

DOCKET

09-AFC-8

DATE JUL 12 2010

RECD. JUL 12 2010

July 12, 2010

California Energy Commission
Dockets Unit
1516 Ninth Street
Sacramento, CA 95814-5512

**Subject: REVISED OPENING TESTIMONY CHANGES TO BIOLOGICAL
RESOURCES CONDITIONS OF CERTIFICATION PER JULY 1 AND
JULY 7 WORKSHOPS
GENESIS SOLAR ENERGY PROJECT
DOCKET NO. (09-AFC-8)**

Enclosed for filing with the California Energy Commission is the original of **REVISED
OPENING TESTIMONY CHANGES TO BIOLOGICAL RESOURCES CONDITIONS
OF CERTIFICATION PER JULY 1 AND JULY 7 WORKSHOPS** for the Genesis Solar
Energy Project (09-AFC-8).

Sincerely,



Marie Mills

**GENESIS SOLAR ENERGY PROJECT
BIOLOGICAL RESOURCES**

CHANGES TO COCS PER JULY 1 AND JULY 7 WORKSHOPS

CONDITION OF CERTIFICATION BIO-8

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. 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.
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 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 on all dirt roads and 45 mph on all paved roads. Signs shall be established at appropriate locations (for example, at Arizona crossings of drainages) to remind drivers to be aware of the potential for desert tortoise and other wildlife occurring on the roadways.

Comment [e1]: OK

Rationale: During operations, the access road will be traveled by Project personnel as well as vendors and delivery personnel. The access road will be paved and is

approximately 6.5 miles long. The speed limit proposed for operations was determined by comparing speed limits within Joshua Tree National Park (45 mph, no tortoise fencing), Mojave National Preserve (55 mph, no tortoise fencing), and Wiley's Well Road south of the Project (55 mph, no tortoise fencing). A 25-mile speed limit on the paved access road would have significant negative economic implications in terms of travel time during both construction and operation phases of the project without a commensurate environmental benefit (e.g., very poor quality desert tortoise habitat with no sign that tortoises are using the area near the access road).

4. Monitor During Construction. In areas that have not been fenced with desert tortoise exclusion fencing and cleared, including during fence construction, 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 in unfenced habitat (i.e., outside of the cleared and fenced Plant Site).
5. Minimize Impacts of 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.
6. Implement APLIC Guidelines. Transmission lines, **fiber optic 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 1994) to reduce the likelihood of large bird electrocutions and collisions.
7. Avoid Use of Toxic Substances. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
8. Minimize Lighting Impacts. Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards wildlife habitat. Lighting shall be kept to the minimum

level for safety and security needs by using motion or infrared light sensors and switches to keep lights off when not required, and shielding operational lights downward to minimize skyward illumination. No high intensity, steady burning, bright lights such as sodium vapor or spotlights shall be used. FAA visibility lighting shall employ only strobed, strobe-like or blinking incandescent lights, preferably with all lights illuminating simultaneously. Minimum intensity, maximum “off-phased” dual strobes are preferred, and no steady burning lights (e.g., L-810s) shall be used.

9. **Minimize Noise Impacts.** A continuous low-pressure technique shall be used for steam blows, to the extent possible, in order to reduce noise levels in sensitive habitat proximate to the Genesis Project. Loud construction activities (e.g., unsilenced high pressure steam blowing and pile driving, or other) shall be avoided from February 15 to April 15 when it would result in noise levels over 60 dBA in nesting habitat ***within 250 feet of the site's borders, to avoid impacts to breeding birds immediately outside the Project area. The exception would be:***
- a. ***if these same noise levels and types began prior to Feb 15, in which case it would be assumed that birds had become habituated to the noise prior to nesting; no avoidance would be necessary;***
 - b. ***if nesting bird surveys confirm that no birds are nesting within 250 feet of the Project border, or have completed nesting;***
 - c. ***if nest monitoring confirms that birds do not alter their nesting behavior in response to the noise.***

Rationale: The purpose of minimizing noise impacts is to insure that wildlife outside the project disturbance area, especially nesting birds, are not adversely affected by construction noise. A buffer distance of 250 feet is mandated for nesting burrowing owls, a California Species of Special Concern and migratory species, so it is used as the benchmark for species that have a lesser legal status or none. However, if birds either habituate to the noise prior to nesting or are not affected by project noise such that nest failure would result, then the objective of the protection measure has been met. The background discussion for the SA states that “infrequent

occasions when construction activities would occur near the project boundary and resultant noise levels would be temporarily elevated beyond 60 dBA surrounding the project would not significantly impact sensitive wildlife.”

CONDITION OF CERTIFICATION BIO-9

BIO-9 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/ventura/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 prepared by USFWS. These measures include, but are not limited to, the following:

1. Desert Tortoise Exclusion Fence Installation. Per the Applicant's Desert Tortoise Translocation Plan, in order to avoid impacts to desert tortoises, permanent desert tortoise exclusion fencing shall be installed along the permanent perimeter security fence; along the utility corridors, **temporary desert tortoise exclusion fencing or monitoring will be used to protect desert tortoises during construction** and temporarily installed along the 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 outlined in the USFWS' 2009 *Desert Tortoise Field Manual* and may be conducted in any season with USFWS and CDFG approval. Biological Monitors may assist the Designated Biologist under his or her supervision. 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 Applicant's Translocation Plan.

CONDITION OF CERTIFICATION BIO-12

Genesis Solar, LLC believes that under NECO the compensatory mitigation for desert tortoise habitat impacts should be zero because the 1,749 acres impacted by the Project is not "categorized" by BLM, and no sign that desert tortoises use the site was detected during protocol surveys. However, per our Proposal for Desert Tortoise Mitigation: A Habitat-Based Approach for the Genesis Solar Energy Project, we are proposing to acquire 904 acres (914 minus 10.01 acres for the "toe" reduction) of desert tortoise habitat to compensate for Project impacts to 904 acres of suitable or marginally suitable desert tortoise habitat, plus 115 acres for impacts to 23 acres of tortoise critical habitat.

