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August 18, 2010

Mr. Christopher Meyer
Project Manager
Attn: Docket No. 08-AFC-5
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Imperial Valley Solar (formerly Solar Two) (08-AFC-5)
Applicant's Submittal of Reply Brief

Dear Mr. Meyer:

On behalf of Imperial Valley Solar (formerly Solar Two), LLC, URS Corporation Americas (URS) hereby submits the Applicant's Reply Brief, which includes two attachments (Attachment 1 - a letter from SDGE dated August 9, 2010 and Attachment 2 - Imperial Valley Solar Revised Conditions). Attachment 2 has been revised following discussions at the Imperial Valley Solar Evidentiary Hearing that were held on August 16, 2010 and supersedes other revisions to conditions previously submitted or docketed by Imperial Valley Solar, LLC.

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to submit on behalf of Imperial Valley Solar, LLC.

Sincerely,

Angela Leiba
Project Manager

AL: ml

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STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission

In the Matter of: Application for Certification of the Imperial Valley Solar Project	))))	**Docket No. 08-AFC-5**

REPLY BRIEF OF APPLICANT IMPERIAL VALLEY SOLAR

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STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission

In the Matter of: Application for Certification of the Imperial Valley Solar Project	)))))	**Docket No. 08-AFC-5** **Reply Brief of Applicant Imperial Valley Solar**

I. INTRODUCTION

The Applicant Imperial Valley Solar ("Applicant") replies as follows to Staff's Imperial Opening Brief ("Staff Opening Brief") and, as appropriate, to the Opening Brief of California Unions for Reliable Energy ("CURE"). The areas of agreement between the Applicant and Staff are many. The Applicant agrees with almost all of the analysis and major conclusions of the Supplemental Staff Assessment ("SSA"). The Applicant has not objected to 133 of the Conditions of Certification proposed by Staff; following the August 10th Conditions Workshop and discussions at the August 16th Evidentiary Hearing, Staff and the Applicant have reached agreement on another 29 Conditions; and only three Conditions remain to be resolved.[1] Staff and the Applicant also agree that an override is appropriate for the project's few LORS inconsistencies and significant, unavoidable environmental impacts. Ex. 132 (Prepared Direct Testimony of Sean Gallagher); Staff's Comments Regarding a Possible Energy Commission Finding

[1] *See* Ex. 134 (IVS Table: SSA Conditions of Certification, listing conditions not in dispute); section XII *infra.* The 29 resolved conditions include 20 with agreed-upon language and nine with agreement in concept; in addition to the five conditions still to be resolved, IVS is requesting clarification of one condition.

of Overriding Considerations, July 27, 2010. Nevertheless, on certain important points, Staff's analysis is unsupported, and in several instances the Staff Opening Brief simply argues with evidence that was, in fact, never controverted by any other evidence. The Applicant's remaining areas of disagreement with Staff on important points are the subject of this Reply Brief.

II. THE COMMISSION HAS BEFORE IT SUFFICIENT ANALYSIS TO APPROVE THE LEDPA

The Bureau of Land Management's ("BLM") Final Environmental Impact Statement ("FEIS") has selected the 709 MW Least Environmentally Damaging Practicable Alternative ("LEDPA") identified by the Corps of Engineers in the draft Section 404(b)(1) analysis as BLM's preferred alternative. Final Environmental Impact Statement, July 28, 2010 (hereinafter "FEIS") at 3.1-1. Staff unfortunately invites an unnecessary regulatory train wreck by incorrectly asserting that the Commission cannot adopt the BLM's preferred alternative, and instead urging the Commission to adopt an alternative that is not feasible. The Commission can and should adopt the LEDPA: It will minimize the project's significant impacts to the extent feasible.

A. The SSA Includes Sufficient Analysis Of The Impacts Associated With The LEDPA

Staff objects that the SSA does not list the LEDPA as an alternative.[2] However, the SSA describes all the significant impacts that may result from the LEDPA. The purpose

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[2] CURE also makes this assertion and then claims that the LEDPA must be final for the Commission to make a LORS determination. The argument is makeweight. The draft

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of the SSA is to inform the Commission's discretion, not to wrest its authority. Nothing prevents the Commission from adopting an alternative that is different from but within the range of alternatives considered in the SSA. Imperial Valley Solar's Post-Hearing Brief, August 11, 2010 (hereinafter "IVS Opening Brief") at 11-12; *Sierra Club v. City of Orange*, 163 Cal. App. 4th 523, 533 (2008); *Dusek v. City of Anaheim*, 173 Cal. App. 3d 1029, 1041 (1985).

The 709 MW LEDPA has a smaller footprint than the proposed project but a moderately larger footprint than Drainage Avoidance Alternative #1. For virtually all impacts, the SSA concludes that the differences between the proposed project and Drainage Avoidance Alternative #1 do not have an effect on Staff's determinations of the significance or non-significance of the impact. For several impacts, such as impacts on visual resources, this is because the perimeter of the project will not change. The perimeter of the project also will not change with the LEDPA. For other impacts, to the extent there is a difference of degree between the impacts of the 750 MW proposed project and Drainage Avoidance Alternative #1, the difference is not substantial enough to alter a significance or non-significance determination in any way. *See* Ex. 302 (Supplemental Staff Assessment) (hereinafter "SSA") at C.1-41 (air quality), C.4-18 to C.4-19 (geology, soils, and paleontological and mineral resources), C.5-15 (hazardous materials management), C.6-15 to C.6-16 (public health and safety), C.8.36 to C.8.37

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LEDPA has been issued by the Corps and adopted as the preferred alternative by the BLM. Further, any condition that the project comply with section 404(b)(1) would be born irrelevant, because the project cannot begin construction without a section 404

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(land use, recreation, and wilderness), C.9-16 (noise and vibration), C.11-16 (transportation and traffic), C.12-11 to C.12-12 (transmission line safety and nuisance), C.13-32 (visual resources), C.14-21 (waste management), C.15-20 (worker safety and fire protection). The different number of SunCatchers and the different acreage found in the LEDPA cannot alter the SSA's significance determinations for these impacts. The LEDPA is not outside the range of impacts considered by Staff, nor would it introduce anything new or unanalyzed for these impacts.

In the limited instances where the SSA concludes that the CEQA significance determination is different for the 750 MW proposed project than it would be for Drainage Avoidance Alternative #1 – impacts to waters of the United States, Flat-Tailed Horned Lizard ("FTHL") connectivity (but not direct mortality), and erosion/sedimentation – the LEDPA will minimize impacts in a manner very similar to Drainage Avoidance Alternative #1. As explained in the IVS Opening Brief, the LEDPA actually reduces impacts to aquatic resources from those associated with the Drainage Avoidance Alternative #1 analyzed by Staff. IVS Opening Brief at 8-9. Therefore, no further analysis is required by Staff or the Commission to conclude that impacts to aquatic resources will be reduced to a less-than-significant level.

With regard to impacts to FTHL, the Staff explained at the hearings that Drainage Avoidance Alternative # 1 was chosen as the preferred alternative in part because of its avoidance of Wash C and Wash G. Transcript, Nishida Testimony, July 27, 2010, at

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permit.

220-221. Avoidance of Wash C preserves the potential movement corridor for FTHL as it connects to a culvert under Interstate 8. *Id.* at 220. Avoidance of Wash G also reduces impacts to FTHL because it preserves "one way movement from the Yuha management area into the project site." *Id*. The Commission has before it evidence that the LEDPA "avoids the entirety of Washes H, I, K, and C and avoids all of Washes E and G southwest of the transmission line corridor as well as providing a 200 foot wide flow corridor in Washes E and G northeast of the transmission line corridor." Ex. 129 (U.S. Army Corps Alternatives Draft 404(b)(1) Analysis) (hereinafter "Corps Alternatives Analysis") at 23. At page 17 of its Opening Brief, Staff expressly agrees with the Applicant that because the LEDPA will avoid most major ephemeral washes, it could and should preserve FTHL connectivity; but at page 10, Staff states that it cannot yet draw that conclusion. Staff is right at page 17. The LEDPA preserves connectivity for the FTHL, and is "essentially the same" as Drainage Avoidance Alternative #1 with respect to biological impacts. Transcript, Fitzgerald Testimony, July 27, 2010, at 363. Although Staff may not have expressly analyzed the LEDPA's impacts on FTHL connectivity, the Commission can and should reasonably conclude that by avoiding Wash C, the southern portion of Wash G (the area specifically identified as being of importance for the one-way movement identified by Staff), and preserving a corridor through the northern portion of Wash G, the LEDPA has similar level of impacts to the FTHL as Drainage Avoidance Alternative #1. Therefore, no further analysis by Staff is needed.

With respect to erosion/sedimentation, the LEDPA incorporates revisions to the 750 MW proposed project and the evidence shows that these revisions will avoid any

significant erosion or sedimentation impacts. Ex. 143 (Rebuttal Testimony of Mike Fitzgerald) at 7-8; Ex. 141 (Rebuttal Testimony of Howard Chang) (hereinafter "Chang Rebuttal Testimony"). Staff's position regarding the purported erosion and hydro-modification impacts of the LEDPA is that there is "uncertainty" as to the level of impacts that will occur. Ex. 302 (SSA) at C.7-2; Staff's Imperial Opening Brief, August 11, 2010 (hereinafter "Staff Opening Brief") at 24. The uncertainty that Staff suggests is not particular to the LEDPA and, in any case, is not based on the evidence in the record. In the February 2010 Staff Assessment/Draft Environmental Impact Statement ("SA/DEIS"), Staff stated that the bases for the analyses submitted to date by the Applicant were uncertain, and therefore conservatively identified significant hydrologic impacts. Ex. 300 (Staff Assessment/Draft Environmental Impact Statement) (hereinafter "SA/DEIS") at C.7-1. To provide the additional analysis Staff sought, the Applicant retained renowned expert Dr. Howard Chang, who had previously been hired by the Corps of Engineers to analyze the site's hydrology and the proposed project's potential impacts. Dr. Chang conducted detailed analyses of these issues and recommended improvements to the 750 MW proposed project, most notably the elimination of sedimentation basins, and concluded that with the implementation of these changes, the 750 MW proposed project would cause no significant impacts. Ex. 141 (Chang Rebuttal Testimony). The Applicant docketed the Chang studies beginning in April (Ex. 30 (Applicant's Submittal of Sediment Transport Analysis)) and Dr. Chang testified in May.[3] Transcript, Chang Testimony, May 24, 2010, at 251-264.

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[3] Additional reports from Dr. Chang were filed on July 13, 2010. Ex. 120 (Computation

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The Applicant included Dr. Chang's recommended project changes in its LEDPA discussions. Ex. 129 (Corps Alternatives Analysis) at 163. Nevertheless, the July 2010 SSA makes the identical statements as the February 2010 SA/DEIS did, and includes no reference to the Chang reports. Ex. 302 (SSA) at C.7-2.

Dr. Chang's detailed testimony is that there are no significant impacts. Ex. 141 (Chang Rebuttal Testimony). As the Staff Opening Brief concedes, Staff's refusal to address the evidence continues: "At the [July 26, 2010] hearing, the staff witness testified that he had not reviewed some of the more recent information provided by IVS regarding the potential for erosion and hydro-modification." Staff Opening Brief at 24. Notably, some of this "recent information" that was not reviewed includes a report docketed with the Commission on April 26, 2010. Transcript, Lowe Testimony, July 26, 2010, at 345. Despite its unexplained failure to consider the evidence, Staff now states that it "continues to believe that impacts may still be significant." Staff Opening Brief at 24. Dr. Chang's testimony explicitly rejects Staff's position. Ex. 141 (Chang Rebuttal Testimony). The Applicant submits that if there were ever a time for Staff to harbor unsupported "beliefs" regarding the impacts of the IVS project, that time is long past. The Applicant's experts have analyzed these impacts. The Corps has analyzed these impacts. BLM has analyzed these impacts. Staff's refusal to evaluate the evidence does not justify Staff in demanding more time for analysis or in concluding that the

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of Local Scour on Streambed Induced by SunCatchers); Ex. 121 (Evaluation of Engineering Impacts on Revised Plan of Development, Site Plan, and Fencing Design for Solar 2 Site and Recommendations for Impact Mitigation).

LEDPA would cause significant unavoidable erosion and hydro-modification impacts. There is more than enough information before the Commission for a conclusion regarding significant impacts to water quality, and the evidence demonstrates that the LEDPA will not result in such impacts. Ex. 141 (Chang Rebuttal Testimony); Transcript, Chang Testimony, May 24, 2010, at 248-254, July 26, 2010, at 310-317, 331.

Staff also suggests that there is the possibility of unanalyzed air impacts from the BLM and Corps preferred LEDPA. The only specific impact identified by the Staff relates to the possibility of unanalyzed air quality impacts. Staff Opening Brief at 3-4. As with other impacts, Staff analyzed the air impacts of the larger 750 MW proposed project and found Drainage Avoidance Alternative #1 not to be materially different from the 750 MW proposed project. Staff concluded that "[t]he level of significance under CEQA for the Drainage Avoidance #1 Alternative would be the same as for the proposed project, with the same significance rationale …" Ex. 302 (SSA) at ES-21, C.1-41. BLM has notably made the very same finding with respect to the LEDPA and the 750 MW proposed project: "[T]he air quality effects associated with the construction, operation, and decommissioning of the Agency Preferred Alternative [the LEDPA] would be very similar to those impacts under the IVS project [the 750 MW alternative]." FEIS at 4.2-22.

Nevertheless, at the July 27, 2010 hearing, Staff counsel speculated that eliminating the project's spur roads – which will reduce impacts to waters of the United States – would result in air quality impacts that have not been considered. Transcript, Holmes Comments, July 27, 2010, at 376. This speculation is unwarranted. The ground disturbance for construction has been considered, and will be reduced with the elimination of the spur roads. The reduction in grading will reduce air impacts and there

is nothing that suggests that installing SunCatchers without using spur roads will have greater impacts than the impacts of the grading of the spur roads themselves. In terms of operation, it is simple logic that eliminating spur roads for maintenance activities that will not occur frequently enough to justify a road will result in fewer impacts and is the environmentally protective alternative. *See* Transcript, Fitzgerald Testimony, July 27, 2010, at 387 (noting that washing of mirrors would occur around once a month).[4] The ungraded 50-foot access points are not a source of environmental or health concern. *Id.* at 387.

B. The Record Supports The Conclusion That Drainage Avoidance Alternative #1 Is Not Feasible

Staff contends that the record does not support the conclusion that Drainage Avoidance Alternative #1 is not feasible, and asserts that "the applicant has not presented a convincing assessment of feasibility." Respectfully, Staff's assertion is based on a refusal to consider the contents of the practicability analysis that Staff criticizes. The basis of overall feasibility determination is described in the Army Corps Alternatives Analysis:

> SDG&E has stated that it would not under any

[4] CURE makes much of the fact that Valley Fever is spread through dust, and then misrepresents the contents of Condition WORKER SAFETY-9 (previously WORKER SAFETY-8 in the SSA). This condition addresses health risks from dust and the "implementation of enhanced dust control methods … immediately whenever visible dust comes from or onto the site or when PM10 measurements exceed 50 µg/m3." It does not say that IVS will water the desert until desert dust is a thing of the past. If dust is created by the wind or by SunCatcher maintenance, dust masks will be required. Ex. 302 (SSA) at C.15-25. WORKER SAFETY-9 makes it clear that air quality impacts have been addressed in the SSA.

> circumstances increase the price paid for the energy generated by the IVSP. Therefore, the price ceiling for the IVSP is set by the PPA and any changes to the proposed project that increase costs would make the project less practicable. **TSNA has determined that it is practicable to absorb an increase of $50 per kW; any increase in excess of this amount would render an alternative not practicable.**

Ex. 129 (Corps Alternatives Analysis) at 15 (emphasis in original). The cost of manufacturing and installing SunCatchers depends upon economies of scale. Ex. 115 (Supplemental and Prepared Testimony of Marc Van Patten) (hereinafter "Van Patten Prepared Testimony") at 3. The cost considerations triggered by site layout are explained in the LEDPA analysis. Ex. 129 (Corps Alternatives Analysis) at 14-18. The analysis fully describes the specific issues affecting costs of Drainage Avoidance Alternative #1 (Alternative #5 in the LEDPA analysis):

> This alternative would result in multiple areas of isolated SunCatcher groups. Several examples are between Wash K and Wash A; the northern forked portion of Wash D; southern portions of Wash G; areas north of Wash E and other smaller areas where SunCatcher groups would be isolated. The Applicant would not construct SunCatcher groups in these isolated areas (refer to Logistics Criteria above). As such, this alternative would generate significantly less than the 607 MW estimated when this alternative was developed. Further, this alternative would require more than 50% of the generation groups to be non-standard configurations.

Id. at 36. These site layout issues were also explained at the July 27, 2010 hearing in unrebutted testimony. Transcript, Fitzgerald Testimony, July 27, 2010 at 451-453.

Staff contends that the Applicant is like a witness that keeps changing its story. To a great extent, this appears to be based on a simple misunderstanding of what the Applicant has said, and in particular, what Marc Van Patten has said. Staff cites, but

does not quote, Mr. Van Patten's statement that: "The smaller alternatives, particularly the 300 MW alternative and the two drainage avoidance alternatives are not practicable because the economics of scale achieved with a 750 MW project would not be available and *the price per SunCatcher would increase*." Ex. 115 (Van Patten Prepared Testimony) at 3 (emphasis supplied). Mr. Van Patten never stated that anything less than 750 MW would not be practicable,[5] but at the July 27, 2010 hearing, Staff's counsel focused on the fact that Mr. Van Patten's testimony had "changed."

