modified with the concurrence of CDFG and CPM. Maternity dens shall be flagged for avoidance, identified on construction maps, and a biological monitor shall be present during construction.

If avoidance of a non-maternity den is not feasible, badgers shall be relocated by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches

at a time) before or after the rearing season (15 February through 1 July). Any relocation of badgers shall occur only after consultation with the CDFG and CPM. A written report documenting the badger removal shall be provided to the CPM within 30 days of relocation.

Verification: The project owner shall submit a report to the CPM, BLM, and CDFG within 30 days of completion of badger and kit fox surveys. The report shall describe survey methods, results, mitigation measures implemented, and the results of the mitigation.

BAT IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-26. The project owner shall conduct a survey for roosting bats prior to any ground disturbance activities in all areas within 200 feet of rocky outcrops or the existing BNSF railroad trestles. The project owner shall also conduct surveys for roosting bats during the maternity season (1 March to 31 July) within 300 feet of project activities at the existing railroad trestles and rocky outcrops. These areas shall be surveyed by a qualified bat biologist, who shall be approved by the Designated Biologist. Surveys shall include a minimum of one day and one evening visit. If active maternity roosts or hibernacula are found, the rock outcrop or trestle occupied by the roost shall be avoided (i.e., not removed) by the project, if feasible. If avoidance of the maternity roost is not feasible, the bat biologist shall survey (through the use of radio telemetry or other CDFG/CPM/BLM-approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of the CDFG, BLM Wildlife Biologist, and CPM that there are alternative roost sites used by the maternity colony and young are not present, then no further action is required. However, if there are no alternative roost sites used by the maternity colony, provision of substitute roosting bat habitat is required. If active maternity roosts are absent, but a hibernaculum (i.e., a non-maternity roost) is present, then exclusion of bats prior to demolition of roosts is required.

1. Provision of substitute roosting bat habitat. If a maternity roost will be impacted by the project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the project site no less than three months prior to the eviction of the colony. Alternative roost sites will be constructed in accordance with the specific bats' requirements in coordination with CDFG, BLM Wildlife Biologist, and the CPM. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. The CDFG shall also be notified of any hibernacula or active nurseries within the construction zone.

2. Exclude bats prior to demolition of roosts. If non-breeding bat hibernacula are found in rocky outcrops scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals shall be safely evicted, under the direction of the qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (i.e., there shall be no less or more than one night between initial disturbance and the grading or tree removal).

If an active maternity roost is located in an area to be impacted by the project, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (i.e., prior to 1 March) or after young are flying (i.e., after 31 July) using the exclusion techniques described above.

Verification: The project owner shall submit a report to the CPM, the BLM Wildlife Biologist, and the CDFG within 30 days of completion of roosting bat surveys and any subsequent mitigation. The report shall describe survey methods, results, mitigation measures implemented, and the results of the mitigation.

STREAMBED IMPACT MINIMIZATION AND COMPENSATION MEASURES

- BIO-27.** The project owner shall implement the following measures to avoid, minimize and mitigate for direct and indirect impacts to waters of the State and to satisfy requirements of California Fish and Game Code sections 1600 and 1607. If an in-lieu fee program is in place, it may be used to satisfy the following requirements.
1. The project owner shall acquire compensatory off-site State waters.
 2. Preparation of Management Measures.
 3. The project owner shall provide a copy of the Streambed Impact Minimization and Compensation Measures from the Energy Commission Decision and BLM Record of Decision to all contractors, subcontractors, and the applicant's project supervisors.
 4. Non-Native Vegetation Removal.

5. Reporting of Special-Status Species.
6. Notification of CPM, BLM Wildlife Biologist, and CDFG prior to initiation of project activities in jurisdictional areas and prior to completion of project activities in jurisdictional areas.

Verification:

No fewer than 30 days prior to the start of any site or related facilities mobilization activities, the project owner shall implement the mitigation measures in this condition. No fewer than 30 days prior to the start of work potentially affecting waters of the State, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM and BLM Wildlife Biologist that the best management practices called for in this condition will be implemented and provide a discussion of work in waters of the State in Compliance Reports for the duration of the project.