BIO-12 To fully mitigate for habitat loss and potential take of desert tortoise, the Project owner shall provide compensatory mitigation at a 1:1 ratio for impacts to 1,749 acres, and at a 5:1 ratio for impacts to 23 acres of critical habitat, adjusted to reflect the final Project footprint. For purposes of this condition, the Project footprint means all lands disturbed in the construction and operation of the Genesis Project, including all linears, as well as undeveloped areas inside the Project's boundaries that will no longer provide viable long-term habitat for the desert tortoise. To satisfy this condition, the Project owner shall acquire, protect and transfer no fewer than 1,864 acres of desert tortoise habitat lands (adjusted to reflect the final Project footprint), and shall also provide funding for the initial improvement and long-term maintenance and management of the acquired lands, and comply with other related requirements in this condition. Costs of these requirements are estimated to be \$4,249,920, based on the acquisition of 1,864 acres and estimated per-acre costs of \$500 for acquisition, \$330 for initial habitat improvement, and \$1,450 for long-term management. The actual costs to comply with this condition will vary depending on the final footprint of the Project, the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. The 1,864-acre habitat requirement, and associated funding requirements based on that acreage, will be adjusted up or down if there are changes in the final footprint of the Project.

Formatted: Not Strikethrough, Highlight

Deleted: 904

Deleted: 1,019

Formatted: Not Strikethrough, Highlight

Formatted: Not Strikethrough, Highlight

Deleted: \$2,323,320

Deleted: 1,019

Formatted: Not Strikethrough, Highlight

Formatted: Not Strikethrough, Highlight

Deleted: 1,019

Condition **BIO-29** may provide the Project owner with another option for satisfying some or all of the requirements in this condition.

The requirements for the acquisition, initial improvement, protection and long-term maintenance and management of compensation lands include all of the following:

- a. Selection Criteria for Compensation Lands. The **quality and function of the** compensation lands selected for acquisition shall **be equal to or better than the quality and function of the habitat impacted and:**
- a. be within the Colorado Desert 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 where desert tortoises can be reasonably expected to occur ~~currently occupied by desert tortoise,~~ based on habitat or historic occurrences, ideally with populations that are stable, recovering, or likely to recover;
 - e. not have a history of intensive recreational use or other disturbance that does not have the capacity to regenerate naturally when disturbances are removed or 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;
 - g. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and
 - h. have water and mineral rights included as part of the acquisition, unless the CPM, in consultation with CDFG, BLM and USFWS, agrees in writing to the acceptability of land without these rights.
- b. Review and Approval of Compensation Lands Prior to Acquisition. The Project owner shall submit a formal acquisition proposal to the CPM

Comment [e2]: OK

Comment [e3]: OK

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, and must be approved by the CPM. The CPM will share the proposal with and consult with CDFG, BLM and the USFWS before deciding whether to approve or disapprove the proposed acquisition.

- c. Compensation Lands Acquisition Requirements. The Project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, in consultation with CDFG, BLM and the USFWS, has approved the proposed compensation lands:
- 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 or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM, in consultation with CDFG, BLM and the USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.
 - b. Title/Conveyance. The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM in consultation with CDFG. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPM in consultation with CDFG. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the CPM may require that CDFG or another entity approved by the CPM, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the CPM, in consultation with CDFG, of the terms of any

transfer of fee title or conservation easement to the compensation lands.

- c. Initial Protection and Habitat Improvement. The Project owner shall fund activities that the CPM, in consultation with the CDFG, USFWS and BLM, requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities is estimated at \$330 an acre, but will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.
- d. Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM, in consultation with CDFG, before it can be used to establish funding levels or management activities for the compensation lands.
- e. Long-term Maintenance and Management Funding. The Project owner shall provide money to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. The amount of required funding is initially estimated to be \$1,450 for every acre of

compensation lands. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see the verification section at the end of this condition), the Project owner shall either provide initial payment of \$2,702,800 (calculated at \$1,450 an acre for 1,864 acres) or the Project owner shall include \$2,702,800 to reflect this amount in the security that is provided to the Energy Commission under section 3.h. of this condition. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project footprint as described above. If an initial payment is made based on the estimated per-acre costs, the Project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than \$1,450 an acre will be required for long-term maintenance and management, the excess paid will be returned to the Project owner. The Project owner must obtain the CPM's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The CPM will consult with CDFG before deciding whether to approve an entity to hold the Project's long-term maintenance and management funds.

Deleted: ~~\$1,477,550~~

Formatted: Not Strikethrough, Highlight

Formatted: Not Strikethrough, Highlight

Deleted: ~~1,019~~

Formatted: Not Strikethrough, Highlight

Deleted: ~~\$1,477,550~~

The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

- i. Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the CPM in consultation with CDFG and is designed to protect or improve the habitat values of the compensation lands.

- ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM, in consultation with CDFG, or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.
- iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for local populations of desert tortoise. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the CPM and CDFG.
- f. Other expenses. In addition to the costs listed above, the Project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.
- g. Management Plan. The Project owner or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The plan shall be submitted for approval of the CPM, in consultation with CDFG, BLM and USFWS.
- h. Mitigation Security. The Project owner shall provide financial assurances to the CPM, with copies of the final document to CDFG, to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing Project activities. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security (“Security”)

approved by the CPM in consultation with CDFG. Prior to submitting the Security to the CPM, the Project owner shall obtain the CPM's approval, in consultation with CDFG, of the form of the Security. The CPM may draw on the Security if the CPM determines the Project owner has failed to comply with the requirements specified in this condition. The CPM may use money from the Security solely for implementation of the requirements of this condition. The CPM's use of the Security to implement measures in this condition may not fully satisfy the Project owner's obligations under this condition. The Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.

Security shall be provided in the amount of ~~\$4,249,920~~, calculated as follows but adjusted as specified below:

- i. land acquisition costs for compensation land, calculated at \$500/acre = ~~\$,932,000~~.
- ii. initial protection and habitat improvement activities on the compensation land, calculated at \$330/acre = ~~\$,615,120~~.
- iii. long-term maintenance and management on the compensation land calculated at \$1,450/acre = ~~\$2,702,800~~.