Oddly enough, this was only after Mr. Van Patten and Mr. Fitzgerald explained at length the evolution of the conclusion that the 709 MW alternative is practicable. Transcript, Van Patten Testimony, July 27, 2010, at 457-458; Transcript, Fitzgerald Testimony, July 27, 2010, at 452-453. Staff's decision to treat the "change" as purported impeachment unfortunately ignores what Mr. Van Patten said. The 709 MW number is based upon the facts that (1) the price for the project's energy will not increase, (2) "the price ceiling for the IVSP is set by the PPA and any changes to the proposed project that increase costs would make the project less practicable," and (3) based on the reasonable assumption of "a construction cost of $2,950/kW or a total construction cost of $2,212,500,000" for this project, it is practicable for the Applicant to absorb up to an additional $50 per kw of additional cost. Ex. 129 (Corps Alternatives Analysis) at 15; Transcript, Van Patten Testimony, July 27, 2010, at 457. The evidence that $50 per kW (above $2,950 per kW) is the Applicant's threshold for practicability is *un-rebutted*.

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[5] Nor has the Applicant ever asserted that a 900 MW project was the only practicable project.

Ignoring this evidence, CURE and Staff assert that a project smaller than the 709 MW project must be feasible in light of the fact that the Applicant has entered in a PPA for 300 MW. The PPA was negotiated based on an assumption that a larger project would be approved and eventually constructed, allowing for the economies of scale described above. Ex. 129 (Corps Alternatives Analysis) at 15; Transcript, Van Patten Testimony, July 27, 2010 at 460-61. There is no requirement that an applicant have in place a PPA for the entire amount of energy that will be generated prior to CEC approval. The Applicant has made an informed business determination that it will be able to sell the remaining 409 MW of renewable energy, an assumption that is entirely reasonable given the requirements of the RPS program. Moreover, the PPA contains contingencies and Staff's attack on the Applicant's credibility is again without basis.[6]

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[6] In response to CURE's protest letter regarding the CPUC's draft resolution approving the PPA, SDG&E explained:

> As with most renewable energy projects, the IV Solar project faces financing risk. The IV Solar project anticipates a financing decision by the Department of Energy prior to the end of 2010, and the amended PPA accounts for this risk by including a related financing condition precedent. To the extent the Project does not meet this financing milestone, IV Solar has the option to terminate the contract. The developer has advised, however, that it does not foresee problems with financing and does not anticipate a delay in beginning construction on the 300 MW phase of the project, provided the IV Solar project is permitted for 709 MW. Accordingly, CURE's concerns regarding the economic viability of the IV Solar project should be rejected as premature until the outcome of project permitting is known.

See Attachment 1 to this Reply, at 2. The CPUC has approved the PPA. Resolution E-4352, approved on August 12, 2010, available at http://docs.cpuc.ca.gov/PUBLISHED/COMMENT_RESOLUTION/120632.htm; *see* http://docs.cpuc.ca.gov/published/agenda/docs/3259_results.pdf.

The Applicant has spent millions of dollars on analyzing the project site and can be expected to know more about the site than when it started the analysis, including the specific information about the site that informs the LEDPA determination's analysis. The Applicant greatly appreciates Staff's hard work in these proceedings, but emphatically submits that Staff's assertion that the draft LEDPA's conclusions are not supported by substantial evidence has no basis.

III. THE COMMISSION SHOULD APPROVE FLAT-TAILED HORNED LIZARD MITIGATION THAT IS PROPORTIONAL TO THE IMPACTS AND THAT IS BASED ON AN ACCURATE ASSESSMENT OF SIGNIFICANT IMPACTS

A. The Commission Should Adopt The Applicant's Revised BIO-10 As It Includes Appropriate And Sufficient Mitigation For Impacts To Flat-Tailed Horned Lizards.

Staff and the Applicant have agreed in concept as to the appropriate mitigation for the impacts to Flat-Tailed Horned Lizard, the language of which is included in Attachment 2. Based upon discussions at the August 10, 2010 Condition Workshop between the Applicant, Staff and representatives from the BLM, Staff and the Applicant have agreed that the Applicant will pay a long-term management fee to manage the mitigation lands. While BLM does not require any long-term management fee to manage the mitigation lands in order to meet BLM management requirements (Transcript, Fesnock Testimony, July 27, 2010, at 141), BLM concluded that it may require some long-term management fee to cover any management required by state law that is above and beyond BLM's standard management practices. At the August 10, 2010 Conditions Workshop, the Applicant, Staff and BLM representatives discussed that the required management above and beyond BLM's standard management would mainly include a 25%- time biologist and a 50%-time ranger. The cost to pay for this proposed additional

management is far less than the $4,580,970 proposed in BIO-10 in the SSA and will be shown by the Property Analysis Record ("PAR") analysis for this fee based upon the actual costs of specific management required *in addition* to BLM's standard procedures. Therefore, the Applicant will pay a long-term management mitigation fee, confirmed by PAR, that is directly associated with costs required to pay for required management above and beyond BLM's standard management practices.[7]

Additionally, the cost for acquiring the mitigation lands needs to be premised on accurate estimates as to what acquiring such lands will involve. The Renewable Energy Action Team ("REAT") has provided an estimate for the cost of acquiring such lands, and the REAT's numbers were the basis for Biological Resources Table 5 included in the SSA. Ex. 302 (SSA) at C.2-78. At the August 10 Conditions Workshop, BLM staff explained that it had reviewed the historic acquisitions in the project area and based on this historic data, had determined that the average parcel size for lands acquired should be 160 acres rather than 40 acres, as had previously been stated. At the hearing on August 17, 2010, CEC staff confirmed BLM's statement that the average parcel size is 160 acres.[8] The Applicant has updated the cost estimates to reflect this agreed upon

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[7] Based on discussions at the August 10, 2010 workshop, the Applicant understands that the California Department of Fish and Game (CDFG) has prepared an initial PAR for the long-term management of the IVS mitigation lands. An initial review of the draft PAR provided by CDFG makes it clear that CDFG did not include consideration of BLM's management of BLM lands. Therefore, the Applicant believes this number will be significantly reduced when such management is taken into account. In the Applicant's proposed revision for BIO-10, the Applicant has included a provision that will allow for reduction in the management amount and associated security once a final PAR is agreed upon.

[8] The transcript for this hearing has not been completed.

change. *See* Attachment 2. The Applicant requests that the Commission modify BIO-10 to recognize that the cost estimates currently provided in the Table are estimates only and to recognize that the ultimate mitigation cost and security required may change as the REAT agencies further refine their estimates.

B. The Commission Should Determine That The Loss Of Individual Flat Tailed Horned Lizards Does Not Constitute A Significant, Unmitigable Impact.

In the Staff Opening Brief, Staff asserts, without citing the evidence, that whereas Drainage Avoidance Alternative #1 would avoid significant FTHL connectivity impacts, the LEDPA has not been shown to have the same benefit. Staff Opening Brief at 10. As noted above, at page 17 of its brief, Staff actually agrees with the Applicant that the LEDPA, like Drainage Avoidance Alternative #1, would preserve this connectivity. The draft LEDPA also reaches this conclusion. Ex. 129 (Corps Alternatives Analysis) at 85.

Staff is already proposing to fully mitigate impacts to FTHL off-site. Treating on-site impacts as significant while requiring full off-site mitigation is not proportionate mitigation. The off-site mitigation will mitigate the impacts. The Staff Opening Brief asserts that the Applicant is "indifferent to the loss of any number of individual FTHLS, even thousands…." Staff Opening Brief at 10. Of course, the testimony cited does not say this (Transcript, Mock Testimony, July 27, 2010, 246 -247) and "indifference" is not the question. Both CEQA and the SSA's stated significance thresholds are concerned with impacts to special-status *species*. 14 Cal. Code Regs. § 15065; Ex. 302 (SSA) at C.2-17. Nothing in CEQA addresses losses of individuals of a species unless those losses are numerous enough to cause substantial adverse effects to the species as a

whole. 14 Cal. Code Regs. § 15065(a)(1). The existence of an impact does not mean that there is a significant impact, and where a project would substantially reduce the number of a special-status species, habitat mitigation can reduce the impact to less-than-significant. 14 Cal. Code Regs. § 15065(b)(2).

Thus under CEQA, it is unorthodox for a lead agency to treat loss of individuals of a species as a separate, significant, inherently unmitigable (because no mitigation will bring the individuals back to life) impact. The SSA's conclusion that impacts to FTHL as a species are mitigable to less-than-significant, but that the loss of FTHL individuals constitutes a separate, significant and unavoidable, impact – an impact that the Commission will have to override – is highly unusual. In any case, differences in on-site impacts cannot create a material difference between the LEDPA and Drainage Alternative #1 where full off-site mitigation is required.

IV. PHASED PAYMENT FOR COMPENSATORY MITIGATION

The Applicant is pleased to learn that Staff is not opposed to phasing mitigation payments. Staff Opening Brief at 17. The Applicant agrees with Staff that phased payments of compensatory mitigation should be keyed to and prior to the occurrence of ground disturbance. In response to Staff's request for a phased mitigation plan, the Applicant provided a phased plan, which would tie the payment of mitigation funding based on the level of impacts that would occur.[9] This plan was discussed with Staff and

[9] Due to the nesting of mitigation, one security payment shall be required to satisfy the monetary mitigation conditions of both BIO-10 and BIO-19, and shall be posted prior to ground disturbing activities for each phase. The amount of security for each phase shall

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other agencies at the August 10, 2010 Conditions Workshop. The Applicant is required to make each phased payment prior to any impacts occurring on the corresponding property for which the compensatory mitigation is applicable.

Based upon discussions with Staff and BLM at the August 10, 2010 Conditions Workshop, the Applicant has calculated the following mitigation payments for the phased mitigation schedule:

	Phase 1A	Phase 1B	Phase 2	Total
FTHL Mitigation (BIO-10)	$574,758 (providing 378.3 acres of mitigation)	$3,819,470 (providing 2,682.3 acres of mitigation)	$5,052,854 (providing 3,558.1 acres of mitigation)	$9,447,082.12 (providing 6,618.7 acres of mitigation)
PBHS - Waters of US/ Waters of State (BIO 17)	$494,000 (providing for enhancement of 247 acres of Carrizo Creek*	$400,924 (providing for monitoring and long term management of 247 acres of Carrizo Creek*	N/A*	$894,924*
Special Status Plants (BIO-19)	Included in FTHL Mitigation**	Included in FTHL Mitigation**	Included in FTHL Mitigation**	N/A
Totals	$1,068,758	$4,220,394	$5,052,854	$10,341,906

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correspond to the number of anticipated acres to be impacted in such phase. Revised versions of these conditions are included in section XII *infra* and in Attachment 2.

*Assumes mitigation provided at Carrizo Creek; should another mitigation effort be proposed or pursued, the security requirements would be altered to reflect updated cost calculations or as provided in BIO-17.

**Assumes that special status plant species mitigation will be nested with FTHL mitigation. If FTHL mitigation lands do not meet criteria of BIO-19, additional security will be required.

These mitigation payments for land acquisition, enhancement and long-term management are calculated proportionately to the phased ground disturbance and the impacts associated with each phase.[10] The mitigation for each phase should be adjusted to account for the actual land acquisition and improvement costs from the proceeding phase and any updated cost estimates for the subsequent phase.

As Staff acknowledges, under this proposed phased mitigation, mitigation funding will always be in place before the corresponding impacts would occur. This phasing satisfies CEQA.[11]

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[10] For impacts to PBHS and waters of the U.S./waters of the state, the applicant proposes to fully fund the enhancement-restoration measures prior to commencement of groundbreaking activities associated with Phase 1A. This will ensure that the impacts associated with the entire project area are secured prior to *any* impacts occurring. Although a significant portion of the impacts will not occur until Phase 1B and Phase 2 or implemented, the applicant proposed to implement the full mitigation measures at one time. The applicant requests, however, that the requirement to ensure the 5 year monitoring and long-term management funding not be secured until Phase 1B. Deferring this payment will allow the applicant to acquire federal funding prior to paying such security. The Commission can reasonably assume that this measure will ensure that the entire project impacts will be mitigated because it will ensure that the full 247 acres of mitigation occur, well in advance of most of the impacts to PBHS potential foraging habitat and aquatic resources.

[11] For the remainder of the conditions, IVS is not requesting modifications to reflect the

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V. WATER SUPPLY

In an era when climate change and water supply are critical challenges for California, the Imperial Valley Solar Project represents one of the most water efficient sources of renewable energy in the state. By producing 709 MW of power by using some 33 AFY of water, the project would supply enough power for nearly a quarter million households, while using the water equivalent of roughly 70 households.[12] Nevertheless, Staff suggest that even this small level of water usage presents severe environmental impacts. None of these various arguments are well-grounded in evidence.

First, the primary source of water for the project will be the upgraded Seeley Waste Water Treatment Facility. The record contains substantial information regarding the scope and nature of potential environmental impacts of the Seeley Upgrade Project, and as Staff acknowledges, the upgrades to the Seeley Waste Water Treatment Facility are unlikely to cause unmitigable significant impacts. Staff Opening Brief at 19. Since the Seeley County Water District is required to make upgrades to the plant, the Commission has sufficient basis for approving the Imperial Valley Solar Project while recommending that the Water District can and should mitigate any significant environmental impacts. [13]

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new phasing plan.

[12] Assuming a capacity factor of 27%, the IVS Project would produce over 1.6 million kWH of power annually, or enough for over 235,000 households using the California average of 7,044 kWH annually. See http://www.eia.doe.gov/ask/electricity_faqs.asp

[13] As discussed in two previous IVS briefs, the Commission has before it extensive evidence regarding the potential impacts associated with the Seeley Project and no additional information is needed to make an informed decision regarding the potential

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Second, the evidence on the record shows that the residential usage of the Boyer Well has been minimal. Staff's continued insistence that the IVS Project's use of Boyer Well water must be reduced by 6 AFY to protect residential users of the Boyer Well is mystifying. As the Applicant pointed out in its Opening Brief, Mr. Boyer's estimate of 0.5 AFY of residential use is based on evidence of the actual history of residential water sales, whereas Staff's purported estimate of 6 AFY is based on sheer speculation, including, as Staff admits, a doubling that is based only on Staff's "conservatism." IVS Opening Brief at 14-15; Staff Opening Brief at 20. "Conservatism" does not constitute evidence.

Next, Staff next asserts that pumping any amount of water for the IVS Project from the Ocotillo/Coyote aquifer automatically constitutes a significant cumulative impact because the basin is in overdraft. This position embodies the "one molecule" theory

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for impacts to occur as a result of this independent project. IVS Opening Brief at 12-18; Brief of Applicant Imperial Valley Solar, LLC Regarding Analysis of Project Water Supply, June 14, 2010. For independent projects not under the jurisdiction of the Commission but within the authority of another agency, the Commission's regulations provide that the Commission must only determine that there are measures available to mitigate any potentially significant impacts that the sister agency can and should impose. 20 Cal. Code Regs. § 1755(c)(2). The Commission has sufficient information to make such findings here. CURE claims that the Commission cannot approve the IVS Project because it is uncertain whether the Seeley Upgrade Project will comply with all applicable LORS. This argument is unfounded. First, there is no evidence to suggest that Seeley will not comply with all applicable requirements, and it is reasonable to assume that Seeley will complete the necessary upgrades as such upgrades are legally required. Second, the Commission does not need to make a LORS compliance finding for Seeley as it is not a part of the facility described in the IVS application, but rather is an independent, but related project. *See* Pub. Res. Code § 25523(d), §25525.

that has long been rejected under CEQA. *CBE v. California Resources Agency,* 103 Cal. App. 4th 98, 120 (2002).

Finally, Staff asserts that the Applicant's offer to purchase Boyer Well water and leave it in the aquifer would not constitute mitigation. Although the Applicant will withdraw this offer if the Commission agrees with Staff, the Applicant notes that Staff's argument is based on several faulty premises. Staff begins by confusing the no project alternative and existing conditions. Staff Opening Brief at 22. As Staff has noted, water is a precious commodity in the desert, and there is no reason to believe that under the no-project scenario, no water would be pumped from the Boyer Well. Therefore, the substitution of a user (IVS), which will purchase water and allow it to remain in the aquifer, in place of users (anyone else) who would purchase the water and remove it from the basin, represents a benefit when the no project alternative and the IVS Project are compared.

When the IVS Project is compared to existing conditions, Staff suddenly assumes that no water is currently being pumped from the Boyer Well, because the County asserted that use of the Well was not "allowable" prior to July 14, 2010. *Id.* at 22-23. The merits of the legality of the grandfathered Boyer Well are irrelevant as a matter of law. *Riverwatch v. County of San Diego*, 76 Cal. App. 4th 1428, 1453 (1999). As Staff itself admits two pages earlier in its brief, water has in fact consistently been pumped from the Boyer Well; under CEQA, that is all that matters. *Id*.

Staff next assumes, without citing evidence,[14] that any other Boyer Well users displaced by the IVS Project would use "the same aquifer from which the Boyer well produces water." Staff Opening Brief at 23. The Staff provides no support for its conclusion that there are other wells overlying the aquifer that have excess unused water available to supply this displaced consumption. If the Commission concludes that Staff is correct on this point, the proposed purchase will be ineffective as mitigation and the Applicant will withdraw this offer.