Within 30 days after completion of the first year of project construction, the project owner shall provide to the CPM for review and approval a report identifying that appropriate mitigation lands have been obtained, verification on ongoing enhancement techniques, and a summary of all modifications made to the existing channels.

1. Acquire Off-Site State Waters: The project owner shall acquire, in fee or in easement, a parcel or parcels of land that includes at least 436 acres of State jurisdictional waters. Prior to any activities that cross or have the potential to impact any jurisdictional drainage, the project owner shall provide a detailed map to the CDFG, BLM Wildlife Biologist, and CPM in a GIS format that identifies all potential crossings of jurisdictional habitats including retention basins, detention basins, reconfigured channels and culverts. The maps shall identify the type of crossing proposed by the owner such as bridges, culverts, or other mechanism and the best management practices that would be employed. Prior to construction the applicant shall map the vegetation with emphasis on the smoke tree woodland and big galleta shrub-steppe communities within the drainages subject to project disturbance and provide a map to the CPM, CDFG and BLM. All catclaw acacia or smoke tree habitat lost will be replaced on site or in adjacent conserved lands at a minimum 3:1 ratio. The parcel or parcels comprising the 436 acres of ephemeral washes shall include the same types of vegetation as mapped in the project footprint. The terms and conditions of this acquisition or easement shall be as described in Condition of Certification BIO-17. Mitigation for impacts to State waters shall occur within the surrounding watersheds, as close to the project site as possible. To the extent suitable compensatory lands obtained to mitigate for impacts and habitat loss to the Desert Tortoise and Mojave Fringed-toed Lizard may also be deemed to mitigate for impacts to State Waters.

2. Preparation of Management Measures: The project owner shall develop site-specific enhancement measures for the drainages on the acquired compensation lands. The objective shall be to enhance the wildlife value of the drainages, and may include enhancement actions such as weed control, fencing to exclude livestock, or erosion control.
3. Code of Regulations: The project owner shall provide a copy of the Streambed Impact Minimization and Compensation Measures from the Energy Commission Decision and BLM Record of Decision to all contractors, subcontractors, and the applicant's project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFG personnel or personnel from another agency upon demand. The CPM reserves the right to issue a stop work order or allow CDFG to issue a stop work order after giving notice to the project owner, the CPM, if the CPM in consultation with CDFG, determines that the project owner has breached any of the terms or conditions or for other reasons, including but not limited to the following:
 - a. The information provided by the applicant regarding streambed alteration is incomplete or inaccurate;
 - b. New information becomes available that was not known to it in preparing the terms and conditions; or
 - c. The project or project activities as described in the Supplemental Staff Assessment/ Final Environmental Impact Statement have changed.
4. Best Management Practices: The project owner shall also comply with the following conditions to protect drainages near the Project Disturbance Area:
 - a. The project owner shall not operate vehicles or equipment in ponded or flowing water except as described in this condition.
 - b. With the exception of the retention basins and drainage control system installed for the project the installation of bridges, culverts, or other structures shall be such that water flow (velocity and low flow channel width) is not impaired. Bottoms of temporary culverts shall be placed at or below stream channel grade.
 - c. When any activity requires moving of equipment across a flowing drainage, such operations shall be conducted without substantially increasing stream turbidity.
 - d. Vehicles driven across ephemeral drainages when water is present shall be completely clean of petroleum residue and water levels shall be below the vehicles' axels.

- e. The project owner shall minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible.
- f. The project owner shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter ephemeral drainages or be placed in locations that may be subjected to high storm flows.
- g. The project owner shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws, and it shall be the responsibility of the project owner to ensure compliance.
- h. Spoil sites shall not be located at least 30 feet from the boundaries and drainages or in locations that may be subjected to high storm flows, where spoils might be washed back into drainages.
- i. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from project-related activities, shall be prevented from contaminating the soil and/or entering waters of the State. These materials, placed within or where they may enter a drainage by the project owner or any party working under contract or with the permission of the project owner, shall be removed immediately.
- j. No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the State.
- k. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any drainage.
- l. No equipment maintenance shall occur within 150 feet of any ephemeral drainage where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- m. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to a drainage shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak. Clean up equipment

such as booms, absorbent pads, and skimmers, shall be on site prior to the start of construction.