Deleted: ~~\$2,323,320~~
Formatted: Not Strikethrough, Highlight

Deleted: ~~509,500~~
Formatted: Not Strikethrough, Highlight

Deleted: ~~336,270~~
Formatted: Not Strikethrough, Highlight

Deleted: ~~\$1,477,550~~
Formatted: Not Strikethrough, Highlight

CONDITION OF CERTIFICATION BIO-14

BIO-14 The Project owner shall implement a Weed Management Plan that meets the approval of the CPM. The objective of the Weed Management Plan shall be to prevent the introduction of any new weeds and the spread of existing weeds as a result of Project construction, operation, and decommissioning. The draft Weed Management Plan submitted by the Applicant (TTEC 2009g) shall provide the basis for the final plan, subject to review and revisions from the CPM. The Final Weed Management Plan shall include at a minimum the following information: specific weed management objectives and measures for each target non-native weed species; baseline conditions; a map of the Weed Management Areas; weed risk assessment and measures to prevent the introduction and spread of weeds; monitoring and surveying methods; and reporting requirements.

To ensure that weed management does not have unintended adverse effects on special-status species, the final Weed Management Plan shall be revised to be consistent with guidelines for safe use of herbicides in natural areas provided by The Nature Conservancy's The Global Invasive Species Team: <http://www.invasive.org/gist/products/library/herbsafe.pdf>

The final Plan shall include detailed specifications for avoiding herbicide and soil stabilizer drift, and shall include a list of herbicides and soil stabilizers that will be used on the Project with manufacturer's guidance on appropriate use. The Plan shall indicate where the herbicides will be used, and what techniques will be used to avoid chemical drift or residual toxicity to special-status species and their pollinators, and consistent with the Nature Conservancy guidelines and the criteria under #2, below.

The final plan shall only include weed control measures for target weeds with a demonstrated record of success, based on the best available information from **sources such as:** The Nature Conservancy's The Global Invasive Species Team, **Cooperative Extension**, California Invasive Plant Council: http://www.cal-ipc.org/ip/management/plant_profiles/index.php, and the California Department of Food & Agriculture Encycloweediea: http://www.cdffa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_hp.htm. The methods shall meet the following criteria:

Comment [e4]: OK

1. **Manual:** well-timed removal of plants or seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the Riverside County Agricultural Commissioner.
2. **Chemical:** Herbicides known to have residual toxicity, such as pre-emergents and pellets, shall not be used in natural areas or within the engineered channels. Only the following application methods may be used: wick (wiping onto leaves); inner bark injection; cut stump; frill or hack & squirt (into cuts in the trunk); basal bark girdling; foliar spot spraying with backpack sprayers or pump sprayers at low pressure or with a shield attachment to control drift, and only on windless days, or with a squeeze bottle for small infestations (~~see Nature Conservancy guidelines described above~~);
3. **Biological:** Biological methods may be used subject to review and approval by CDFG and USFWS and only if approved for such use by CDFA, and are either locally native species or have no demonstrated threat of naturalizing or hybridizing with native species;

4. **Mechanical:** disking, tilling, and mechanical mowers or other heavy equipment shall not be employed in natural areas but hand weed trimmers (electric or gas-powered) may be used. Mechanical trimmers shall not be used during periods of high fire risk and shall only be used with implementation of fire prevention measures (GSEP 2009a).

Verification: No less than 10 days prior to start of any Project-related ground disturbance activities, the Project owner shall provide the CPM with the final version of a Weed Management Plan that has been reviewed and approved by Energy Commission staff, USFWS, and CDFG. Modifications to the approved Weed Control Plan shall be made only after consultation with the Energy Commission staff, USFWS, and CDFG.

Within 30 days after completion of Project construction, the Project owner shall provide to the CPM for review and approval, a written report identifying which items of the Weed Management 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 the Designated Biologist shall provide a report to the CPM that includes: a summary of the results of noxious weeds surveys and management activities for the year; a discussion of whether weed management goals for the year were met; and recommendations for weed management activities for the upcoming year.

CONDITION OF CERTIFICATION BIO-15

BIO-15 Pre-construction nest surveys *for bird species other than burrowing owls* shall be conducted if construction activities would occur at any time during the period of February 1 through July 31. **Burrowing owl nest surveys are addressed in BIO-18.** The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). The goal of the nesting surveys shall be to identify the general location of the nest sites, sufficient to establish a protective buffer zone around the potential nest site, and need not include identification of the precise nest locations. Surveyors performing nest surveys shall not concurrently be conducting desert tortoise surveys. The bird surveyors shall perform surveys in accordance with the following guidelines:

Comment [e5]: OK

1. Surveys shall cover all potential nesting habitat in the Project site or within 500 feet of the boundaries of the site (including 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 7-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed three weeks, 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 buffer zone and monitoring plan shall be developed. The size of the buffer zone shall be developed in consultation with CDFG and shall be determined based on the species specific alert distance and flush initiation distance¹. Nest locations shall be mapped and submitted, along with a report stating the survey results, to the CPM; and
4. The Designated Biologist or Biological Monitor 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, 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 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(s) that would be avoided during project construction.

Comment [e6]: OK

No later than January 31st of every year following construction a follow-up report shall be provided to the CPM, CDFG, and USFWS describing the success of the buffer zones in preventing disturbance to nesting activity and a brief description of the outcome of the nesting effort (for example, whether young were successfully fledged from the nest or if the nest failed).

CONDITION OF CERTIFICATION BIO-17

BIO-17 To avoid direct impacts to American badgers and desert kit fox, pre-construction surveys shall be conducted for these species concurrent with the desert tortoise surveys. Surveys shall be conducted as described below:

¹ Alert distance refers to the distance between an animal and an activity when the animal becomes visibly alert (as evidenced by cessation of feeding and scrutiny of activity). Flush initiation distance, also called flight distance, refers to the distance between the animal and an activity when the animal takes flight (Taylor and Knight 2003).

Biological Monitors shall perform pre-construction surveys for badger and kit fox dens in the Project area, including areas within ~~250~~ **90 feet** of all Project facilities, utility corridors, and access roads. Surveys may be concurrent with desert tortoise surveys. If dens are detected each den shall be classified as inactive, potentially active, or definitely active.

Comment [e7]: OK

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 and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, and especially if high or low ambient temperatures could potentially result in harm to kit fox or badger from burrow exclusion, various passive hazing methods may be used to discourage occupants from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. **In the event that passive relocation techniques fail for badgers, the Applicant will contact CDFG to explore other relocation options, which may include trapping, BLM approval may be required prior to release of badgers on public lands.**

Deleted: *Badgers or foxes may also be trapped in Havahart or other live traps and removed.*

Formatted: Strikethrough, Highlight

Verification: The Project owner shall submit a report to the CPM and CDFG within 30 days of completion of badger and kit fox surveys. The report shall describe survey methods, results, impact avoidance and minimization measures implemented, and the results of those measures.