Regardless of whether the Applicant purchases water from the Boyer Well for retention in the aquifer, the evidence shows that the project's water demand is simply too small to cause a significant project or cumulative impact to the aquifer.[15]

VI. THE COMMISSION SHOULD APPROVE THE APPLICANT'S PROPOSED PENINSULAR BIGHORN SHEEP (PBHS) MITIGATION

The Commission has ample evidence to determine that the extensive program of restoration at Carrizo Creek and marsh proposed by the U.S. Army Corps of Engineers will mitigate the project's PBHS impacts to less-than-significant. [16] *See* Ex. 129 (Corps

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[14] The "evidence" Staff cites is a *question* whether existing demand would migrate elsewhere within the basin. Transcript, Dennis Testimony. July 26, 2010, at 219.

[15] The water budget for the project as planned has been docketed with the Commission and has not been rebutted by evidence of any budget based on project activities. *See* Applicant's Submittal of Estimated First Year Construction Water Use, August 3, 2010. CURE questions this demand, citing speculation from its own experts that operations and construction might involve water-consuming activities for which there are, in fact, no plans whatsoever. As noted by CURE itself, however, "Expert opinion does not constitute substantial evidence when it is 'based on speculation and conjecture, and accordingly…not supported by substantial evidence in light of the whole record.'" CURE Opening Brief at 3.

[16] Although the restoration program has been criticized for potential impacts from the

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Alternatives Analysis) at 86. The record supports, and always has supported, the key conclusions that the impacts are limited in scope and mitigable. PBHS are not known to utilize the site with any regularity, either as foraging habitat or as a movement corridor. Ex. 302 (SSA) at C.2-44, C.2-71; Transcript, Joy Nishida Testimony, July 27th, 2010, at 197. The site only provides a limited amount of low-quality foraging habitat in a fraction of the wash areas. Ex. 300 (SA/DEIS) at C.2-40 This assessment of the site's habitat potential remains the position of the Corps, the BLM, and USFWS. Ex. 129 (Corps Alternatives Analysis) at 85-86, FEIS at 4.3-22. Furthermore, the record also supports the conclusion that the proposed mitigation will result in the restoration of historically important PBHS foraging habitat which is no longer in use due to the presence of invasive species. Ex. 129 (Corps Alternatives Analysis) at 86. Staff's recent conclusion that additional mitigation should be required for areas of the project site which are rarely used and which do not contain foraging habitat is not supported by any evidence and is inconsistent with the requirement that mitigation must be proportional to the identified impacts. See Section III above.

In its SSA, Staff concurs with the U.S. Army Corps of Engineers, BLM, and USFWS in the conclusion that the existing data on this relatively well-studied species does not indicate that PBHS regularly visit the site and that the use of any habitat at the site by the sheep is "transitory at best." Ex. 302 (SSA) at C.2-71, C.2-72. Based on the assessment of the habitat quality, the site's location, and the historical record of

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removal of invasive species, there is no evidence in the record of any such impacts

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sightings, "the USFWS, CDFG, and BLM biologists are in agreement that the sighting of bighorn sheep on the site in spring 2009 was an unusual occurrence and is unlikely to occur again." Ex. 300 (SA/DEIS) at C.2-24. In its initial assessment, Staff considered forage and movement corridor impacts, and concluded that such impacts were "highly unlikely" to be significant, given the low probability that the site is actually used by sheep. *Id.* at C.2-24; *see also id*. at C.2-40. ("[S]taff concurs with the BLM assessment of project impacts that this project may affect, but is not likely to adversely affect Peninsular bighorn sheep.") Further, at the July 27th Evidentiary Hearings Staff biologist Joy Nishida testified that "A ewe group was observed on the site in March 2009, *which was a rare event.* The big horn sheep are most often found west of site in the nearby mountains." Transcript, Joy Nishida Testimony, July 27th, 2010, at 197 (emphasis added). Overall, all agencies agree that the site is at most rarely visited foraging habitat and does not represent a transit corridor.[17]

From the date of the Application through the February 2010 SA/DEIS, the biologists on CEC Staff, BLM, USFWS, and CDFG all generally agreed that the "[h]abitat on project site is not optimal for bighorn sheep due to lack of cover, escape routes, human recreational OHV use, but the project site provides marginal foraging habitat." Ex. 300 (SA/DEIS) at C.2-18. In response to a suggestion that washes on the site may have

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caused by improvements to endangered species habitat.

[17] It is important to note that the quality of the habitat is affected not only by its lack of vegetation, but also due to its location and the significant barriers or impediments to movement that occur in the project vicinity. *See* SA/DEIS at ; Ex. 115 at 15.

"potential importance" for forage for the sheep,[18] Staff changed its position to require mitigation for 881 acres of ephemeral washes on the site, without respect to whether those acres actually support sheep forage. Ex. 302 (SSA) at C.2-44; *Id.* at C.2-84. However, there is simply no evidence that this level of mitigation is required to lessen the potential significance of impacts to low quality foraging habitat on a site where PBHS have only *once* been documented to have been actually present and only 247 acres of wash actually support any potential foraging potential.

Recognizing that the site provides only marginal, at best, foraging habitat for the PBHS, the Applicant worked with representatives of the Corps, USFWS and BLM to identify a way to quantify the level of potential impact that developing this site could have on PBHS, based on actual field surveys of the habitats onsite. Ex. 143 (Rebuttal Testimony of Mike Fitzgerald) at 5-6. Based on the results of the California Rapid Assessment Method analysis that had been completed on all the washes on the site, the Applicant and the agencies were able to calculate the amount of vegetation in the site's ephemeral washes that could provide forage. This analysis showed that 28% of the wash area supported sufficient vegetation, equaling 247 acres of ephemeral washes.

Based on this analysis, the Corps, BLM and USFWS agreed that providing an equivalent amount of higher value foraging habitat would be sufficient to offset the project's impacts. Ex. 129 (Corps Alternatives Analysis) at 86,93; FEIS at 4.3-22. The

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[18] *See* Ex. 400 at 5–6.

proposed mitigation for impacts to waters of the U.S. and waters of the state, involving the removal and control of tamarisk on 247 acres of Carrizo Creek and planting of native species, will also enhance an equal amount of historic PBHS foraging habitat. Ex. 129 (Corps Alternatives Analysis) at 93. The Carrizo Creek area was historically used by PBHS. *Id.*; *see also* Transcript, Mock Testimony, July 27,2010, at 55-56. Since invasion of tamarisk, no PBHS have been known to utilize this area as it is no longer conducive to this species' foraging needs. Transcript, Mock Testimony, July 27, 2010, at 55-56. The removal of tamarisk will restore this area. *Id.* The restoration of this higher value habitat will ensure that the loss of the project site's low quality habitat does not significantly impact PBHS. Ex. 129 (Corps Alternatives Analysis) at 86, 93.

In its opening brief, Staff argues that the mitigation is not appropriate because it will provide only a temporary benefit for the PBHS. Staff Opening Brief at 13. This represents an apparent misapprehension by Staff. In the proposed revisions to BIO-17, the Applicant has proposed to complete the enhancement and rehabilitation plans approved by the agencies, conduct five years of monitoring, and fund the long-term management of the restored areas, with the long-term management being the responsibility of State Parks on whose land the mitigation will occur. Ex. 136 (Applicant's Proposed Changes to COC BIO-17).

At the August 16 2010 Evidentiary Hearing, Staff also stated that it viewed the proposed mitigation as being inadequate as it would not offset impacts to PBHS. This conclusion is reportedly based on a discussion between Staff and a CDFG representative. However, the basis for this conclusion is not in evidence before the Commission and the applicant has never had the opportunity to review basis for this conclusion or cross

examine the witnesses who came to this conclusion. As described above, the evidence shows, and Staff apparently agrees, that the site constitute low quality foraging habitat that has rarely been known to be utilized by PBHS. The evidence also shows that the proposed mitigation will result in the restoration of important historic PBHS habitat. The applicant believes that the evidence supports the conclusion that the proposed mitigation is more then sufficient to reduce impacts to PBHS to a less than significant level and request that the Commission adopt the applicant's proposed revisions to BIO-17 as shown in Attachment 2.[19]

VII. STAFF AND IVS HAVE AGREED UPON LANGUAGE FOR CONDITION BIO-19 CONCERNING SPECIAL STATUS PLANTS

With respect to condition BIO-19, Staff and IVS now agree regarding avoidance of special status plant species. IVS will avoid at least 75% of the local population of the CNDDB Rank 1 special status plant species and all of the CNDDB Rank 1 and Rank 2 special status plant species located in the off-site linears.

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[19] BIO-17 also provides the necessary mitigation to offset impacts to waters of the U.S. and waters of the state. In its opening brief, Staff states that it has not analyzed the impacts to waters of the U.S. or waters of the state associated with the LEDPA. As previously discussed, the Staff's analysis assumed that its preferred alternative, Drainage Avoidance Alternative #1, would impact 48 acres of jurisdictional waters, ten more acres than that associated with the LEDPA. Also, Staff assumed that the mitigation required for impacts to waters of the U.S. would be in the range of 1:1 or 2:1 and that such mitigation would be sufficient to reduce the impacts to a less-than-significant level. In coordination with the Corps, IVS is proposing to mitigate impacts to jurisdictional waters at a 5:1 ratio. Therefore, the Commission has more than enough evidence to determine that with a lower amount of impacts and a higher level of mitigation, the Staff's conclusion that the project would not result in significant impacts to aquatic resources is correct.

Not all special status plant species will be avoided because avoidance would not be effective as mitigation under the circumstances because it would create isolated and non-viable populations. "[P]reservation of small clusters of individual plants offers little or no long-term protection to the plant species as these isolated plants do not represent a sustainable population. The plant resource will not substantially benefit using this approach." Ex. 142 (Rebuttal Testimony of Patrick Mock, PhD) at 8. "[C]onsistent with a basic tenet of conservation biology, . . . conserving viable populations within large tracts of conserved landscapes is the best way to benefit rare plant resources." *Id.*; *see also* Ex. 499-k (Additional Rebuttal Testimony of Scott Cashen)) at 9. CEQA does not require an exercise in futility. Addressing impacts to the species rather than impacts to individual plants is the appropriate concern under CEQA. 14 Cal. Code Regs. § 15065; Ex. 302 (SSA) at C.2-17. Off-site mitigation can reduce such impacts to a less-than-significant level, and will do so here. Ex. 142 (Rebuttal Testimony of Patrick Mock, PhD), at 8; 14 Cal. Code Regs. § 15065(b)(2).

VIII. COMPENSATORY MITIGATION IS NOT REQUIRED FOR BURROWING OWLS, GOLDEN EAGLE, AMERICAN BADGER OR DESERT KIT FOX

BIO-10 imposes mitigation requirements for impacts to Flat Tail Horned Lizards, Burrowing Owls, American Badgers, Golden Eagles, and Desert Kit Fox, none of which are listed species. The Applicant does not contest that mitigation for impacts to FTHL is required. For the other species, compensatory mitigation should not be required.[20] Transcript, Mock Testimony, July 27, 1020, at 58, 72; Ex. 142 (Rebuttal Testimony of

[20] The applicant has no objection to the avoidance and minimization measures

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Patrick Mock, PhD) at 5-7. However, the Applicant does not contest the inclusion of these species in BIO-10 so long as the mitigation can be combined with the FTHL mitigation, such that the overall mitigation requirement is the same. We understand that this is the intent of Staff.

IX. NOISE IMPACTS ON WILDLIFE

Staff concludes that there would be an unmitigatable noise impact on wildlife from the project. The noise levels during project operations will be 74 dB, not 84 dB, as stated in the SSA. Ex. 142 (Rebuttal Testimony of Patrick Mock, PhD) at 9. Staff cites the testimony of Erin Bright in asserting that the noise of "SunCatchers would be additive," and higher than the Applicant estimates. What Ms. Bright actually said was that the Maricopa data on which IVS based its estimates: "could be used as a rough estimate for on-site values. However, given that Maricopa is a fraction of the size of what Imperial Valley would be, I would expect that the on-site noise level would *scale up to some degree* from what the on-site level is presented to be." Transcript, Bright Testimony, July 27, 2010, at 233 (emphasis added). Bright further testified that "74 would be an acceptable estimate for the fence line values for noise," and that the noise level would be higher inside the project perimeter, but "maybe not extremely so." *Id.* at 234:9-10. Staff's conclusion that the noise impacts of the project are significant and unmitigable is not appropriate since the change in existing noise levels is minimal and the entire site is being mitigated offsite for the loss of wildlife resources. Prepared

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proposed by Staff and feels that implementation of such measures is appropriate.

Ex. 142 (Rebuttal Testimony of Patrick Mock, PhD) at 9. While the Applicant does not believe that this is an impact that requires an override, it does not object to an override.

X. CONDITIONS OF CERTIFICATION

A. Agreed Upon Revisions To Conditions

Staff and the Applicant have been working together to revise the Conditions of Certification to ensure that they fully mitigate impacts and to ensure that they are feasible, practical and understandable. Based upon the August 10, 2010 Conditions Workshop, the revisions provided by Staff in Staff's Opening Brief, and further discussion during the August 16th Evidentiary Hearing, the Applicant agrees with Staff on the language included in the Staff Opening Brief for the following Conditions:

AQ-SC-3	SOIL&WATER-7
AQ-SC-9 (now AQ-SC-11)[21]	SOIL&WATER-10
LAND-1 (deleted)	SOIL&WATER-11 (deleted)
GEN-2	SOIL&WATER-12
HAZ-2	TRANS-3
HAZ-5	VIS-1
HAZ-7	VIS-2
NOISE-4	VIS-3 (deleted)
NOISE-6	VIS-7

[21] Staff clarified at the August 16, 2010 hearing that the AQ-SC-9 included in Staff Opening Brief should be numbered AQ-SC-11.

REL-1 WORKER SAFETY-7

SOIL&WATER-1

B. Additional Revisions to Proposed Conditions

Staff and the Applicant agree on exact language for 153 Conditions as of the Staff Opening Brief. In this section, the Applicant summarizes the few remaining conditions for which IVS and Staff have agreed to language since the docketing of the Staff Opening Brief and those few conditions that the Applicant believes require modification. These conditions include nine conditions which Staff and the Applicant have agreed in concept and for which only minor revisions are needed. Revised language for these conditions are included as Attachment 2.

1. BIO-6 and BIO-8

Staff and IVS have agree to language for speed limits in Conditions BIO-6 and BIO-8. The Applicant submits that it is not plausible to conclude that a driver traveling 15-MPH will be able to see and avoid these small lizards while trained biologists on foot can find only some, with great difficulty. *See* Grant and Doherty, Monitoring of the Flat-Tailed Horned Lizard with Methods Incorporating Detection Probability, J. Wildlife Mgmt. 71: 1050-56 (2007). Additionally, the project is fully mitigating all the lost habitat on site, so the 10-MPH speed limit is not needed to reduce a potentially significant impact. *See* Ex. 302 (SSA) at C.2-74. The Applicant does not object to inclusion of a provision in

BIO-6 and BIO-8 that calls for monitoring for potential wildlife fatalities along the road and reducing the speed limit in areas where a concentration of fatalities is shown. [22]

2. BIO-9 and BIO-21

In both Conditions BIO-9 and BIO-21, the verification of each Condition included a requirement that the studies contemplated in the Condition would be submitted to a peer reviewed scientific journal. IVS and Staff have agreed upon language for BIO-9, BIO-21 and verification for BIO-11, all of which are reflected in Attachment 2.

3. BIO-10

As discussed above, the Applicant requests that the Commission allow for phasing of the security payment for FTHL mitigation lands. The security will be based on the amount of land disturbed in each phase. Payment of the security prior to initiating the applicable phases will ensure that the mitigation is sufficient to offset authorized impacts.

As is also discussed above, the Applicant is asking the Commission to revise the compensatory mitigation cost calculations as agreed to by the Applicant, Staff and the BLM at the August 10th Conditions Workshop. Specifically, the numbers that are calculated based on the number of parcels acquired should be changed to reflect the BLM's conclusion that the likely parcel size of mitigation lands will be 160 acres rather than 40 acres, which was used in the SSA. The Applicant requests that the

[22] See Attachment 2 for agreed upon language for revisions to BIO-6 and BIO8.

Commission include in this condition the ability for IVS to work with REAT members to further investigate the estimates for a number of the other fees and to revise the security amount required if all agencies agree that the performance standards included in the condition can be met using different numbers.

Finally, the Applicant has redrafted this condition to more clearly set out the obligations with regard to land acquisition, habitat enhancement and long-term management. As discussed with Staff and the other relevant agencies at the August 10th Conditions Workshop, the Applicant has included a provision for auditing any entity responsible for acquiring or managing the habitat lands and a provision requiring the agencies to respond to any proposed land acquisition within 30 days of receipt, to ensure that the Applicant can exercise options on potential purchases in an efficient manner. The proposed revised language is included in Attachment 2.