- n. The cleanup of all spills shall begin immediately. The CDFG, BLM Authorized Officer, and CPM shall be notified immediately by the project owner of any spills and shall be consulted regarding clean-up procedures.
5. **Non-Native Vegetation Removal.** The owner shall remove any non-native vegetation (Consistent with the Weed Management Plan) from any drainage that requires the placement of a bridge, culvert or other structure. Removal shall be done at least twice annually (Spring/Summer) during implementation of the Project.
 6. **Reporting of Special-Status Species:** If any special-status species are observed on or in proximity to the project site, or during project surveys, the project owner shall submit California Natural Diversity Data Base (CNDDDB) forms and maps to the CNDDDB within five working days of the sightings and provide the regional CDFG office with copies of the CNDDDB forms and survey maps. The CNDDDB form is available online at: . This information shall be mailed within five days to: California Department of Fish and Game, Natural Diversity Data Base, 1807 13th Street, Suite 202, Sacramento, CA 95814, (916) 324-3812. A copy of this information shall also be mailed within five days to CDFG, BLM Authorized Officer, and the CPM.
 7. **Notification:** The project owner shall notify the CPM, BLM Wildlife Biologist, and CDFG, in writing, at least five days prior to initiation of project activities in jurisdictional areas and at least five days prior to completion of project activities in jurisdictional areas. The project owner shall notify the CPM, BLM Wildlife Biologist, and CDFG of any change of conditions to the project, the jurisdictional impacts, or the mitigation efforts, if the conditions at the site of the proposed project change in a manner which changes risk to biological resources that may be substantially adversely affected by the proposed project. The notifying report shall be provided to the CPM, BLM Wildlife Biologist, and CDFG no later than 7 days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project, as described below. A copy of the notifying change of conditions report shall be included in the annual reports.
 - a. **Biological Conditions:** a change in biological conditions includes, but is not limited to, the following: 1) the presence of biological resources within or adjacent to the project area, whether native or non-native, not previously known to occur in the area; or 2) the presence of biological resources within or adjacent to the project area, whether native or non-native, the status of which has changed to endangered, rare, or

threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

- b. Physical Conditions: a change in physical conditions includes, but is not limited to, the following: 1) a change in the morphology of a river, stream, or lake, such as the lowering of a bed or scouring of a bank, or changes in stream form and configuration caused by storm events; 2) the movement of a river or stream channel to a different location; 3) a reduction of or other change in vegetation on the bed, channel, or bank of a drainage, or 4) changes to the hydrologic regime such as fluctuations in the timing or volume of water flows in a river or stream.
- c. Legal Conditions: a change in legal conditions includes, but is not limited to, a change in Regulations, Statutory Law, a Judicial or Court decision, or the listing of a species, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

EVAPORATION POND DESIGN, MONITORING, AND MANAGEMENT PLAN

- BIO-28.** The project owner shall install netting over the evaporation ponds and design and implement an Evaporation Pond Design, Monitoring, and Management Strategy (Evaporation Pond Strategy) that meets the approval of the USFWS, CDFG, BLM's Wildlife Biologist, and the Energy Commission staff. The goal of the Evaporation Pond Strategy shall be to avoid the potential for wildlife mortality associated with the evaporation ponds. The Evaporation Pond Strategy shall include: a discussion of the objectives of the Evaporation Pond Strategy; a description of project design features such as side slope specifications, freeboard and depth requirements, covering, and fencing; a discussion on the placement of the evaporation pond as to reduce the potential of collision or electrocution of wildlife near the transmission line; avian, pond, and water quality monitoring, management actions such as bird deterrence/hazing and water level management, triggers for those management actions; and reporting requirements.

Verification: At least 30 days prior to start of any project-related ground disturbance activities, the project owner shall provide the CPM, BLM's Wildlife Biologist, USFWS, and CDFG with the final version of the Evaporation Pond Strategy, as measures included in the BRMIMP. The CPM and BLM's Wildlife Biologist would determine the measure's acceptability within 15 days of receipt of the final Strategy. All modifications to the approved Evaporation Pond Strategy must be made only after consultation the staff, USFWS, and CDFG. The project owner shall notify the CPM and BLM's Wildlife Biologist no less than 5 working days before implementing any BLM- and CPM-approved modifications to the Evaporation Pond Strategy.