Rationale: *A distance of 90 feet is used for desert tortoise surveys adjacent to the Project area. The desert tortoise is a federally and state-listed species, so should represent the benchmark for other species.*

According to the CDFG Code, there are provisions for trapping both kit foxes and badgers. CDFG Code 4000 and 4001, kit foxes and badgers may be taken seasonally, with a hunting permit.

CONDITION OF CERTIFICATION BIO-18

BIO-18 The Project owner shall implement the following measures to avoid, minimize and offset impacts to burrowing owls:

1. Pre-Construction Surveys. The Designated Biologist or Biological Monitor shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to initiation of construction activities. Surveys shall be focused exclusively on detecting burrowing owls, and shall be conducted from two hours before sunset to one hour after or from one hour before to two hours after sunrise. The survey area shall include the Project Disturbance Area and surrounding 500 foot survey buffer.

Deleted: **These additional surveys will be**

Deleted: **in areas where burrowing owls or burrows showing owl use were observed during desert tortoise clearance surveys. The surveys will focus**

2. Implement Avoidance Measures. If an active burrowing owl burrow is detected within 500 feet from the Project Disturbance Area the following avoidance and minimization measures shall be implemented:
- Establish Non-Disturbance Buffer. Fencing shall be installed at a 250-foot radius from the occupied burrow to create a non-disturbance buffer around the burrow. The non-disturbance buffer and fence line may be reduced to 160 feet if all Project-related activities that might disturb burrowing owls would be conducted during the non-breeding season (September 1st through January 31st). Signs shall be posted in English and Spanish at the fence line indicating no entry or disturbance is permitted within the fenced buffer.
 - Monitoring: If construction activities would occur within 500 feet of the occupied burrow during the nesting season (February 1 – August 31st) the Designated Biologist or Biological Monitor shall monitor to determine if these activities have potential to adversely affect nesting efforts, and shall implement measures to minimize or avoid such disturbance.
3. Passive Relocation of Burrowing Owls. If pre-construction surveys indicate the presence of burrowing owls within the Project Disturbance Area (the Project Disturbance Area means all lands disturbed in the construction and operation of the Genesis Project), the Project owner shall prepare and implement a Burrowing Owl Relocation and Mitigation Plan, in addition to the avoidance measures described above. The final Burrowing Owl Relocation and Mitigation Plan shall be approved by the CPM, in consultation with USFWS, BLM and CDFG, and shall:
- Identify and describe suitable relocation sites within 1 mile of the Project Disturbance Area, and describe measures to ensure that burrow installation or improvements would not

affect sensitive species habitat or existing burrowing owl colonies in the relocation area;

b. Suitable relocation sites will be in areas of suitable habitat for nesting, including minimal human disturbance and access and ~~without weed densities higher than those in adjacent areas;~~

Deleted: unusual weed concentrations;

c. Provide guidelines for creation or enhancement of at least two natural or artificial burrows per relocated owl, including a discussion of timing of burrow improvements, specific location of burrow installation, and burrow design. Design of the artificial burrows shall be consistent with CDFG guidelines (CDFG 1995) and shall be approved by the CPM in consultation with CDFG, BLM and USFWS;

d. Provide detailed methods and guidance for passive relocation of burrowing owls occurring within the Project Disturbance Area; and

e. Prepare a monitoring and management of the relocated burrowing owl site, and provide a reporting plan. The objective of the plan shall be to manage the relocation area for the benefit of burrowing owls, with the specific goals of:

i. maintaining the functionality of the burrows ~~for two~~ years.

Deleted: a maximum of

ii. Minimizing the occurrence of weeds (species considered "moderate" or "high" threat to California wildlands as defined by CAL-IPC [2006] and noxious weeds rated "A" or "B" by the California Department of Food and Agriculture and any federal-rated pest plants [CDFG 2009]) at less than 10 percent cover of the shrub and herb layers.

Formatted: Not Strikethrough, Highlight

Rationale: If owls are using the burrows, then the burrows should not be disturbed. If owls do not use the burrows for two years, then it is assumed that the relocated owls have chosen other nest burrows. So, they will not be maintained. Weeds are already present throughout the Project Vicinity. The relocation area will not be in an area with unusually high concentrations of weeds. So, no additional weed control will be implemented.

4. Acquire Compensatory Mitigation Lands for Burrowing Owls.
The following measures for compensatory mitigation shall apply only if burrowing owls that are detected within the Project Disturbance Area. The Project owner shall acquire, in fee or in

easement, 19.5 acres of land for each burrowing owl that is displaced by construction of the Project. Staff anticipates displacement of two owls for a total of 39 acres of compensatory mitigation land. ***This compensation acreage of 19.5 acres per single bird or pair of nesting owls assumes that there is no evidence that the compensation lands are occupied by burrowing owls. If burrowing owls are observed to occupy the compensation lands, then only 9.75 acres per single bird or pair is required, per CDFG (1995) guidelines. If the compensation lands are contiguous to currently occupied habitat, then the replacement ratio will be 13.0 acres per pair or single bird. All measures below that are based on a compensation lands total of 39 acres would be revised accordingly. Thirty-nine acres will be used as a placeholder for security.*** The Project owner shall provide funding for the enhancement and long-term management of these compensation lands. The acquisition and management of the compensation lands may be delegated by written agreement to CDFG or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the CPM, in consultation with CDFG and USFWS prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. ***In lieu of acquiring lands itself, the Project owner may satisfy the requirements of this condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as described in Section 3.i. of Condition of Certification BIO-12.***

Comment [e8]: OK

5. Criteria for Burrowing Owl Mitigation Lands. The terms and conditions of this acquisition or easement shall be as described in Paragraph 1 of **BIO-12** [Desert Tortoise Compensatory Mitigation], with the additional criteria to include: 1) the 39 acres of mitigation land must provide suitable habitat for burrowing owls, and 2) ~~the acquisition lands must either currently support burrowing owls or be within dispersal distance from an **areas occupied by burrowing owls** active burrowing owl nesting territory (generally approximately 5 miles).~~ The 39 acres of burrowing owl mitigation lands may be included with the desert tortoise mitigation lands ONLY if these two burrowing owl criteria are met. If the 39 acre of burrowing owl mitigation land is separate from the acquisition required for desert tortoise compensation lands, the Project owner shall fulfill the requirements described below in this condition.