4. BIO-17

As discussed in detail above, the Applicant is asking the Commission to reject Staff's conclusion that it is necessary to preserve 881 acres of ephemeral washes to mitigate impacts to PBHS. Consistent with the conclusions of the BLM, Corps and USFWS, the Applicant asks that the Commission instead require the enhancement of 247 acres of Carrizo Creek to offset these impacts. The Applicant also requests that the Commission recognize that this mitigation will offset impacts to waters of the U.S. and waters of the state. As discussed above, the Applicant is also seeking to phase the security payments for this mitigation. Because the mitigation will all occur at one time, the Applicant is requesting that the provision of security for the initial monitoring and

long-term maintenance of the restored areas be payable upon commencement of Phase 1B. This will ensure that the mitigation occurs well in advance of most of the impacts to aquatic resources and potential foraging habitat, but allows for the Applicant to obtain financial close prior to the whole obligation being due. Proposed revisions to this condition are included in Attachment 2.

5. BIO-19

As discussed in detail above, the Applicant and Staff have agreed in concept to the Applicant's proposal to mitigate the impacts to special status plant species through the acquisition of mitigation lands, except for 75% of Rank 1 species and all of the Rank 1 and Rank 2 species that are located in the off-site linears. Because Staff and the Applicant anticipate that the mitigation lands acquired for FTHL will also mitigate for impacts to special status plant species, the Applicant further requests that the Commission recognize that the phased security provided under BIO-10 is sufficient to ensure that impacts to special status plants species will be mitigated. Proposed revisions are provided in Attachment 2.

6. SOIL&WATER-2 and SOIL&WATER-9

In each of Staff's revised Conditions SOIL&WATER-2 and SOIL&WATER-9, water purchases from the Dan Boyer Water Company are limited to 34 acre-feet per year. Appendix A at 4-8. This limitation is based upon Staff's unsubstantiated assertion that 6 AFY from the Boyer Well must be protected for residential users. Staff Opening Brief at 14-15. As discussed in Section V above, this reliance on 6 AFY of residential use is without basis in the record. Therefore, the limitations in SOIL&WATER-2 and

SOIL&WATER-9 should be to 39.5 acre-feet per year. In Attachment 2, the full text of SOIL&WATER-2 and SOIL&WATER-9 as proposed by Staff in the Staff Opening Brief is included with the revised amount of acre feet and other clean-up revisions shown in revision changes.

7. TRANS-1, TRANS-2, and TRANS-4

In the Staff Opening Brief, Staff states that TRANS-1, -2, -3 and -4 will be provided in Staff's Reply Brief. Appendix A at 9. As discussed above, the Applicant agrees with the language in the SSA for TRANS-3. With regard to TRANS-1, -2 and -4, the Applicant notes that Staff has agreed to revise time frames to be consistent with the project construction schedule. In Attachment 2, the full text of TRANS-1, -2 and -4 from the SSA is included with the agreed-upon revised time frames in revision changes.

8. VIS-4 and VIS-6

Staff has provided revised visual conditions, which incorporate the changes agreed upon by Staff and the Applicant. However, Staff's revised Conditions VIS-4 and VIS-6 inadvertently do not include the revised setback[23] to which Staff and the Applicant agreed. Appendix A at 10-11. The full text of VIS-4 and VIS-6 as proposed by Staff in Staff's Opening Brief is included in Attachment 2, with the revised setback shown in revision changes.

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[23] Alan Lindsley, one of staff's visual resources witnesses, testified that Staff had "modified [the setback] to make it a distance of a minimum of 223 feet to minimize the potential for photokeratosis." Mr. Lindsley clarified that this distance of 223 feet applied to both VIS-4 and VIS-6. Transcript, Alan Lindsley Testimony July 27, 2010, at 418.

9. WORKER SAFETY-8

Staff and the Applicant agreed to revise WORKER SAFTEY-7 as set forth in the SSA to include two new provisions, WORKER SAFETY-7 and WORKER SAFETY-8. Staff has provided the language for these two Conditions in its Opening Brief. Appendix A at 11-14. The Applicant agrees with the recommended language for these Conditions. However, the Applicant wishes to clarify that the specific amount to be paid to Imperial County Fire Department as set forth in WORKER SAFTEY-8 is simply security in the event that an agreement with Imperial County Fire Department as contemplated in WORKER SAFETY-7 is not reached. Accordingly, the Applicant proposes that WORKER SAFETY-8 as recommended by Staff be revised in the following manner:

> **WORKER SAFETY-8** As security only in the event that the project owner does not reach an agreement with Imperial County Fire Department pursuant to **WORKER SAFETY-7**(1), the ~~The~~ project owner shall:
>
> > Provide a $2,067,000 payment to Imperial County Fire Department prior to the start of construction. This funding shall off-set any initial funding required by **WORKER SAFETY-7** above until the funds are exhausted. This offset will be based on a full accounting by the Imperial County Fire Department regarding the use of these funds.
>
> **Verification**: At least 30 days prior to the start of site mobilization the project, if project owner has not reached an agreement with the Imperial Fire Department pursuant to **WORKER SAFETY-7** (1), owner shall provide documentation of the payment described above to the CEC CPM. The CEC CPM shall adjust the payments initially required by WORKER SAFETY-7 based upon the accounting provided by the Imperial County Fire Department.

Based on discussions with the Staff at the August 16the Evidentiary Hearings, we understand that Staff has no objection to inclusion of this language.

XI. CONCLUSION

The Imperial Valley Solar Project is an important project that will provide 709 MW of clean, renewable electricity, reducing California's greenhouse gas emissions. The project will thereby assist in meeting important State objectives, including the targets in the California Renewable Portfolio Standard Program, the California Global Warming Solutions Act, and Executive Order S-3-05. The project will contribute to the State's solutions to the greatest environmental challenge of our time. Equally important, the project is a responsible energy development – it represents an innovative solar technology that has a high solar conversion efficiency, uses a minimal amount of water, requires minimal grading and land disturbance, and has a highly-reliable, modular design. The project will be located on a site that will allow for maximum solar energy generation while avoiding most significant environmental impacts. The Applicant has worked closely and collaboratively with federal, state and local agencies to ensure that environmental impacts have been avoided and reduced and that unavoidable impacts have been mitigated to the extent feasible.

The Applicant appreciates Staff's significant efforts made in the permitting process and is pleased to have been able to address almost all of Staff's concerns. With regard to the few areas of continued disagreement, the Applicant requests that the Commission decline the Staff's request to impose conditions that are not warranted by the evidence and not necessary to mitigate significant impacts. Most significantly, the Applicant requests that the Commission reject Staff's suggestion that the project must provide over 880 acres of mitigation to offset impacts to marginal, rarely utilized foraging habitat for PBHS and that the water available from the Boyer Well should be limited to 24 acre-

feet per year. The requested additional mitigation and water usage limitations are unnecessary project impediments. The Applicant has not, does not and cannot object to mitigation requirements that are properly imposed to address actual project impacts. It does object, however, to duplicative and unnecessary mitigation requirements that are not grounded in the record. It also submits that mitigation measures *must be feasible* both to comply with CEQA, and for reasons that go well beyond CEQA. If environmentally beneficial projects cannot be built in California, the results will be catastrophic. Accordingly, the 709 MW alternative should be approved with feasible mitigation measures grounded on evidence in the record.

Date: August __18__, 2010

Respectfully submitted,

Ella Foley Gannon
Attorneys for Applicant
Imperial Valley Solar LLC

ATTACHMENT 1

TO

REPLY BRIEF OF APPLICANT

IMPERIAL VALLEY SOLAR

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SDGE
A Sempra Energy utility

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August 9, 2010

Maria Salinas
Honesto Gatchalian
Energy Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Reply Comments on Draft Resolution E-4352

Dear Ms. Salinas and Mr. Gatchalian:

San Diego Gas & Electric Company ("SDG&E") hereby submits these comments in reply to comments concerning Draft Resolution E-4352 (the "Draft Resolution") submitted by the California Unions for Reliable Energy ("CURE") on August 2, 2010. The Draft Resolution would approve an amendment to an existing Power Purchase Agreement ("PPA") with Imperial Valley Solar, LLC ("IV Solar"), formerly known as Stirling Energy Systems ("SES") Solar Two, LLC, for renewable energy from a new 300 MW solar facility (the "Project"). SDG&E requested Commission approval of the proposed amendment in Advice Letter 2161-E filed on April 7, 2010 (the "Advice Letter").

The original PPA between SDG&E and SES, executed on August 31, 2005, was a product of SDG&E's 2004 RPS RFO. In Resolution E-3965 issued December 15, 2005, the Commission approved SDG&E's participation in the Project.[1/] In addition to approving participation in the first 300 MW phase, it approved an option and right of first refusal on later phases of the project. The PPA, as amended and restated on March 24, 2010, made various changes to the PPA, including modifying the pricing terms and the commercial operation deadline. The project size provision remains unchanged and continues in full force and effect.[2/]

In its comment on the Draft Resolution, CURE notes that the project developer, Tessera Solar,[3/] is currently seeking permitting for a project size larger than 300 MW, which will include as the initial phase of construction the 300 MW facility contemplated

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1/ *See* Resolution E-3965, pp. 6, 14.
2/ Draft Resolution, pp. 1-2.
3/ Tessera Solar North America ("Tessera Solar") is the developer of the project and sister company to SES. IV Solar is the project owner.

in the original PPA signed in 2005. CURE concludes that this fact "shows that the project is not viable and will not be developed according to the terms and conditions in the PPA."[4/] CURE's conclusion is premature; its argument appears to be premised on the notion that Tessera Solar's election to pursue permitting of a 709 MW project rather than a 300 MW stand-alone project establishes with certainty that the terms and conditions of the amended 300 MW PPA will not be satisfied. However, both the original PPA and the amended version of the PPA contemplate the possibility of additional phases of the project being built. The fact that the developer is pursuing permitting consistent with a project larger than 300 MW does not by itself support a conclusion that the terms of the PPA cannot be met.

As with most renewable energy projects, the IV Solar project faces financing risk. The IV Solar project anticipates a financing decision by the Department of Energy prior to the end of 2010, and the amended PPA accounts for this risk by including a related financing condition precedent. To the extent the Project does not meet this financing milestone, IV Solar has the option to terminate the contract. The developer has advised, however, that it does not foresee problems with financing and does not anticipate a delay in beginning construction on the 300 MW phase of the project, provided the IV Solar project is permitted for 709 MW. Accordingly, CURE's concerns regarding the economic viability of the IV Solar project should be rejected as premature until the outcome of project permitting is known.

Likewise, CURE's analysis of the viability of the project's water source appears misplaced based on Tessera Solar's testimony. CURE asserts that capacity from the project's proposed long-term water supplier, the Seeley Wastewater Treatment Plant ("WWTP"), which is operated by the Seeley County Water District, "does not now exist and may not ever exist" and further that the project's interim water supply option does not have adequate capacity to serve the project.[5/] In testimony before the California Energy Commission ("CEC"), however, Tessera Solar has indicated that the recycled water is reasonably certain to be available in the near term.[6/] Tessera has explained that the Seeley County Water District has been charged with violating water quality standards, and must upgrade its plant to assure no further violations,[7/] that IV Solar is funding the upgrades to produce water that meets Title 22 standard for unrestricted use for non-potable water, and that the District is currently preparing an EIR for the upgrades. Tessera Solar has advised further that should it be necessary to use the project's interim water source, the Dan Boyer Water Company, the project's construction schedule would be adjusted as necessary to ensure that construction activities do not use more water than the amount allotted by the Boyer Well's County well registration and the CEC's condition of certification.[8/]

[4/] CURE Comments, p.1 (emphasis in original omitted).
[5/] CURE Comments, p. 5.
[6/] Prepared Supplemental and Rebuttal Testimony of Matt Moore, 08-AFC-5, filed with the CEC on May, 10, 2010.
[7/] Ex. 127, 08-AFC-5, filed with the CEC on July 21, 2010.
[8/] Prepared Rebuttal Testimony of Robert F. Scott, 08-AFC-5, filed with the CEC on July 22, 2010.

The issues raised by CURE will be resolved over time. At this time, it would be unreasonable to conclude that the Project is not viable. Accordingly, for the reasons set forth above and in the attached statement provided by Tessera Solar, CURE's comments regarding Draft Resolution E-4352 should be rejected.

Respectfully Submitted,

Clay Faber
Director – Regulatory Affairs

cc: President Michael R. Peevey
Commissioner John A. Bohn
Commissioner Dian M. Grueneich
Commissioner Timothy A. Simon
Commissioner Nancy E. Ryan
Karen Clopton, Chief Administrative Law Judge
Frank Lindh, General Counsel
Julie Fitch, Director, Energy Division
Paul Douglas, Energy Division
Cheryl Lee, Energy Division
Service Lists for R.08-08-009

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ATTACHMENT

Statement of Tessera Solar

Tessera Solar Responses to CURE Comments to CPUC

Imperial Valley Solar Project

CURE Comment

I. According To The Developer, The 300 MW Project Is Not Economically Viable

Tessera Solar Response

CURE's comment on this point is nothing more than an attempt to confuse the CPUC by inappropriately taking certain witness testimony out of context and then drawing their own conclusion that the 300MW project, supported by a 709MW permit, "is not economically viable". Mr. Fitzgerald's testimony that is quoted by CURE addresses one project size alternative, out of six that were presented to the Army Corps of Engineers, that was considered by the Corps in determining the "least environmentally damaging practicable alternative" ("LEDPA"). That alternative considered a situation where Tessera Solar only receives a permit to build a 300MW plant. In that scenario, Mr. Fitzgerald's conclusion quoted by CURE is correct and, on the basis of that conclusion, that alternative was rejected as being impracticable. It is important to note that Tessera Solar is not pursuing that alternative so CURE's attempt to rely on it is patently misleading.

The alternative that Tessera Solar ***is*** pursuing is what was called Alternative #3 in the LEDPA analysis, which will result in receiving a permit to ultimately build 709MW of solar generation. Mr. Fitzgerald's testimony with respect to Alternative #3 concluded that "[t]his alternative would be sized large enough to allow for the sale of electricity to a state regulated utility at a cost that is within the range acceptable to the CPUC. It would also allow for the project to have a rate of return on equity and a DSCR sufficient to allow it to obtain financing necessary to support the project."[1] Mr. Fitzgerald went on to conclude that "[a]lthough this alternative results in a reduction of electricity generated, it allows for sufficient generation to be practicable."[2] Alternative #3 is the alternative that was given LEDPA status by the Corps, and is the only alternative being pursued by Tessera Solar. This alternative is identified in the BLM's Final Environmental Impact Statement ("FEIS") as the Agency Preferred Alternative, and Tessera Solar is confident that it is the alternative that will be approved by the CEC.

CURE further confuses the issue by inappropriately equating a 709MW permit with 709MW of power under contract. Tessera Solar is seeking a CEC permit to ultimately build 709MW of solar generation even though it currently has only 300MW under contract with SDG&E. Tessera Solar has not ever sought a permit solely for a 300MW facility to support solely the 300MW PPA and is not doing so now. In fact, this is exactly the scenario that was rejected by the Corps as being impracticable and which CURE uses as the basis of its argument. Tessera Solar is actively seeking other buyers for the additional 409MW of energy and reasonably believes it will ultimately be successful in finding those buyers given California's RPS requirements.

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[1] Testimony of Mike Fitzgerald, 08-AFC-5, July 13, 2010, attaching Applicant's 404B-1 Alternatives Analysis for the Imperial Valley Solar Project, June 3, 2010, p. 27-29 (pdf p. 37-38).

[2] *Id.*, at p. 28 (pdf p. 38).

CURE Comment

II. The Project Has No Viable Water Source

CURE's comment on this point is equally misleading. The draft Resolution correctly references the project's long-term water supply. One of the innovations of the SunCatcher technology is that it reduces water demand drastically below that required for more conventional electricity-generating projects. The SunCatcher technology does not use any water for cooling or process steam. During operation, it only uses water for washing of the mirrors. The Imperial Valley Solar Project will use approximately 33 acre-feet of per year (AFY), far less than any conventional power plant and approximately 1/1000th of the water use of a wet-cooled solar trough project of the same size.

As the draft Resolution states, the Project's primary source of supply is recycled water from the Seeley Wastewater Treatment Plant (WWTP), which is operated by the Seeley County Water District. The District has been charged with violating water quality standards, and must upgrade its plant to assure no further violations.[3] IVS is funding the upgrades to produce water that meets Title 22 standard for unrestricted use for non-potable water. Funding the production of recycled water, and use of recycled water for the IVS project is a forward-thinking, environmentally friendly way to obtain a non-potable water supply for the project. The District is preparing an EIR for the upgrades now. The recycled water is therefore reasonably certain to be available in the near term.[4]

IVS anticipates that recycled water will be available from Seeley to supply both the construction and operational demands of the IVS Project. However, due to delays in the Seeley EIR process, IVS has contracted with the Dan Boyer Water Company, a local water purveyor, as well as a temporary, back-up supply.[5] That well has been pumping and supplying construction and industrial uses for decades and the County has established that the Boyer well may continue to pump 40 AFY.[6] If the IVS Project is required to use the Boyer Well for construction purposes rather than recycled water from Seeley, IVS would adjust the construction schedule as necessary to ensure that construction activities do not use more water than the amount allotted by the Boyer Well's County well registration and the CEC's condition of certification.[7]

The CEC has considered these issues fully, and CURE's attempt to insert them in the CPUC PPA approval process serves no useful purpose.