Within 30 days after completion of project construction, the project owner shall provide to the CPM for review and approval a report identifying which items of the Evaporation Pond Strategy have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and as-built drawings of the evaporation ponds.

**Biological Resources Table 19
Summary of Pre-Construction Plans and Proposals**

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-6	Worker Environmental Awareness Program (WEAP)	Within 7 days of publication of the Energy Commission's License Decision, or the Record of Decision/ROW Issuance, whichever comes first
BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)	At least 30 days prior to start of any preconstruction site mobilization and construction-related ground disturbance, grading, boring, and trenching.
BIO-10	Revegetation Plan	No less than 30 days following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first
BIO-11	Weed Management Plan	At least 30 days prior to start of any project-related ground disturbance activities

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-12	<ul style="list-style-type: none"> a. Report describing results of floristic surveys, including maps and design drawings depicting the location of Special-Status Plant Protection Areas within and Environmentally Sensitive Areas adjacent to the project site b. Draft Special-Status Plant Protection and Monitoring Plan c. Final Special-Status Plant Protection and Monitoring Plan d. Draft Special-Status Plant Remedial Action Measures e. Final Special-Status Plant Remedial Action Measures f. Draft Seed Collection Measures g. Final Seed Collection Measures h. Draft Protected Plant Salvage Measures i. Final Protected Plant Salvage Measures 	<ul style="list-style-type: none"> a. No more than 30 days following the publication of the Energy Commission Decision b. No more than 30 days following the publication of the Energy Commission Decision c. Within 90 days of the publication of the Commission Decision d. No more than 30 days following the publication of the Energy Commission Decision e. Within 90 days of the publication of the Commission Decision f. No more than 30 days following the publication of the Energy Commission Decision g. Within 90 days of the publication of the Commission Decision h. No more than 30 days following the publication of the Energy Commission Decision i. Within 90 days of the publication of the Commission Decision

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-13	<ul style="list-style-type: none"> a. Formal acquisition proposal for sand dune/Mojave fringe-toed lizard compensation lands describing the parcel(s) intended for purchase b. Written verification that the compensation lands or conservation easements have been acquired c. As an alternative to (b) above, written verification of Security in accordance with this condition of certification. d. If Security is provided, the project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition e. Management plan for the compensation lands and associated funds 	<ul style="list-style-type: none"> a. A minimum of 30 days prior to acquisition of the property b. No later than 18 months following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first c. No later than 30 days prior to beginning project ground-disturbing activities d. Within 18 months of the start of project ground-disturbing activities e. Within 6 months of the land or easement purchase, as determined by the date on the title
BIO-14	Report describing the number of Gila monsters moved, their state of health, including wounds or visible signs of illness, and the location of relocation (to be completed only if Gila monsters are encountered during clearance surveys or construction)	Within 30 days of relocation of Gila monsters

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-15	Report describing how each of the mitigation measures described in BIO-15 has been satisfied, including the desert tortoise survey results, capture and release locations of any relocated desert tortoises, and any other information needed to demonstrate compliance with the measures	Within 30 days of completion of desert tortoise clearance surveys
BIO-16	<ul style="list-style-type: none"> a. Desert Tortoise Relocation/Translocation Plan b. Report identifying which items of the Relocation/Translocation Plan have been completed, and a summary of all modifications to measures made during implementation 	<ul style="list-style-type: none"> a. Within 7 days of publication of the Energy Commission's License Decision, or the Record of Decision/ROW Issuance, whichever comes first b. Within 90 days after initiation of relocation/translocation activities