Deleted: **may not be isolated from other suitable burrowing owl habitat such that the compensation area would comprise a habitat island that would either not be used by owls or would contribute little to nothing to the population and species conservation.**

Formatted: Not Strikethrough, Highlight

- a. Security. The Security measures described below is based on the assumption that two owls would be impacted by construction of the Project, and would therefore require 39 acres of compensatory mitigation land. If the 39 acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands the Project owner or an approved third party shall complete acquisition of the proposed compensation lands prior to initiating ground-disturbing Project activities. Alternatively, financial assurance can be provided by the Project owner to the CPM with copies of the document(s) to CDFG, BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measure described in this condition. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the CPM 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 the CPM, in consultation with CDFG, BLM and the USFWS to ensure funding. As of the publication of the RSA, this amount is \$44,460 but this amount may change based on land costs or the estimated costs of enhancement and endowment (see subsection C.2.4.2, Desert Tortoise, for a discussion of the assumptions used in calculating the Security, which are based on an estimate of \$2,280 per acre to fund acquisition, enhancement, and long-term management). The final amount due will be determined by the PAR analysis conducted pursuant to **BIO-12**.

CONDITION OF CERTIFICATION BIO-19

Discussed at workshop extension on 7/7. CEC will revise as discussed and redistribute on 7/9/10.

CONDITION OF CERTIFICATION BIO-20

Genesis does not believe Staff's conclusion that the GSEP will have indirect impacts to sand transport that would then effect Mojave Fringe Toed Lizard habitat downwind of the GSEP. First, Genesis has removed that portion of the solar field (the "toe") on the easternmost portion of the project boundary. Second, the prevailing sand transport and wind directions do not support Staff's conclusions and its theoretical wind shadow. To accept Staff's conclusion one would have to believe that the Project fence and mirror fields would essentially block all wind from the

west. Staff's analysis appears to assume that the part of the Project that extends into the wind shadow is a solid block. Staff also assumes that sand will no longer be entrained by the wind. Contrary to how sand is actually transported in the project vicinity, the prevailing wind directions (from the north and west) will to a large extent combine to move sand around the fence even if it temporarily accumulates. Therefore, the Condition of Certification has been modified to remove mitigation for these non-existent indirect effects.

BIO-20 The Project owner shall mitigate for direct and indirect impacts to stabilized and partially stabilized sand dunes and other Mojave fringe-toed lizard habitat by acquisition of ~~190~~ **114** acres of Mojave fringe-toed lizard habitat. The Project owner shall provide funding for the acquisition, initial habitat improvements and long-term management of the compensation lands. The 190-acre acquisition requirement, and associated funding requirements based on that acreage, will be adjusted if there are changes in the final footprint of the Project. In lieu of acquiring lands itself, the Project owner may satisfy the requirements of this condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as described in Section 3.i. of Condition of Certification **BIO-12**. Condition of Certification **BIO-29** may provide the Project owner with another option for satisfying some or all of the requirements in this condition.

The requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following:

1. Criteria for Compensation Lands: The compensation lands selected for acquisition shall:
 - a. Provide suitable habitat for Mojave fringe-toed lizards **that is equal to or better than that found in the Project disturbance area**, and may include stabilized and partially stabilized desert dunes or sand drifts over playas or Sonoran creosote bush scrub;
 - b. Be within the Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat;
 - c. Be connected to lands that are either currently occupied or have high potential to be occupied by Mojave fringe-toed lizard based on patch size and habitat quality;

Comment [e9]: OK

- d. 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;
 - 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;
 - g. Not contain hazardous wastes;
 - h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and
 - i. Be on land for which long-term management is feasible.
2. Security for Implementation of Mitigation: The Project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Mojave fringe-toed lizard habitat as described in this condition. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or Security prior to initiating ground-disturbing project activities. The Security shall be approved by the CPM, in consultation with CDFG and the USFWS, to ensure sufficient funding. As of the publication of the RSA, this amount is \$433,200. This amount may change based on land costs or the estimated costs of enhancement and endowment (see subsection C.2.4.2, Desert Tortoise, for a discussion of the assumptions used in calculating the Security, which are based on an estimate of \$1,450 per acre to fund acquisition, enhancement and long-term management).

Preparation of Management Plan: The Project owner shall submit to the CPM, CDFG and USFWS a draft Management Plan that reflects site-specific enhancement measures for the Mojave fringe-toed lizard habitat on the acquired compensation lands. The objective of the Management Plan shall be to enhance the value of the compensation lands for Mojave fringe-toed lizards, and may include enhancement actions such as weed control, fencing to exclude livestock, erosion control, or protection of sand sources or sand transport corridors. A final

Deleted: Compensation Land Management/Enhancement

Formatted: Not Strikethrough

Formatted: Not Strikethrough

Formatted: Not Strikethrough

Management Plan, approved by the CPM, shall be incorporated into the BRMIMP.

Deleted: **These measures**

Formatted: Strikethrough, Highlight

Formatted: Strikethrough

CONDITION OF CERTIFICATION BIO-21

Comment: The Applicant requests that a variety of deterrent methods, including but not limited to netting, be considered in this Condition of Certification to allow for flexibility.