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[3] Ex. 127, 08-AFC-5, filed with the CEC on July 21, 2010.
[4] Prepared Supplemental and Rebuttal Testimony of Matt Moore, 08-AFC-5, filed with the CEC on May, 10, 2010.
[5] Prepared Testimony of Mark Van Patten, 08-AFC-5, filed with the CEC on March 15, 2010.
[6] Prepared Testimony of Robert K. Scott, 08-AFC-5, filed with the CEC on July 21, 2010.
[7] Prepared Rebuttal Testimony of Robert F. Scott, , 08-AFC-5, filed with the CEC on July 22, 2010.

CERTIFICATE OF SERVICE

I hereby certify that I have this day by electronic mail served a true copy of reply comments to Draft Resolution E-4352 on all parities of records as follows:

Honesto Gatchalian, Energy Division

Maria Salinas, Energy Division

Cheryl Lee, Energy Division

Michael R. Peevey, President CPUC

Julie Fitch, Director - Energy Division

Paul Douglas, Energy Division

Commissioner Dian Grueneich

Commissioner Nancy Ryan

Commissioner Timothy Simon

Commissioner John Bohn

Chief ALJ Karen Clopton

General Counsel Frank Lindh

Service Lists for R.08-08-009

Dated August 9, 2010 at San Diego, California.

Megan Caulson
SDG&E Regulatory Tariff Manager

ATTACHMENT 2

TO

REPLY BRIEF OF APPLICANT

IMPERIAL VALLEY SOLAR

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IMPERIAL VALLEY SOLAR REVISED CONDITIONS

BIO-6 The project owner shall develop and implement project-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from the BLM Biologist, USFWS, CDFG, and the CPM. The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. The WEAP shall:

- Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting electronic media and written material, including wallet-sized cards with summary information on special status species and sensitive biological resources, is made available to all participants;
- Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, explain the reasons for protecting these resources, and the function of flagging in designating sensitive resources and authorized work areas;
- Place special emphasis on FTHL, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection and status, penalties for violations, reporting requirements, and protection measures;
- Include signage to be posted at the entrance to the project site and throughout the project site which has the following information:
    - ~~15 m.p.h. speed limit~~ 10 m.p.h. speed limit (for all unpaved roads that are not stabilized) or 25 m.p.h. speed limit (for all paved or stabilized roads); except in specific areas identified by the Designated Biologist where the speed limit on paved an stabilized roads needs to be less than 25 miles per hour to lessen wildlife impacts;
    - A picture of the FTHL; and
    - Reminder to check under vehicles before driving.
- Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers to dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;
- Present the meaning of various temporary and permanent habitat protection measures;
- Identify whom to contact if there are further comments and questions about the material discussed in the program; and
- Include a training acknowledgment form to be signed by each worker indicating that they received the WEAP training and shall abide by the guidelines.
- The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist.

Verification: At least 30 days prior to the start of any project-related site disturbance activities, the project owner shall provide to the BLM Biologist and the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least ten days prior to site and related facilities mobilization, the project owner shall submit two copies of the BLM- and CPM-approved final WEAP.

Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the start of commercial operation.

Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attend the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to the BLM Biologist and the CMP upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.

During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

Should the Designated Biologist, in consultation with the BLM Biologist and the CPM, identify an area where the speed limit must be lowered on paved and stabilized roads, new signage must be posted with the new lowered speed limit within one week of this determination and photographic verification provided to the CPM within the same time period. This speed limit would be adhered to until additional signage specifies otherwise. Announcement of the location(s) of the area designated with the lowered speed limits must be made to the employees within 24 hours of the Designated Biologist's determination.

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 during construction and operation:

- 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. Spoils shall be stockpiled

- Whenever possible, equipment and vehicles shall use existing surfaces or previously disturbed areas rather than clearing vegetation and grading the ROW. Where grading is necessary, surface soils shall be stockpiled and replaced following construction to facilitate habitat restoration.
- To the extent possible, existing roads shall be used for travel and equipment storage. 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 (e.g. new spur roads associated with both transmission line options) or the construction zone, the route would be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.
- Newly created access routes shall be restricted by constructing barricades, erecting fences with locked gates at road intersections, and/or by posting signs. In these cases, the project proponent shall maintain, including monitoring, all control structures and facilities for the life of the project and until habitat restoration is complete.
- 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 ~~15 miles per hour on the project site~~ 10 miles per hour on all unpaved roads that are not stabilized and 25 miles per hour on all paved or stabilized roads; except in specific areas identified by the Designated Biologist where the speed limit on paved an stabilized roads needs to be less than 25 miles per hour to lessen wildlife impacts.
- Transmission lines, access roads, pulling sites, 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.
- Road surfacing and sealants as well as soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
- 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

- Parking and storage shall occur where FTHL removal surveys have been conducted.
- At the end of each work day, the Designated Biologist shall ensure that all potential wildlife pitfalls (trenches, bores and other excavations) have been inspected for wildlife and then backfilled. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 slope at the ends to provide wildlife escape ramps, or covered to completely prevent wildlife access. All trenches, bores and other excavations outside the permanently fenced area shall be inspected periodically throughout and at the end of each workday by the Designated Biologist or a Biological Monitor. Should a FTHL or other wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual to a safe location.
- During construction, examine areas of active surface disturbance periodically—at least hourly when surface temperatures exceed 29°C (85°F) for the presence of FTHL.
- Any construction pipe, culvert, or similar structure with a diameter greater than three inches, stored less than eight inches aboveground for one or more nights, would be inspected for wildlife 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.
- 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 FTHL predators to construction sites. During construction, a Biological Monitor shall patrol these areas to ensure water does not puddle and attract common ravens, and other wildlife to the site, and shall take appropriate action to reduced water application rates where necessary.
- During construction, road killed animals or other carcasses detected by personnel on roads associated with the Project area will be reported immediately to a Biological Monitor or Designated Biologists, who will remove the roadkill promptly. During operations, the Project Environmental Compliance Monitor will be notified of any roadkills and promptly remove and dispose of any roadkills to discourage scavenger activity. For special-status species road-kill, the Biological Monitor shall contact CDFG and USFWS 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 BIO-11 below.
- 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

- All contractors, subcontractors, employees and visitors shall comply with litter and pollution laws. During construction all trash and food-related waste shall be placed in self-closing containers and removed ~~daily from the site~~ regularly to prevent overflow. 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.
- 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” and/or “Waters of the U. S.”. 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, except for those portions of roads crossing Waters of the U.S. where soil tackifiers shall not be used. Areas of disturbed soils (access and staging areas) with slopes toward drainages shall be stabilized to reduce erosion potential.
- If preconstruction 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.
- The owner shall minimize road building, construction activities, and vegetation clearing within ephemeral drainages to the extent feasible.
- The project owner shall not allow water containing mud, silt or other pollutants from grading, aggregate washing, or other activities to enter a lake or flowing stream or be placed in locations that may be subjected to high storm flows.
- Raw cement/concrete, broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, asphalt or washings thereof, paint or other coating material, oil or other petroleum products, or any other substances which 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 or lake, by project owner or any party working under contract or with the permission of the project owner shall be removed immediately.
- 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.
- No equipment maintenance shall be done within 150 feet of any ephemeral drainage except in designated maintenance areas where petroleum products or other pollutants from the equipment may not enter these areas under any flow.

- The project owner must have a Frac-Out Contingency Plan approved by CDFG and the CPM prior to commencement of construction of the reclaimed water pipeline for horizontal directional drilling under the waterways.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures would 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 the CPM, for review and approval, a written construction termination report identifying how measures have been completed.

Should the Designated Biologist, in consultation with the BLM Biologist and the CPM, identify an area where the speed limit must be lowered on paved and stabilized roads, new signage must be posted with the new lowered speed limit within one week of this determination and photographic verification provided to the CPM within the same time period. This speed limit would be adhered to until additional signage specifies otherwise. Announcement of the location(s) of the area designated with the lowered speed limits must be made to the employees within 24 hours of the Designated Biologist's determination.

BIO-9 Verification

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 Biologist, USFWS, and CDFG a final BACI Occupancy Estimation Study. Modifications to the BACI Occupancy Estimation Study shall be made only after approval from BLM's Biologist, USFWS, and the CPM, in consultation with CDFG. Within 30 days of completion of FTHL preconstruction occupancy surveys, the Designated Biologist shall submit a report to the CPM, BLM Biologist, USFWS, and CDFG describing the results of the survey.

During construction, the Designated Biologist shall submit a quarterly report describing the results of any removal surveys required by the Conferencing Opinion to the CPM, BLM Biologist, USFWS, and CDFG. The removal survey report shall include the FTHL survey results, capture and release locations of any FTHL encountered, description of any project related deaths or injuries detected during the study or at any other time, and any other information needed to demonstrate compliance with the measures described above. 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 FTHL 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 Biologist, CDFG, and USFWS. Post-construction sampling reports will be due to the CPM, BLM Biologist, USFWS, and CDFG by January 31st after sampling has taken place. The post-construction sampling report shall include the FTHL survey results, capture and release locations of any FTHL encountered, whether mitigation and adaptive management measures are necessary, and any other information needed to demonstrate compliance with the measures

described above. After the BACI Occupancy Estimation Study is completed, the project owner or contractor shall prepare a ~~paper~~ draft document that describes the study design and results to be submitted to ~~a peer-reviewed scientific journal~~ the Flat-Tailed Horned Lizard Interagency Coordinating Committee for review. Proof of submittal shall be provided to BLM's Biologist and the CPM within one year of concluding the monitoring study.

BIO-10 FLAT-TAILED HORNED LIZARD COMPENSATORY MITIGATION

The project owner shall provide compensatory land to mitigate for habitat loss and direct impacts to flat-tailed horned lizards based on revised estimates of suitable flat-tailed horned lizard habitat on-site. The project owner shall provide compensatory mitigation at a 1:1 ratio for 6,063.1 acres of impacts outside of the FTHL Management Area (MA) and at a 6:1 ratio for impacts to 92.6 acres within the FTHL MA. These impact acreages are to be adjusted to reflect the final approved project footprint.

For purposes of this condition, the project footprint means all lands disturbed in the construction and operation of the IVS Project, including the offsite transmission line, as well as undeveloped areas inside the Project's boundaries that will no longer provide viable long-term habitat for the species mentioned above. To satisfy this condition, the project owner shall acquire, protect and transfer to an approved land manager no fewer than 6,619.9 acres of FTHL habitat (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.

Funding of this mitigation shall be phased to ensure that appropriate compensation lands and/or funding reflect the phasing of actual project impacts and will ensure that all impacts are fully compensated prior to occurring.

COMPENSATORY MITIGATION LAND ACQUISITION

1. **Method of Acquisition.** Compensation lands required to meet this condition shall be acquired in whole or in part either:

   - By the project owner for donation, as approved by the CPM, to a state or federal land management agency or non-profit land management organization,
   - By BLM with funds provided by the project owner,
   - By a third party approved by the CPM to acquire or donate the lands with funds provided by the project owner, or
   - By the National Fish and Wildlife Foundation (NFWF) with in lieu funds deposited into the Renewable Energy Action Team (REAT) Account.

If the project owner chooses to delegate responsibility for acquisition of all or portions of compensation lands to a third party such as a nongovernmental organization supportive of desert habitat conservation, such delegation shall be subject to approval by the CPM, in consultation with the project owner and CDFG, BLM and USFWS, prior to land acquisition, enhancement or management activities. The CPM shall provide a written response and explanation to the project owner within 30 days of receiving the proposal. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the project or initiation of each phase of the project.

2. Selection Criteria for Compensation Lands. The compensation lands selected for acquisition to meet Energy Commission requirements shall:

- be within in or near FTHL Management Areas (MAs) in the Colorado Desert, with potential to contribute to FTHL habitat connectivity and build linkages between FTHL MAs, known populations of FTHLs, and/or other preserve lands;
- provide high to moderate quality habitat for FTHL with capacity to regenerate naturally when disturbances are removed, though moderate to good quality habitat is acceptable near protected FTHL habitats;
- 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;
- be connected to lands where FTHLs can be reasonably expected to occur currently occupied by FTHL, based on habitat or historic occurrences, ideally with populations that are stable, recovering, or likely to recover;
- ideally contain soils that are stable and not suffering erosional damage;. 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;
- not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and
- 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.

These requirements may be adjusted upon mutual agreement with the resource agencies (CEC, CDFG, BLM, and USFWS) depending on the specific lands available and in consideration of larger flat-tailed horned lizard mitigation efforts.

3. Review and Approval of Compensation Lands Prior to Acquisition. If the project owner assumes responsibility for acquiring the compensation lands, the project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for flat-tailed horned lizard 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. The CPM shall provide a written response and explanation to the project owner within 30 days of receiving the proposal.

4. Compensation Lands Acquisition Conditions: If the project owner assumes responsibility to acquire the compensation lands, the project owner shall comply with the following conditions 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 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.

c. 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. .

5. Compensation Lands Acquisition Costs: If the project owner assumes responsibility to acquire all or a part of the compensation lands to meet Energy Commission and CESA requirements, the project owner shall fund the following items in addition to actual land costs:

- Level 1 Environmental Site Assessment,
- Appraisal,
- Closing and Escrow costs,
- Biological survey for determining mitigation value of the land, and
- Agency costs to accept the land.

If the project owner uses BLM to acquire all or a portion of the compensation lands, the project owner shall provide the BLM with funds for items a. to e. above as well as actual land costs.

If the project owner uses in lieu funds deposited into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF) to acquire some or all of the compensation lands, the project owner shall provide funds for items a. to e. above as well as actual land costs and third party administrative costs. If the Project owner elects to use the REAT Account with NFWF, the Project owner will be responsible for providing sufficient funds to cover actual acquisition costs and fees not to exceed 10% of the estimated costs below.

Estimated costs associated with acquisition of compensation lands are:

ESTIMATED LAND ACQUISITION COSTS PER ACRE OR PARCEL

	ACQUISITION METHOD		
COST ITEM	**PROJECT OWNER**	**BLM**	**REAT/NFWF**
Land cost/acre	Covered by Owner	$500	$500
Level 1 Environmental Site Assessment	Covered by Owner	$3,000	$3,000
Appraisal/parcel	Covered by Owner	$5,000	$5,000
Closing and Escrow Costs/parcel	Covered by Owner	$5,000	$5,000
Biological	Covered by	$5,000	$5,000

Survey/parcel	Owner		
3rd Party Admin. Costs/parcel	$0	$0	10% of land cost
Agency Cost to Accept	$580,896.23	$580,896.23	$580,896.23

These costs are current estimates and shall be modified based on actual costs or with the concurrence of the REAT agencies. The number of parcels are estimated based on 160 acres per parcel.

TOTAL ESTIMATED LAND ACQUISITION COSTS

	ACQUISITION METHOD		
COST ITEM	**PROJECT OWNER**	**BLM**	**REAT/NFWF**
Acres Purchased	6618.7	6618.7	6618.7
Parcels Purchased	41.4	41.4	41.4
Land cost	Covered by Owner	$3,309,350	$3,309,350
Level 1 Environmental Site Assessment	Covered by Owner	$124,100	$165,468
Appraisal	Covered by Owner	$206,834	$206,834
Closing and Escrow Costs	Covered by Owner	$206,834	$206,834
Biological Survey	Covered by Owner	$206,834	$206,834
3rd Party Admin. Costs	$0	$0	$330,935
Agency Cost to Accept	$580,896	$580,896	$580,896
TOTAL	$4,179,814	$4,634,850	$4,965,785

COMPENSATORY MITIGATION LAND IMPROVEMENT

1. Land Improvement Requirements: 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 be implemented by the state or federal land management agency or non-profit organization holding the land or their representative. The specific activities will vary depending on the condition and location of the land acquired but may include:

- Installation of signs,

- Removal of trash,
- Construction and repair of fences,
- Surveys of boundaries and property lines,
- Removal of invasive plants,
- Removal of roads,
- And similar measures to protect habitat and improve habitat quality.

The costs of these activities are estimated at $250 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.

2. Compensation Lands Improvement Costs: Land improvement costs will vary depending on the activities undertaken. The cost of those actions is $27/acre.

Assuming all of the compensation is met with land acquisition, the total land improvement costs is estimated to be $178,705.

COMPENSATORY MITIGATION LAND LONG-TERM MANAGEMENT

1. Long-term Management Requirements: Long-term management is required to ensure that the compensation lands are managed and maintained to protect FTHL. This may include maintenance of signs, fences, removal of invasive weeds, and elimination of unauthorized use.

2. Long-term Management Plan: The owner of or the entity responsible for management of the compensation lands shall prepare a Management Plan for the compensation lands. The Management Plan shall reflect site-specific enhancement measures on the acquired compensation lands. The plan shall be submitted for approval of the CPM, in consultation with CDFG, BLM and USFWS.

3. Long-term Management Costs: For those compensation lands that are donated to or owned by the BLM, the long-term management costs will be determined by BLM in consultation with the CDFG, CEC, and USFWS.

For those compensation lands that are donated to or owned by a state land

management agency or a non-profit organization, the Project owner shall provide money to establish an account with a 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 CPM will consult with the project owner and CDFG before deciding whether to approve an entity to hold the project's long-term maintenance and management funds on any lands. For any compensation lands that are not managed by a federal land management agency, the CPM, in consultation with the project owner and CDFG, will designate another state agency or non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity.

If CDFG takes fee title to the compensation lands, CDFG shall determine whether it will hold the long-term management fee in the special deposit fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFG and with CDFG supervision.