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-17	<ul style="list-style-type: none"> a. Formal acquisition proposal for desert tortoise compensation lands describing the parcel(s) intended for purchase b. Written verification that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient(s) c. As an alternative to (b) above, written verification of Security in accordance with this condition of certification. d. If Security is provided, the project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition e. Management plan for the compensation lands and associated funds 	<ul style="list-style-type: none"> a. No less than 30 days prior to acquisition of the compensation lands b. No later than 18 months following the publication of the Energy Commission License Decision c. No later than 30 days prior to beginning project ground-disturbing activities d. Within 18 months of the start of project ground-disturbing activities e. Within 180 days of the land or easement purchase, as determined by the date on the title
BIO-18	Final Raven Monitoring, Management, and Control Plan	At least 30 days prior to start of any project-related ground disturbance activities
BIO-19	Letter-report describing the results of the pre-construction nesting bird surveys.	At least 10 days prior to the start of any project-related ground disturbance activities

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-20	Letter-report describing the results of the pre-construction golden eagle nest surveys.	At least 10 days prior to the start of any project-related ground disturbance activities
BIO-21	Documentation that the project is in compliance with the Bald and Golden Eagle Protection Act (Title 16, United States Code, sections 668-668c)	No more than 60 days following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first
BIO-22	<ul style="list-style-type: none"> a. Report describing results of pre-construction burrowing owl surveys b. Draft Burrowing Owl Relocation Area Management Measures within the Burrowing Owl Monitoring and Mitigation Plan (if burrowing owls will be relocated) c. Final Burrowing Owl Relocation Area Management measures (if burrowing owls will be relocated) d. Burrowing Owl Monitoring and Mitigation Plan (if pre-construction surveys detect burrowing owls within 500 feet of proposed construction activities) 	<ul style="list-style-type: none"> a. At least 10 days prior to the start of any project-related ground disturbance activities b. At least 30 prior to the start of any project-related site disturbance activities c. Prior to any ground-disturbing activities on the project site d. At least 30 days prior to the start of any project-related site disturbance activities

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-23	Bird Monitoring Study	No more than 30 days following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first
BIO-24	<ul style="list-style-type: none"> a. Draft Bighorn Sheep Mitigation measures b. Final Bighorn Sheep Mitigation measures c. Written that the construction of the artificial water source has been completed d. Evidence of an agreement (Memorandum of Understanding) and a funding mechanism to provide ongoing maintenance of the water source 	<ul style="list-style-type: none"> a. Within 60 days of publication of the Energy Commission Decision b. At least 30 days prior to start of any project-related ground disturbance activities c. No later than 18 months following the publication of the Energy Commission Decision d. No later than 18 months following the publication of the Energy Commission Decision
BIO-25	Report describing results of badger and kit fox surveys and compliance with mitigation measures	Within 30 days of completion of badger and kit fox surveys
BIO-26	Report describing results of roosting bat surveys and compliance with mitigation measures	Within 30 days of completion of roosting bat surveys and any subsequent mitigation
BIO-27	Written verification (i.e., through incorporation into the BRMIMP) that the best management practices outlined in BIO-27 will be implemented	No fewer than 30 days prior to the start of work potentially affecting waters of the State

Condition of Certification	Plan/Report to be Submitted	Timing
BIO-28	Evaporation Pond Design, Monitoring, and Management Plan	At least 30 days prior to the start of any project-related ground disturbance activities
BIO-29	<ul style="list-style-type: none"> a. Channel Decommissioning and Reclamation Plan b. Financial assurances to guarantee that an adequate level of funding would be available to implement measures described in the Channel Decommissioning and Reclamation Plan 	<ul style="list-style-type: none"> a. No less than 90 days from publication of the Energy Commission Decision or the Record of Decision, whichever comes first b. No more that 10 days prior to initiating project-related ground disturbance activities
BIO-30	Financial Assurances to guarantee adequate level of funding to implement decommissioning and closure	Prior to initiating ground disturbing activities.



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
For the CALICO SOLAR (Formerly SES Solar One)**

Docket No. 08-AFC-13

**PROOF OF SERVICE
(Revised 2/8/10)**

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DECLARATION OF SERVICE

I, Corinne Lytle, declare that on April 27, 2010, I served and filed copies of the attached Applicant's Suggested Revised Biological Resources Conditions of Certification, dated April 27, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page [www.energy.ca.gov/sitingcases/solarone].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

 X sent electronically to all email addresses on the Proof of Service list;

 X by personal delivery or by depositing in the United States mail at _____ with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

 X sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (*preferred method*);

OR

 depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-13
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

Original Signed By

Corinne Lytle