BIO-21 The Project owner shall ***investigate feasible and effective technologies*** cover the evaporation ponds prior to any discharge with 1.5-inch mesh netting designed to exclude birds and other wildlife from drinking or landing on the water of the ponds. ~~Netting with mesh sizes other than 1.5 inches may be installed if approved by the CPM in consultation with CDFG and USFWS. The netted ponds shall be monitored regularly to verify that the ***technology*** netting remains intact, is fulfilling its function in excluding birds and other wildlife from the ponds. ***The effectiveness of each technology shall be monitored and analyzed. An Adaptive Management program will be implemented to ensure that the optimal exclusion technologies are implemented.*** and does not pose an entanglement threat to birds and other wildlife. The ponds shall include a visual deterrent in addition to the netting, and the pond shall be designed such that the netting shall never contact the water. Monitoring of the evaporation ponds shall include the following:~~

1. Monthly Monitoring. The Designated Biologist or Biological Monitor shall regularly survey the ponds at least once per month starting with the first month of operation of the evaporation ponds. The purpose of the surveys shall be to determine if the ~~netted ponds~~ ***selected technology is*** are effective in excluding birds ***and wildlife***, ~~if the nets pose an entrapment hazard to birds and wildlife, and to assess the structural integrity of the nets.~~ The monthly survey shall be conducted in one day for a minimum of two hours following sunrise (i.e., dawn), a minimum of one hour mid-day (i.e., 1100 to 1300), and a minimum of two hours preceding sunset (i.e., dusk) in order to provide an accurate assessment of bird and wildlife use of the ponds during all seasons. Surveyors shall be experienced with bird identification and survey techniques. Operations staff at the Project site shall also report finding any dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass. The Designated Biologists shall report any bird or other wildlife deaths ~~or entanglements~~ within two days of the discovery to the CPM, CDFG, and USFWS.

2. Dead or Entangled Birds. If dead or entangled birds are detected, the Designated Biologist shall take immediate action **to assess the situation and** to correct the source of mortality or entanglement, **if appropriate**. The Designated Biologist shall make immediate efforts to contact and consult the CPM, CDFG, and USFWS by phone and electronic communications prior to taking remedial action upon detection of the problem, but the inability to reach these parties shall not delay taking action that would, in the judgment of the Designated Biologist, prevent further mortality of birds or other wildlife at the evaporation ponds.
3. Quarterly Monitoring. If after 12 consecutive monthly site visits no bird or wildlife deaths or entanglements are detected at the evaporation ponds by or reported to the Designated Biologist, monitoring, as described in paragraph 1, can be conducted on a quarterly basis.
4. Biannual Monitoring. If after 12 consecutive quarterly site visits no bird or wildlife deaths or entanglements are detected by or reported to the Designated Biologist and with approval from the CPM, USFWS and CDFG, future surveys may be reduced to two surveys per years, during the spring nesting season and during fall migration. If approved by the CPM, USFWS and CDFG, monitoring outside the nesting season may be conducted by the Environmental Compliance Manager.
5. Modification of Monitoring Program. CDFG or USFWS may submit a request for modifications to the evaporation pond monitoring program based on information acquired during monitoring, and may also suggest adaptive management measures to remedy any problems that are detected during monitoring or modifications if bird impacts are not observed. Modifications to the evaporation pond monitoring described above and implementation of adaptive management measures shall be made only after approval from the CPM, in consultation with USFWS and CDFG.

Rationale: The suggested changes are consistent with language presented by CEC Staff's Condition of Certification regarding evaporation ponds for Abengoa Solar's Mojave Solar Project. The changes to this condition reflect flexibility in protection measures for birds in light of maintaining evaporative functioning of the ponds.

Verification: No less than 30 days prior to operation of the evaporation ponds the project owner shall provide to the CPM as-built drawings and photographs of the ponds indicating that the **selected technology** ~~bird exclusion netting~~ has

been installed. For the first year of operation the Designated Biologist shall submit quarterly reports to the CPM, CDFG, and USFWS describing the dates, durations and results of site visits conducted at the evaporation ponds. Thereafter the Designated Biologist shall submit annual monitoring reports with this information. The quarterly and annual reports shall fully describe any bird or wildlife death or entanglements detected during the site visits or at any other time, and shall describe actions taken to remedy these problems. The annual report shall be submitted to the CPM, CDFG, and USFWS no later than January 31st of every year for the life of the project. **All reports will compare the relative success of each of the exclusion technologies being implemented, and will provide adaptive management suggestions to optimize the overall success of avian and wildlife protection at the evaporation ponds.**

The Project owner shall submit proposed exclusion technologies for the evaporation ponds to the CPM, USFWS, and CDFG for approval at least 60 days prior to construction-related ground disturbance activities. A final, approved exclusion technology design and monitoring plan will be submitted to the CPM, USFWS and CDFG 30 days prior to construction-related ground disturbance activities.

CONDITION OF CERTIFICATION BIO-24

BIO-23 Upon Project closure the Project owner shall implement a final Decommissioning and Reclamation Plan for the Project site. The Decommissioning and Reclamation Plan shall include a cost estimate for implementing the proposed decommissioning and reclamation activities, and shall be consistent with the guidelines in BLM's 43 CFR 3809.550 et seq., subject to review and revisions from the BLM in consultation with USFWS and CDFG. The Project owner shall finalize the plan only after approval from the CPM, in consultation with BLM, USFWS, and CDFG. Throughout the life of the Project the Project owner plan shall regularly submit the plan to the CPM **BLM** for review and updating, if warranted, as described in Verification below. Modifications to the final Decommissioning and Closure Plan shall be made only after approval from the CPM, in consultation with BLM, USFWS, and CDFG.

Verification: No less than 30 days prior to initiating construction-related ground disturbance activities, the Project owner shall provide to BLM and the CPM a draft Decommissioning and Closure Plan. The plan shall be finalized prior to the start of commercial operation and reviewed every five years thereafter and submitted to the **BLM CPM** for approval, in consultation with BLM. Modifications to the approved Decommissioning and Closure Plan shall be made only after

approval from the CPM, in consultation with BLM, USFWS, and CDFG. ***The Project Owner shall provide a copy of the approved Decommissioning and Reclamation Plan and any BLM approved revisions to the CPM.***

~~No less than 10 days prior to initiating construction-related ground disturbance activities the Project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding would be available to implement measures described in the Decommissioning and Closure Plan, consistent with the provisions set forth in 43 C.F.R. sections 2805.12 and 3809.500-.599.~~

Rationale: This condition requires a Decommissioning and Reclamation Plan. Genesis agrees that such a plan is required by federal regulations but does not believe that it can prepare a plan now to restore the site to natural conditions. The full disturbance area will have been mitigated by the Conditions of Certification and therefore the only requirement for such a plan is BLM administering regulations. The ultimate decision of what land use to which the site should be reclaimed lies with BLM and not the Commission. Genesis recommends this condition be deleted entirely from the Commission Decision as it is not necessary to mitigate any significant environmental impact nor is it necessary to comply with any LORS over which the Commission has jurisdiction. If, however, the Commission desires to include a condition to ensure the project complies with a federal regulation, Genesis recommends these modifications.