The long-term maintenance and management fee holder/manager shall be subject to the following conditions:

- Interest. Interest generated from the initial capital 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.
- Withdrawal of Principal. The long-term maintenance and management fee principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM, in consultation with CDFG, or the approved third-party long-term maintenance and management fee manager to ensure the continued viability of the species on the compensation lands. 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 solely for the purpose to manage lands in perpetuity unless CDFG designates NFWF or another entity to manage the long-term maintenance and management fee for CDFG.
- Pooling Funds. A CPM- approved non-profit organization qualified to hold long-term maintenance and management fees solely for the purpose to manage lands in perpetuity, may pool the fund with other

- 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

Long-term management on lands donated to or owned by BLM are to be determined by BLM and are currently anticipated to include costs associated with managing the lands for the benefit of the FTHL that are different from the management activities generally implemented by BLM on its lands. Such tasks may include dedicating a one-quarter time biologist and one one-half time ranger for patrols. The estimated cost of this long-term management is $692 per acre for a total of $4,580,140. This amount shall be adjusted based on final analysis by the BLM and/or a PAR analysis.

If the compensation lands are administered with in lieu funds deposited into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), the project owner shall pay the following additional fees:

- Project Specific Account Establishment - $12,000
- Management fee for acquisition and enhancement – 3% of all acquisition and enhancement costs
- Management fee for long-term management account – 1% of long-term management costs

COMPENSATORY MITIGATION LAND FUNDS

1. Compensation Mitigation Fund: The project owner shall provide funding for acquisition, improvement, and long-term management of FTHL compensation land. The current estimated funding shall be $9,931,405 based on the costs itemized below. This amount shall be updated and verified prior to payment and shall be adjusted to reflect actual costs or more current estimates during phasing:

EXAMPLE of TOTAL COMPENSATION LAND COSTS

	ACQUISITION METHOD		
COST ITEM	**PROJECT OWNER**	**BLM**	**REAT/NFWF**
Acres Purchased	6618.7	6618.7	6618.7
Parcels Purchased	41.4	41.4	41.4

Land Acquisition Cost	$4,179,814	$4,634,850	$4,965,785
Land Improvement Cost	$178,705	$178,705	$178,705
Long-term Management Cost	$4,580,140	$0	$4,580,140
NFWF Fees	$0	$0	$206,775
TOTAL	$8,938,660	$4,813,555	$9,931,405

2. Fund Payment: Because the project is phased, the mitigation funding will also be phased. The phasing of funding will ensure that the security is in place to ensure mitigation for any impact before it occurs. This will be accomplished by requiring funding for all the mitigation necessary to mitigate the impacts associated with a specific phase. Specific payments shall reflect the approach chosen by the project owner for land acquisition and shall include funds for land enhancement and long-term management consistent with the amount of land to be disturbed during each phase. The project owner shall make the following compensatory mitigation payments based on the following project phasing and assuming REAT/NFWF funding:

TIME	PROJECT ACTIVITY	MITIGATION PAYMENT
Phase 1a – October 2010	Start of construction, no more than 378.3 acres of site disturbance activities.	$574,758
Phase 1b – (estimated after the close of financing during the 1st quarter 2011)	Completion on Phase 1 construction (300 MW); mitigation provided for 2,682.3 acres	$3,819,470 less adjustments from phase 1a and for phase 1 b for land acquisition method, and land improvement and long-term management costs
Phase 2	Initiation and completion of Phase 2 (450 MW) mitigation provided for 3,558.1 acres	$5,052,854 less adjustments from phase 1 b and for land acquisition method, and land improvement and long-term management costs

4. **REAT/NFWF Payment**: If the project owner elects to comply with the requirements in this condition for acquisition, initial improvement, long-term maintenance and management, or any combination of these three requirements by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), the Project owner shall make an initial deposit to the REAT Account in an amount equal to the estimated costs of administering these requirements.

If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the project owner, the project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, or the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the project owner.

5. **Security**: The Project owner shall provide financial assurances to the CPM with copies of the document(s) to BLM, CDFG and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation required by this condition is available prior to the start of ground-disturbing activities for each phase of the project discussed in the described in section 2 immediately above.

The CPM may use money from the Security solely for implementation of the requirements of this condition or if nesting of mitigation is obtained, to satisfy the conditions of BIO-17. 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. Any amount of the Security that is not used to carry out mitigation shall be returned to the Project owner upon successful completion of the associated requirements in this condition. 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 submitting the Security to the CPM, the Project owner shall obtain the CPM's approval, in consultation with CDFG, BLM and the USFWS, of the form of the Security.

The amount of the Security shall correspond to the mitigation fund payments described in "fund payment" above.

6. **Audit**: The project owner may request the CPM to for an independent audit of the compensatory mitigation funds.

Verification: The project owner shall provide the CPM with written notice of intent to start ground disturbance at least 30 days prior to the start of ground-disturbing activities on the project site.

If the mitigation actions required under this condition are not completed prior to the start of ground-disturbing activities, the Project owner shall provide the CPM and CDFG with an approved Security in accordance with this condition of certification prior to beginning Project ground-disturbing activities. 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 submitting the Security to the CPM, the project owner shall obtain the CPM's approval, in consultation with CDFG, BLM and the USFWS, of the form of the Security. The project owner, or an approved third party, shall complete and provide written verification to the CPM, CDFG, BLM and USFWS of the compensation lands acquisition and transfer within 18 months of the start of Project ground-disturbing activities.

No later than 12 months after the start of any phase of ground-disturbing project activities, the project owner shall submit a formal acquisition proposal to the CPM describing the parcels intended for purchase, and shall obtain approval from the CPM, in consultation with CDFG, BLM and USFWS, prior to the acquisition. The agencies shall have 30 days to respond to the CPM. If NFWF or another approved third party is handling the acquisition, the project owner shall fully cooperate with the third party to ensure the proposal is submitted within this time period. The project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM, CDFG, BLM and USFWS of such completion, no later than 18 months after the issuance of the Energy Commission Decision. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline.

The project owner shall complete and submit to the CPM a PAR or PAR-like analysis no later than 60 days after the CPM approves compensation lands for acquisition associated with any phase of construction. The project owner shall fully fund the required amount for long-term maintenance and management of the compensation lands for that phase of construction no later than 30 days after the CPM approves a PAR or PAR-like analysis of the anticipated long-term maintenance and management costs of the compensation lands. Written verification shall be provided to the CPM and CDFG to confirm payment of the long-term maintenance and management funds.

No later than 60 days after the CPM determines what activities are required to provide for initial protection and habitat improvement on the compensation lands for any phase of construction, the project owner shall make funding available for those activities and provide written verification to the CPM of what funds are available and how costs will be paid. Initial protection and habitat improvement activities on the compensation lands for that phase of construction shall be completed, and written verification provided to the CPM, no later than six months after the CPM's determination of what activities are required on the compensation lands.

If a third party is responsible for management of the compensation lands, they shall provide the CDFG, BLM and USFWS with a management plan for the compensation lands associated with any phase of construction within 180 days of the land or easement purchase, as determined by the date on the title. The CPM, in consultation with CDFG, BLM and the USFWS, shall approve the management plan after its content is acceptable to the CPM.

Within 90 days after completion of all project related ground disturbance, the project owner shall provide to the CPM, CDFG, BLM and USFWS an analysis, based on aerial photography, with the final accounting of the amount of habitat disturbed during Project construction. This shall be the basis for the final number of acres required to be acquired.

BIO-11 Verification

Verification: No later than two calendar days following the above required notification of a sighting, kill, or relocation of a listed species, the project owner shall deliver to the BLM Biologist, the CPM, CDFG, USACE, and USFWS via FAX or electronic communication the written report from the Designated Biologist describing all reported incidents of injury, kill, or relocation of a listed species, identifying who was notified, and explaining when the incidents occurred. In the case of a sighting in an active construction area, the project owner shall, at the same time, submit a map (e.g., using Geographic Information Systems) depicting both the limits of construction and sighting location to the BLM Biologist, the CPM, CDFG, USACE, and USFWS. Information regarding sightings, kills, or relocation of FTHLs will be summarized in monthly compliance reports per conditions of **BIO-9.**

Should the Designated Biologist, in consultation with the BLM Biologist and the CPM, identify an area where the speed limit must be lowered on paved and stabilized roads, new signage must be posted with the new lowered speed limit within one week of this determination and photographic verification provided to the CPM within the same time period. This speed limit would be adhered to until additional signage specifies otherwise. Announcement of the location(s) of the area designated with the lowered

Biologist's determination.

BIO-17 ~~LAKE AND STREAMBED AND~~WATERS OF THE U.S., WATERS OF THE STATE AND PENINSULAR BIGHORN SHEEP FORAGING HABITAT IMPACT MINIMIZATION AND COMPENSATION MEASURES

The project owner is required to compensate for the loss of ~~881~~247 acres of ephemeral wash foraging habitat for the Peninsular bighorn sheep (PBHS) defined as the 28% of the ephemeral washes on site that provide sufficient vegetation to potentially provide PBHS foraging opportunities, as well as the functional loss of ~~48 acres of state jurisdictional~~38.2 of permanently impacted,14 acres of temporarily impacted, 1.63 acres of indirectly impacted waters of the U.S and 48 acres of indirectly impacted waters of the state. Mitigation presented within this proposed Condition of Certification is designed to mitigate for impacts resulting from implementation of ~~Drainage Avoidance #1 Alternative,~~ the alternative preliminarily determined by the U.S. Army Corps of Engineers to be the least environmentally damaging practicable alternative. This alternative substantially reduces impacts to federal and state jurisdictional waters ~~and waters of the U.S~~. Further review and possible revision of compensation land acreage requirements will be necessary following determination of the final project footprint and impacts. ~~The acquisition of jurisdictional state waters can be included with the FTHL, burrowing owl, golden eagle, American badger, and desert kit fox mitigation lands (**BIO-10**) if they are acquired within 18 months of start of construction. If FTHL habitat mitigation lands are not acquired within 18 months, the project owner shall independently provide 48 acres of off-site desert ephemeral wash habitat.~~If changes are made to the project footprint, the mitigation requirement will be equal to the amount of the 247 acres of ephemeral washes on the site that provide potential PBHS foraging habitat at a 1:1 ratio, the amount of permanently impacted waters of the U.S. at a 5:1 ratio and the amount of temporarily impacted waters of the U.S. at a 1:1 ratio.

If all or any portion of the acquired habitat compensation lands from **BIO-10** meets the criteria for bighorn sheep foraging habitat and ~~state waters compensation lands~~provide for the replacement of the functional values associated with the impacted waters of the U.S. and the impacted waters of the state, then the requirements of **BIO-17** are reduced by that amount.

In coordination with the U.S. Army Cops of Engineers, the U.S. Fish and Wildlife Service and State Parks, the applicant has proposed to conduct enhancement and rehabilitation of Carrizo Creek and marsh located west/northwest of the project on the Anza Borrego State Park. This area was chosen because it is within the same watershed as the project and is within known PBHS populations. The measures are focused on Tamarisk (*Tamarix* ssp.) removal which will restore and enhance the aquatic functions of this area and PBHS foraging habitat. If this mitigation option is chosen, the applicant shall do the following:

- Carrizo Creek Enhancement Plan: the applicant shall prepare an enhancement and rehabilitation plan that shall cover approximately 25 miles of Carrizo Creek from the headwaters downstream through Carrizo Marsh (Carrizo Creek Enhancement Plan). The enhancement and rehabilitation plan shall be prepared in accordance with the Corps' and EPA's Final Mitigation Rule (33 CFR Part 325 and 332 [40 CFR Part 230]) and will include detailed methods for the initial removal, retreatment methods, limited native species replanting, monitoring and reporting protocols, and performance standards.
- Mitigation Plan. Prepare a Mitigation Plan which provides for the rehabilitation and enhancement of 247 ephemeral washes consistent with the Carrizo Creek Plan. Although the applicant will prepare the enhancement and rehabilitation plan for the entire 25-mile reach of Carrizo Creek, the applicant will only be responsible for the enhancement and rehabilitation the amount necessary to mitigate direct and indirect impacts to waters of the U.S. and PBHS foraging habitat. The amount of mitigation shall be 247 acres of the Carrizo Creek. The Mitigation Plan shall include the measures needed to rehabilitate and enhance 247 acres of Carrizo Creek, monitoring of the rehabilitated and enhanced areas for 5 years, submitting annual reports to the CPM, Corps, USFWS, CDFG and BLM; success criteria; long term management requirements; and adaptive management provisions if the success criteria are not being met. The Mitigation Plan shall be submitted to the CPM, Corps, and USFWS for approval.
- Long Term Management. Following completion of the initial 5 year monitoring period and concurrence from the Corps that the Mitigation Plan's success criteria, the long term management shall be the responsibility of State Parks and shall be done in connection with the overall management of the Anza Borrego State Park.
- Funding. The applicant shall be responsible for funding the measures outlined in the approved Management Plan. It is estimated that the initial rehabilitation and enhancement will cost approximately $494,000 ($2,000 per acre) and that the 5 years of monitoring and active management will cost approximately $230,000 ($60,000 for the first three years when it is anticipated that some follow up control for tamarisk will be required as well as replanting of native vegetation and other weed control; $50,000 for years four and five of the monitoring period where it is anticipated that efforts will be limited mostly to monitoring and maintenance). Long term management is estimated to cost $170,924 (based on an assumed cost of $692 per acre). The estimates regarding the cost associated with carrying out the enhancement/rehabilitation methods, monitoring and maintenance are based on Tamarisk Coalition cost estimates that were updated as of 2008. These numbers are appropriate for planning purposes; the actual cost, however, will depend on the degree of infestation present. The total cost of meeting the requirements of this condition is estimated to be ~~$894,924.~~994,924.

- Security. The project owner shall provide security to ensure satisfaction of the terms of this condition as follows: (1) prior to initiation of ground-disturbing activity for Phase 1A, the applicant shall provide security in the amount of $494,000 to ensure the implementation of the enhancement and rehabilitation measures; (2) remainder of the ~~cost~~security associated with this mitigation measure equaling ~~$300,924~~400,924 shall be provided ~~upon financial close for the project~~prior to initiation of ground-disturbing activity for Phase 1B. For purposes of this Condition, financial close shall be defined as sixty days following receipt of the DOE loan guarantee.

Should the applicant not proceed with the above described mitigation of the Carrizo Creek, the applicant shall either, in coordination with the CEC, BLM, Corps, USFWS and CDFG, identify similar enhancement and rehabilitation measures on state or federally owned lands or acquire lands on which similar enhancement and rehabilitation measures can be implemented. If alternative measures are proposed, the mitigation land shall meet the following criteria. Although the criteria for ephemeral wash foraging habitat and ~~waters of the states~~ habitat of the waters of U.S. and of waters of the state are listed separately below, ~~the~~any alternative compensation lands acquired pursuant to this conditions must meet both sets of criteria.

1. Selection Criteria for Compensation Lands: Land selected as compensation for loss of ephemeral wash PBHS foraging habitat must satisfy the following criteria;

Be within the "Essential Habitat Line" for PBHS, as delineated by the USFWS Recovery Plan for Bighorn Sheep in the Peninsular Ranges, California (USFWS 2000). If sufficient available suitable habitat is not found within the Essential Habitat Line, then habitat immediately adjacent to the Essential Habitat Line must be purchased, and also of equal or higher quality habitat than present within the project site.

Be comprised of the same or higher quality habitat of demonstrated known utilization by PBHS as forage, and selected in conjunction with input from CDFG and the USFWS.

- Land selected as compensation for impacts to ~~state jurisdictional~~ waters of the U.S. and for impacts to waters of the state must satisfy the following criteria:

- Compensation land purchased in Sonoran creosote scrub habitat must include ephemeral washes with at least 48 acres of ~~state jurisdictional waters, mitigated at a 1:1 ratio~~waters of the state and 247 acres of waters of the U.S. and must allow for enhancement measures that will fully mitigate for the functional values of waters of the U.S. and waters of the state impacted by the project.

- Be characterized by similar soil permeability, hydrological and biological functions as the impacted drainages.

- Located in the Colorado Desert.

2. Review and Approval of Compensation Lands Prior to Acquisition: The Project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for FTHL in relation to the criteria listed above, and must be approved by the CPM. The CPM will share the proposal with and consult with Corps, CDFG, BLM, and the USFWS before deciding whether to approve or disapprove the proposed acquisition.

3. 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 Corps, 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 Corps, 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 nonprofit 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 Corps, 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 are estimated at $27 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 $692 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 ~~$609,652~~170,924 (calculated at $692 an acre for ~~881~~247 acres) or the project owner shall include ~~$609,652~~170,924 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 $692 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. 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:

- 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,

- 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.