CONDITION OF CERTIFICATION BIO-25

Genesis has demonstrated that there are no groundwater dependent communities or vegetation within the Project Disturbance area or vicinity, including Ford Dry Lake. Additionally, the Applicant has provided current and historic information on the closest potentially groundwater dependent community (northwest of Palen Lake, west of the Project) and concluded that there will not be significant impacts to these communities as a result of the Project.

The water table below Ford Dry Lake is approximately 50 ft; under the Project Area it is 70-90 ft (Worley Parsons 2009). No obligate phreatophytes occur within the 10 mile pumping centroid of the Project wells. All tree and shrub species that occur in this zone and could be considered facultative phreatophytes (ironwood, bush seepweed, palo verde) are dependent on surface water, not ground water, even considering capillary rise. The groundwater drawdown in the honey mesquite community northwest of Palen Lake is expected to be <0.01 feet over the Project life. Even considering some level of uncertainty in modeling, it is not reasonable to consider that Genesis would affect the phreatophyte community there.

Furthermore, there would be no way to separate any effects to the Palen Lake mesquite community from other project impacts in that portion of Chuckwalla Valley.

Using aerial photography to view changes in the mesquite community at northwestern Palen Lake over time, Worley Parsons (2010: Figure 28) demonstrated that the community did not change from 1977 to 2002. Groundwater pumping for agriculture in Chuckwalla Valley during the late 1970s and early 1980s lowered the water table ~39 m near Desert Center, west of Palen Lake, between 1980 and 1985; during this same period a well north of Palen Lake (Well 49) showed a groundwater decline of ~1.5 m (Worley Parsons 2010: Page 21 and Figure 18). The mesquite community at northwestern Palen Lake did not change during this period of maximum recorded historical water level drawdown in the basin, and cumulative drawdown associated with the future pumping in the basin is expected to be less than this amount. In summary, no Project effects are anticipated at Palen Lake, and the cumulative drawdown associated with future pumping in the basin is less than the historical maximum drawdown and would not affect the identified honey mesquite community. Therefore, Genesis recommends the Commission delete these Conditions of Certification.

If CEC staff insists on monitoring, it should only apply to a wet-cooling scenario because under a dry-cooling scenario there would be even less concern for impacts to groundwater dependent vegetation. See attached tech memo and figure representing the drawdown effect of a dry-cooling scenario.

BIO-25

If the Project uses wet-cooling, the Applicant shall prepare and implement a Draft Groundwater-Dependent Vegetation Monitoring Plan (Vegetation Monitoring Plan). The objectives of the Vegetation Monitoring Plan shall be to monitor the Project effects of groundwater pumping on groundwater-dependent vegetation (phreatophytes) and, in conjunction with **BIO-26**, to ensure that the Project has a less than significant effect on groundwater-dependent ecosystems. The Vegetation Monitoring Plan shall be consistent with guidance for designing vegetation monitoring plans and conducting statistical analysis in *Measuring and Monitoring Plant Populations* (Elzinga et al. 1998). Monitoring shall focus on areas containing obligate or facultative phreatophytes (mesquite, ironwood, bush seep-weed, palo verde, cat's claw, smoke tree, and tamarisk) in areas that are most likely to be influenced by groundwater (low-lying areas in the basin floor). Monitoring sites shall include:

Comment [e10]: OK

GOLDEN EAGLE INVENTORY AND MONITORING

Rationale: Based on results from 2010 helicopter surveys, there will be a very low risk to golden eagles during Project construction. Helicopter survey results show that only 3 nests were found within 10 miles of the Project, all of which were between 8 and 10 miles from the Plant Site and out of line of sight of the Plant Site. Therefore, for this particular project, there is very low construction risk and monitoring during the construction phase is unwarranted. See the Golden Eagle Risk Assessment for the Genesis Solar Energy Project, docketed with the CEC on June 18, 2010. Therefore Genesis requests BIO-28 be deleted.

BIO-28 The Project owner shall implement the following measures to avoid or minimize Project-related construction impacts to golden eagles.

1. Annual Inventory During Construction. For each calendar year during which construction will occur an inventory shall be conducted to determine if golden eagle territories occur within 10 miles of the Project boundaries. Survey methods for the inventory shall be as described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS.
2. Inventory Data: Data collected during the inventory shall include at least the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; digital photographs; and substrate upon which nest is placed.
3. Determination of Unoccupied Territory Status: A nesting territory or inventoried habitat shall be considered unoccupied by golden eagles ONLY after completing at least 2 full aerial surveys in a single breeding season. In circumstances where ground observation occurs rather than aerial surveys, at least 2 ground observation periods lasting at least 4 hours or more are necessary to designate an inventoried habitat or territory as unoccupied as long as all potential nest sites and alternate nests are visible and monitored. These observation periods shall be at least 30 days apart for an inventory, and at least 30 days apart for monitoring of known territories.

4. Monitoring and Adaptive Management Plan: If an occupied nest² is detected within 10 miles of the Project boundaries, the Project owner shall prepare and implement a Golden Eagle Monitoring and Management Plan for the duration of construction to ensure that Project construction activities do not result in injury or disturbance to golden eagles. The monitoring methods shall be consistent with those described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS. The Monitoring and Management Plan shall be prepared in consultation with the USFWS. Triggers for adaptive management shall include any evidence of Project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Monitoring and Management Plan shall include a description of adaptive management actions, which shall include, but not be limited to, cessation of construction activities that are deemed by the Designated Biologist to be the source of golden eagle disturbance.

Verification: No fewer than 30 days from completion of the golden eagle inventory the project owner shall submit a report to the CPM, CDFG, and USFWS documenting the results of the inventory.

If an occupied nest is detected within 10 miles of the Project boundary during the inventory, at least 30 days prior to the start of any pre-construction site mobilization the project owner shall provide the CPM, CDFG, and USFWS with the final version of the Golden Eagle Monitoring and Management Plan. This final Plan shall have been reviewed and approved by the CPM in consultation with USFWS. ~~If no occupied nests are detected during the inventory and a Plan~~

² An occupied nest is one used for breeding by a pair of golden eagles in the current year. Presence of an adult, eggs, or young, freshly molted feathers or plucked down, or current years' mutes (whitewash) also indicate site occupancy. Additionally, all breeding sites within a breeding territory are deemed occupied while raptors are demonstrating pair bonding activities and developing an affinity to a given area. If this culminates in an individual nest being selected for use by a breeding pair, then the other nests in the nesting territory will no longer be considered occupied for the current breeding season. A nest site is considered occupied throughout the periods of initial courtship and pair - bonding, egg laying, incubation, brooding, fledging, and post - fledging dependency of the young.

is not warranted, a letter from USFWS documenting this determination shall be submitted to the CPM at least 10 days prior to the start of any pre-construction site mobilization.

Formatted: Strikethrough

CONDITION OF CERTIFICATION BIO 29

BIO-29 The Project owner may choose to satisfy its mitigation obligations identified in this Decision by paying an in lieu fee instead of acquiring compensation lands, pursuant to Fish and Game code sections 2069 and 2099 or any other applicable in-lieu fee provision, to the extent the in-lieu fee provision is found by the Commission to be in compliance with CEQA and CESA requirements.

Deleted: *in an amount not to exceed the security deposit amounts established in BIO-12 plus a 5% contingency*

Verification: If electing to use this provision, the Project owner shall notify the Commission that it would like a determination that the Project's in-lieu fee proposal meets CEQA and CESA requirements.

Deleted: *No later than 30 days prior to ground-disturbing activities, the Project owner shall provide documentation to the CPM verifying that the above funds have been placed into the proper account.*

Formatted: Not Strikethrough

Deleted: *Rationale: Genesis believes that in order for SB34 to serve its intended purpose, the CEC Decision needs to include a provision that allows Genesis to meet its mitigation obligations for impacts to CESA-covered species by paying a specified, not-to-exceed amount into the account set up by that bill.*



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
GENESIS SOLAR ENERGY PROJECT**

Docket No. 09-AFC-8

**PROOF OF SERVICE
(Revised 6/7/10)**

APPLICANT

Ryan O'Keefe, Vice President
Genesis Solar LLC
700 Universe Boulevard
Juno Beach, Florida 33408
E-mail service preferred
Ryan.okeefe@nexteraenergy.com

Scott Busa/Project Director
Meg Russel/Project Manager
Duane McCloud/Lead Engineer
NextEra Energy
700 Universe Boulevard
Juno Beach, FL 33408
Scott.Busa@nexteraenergy.com
Meg.Russell@nexteraenergy.com
Duane.mccloud@nexteraenergy.com

E-mail service preferred
Matt Handel/Vice President
Matt.Handel@nexteraenergy.com
Email service preferred
Kenny Stein,
Environmental Services Manager
Kenneth.Stein@nexteraenergy.com

Mike Pappalardo
Permitting Manager
3368 Videra Drive
Eugene, OR 97405
mike.pappalardo@nexteraenergy.com

Kerry Hattevik/Director
West Region Regulatory Affairs
829 Arlington Boulevard
El Cerrito, CA 94530
Kerry.Hattevik@nexteraenergy.com

APPLICANT'S CONSULTANTS

Tricia Bernhardt/Project Manager
Tetra Tech, EC
143 Union Boulevard, Ste 1010
Lakewood, CO 80228
Tricia.bernhardt@tteci.com

James Kimura, Project Engineer
Worley Parsons
2330 East Bidwell Street, Ste.150
Folsom, CA 95630
James.Kimura@WorleyParsons.com

COUNSEL FOR APPLICANT

Scott Galati
Galati & Blek, LLP
455 Capitol Mall, Ste. 350
Sacramento, CA 95814
sgalati@gb-llp.com

INTERESTED AGENCIES

California-ISO
e-recipient@caiso.com

Allison Shaffer, Project Manager
Bureau of Land Management
Palm Springs South Coast
Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Allison_Shaffer@blm.gov

INTERVENORS

California Unions for Reliable
Energy (CURE)
c/o: Tanya A. Gulesserian,
Rachael E. Koss,
Marc D. Joseph
Adams Broadwell Joesph
& Cardoza
601 Gateway Boulevard,
Ste 1000
South San Francisco, CA 94080
tgulesserian@adamsbroadwell.com
rkoss@adamsbroadwell.com

Tom Budlong
3216 Mandeville Cyn Rd.
Los Angeles, CA 90049-1016
tombudlong@roadrunner.com

*Mr. Larry Silver
California Environmental
Law Project
Counsel to Mr. Budlong
E-mail preferred
larrysilver@celproject.net

Californians for Renewable
Energy, Inc. (CARE)
Michael E. Boyd, President
5439 Soquel Drive
Soquel, CA 95073-2659
michaelboyd@sbcglobal.net

*Lisa T. Belenky, Senior Attorney
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
lbelenky@biologicaldiversity.org

*Ileene Anderson
Public Lands Desert Director
Center for Biological Diversity
PMB 447, 8033 Sunset Boulevard
Los Angeles, CA 90046
ianderson@biologicaldiversity.org

OTHER

Alfredo Figueroa
424 North Carlton
Blythe, CA 92225
lacunadeaztlan@aol.com

ENERGY COMMISSION

JAMES D. BOYD
Commissioner and Presiding
Member
jboyd@energy.state.ca.us

ROBERT WEISENMILLER
Commissioner and Associate Member
rweisenm@energy.state.ca.us

Kenneth Celli
Hearing Officer
kcelli@energy.state.ca.us

Caryn Holmes
Staff Counsel
cholmes@energy.state.ca.us

Jennifer Jennings
Public Adviser's Office
publicadviser@energy.state.ca.us

Mike Monasmith
Siting Project Manager
mmonasmi@energy.state.ca.us

Robin Mayer
Staff Counsel
rmayer@energy.state.ca.us

DECLARATION OF SERVICE

I, Marie Mills, declare that on July 12, 2010, I served and filed copies of the attached **REVISED OPENING TESTIMONY CHANGES TO BIOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION PER JULY 1 AND JULY 7 WORKSHOPS**, dated _____. 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 for this project at: [http://www.energy.ca.gov/sitingcases/genesis_solar].

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:

- sent electronically to all email addresses on the Proof of Service list;
 by personal delivery;
 by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

- 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. 09-AFC-8
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, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.



Marie Mills