- 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 shall prepare a Management Plan for the compensation lands in consultation with the entity that will be managing the lands. The Management Plan shall reflect site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to enhance the wildlife value and the aquatic functions of the drainages and may include enhancement actions such as weed control, fencing to exclude livestock and OHVs, or erosion control. 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 as provided above 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 $~~1,297,656.86~~ $894,924 or (~~963,480~~$910,479 if the project owner elects to use the REAT Account with NFWF pursuant to paragraph 3.h. of this condition, below). The security is calculated in part, from the items that follow but adjusted as specified below (consult **Biological Resources Mitigation/Compensation Cost Estimate Table ~~5~~** for the calculation of estimated costs):

- land acquisition costs for compensation land, calculated at $500/acre x ~~881~~247 acres = $~~440,500~~123,500;

- initial protection and habitat improvement activities on the compensation land, calculated at $~~27~~2,000/acre x ~~881~~247 acres = $~~23,787~~494,000;

- long-term maintenance and management on the compensation land calculated at $692/acre x ~~881~~247 acres = $~~609,652~~170,924;

- pre-acquisition liability survey at no less than $~~2,500~~3,000 per parcel (assuming ~~40~~160 acres per parcel ~~(No. of parcels = 881 acres ÷ 40 acres = 22 parcels) 22 parcels x $2500 = $55,000~~ 62 parcels): = $~~18,000~~6,000;

- appraisal fees at $~~3,000~~5,000 per parcel = ~~$66,000 $115,000~~30,000~~10~~,000;

- ~~BLM~~Agency cost to accept land ~~$102,717.86 $77,307.75 (if BLM is determine to be most reasonable land manager); and~~calculated at (land cost x 15%) x 1.17 (17% of the 15% for overhead) = $21,674.25;

- ~~$115,000$44,050Biological survey for determining mitigation value of land~~Closing and escrow cost at $5,000 per parcel = $~~115,000~~30,000~~10~~,000;

- Third party administrative costs (land cost x 10%) = $12,350;

- ~~viii.~~ NFWF fee = $~~90,835.98 $36,085.86~~63,031 (if NFWF is used for acquisition).

The amount of security shall be adjusted for any change in the project footprint as described above. In addition the amount of security that is required may be phased to be consistent with phased development. The amount of Security required would be based on the amount of waters of the U.S., waters of the state or PBHS impacted, whatever is the greatest. For Phase 1A, the amount of security is estimated to be $46,536.05.[1] if land In addition, the amount of Security specified in this section may be reduced in proportion to any of the secured mitigation requirements that the project owner has completed at the time the Security is required to be submitted. If all or any portion of required habitat compensation lands from **BIO-10** and **BIO-17** meets the criteria set forth for special status compensation lands may be used to fulfill that portion of the obligation for this condition, thus reducing the compensation acreage amount needed to fulfill the needed ~~881~~247 acres. Also, if the project owner transfers funds for long-term management of the compensation lands to an entity approved to hold those funds, the Security would not include any amount for long-term maintenance and management of the lands. The project owner will be entitled to partial or complete release of the Security as the secured mitigation requirements are successfully completed.

The project owner may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the Project owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the project owner, the project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, or the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the project owner.

[1] This number is conservatively estimated based on the entire amount of ephemeral washes located within the Phase 1A disturbance area, although not all these washes will be disturbed and only a subset would be considered PBHS foraging habitat.

The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the CPM, in consultation with CDFG, BLM and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the project.

4. The project owner may choose to satisfy its mitigation obligations identified in this condition 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.

5. Notification. The project owner shall notify the CPM and CDFG in writing, at least five days prior to initiation of project activities in jurisdictional areas as noted and at least five days prior to completion of project activities in jurisdictional areas. The project owner shall notify the CPM and CDFG of any change of conditions to the project, the jurisdictional impacts, or the mitigation efforts, if the conditions at the site of a 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 and CDFG no later than seven 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 defined 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 nonnative, 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.

6. ~~Lake~~ Waters of the U.S. and ~~Streambed~~Waters of the State Impact Minimization and Compensation Measures. The project owner shall provide a copy of Condition of Certification **BIO-17** from the Energy Commission 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 and 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:

- The information provided by the applicant regarding streambed alteration is incomplete or inaccurate;
- New information becomes available that was not known to it in preparing the terms and conditions;
- The project or project activities as described in the SAA have changed; or
- The conditions affecting biological resources changed or the CPM or BLM Biologist, in consultation with CDFG or USACE, determines that project activities would result in a substantial adverse effect on the environment;
- Should project conditions change and impacts to bed, bank, or channel occur on any of the water ways along the reclaimed water pipeline route, a revised Lake and streambed Alteration Agreement (LSAA) application must be submitted to the Commission in consultation with CDFG either (1) for a Commission determination that the revised LSAA application complies with CEQA and CESA; or (2) should the project conditions change after a final decision in on the AFC in this proceeding, through an application for amendment to the Commission's final decision issued in this proceeding.

Verification: Prior to groundbreaking activities, the applicant shall submit to the CPM an enhancement and rehabilitation plan for the Carrizo Creek and a Mitigation Plan for restoring the 247 acres of Carrizo Creek consistent with the restoration and rehabilitation plan. The applicant shall submit documentation that the enhancement and rehabilitation plan and the Mitigation Plan have been approved by the Corps, USFWS, and State Parks. No later than 18 months after ground-disturbing activities, the applicant shall submit documentation that the initial enhancement and rehabilitation measures have been completed. The applicant shall submit annual monitoring reports

of the enhancement and rehabilitation activities. At the end of the initial 5 year monitoring period, applicant shall submit documentation to the CPM that the Corps has accepted the mitigation as being complete and documentation that funding has been provided to State Parks for the long term management of the mitigation lands and that State Parks has accepted such funds and has agreed to carry out long term management of these areas.

~~No~~If the applicant elects to acquire lands to satisfy this condition, no later than 12 months after the start of ground-disturbing project activities, the project owner, or a third-party approved by the CPM, in consultation with CDFG and BLM, shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase containing no less than ~~48 acres of state jurisdictional waters and 881~~of the state, 247 acres of ~~applicable~~ PBHS foraging habitat and 247 acres of ephemeral drainages, and shall obtain approval from the CPM, in consultation with CDFG, BLM, and USFWS, prior to acquisition.

Draft agreements to delegate land acquisition to CDFG, BLM, or an approved third party and agreements to manage compensation lands shall be submitted to Energy Commission staff for review and approval (in consultation with CDFG) prior to land acquisition. Such agreements shall be mutually approved and executed at least 30 days prior to start of any project-related ground disturbance activities. The project owner shall provide written verification to the CPM that the compensation lands have been acquired and recorded in favor of the approved recipient(s). Alternatively, before beginning project ground-disturbing activities, the project owner shall provide Security in accordance with section 3.h of this condition. Within 180 days after the land purchase, as determined by the date on the title, the project owner shall provide the CPM with a management plan for review and approval, in consultation with CDFG, BLM, and USFWS, for the compensation lands and associated funds.

The project owner shall complete and submit to the CPM a PAR or PAR-like analysis no later than 60 days after the CPM approves compensation lands for acquisition. The project owner shall fully fund the required amount for long-term maintenance and management of the compensation lands no later than 30 days after the CPM approves a PAR or PAR-like analysis of the anticipated long-term maintenance and management costs of the compensation lands. Written verification shall be provided to the CPM and CDFG to confirm payment of the long-term maintenance and management funds.

No later than 60 days after the CPM determines what activities are required to provide for initial protection and habitat improvement on the compensation lands, the project owner shall make funding available for those activities and provide written verification to the CPM of what funds are available and how costs will be paid. Initial protection and habitat improvement activities on the compensation lands shall be completed, and written verification provided to the CPM, no later than six months after the CPM's determination of what activities are required on the compensation lands.

If electing to satisfy the requirements of this condition by utilizing the options created by CDFG pursuant to SBX8 34, 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.

No fewer than 30 days prior to the start of work potentially affecting jurisdictional state waters, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above best management practices will be implemented and provide a discussion of work in jurisdictional state waters in Compliance Reports for the duration of the project.

BIO-19 SPECIAL STATUS PLANT IMPACT AVOIDANCE, MINIMIZATION, AND COMPENSATION

This condition contains the following four sections:

- Section A: Special-Status Plant Impact Avoidance and Minimization Measures contains the Best Management Practices and other measures designed to avoid accidental impacts to special status plants on the project site that occur outside of the Project Disturbance Area and within 100 feet of the Project Disturbance Area and special status plants occurring within the rights of way for the off-site water pipeline and, transmission line, as practicable, during construction, operation, and closure.
- Section B: Conduct Late Season Botanical Surveys describes guidelines for conducting summer-fall 2010 surveys to detect special-status plants that would have been missed during the spring 2010 surveys.
- Section C: Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys outlines the level of avoidance required for plants detected during the summer-fall surveys, based on the species' rarity and status codes.
- Section D: Off-Site Compensatory Mitigation for Special-Status Plants describes performance standards for mitigation for a range of options for compensatory mitigation through acquisition, restoration/enhancement, in lieu fees, or a combination of acquisition and restoration/enhancement.

"Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the Project, including the plant site, linear facilities, and areas disturbed by temporary access roads, fence installation, construction work lay-down and staging areas, parking, storage, or by any other activities resulting in disturbance to soil or vegetation.

The Project owner shall implement the following measures in Section A, B, C, and D to avoid, minimize, and ~~mitigate~~compensate for impacts to special -status plant species:

Section A. Special Status Plant Avoidance and Minimization Measures

To protect all special status plants[1] located on site outside of the Project Disturbance Area and within 100 feet of the permitted Project Disturbance Area (including access roads, staging areas, laydown areas, parking and storage areas) and special status plants occurring within the rights of way for the offsite pipeline and transmission line, from accidental and indirect impacts during construction, operation, and closure, the Project owner shall implement the following measures:

1. Designated Botanist. An experienced botanist who meets the qualifications described in Section **B-2** below shall oversee compliance with all special-status plant avoidance, minimization, and compensation measures described in this condition throughout construction, operation, and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. During operation of the project, the Designated Biologist shall be responsible for protecting special status plant on site occurring within 100 feet of the Project Disturbance Area and special status plant occurring with the right of way for the offsite pipeline and transmission line, as practicable.

2. Special Status Plant Impact Avoidance and Minimization Plan. The project owner shall develop and implement a Special Status Plant Impact Avoidance and Minimization Plan and shall incorporate the Plan into the BRMIMP (**BIO-7**). The Plan shall include the following elements:

a. Site Design Modifications: Incorporate site design modifications to minimize impacts to special-status plants along the Project linears: limiting the width of the work area; adjusting the location of staging areas, lay downs, spur roads and poles or towers; driving and crushing vegetation as an alternative to blading temporary roads to preserve the seed bank, and minor adjustments to the alignment of the roads and pipelines within the constraints of the right-of-way (ROW). These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP;

b. Establish Environmentally Sensitive Areas (ESAs). Before construction, the Designated Botanist shall establish ESAs to protect avoided special status plants that occur onsite outside of the Project Disturbance Areas and within 100 feet of Project Disturbance Areas, and avoided special status plants that occur within the rights of way for the offsite pipeline and transmission line. This includes plant occurrences identified during the spring 2010 surveys and the late season 2010 surveys. The locations of ESAs shall be clearly depicted on construction drawings, which shall also include all avoidance and minimization measures on the margins of the construction plans. The boundaries of the ESAs shall be placed a minimum of 20 feet from the uphill side of the occurrence and 10 feet from the downhill side~~, and.~~ . Where this is not possible due to construction constraints, other protection measures, such as silt-fencing and signs prohibiting

[1] Staff defines special-status plants as described in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (California Natural Resources Agency, Department of Fish and Game, issued November 24, 2009.

movement of the fencing or sediment controls, may be employed to protect the occurrences. ESAs shall be clearly delineated in the field with temporary construction fencing and signs prohibiting movement of the fence under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be ~~permanently marked~~clearly identified (with signage or other markers) to ensure that avoided plants are not inadvertently harmed during construction, operation, or closure. Where avoidance will not allow for long-term viability of the species, no ESA shall be established.

c. Special-Status Plant Worker Environmental Awareness Program (WEAP). The Plan shall include training components specific to protection of special-status plants, and shall be incorporated into the WEAP described in **BIO-6**;

d. Herbicide and Soil Stabilizer Drift Control Measures. The Plan shall provide 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 plants, consistent with guidelines provided by the Nature Conservancy's *The Global Invasive Species Team*~~. <http://www.invasive.org/gist/products.html>~~[2], the U.S. Environmental Protection Agency, and the Pesticide Action Network Database.[3]

e. Erosion and Sediment Control Measures. The Plan shall include measures to ensure that erosion and sediment control measures do not inadvertently impact special-status plants located within an ESA (e.g., by using invasive or non-native plants in seed mixes, introducing pest plants through contaminated seed or straw, etc.). These measures shall be incorporated in the Storm Water Pollution Prevention Plan.

f. Avoid Special-Status Plant Occurrences. Designate spoil areas; equipment, vehicle, and materials storage areas; parking; equipment and vehicle maintenance areas, and; wash areas at least 100 feet from any ESAs.

g. Monitoring and Reporting Requirements. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction~~, operation, or~~ and decommissioning activities ~~within 100 feet of the occurrences,~~ and quarterly monitoring ~~for the remainder of construction~~during operations. The Project owner shall also conduct annual monitoring of the avoided occurrences on site, and off site occurrences that are adjacent to the Project, for the life of the Project (see Verification, below).

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[2] Hillmer, J. & D. Liedtke. 2003. Safe herbicide handling: a guide for land stewards and volunteer stewards. Ohio Chapter, The Nature Conservancy, Dublin, OH. 200 pp. Online: <http://www.invasive.org/gist/products.html.

[3] Pesticide Action Network of North America. Kegley, S.E., Hill, B.R., Orme, S., Choi, A.H., 2010. PAN Pesticide Database, Pesticide Action Network, North America. San Francisco, CA. Online: <http://www.pesticideinfo.org>

h. Seed Collection. ~~Conduct~~As feasible, conduct pre construction collection of seed (or other propagules) of the affected special status plants within the Project Disturbance Area in the summer fall season prior to the start of construction and according to the seed collection and storage guidelines contained in (Wall 2009a; Bainbridge 2007). Collection of seed (or other propagules) shall be done by the Rancho Santa Ana Botanic Garden (RSABG) Conservation Program staff or other qualified seed or restoration specialist. The Project owner shall be responsible for all costs associated with seed storage . All seed storage shall occur at RSABG or other qualified seed dealer and at least 40 percent of the collected seed shall remain in long term storage at RSABG Seed Conservation Program, San Diego Natural History Museum, or other qualified seed conservation program, and made available for contingency efforts in the event of on site or off site mitigation failure. Feasibility shall be determined based on the availability of seeds prior to construction activities. For Phase 1(a) and 1(b), it is recognized that seed collection may not be possible given the timing of approvals and the scheduled initiation of construction.

Section B. Conduct Late-Season Botanical Surveys

The Project owner shall conduct late-summer/fall botanical surveys for late-season special-status plants as described below:

1. Survey Timing. Surveys shall be timed to detect~~: a)~~ summer annuals triggered to germinate by the warm, tropical summer storms (which may occur any time between June and October).~~, and b) f~~ Fall-blooming perennials that respond to the cooler, later season storms that originate in the Pacific northwest (typically beginning in September or October) shall only be required if blooms and seeds are necessary for identification or the species are summer-deciduous and require leaves for identification. The surveys shall not be timed to coincide with the statistical peak bloom period of the target species but shall instead be based on plant phenology and the timing of a significant storm event (i.e., a 10mm or greater rain or ~~storm event~~multiple storm events of sufficient volume to trigger germination, as measured at or within 1 mile of the Project site). Surveys ~~for summer annuals shall be timed to occur approximately 4 to 7 weeks following a warm, tropical storm. Re surveys shall occur as many times as necessary to ensure that surveys are conducted during the appropriate identification period for the target taxa, which may be blooms, fruit, seed characteristics, or vegetative characteristics, depending on~~at the appropriate time to capture the characteristics necessary to identify the taxon.

2. Surveyor Qualifications and Training. Surveys shall be conducted by a qualified botanist knowledgeable in the complex biology of the local flora, and consistent with CDFG protocols (CDFG 2009). The botanical survey crew shall be prepared to mobilize quickly to conduct appropriately timed surveys. Each surveyor shall be equipped with a GPS unit and record a complete tracklog; these data shall be compiled and submitted along with the Summer-Fall Survey Botanical Report (described below). Prior to the start of surveys, all crew members shall, at a minimum, visit reference sites (where available) and/or review herbarium specimens of all BLM Sensitive plants, CNPS List 1B or 2 (Nature Serve rank S1 and S2) or

proposed List 1B or 2 taxa, and any new reported or documented taxa, to obtain a search image. Because the potential for range extensions ~~are likely to be found~~is unknown, the list of potentially occurring special-status plants shall include all special-status taxa known to occur within the Sonoran Desert region in California. The list shall also include taxa with bloom seasons that begin in fall and extend into the early spring as many of these are reported to be easier to detect in fall, following the start of the fall rains.

3. Survey Coverage.

a. Survey protocol utilized for the 2010 late spring surveys for the project site could be utilized for summer/fall botanical surveys (see **Methods** section of the URS report titled "Imperial Valley Solar (formerly Solar Two) (08-AFC-5) Applicant's Submittal of Late Spring Botany Report, URS Project No. 27657106.00804", dated June 11, 2010; **or** the project owner can do the following:

~~At a minimum, the Applicant shall conduct comprehensive surveys (i.e., 100 percent visual coverage) of the washes, and other lowlands within the Project Disturbance Area to capture the full extent of the washes that will be affected by development in the washes. In the intervening uplands (dry areas), surveys shall be conducted to ensure a 25 percent visual coverage. Other special or unique habitats associated with rare plants shall also be surveyed at 100 percent visual coverage. Transects shall be "intuitive controlled" (per Whiteaker et al. 1998) to ensure a focus on habitat most likely to support rare plants (such as desert washes), rather than on pre-defined, evenly-spaced survey grids. In the one-mile Energy Commission buffer areas (outside the Project Disturbance Area), washes and other habitats strongly associated with rare plants shall also be surveyed comprehensively (i.e., 100 percent visual coverage) if they will be affected by development in the washes, but the intervening uplands or habitat not strongly associated with rare plants may be spot-checked or sampled at approximately 10 percent visual coverage.~~b. The survey coverage or intensity shall be in accordance with BLM Survey Protocols (issued July 2009), which specify that intuitive controlled surveys shall only be accomplished by botanists familiar with the habitats and species that may reasonably be expected to occur in the project area.

4. Documenting Occurrences. If a special-status plant is detected, the full extent of the population ~~shall be assessed, both onsite and offsite. The number of individuals shall be counted (or sub-sampled and~~onsite shall be recorded using GPS in accordance with BLM survey protocols. Additionally, the extent of the population within one mile of project boundaries shall be assessed at least qualitatively to facilitate an accurate estimation of the proportion of the population affected by the project. For populations that are very dense or very large, the population size may be estimated ~~in the event of large populations). The boundaries of all occurrences shall be recorded with hand-held GPS units of one meter or better accuracy and then plotted on aerial photo base maps of a scale similar to that used in the AFC~~

~~(SES 2008a)~~by simple sampling techniques. When populations are very extensive or locally abundant, the survey must provide some basis for this assertion and roughly map the extent on a topographic map. All but the smallest populations (e.g., a population occupying less than 100 square feet) shall be recorded as area polygons; small populations may be recorded as point features. All GPS-recorded occurrences shall include: the number of plants, phenology, observed threats (e.g., OHV or invasive exotics), and habitat or community type. The map of occurrences submitted with the ~~progress reports and~~ final botanical report shall be prepared to ensure consistency with ~~mapping protocol and definitions of occurrences in CNDDB:~~definition of an occurrence by CNDDB , i.e., occurrences found within 0.25 miles of another occurrence of the same taxon, and not separated by significant habitat discontinuities, shall be combined into a single 'occurrence'. The project owner shall also submit the raw GPS shape files and metadata, and completed CNDDB forms for each 'occurrence' (as defined by CNDDB).

5. Reporting. ~~Progress Reports shall be submitted during surveys (as described below in verification), and shall include: a) the raw GPS data and metadata; b) a spreadsheet of the data (from the 'dbf' file), and c) a map of the data showing occurrence locations (labeled with their corresponding occurrence number from the GPS files) and Project features on a USGS topographic base map.~~ Raw GPS data, metadata, and CNDDB field forms shall be provided to the CPM within two weeks of the completion of each survey. If surveys are split into two or more periods (e.g., a late summer survey and a fall survey), then a summary letter shall be submitted following each survey period.

The Final Summer-Fall Botanical Survey Report shall be prepared consistent with CDFG guidelines (CDFG 2009), and BLM guidelines ~~(Lund pers comm)~~ and shall include the following components:

- the BLM designation, NatureServe Global and State Rank of each species or taxon found (or proposed rank, or CNPS List);
- the number or percent of the occurrence that will be directly affected, and indirectly affected by changes in drainage patterns or altered geomorphic processes;
- the habitat or plant community that supports the occurrence and the total acres of that habitat or community type that occurs in the Project Disturbance Area;
- an indication of whether the occurrence has any local or regional significance (e.g., if it exhibits any unusual morphology, occurs at the periphery of its range in California, represents a significant range extension or disjunct occurrence, or occurs in an atypical habitat or substrate);
- a completed CNDDB field form for every occurrence (occurrences of the same species within 0.25 mile or less of each other combined as one occurrence, consistent with CNDDB methodology), and;

- two maps: one that depicts the raw GPS data (as collected in the field) on a topographic base map with Project features; and a second map that follows the CNDDB protocol for occurrence mapping~~, which lumps two or more occurrences of the same species within one quarter mile or less of each other into one occurrence~~.

Section C. ~~Triggers for Implementation of Mitigation~~**Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys**

The project owner shall apply the following avoidance standards ~~listed below establish criteria that would trigger implementation of additional mitigation measures for impacts to late summer/fall season~~to late blooming special status plant species ~~(if~~that might be detected during ~~the~~late summer/fall season surveys~~ required under Section B of this Condition). These~~. Avoidance and/or the mitigation measures~~,~~ described in Section D below~~,~~ would reduce impacts to any special-status plant species detected during the late summer/fall plant surveys to less than significant levels. ~~These rankings are based on the internationally accepted Natural Heritage Methodology, available online at: http://www.natureserve.org/prodServices/heritagemethodology.jsp Included in this methodology is the NatureServe global and state ranking process (www.natureserve.org/explorer/ranking) which provides an estimate of extinction risk worldwide and in California (Master et al. 2009). Avoidance and Minimization Measures described in Section A of this condition are required for all special status plants, regardless of NatureServe rank or CNPS List.~~

1. ~~Triggers~~. ~~The following triggers for implementation of mitigation are not intended for use beyond their use in the application of this Condition (Subsection C):~~ Mitigation for CNDDB Rank 1 Plants (Critically Imperiled) – Avoidance Required: If late blooming species with a CNDDB rank of 1 are detected within the Project Disturbance Area, the project owner shall prepare and implement a Special Status Plant Mitigation Plan (Plan). The goal of the Plan shall be to retain at least 75 percent of the local population of the affected species. Compensatory mitigation, as described in Section D of this condition, and at a mitigation ratio of 3:1, shall be required for the 25 percent or portion that is not avoided. If after agency consultation, avoidance would not satisfy the long-term viability of the plant population, compensatory mitigation alone will be allowed. The Plan shall include at a minimum, the following components and definitions:

   a. A description of the occurrences of the CNDDB rank 1 species on and off the project site, the percent of the local population affected, and a description of how these occurrences would be impacted by the project, including direct and indirect effects. The local population shall be measured by the number of individuals occurring on the project site and within the local watershed of the project for wash-dependent species or species of unknown dispersal mechanism. Occurrences shall be considered impacted if they are within the project footprint or if they would be affected by project-related hydrologic changes.

b. A description of how avoidance and minimization measures would be implemented on the project, with the requirement of retaining at least 75 percent of the local population of this species and avoiding all CNDB rank 1 species located in off-site linears. Compensatory mitigation, at a ratio of 3:1, and in accordance with the standards and specifications described in Section D of this condition, shall be required for the remaining 25 percent of the local population that is not avoided. Isolated 'islands' of protected plants disconnected by the project from natural fluvial processes shall not be considered to be protected and shall not be credited as contributing to the 75 percent avoidance requirement because such isolated populations are not sustainable. For currently isolated plant occurrences, the 75 % avoidance shall not be required as the isolated populations are unlikely to be sustainable. Mitigation as provided in Section D shall be required for such isolated occurrences.

2. Mitigation for CNDDB Rank 2 Plants (Imperiled): If species with a CNDDB rank of 2 are detected within the Project Disturbance Area, the project owner shall prepare and implement a Special Status Plant Mitigation Plan (Plan).The Plan shall include mitigation, at a ratio of 2:1 as described below in Section D for Rank 2 plants that cannot be avoided. If after agency consultation, it is determined that avoidance would not satisfy the long-term viability of the plant, compensatory mitigation alone will be allowed. The content of the Plan and definitions shall be as described above in subsection C.1.

   a. ~~Level 1 Trigger. BLM requests 100 percent avoidance for BLM Sensitive species (CNPS List 1 species are BLM Sensitive) but BLM's State Botanist will decide the level of avoidance on a case by case basis. Any impacts to non BLM Sensitive species with a NatureServe Global Rank of G1 or G2 will trigger mitigation as described in Section D below.~~A description of the occurrences of the CNDDB rank 2 species on and off the project site, the percent of the local population affected, and how these occurrences would be affected by the project. The local population shall be measured, and the impacts defined, as described above under #1(a).

   b. ~~A description of the avoidance~~ Avoidance and minimization measures that would achieve ~~complete~~ maximize practicable avoidance of occurrences, including the requirement of avoiding all CNDDB rank 2 species located in off-site linears. ~~on the project linears and construction laydown areas, unless such avoidance would cause disturbance to areas not previously surveyed for biological resources. Level 2 Trigger. Any impact to a CNPS List 2 taxon will trigger mitigation described in Section D below. However, should a CNPS List 3 or 4 taxon be of local or regional significance, as described below in 2b, then the level of protection for the taxon shall be adjusted.~~ If after agency consultation, it is determined that avoidance would not satisfy the long-term viability of the plant, compensatory mitigation alone will be allowed.

c. Compensatory mitigation, at a ratio of 2:1, and in accordance with the standards and specifications described in Section D of this condition, shall be required for any special status plant species that cannot be avoided.

2. ~~Avoidance on Linears RequiredAdjustments for Triggers. The levels of protection for a taxon may be adjusted under the following scenarios: The Plan shall include the following: that describes measures to achieve complete avoidance of occurrences on the project linears and contruction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g., Cultural Resource Sites) or other restrictions (e.g., FAA or other restrictions for placement of transmission poles). The project owner shall provide compensatory mitigation, at a ratio of 2:1, as described below in Section D for impacts to Rank 2 plants that could not be avoided.~~

   a. ~~State or Federal Listed Species. If a state or federal listed species is detected, the project owner shall immediately notify the CDFG, USFWS, and the CPM, and comply with all measures contained in this condition as well as the terms and conditions of any applicable federal permit, including avoidance and reconfiguration if required.~~

   b. ~~Local or Regional Significance. CNPS List 4 (typically assigned a State rank of 3) shall be adjusted to a higher level of protection if the plant occurrence has local or regional significance not captured by the above rankings. According to CDFG protocol (CDFG 2009): "List 3 plants may be analyzed under CEQA §15380 if sufficient information is available to assess potential impacts to such plants. Factors such as regional rarity vs. statewide rarity shall be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not. CNPS List 3 and 4 may be considered regionally significant if, e.g., the occurrence is located at the periphery of the species' range, or exhibits unusual morphology, or occurs in an unusual habitat/substrate."~~

   ~~A plant occurrence of any rank may be assigned a five percent higher level of protection in its ranking if the plant occurrence exhibits one or more of the following features:~~

3. Mitigation for CNDDB Rank 3 Plants (Vulnerable) – No Onsite Avoidance Required Unless Local or Regional Significance: If species with a CNDDB rank of 3 are detected within the Project Disturbance Area, no onsite avoidance or compensatory mitigation shall be required unless the occurrence shall be treated as a CNDDB rank 2 plant species. A plant occurrence would be considered to have local or regional significance, in which case, the plant occurrence shall be treated as a CNDDB 2 ranked plant. A plant occurrence would be considered to have local or regional significance if:

   - It occurs at the outermost periphery of its range in California;

- represents a significant range extension or disjunct occurrence (e.g., is located outside of the 9 quad region 1centered on the nearest known occurrence);

- isIt occurs in an atypical habitat, region, or elevation for the taxon that suggests that the occurrence may have genetic significance (e.g., that may increase its ability to survive future threats);, or;

- It exhibits any unusual morphology that is not clearly, attributable to environmental factors that may indicate a ApotentialpotentialIt new variety or sub speciessubspecies.

c. portion of the local population that cannot be avoided. New, Un Described Taxa and Other Occurrences of Questionable Taxonomic Status. BLM will treat new un described taxa as if they are BLM Sensitive, and requests 100 percent avoidance, but BLM's State Botanist will decide the level of avoidance on a case by case basis. Proposed additions to the CNPS Inventory, including any new un described, taxa that are proposed additions to the CNPS Inventory, will be, treated as Proposed unless rejected by the CNPS Rare Plant Botanist after the initial literature review and consultation with the network of botanists, representing state and federal agencies, consulting firms, and academic institutions. A description of the peer review process is available at: http://www.cnps.org/cnps/rareplants/. Typically, under NatureServe and CNPS ranking protocol, plants with a questionable taxonomy are assigned a lower conservation priority with the caveat that resolution of this uncertainty may result in a status change that may be lower or higher than originally assigned.

d. Significant Cumulative Effects. The assessment of known threats from over 50 sources are considered and reflected in the CNDDB threat rank, including renewable energy (see http://www.natureserve.org/publications/ConsStatusAssess-Status Factors.pdf, "Threats").

e. Ownership/Management Threats. The degree to which a taxon's occurrences are adequately protected and managed is not included in the set of core factors used for NatureServe rankings that pre date the 2009 revised protocols (Master et al. 2009). The threats to special status plants with many occurrences on private lands without conservation easements, or on BLM lands managed for multiple uses (outside of a FTHL Management Area) will be captured in the new rankings available in summer 2010.

3. Basis for Assessing Total Documented Occurrences. The accounting or inventory of the species' total known or documented occurrences shall be based on the following sources: CNDDB processed and unprocessed data; California

~~Consortium of Herbaria and other herbaria records; BLM records; survey data from other renewable energy projects and other related projects for which survey data is available; and reported occurrences by qualified botanists accompanied by a completed CNDDB or similar field form (with or without voucher specimens). Data considered unreliable include: range implied in literature but without collection numbers or specific location information and anecdotal reports without documentation or from non credible sources. Occurrences based on historic (pre CEQA, or pre 1972) collections that have not since been verified will not be considered unless verified and documented by one of the sources described above.~~

~~a.~~

~~b.~~

~~c.~~

4. Pre-Construction Notification for State- or Federal-Listed Species, or BLM Sensitive Species. If a state or federal-listed species or BLM Sensitive species is detected, the project owner shall immediately notify the CDFG, USFWS, BLM, and the CPM.

5. Preservation of the Germplasm of Affected Special Status Plants. ~~For all~~As additional mitigation for the significant impacts to special status plants, regardless of whether compensatory mitigation is required, ~~mitigation shall include seed collection from the~~prior to construction, the project owner shall collect seeds from all available affected special status plants onsite ~~prior to construction~~ to conserve the germplasm and provide a seed source for restoration efforts. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long term storage of the seed shall be the responsibility of the project owner. Any efforts to propagate and reintroduce special status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plant approved by the CPM and made available for contingency efforts in the event of on site or off site mitigation failure. Feasibility shall be determined based on the availability of seeds prior to construction activities. For Phase 1(a) and 1(b), it is recognized that seed collection may not be possible given the timing of approvals and the scheduled initiation of construction.

Section D. Mitigation Measures for Special Status Plants

Where compensatory mitigation is required under the terms of Section C, above, the project owner shall mitigate project impacts to special status plant occurrences with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat

species, and shall meet the performance standards for mitigation described below. In the event that no opportunities for acquisition or restoration/enhancement exist, the Project owner can fund a species distribution study designed to promote the future preservation, protection or recovery of the species. Finally, if the project owner chooses, an in lieu fee can be paid to satisfy these requirements. If all or a portion of the acquired habitat compensation lands for Bio-10 or Bio-17 provide for the replacement of the Special Status Plants impacted, then the requirements of this condition will be reduced by that amount. Compensatory mitigation shall be at a ratio of 3:1 for CNDDB Rank 1 plants, with three acres of habitat acquired or restored/enhanced for every acre of habitat occupied by the special status plant that will be disturbed by the Project Disturbance Area (for example if the area occupied by the special status plant collectively measured is ¼ acre than the compensatory mitigation will be ¾ of an acre). The mitigation ratio for CNDDB Rank 2 plants shall be 2:1. So, for the example above, the mitigation ratio would be one-half acre for the Rank 2 plants.

The project owner shall provide funding for the acquisition and/or restoration/enhancement, initial improvement, and long-term maintenance and management of the acquired or restored lands or pay in lieu fees to satisfy this requirement. The actual costs to comply with this condition will vary depending on the Project Disturbance Area, the actual costs of acquiring compensation habitat, the actual costs of initially improving the habitat, the actual costs of long-term management as determined by a Property Analysis Record (PAR) report, and other transactional costs related to the use of compensatory mitigation.

The project owner shall comply with other related requirements in this condition:

I. ~~Special Status Plant Mitigation Plan. Upon completion of the summer fall 2010 surveys, (see Section B of this Condition), the project owner shall prepare a Special Status Plant Mitigation Plan. The Plan shall also include the mitigation requirements for any additional special status plants found during the summer fall 2010 surveys (see Sections B and C of this Condition) in accordance with the mitigation triggers described above (Section C of this condition) and that meet the performance standards specified below. Avoidance and Minimization Measures described in Section A of this condition are required for all special status plants, regardless of NatureServe rank or CNPS List.~~**Compensatory Mitigation by Acquisition:** The requirements for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands include all of the following:

1. ~~On Site Avoidance. BLM requests 100 percent avoidance for BLM Sensitive species but BLM's State Botanist will decide the level of avoidance on a case by case basis. On site avoidance shall also be required if the impact to a special status species with a NatureServe Global Rank of G1 or G2 exceeds 10 percent of the species' known and documented occurrences (see 'Level 1 Trigger', Section C of this Condition). Under this scenario, the Project owner shall be required to avoid a minimum of 75 percent of the total population. For perennial taxa the percent avoidance shall be measured based on the percentage of the~~

ce shall be measured based on the total area occupied by the occurrence plus any additional habitat deemed essential for maintaining healthy, reproductive populations (BLM CDD 2002). The Project owner shall implement all measures described in Section A of this Condition to protect the avoided occurrence from accidental direct and indirect effects during construction, operation, and closure.Selection Criteria for Acquisition Lands. The compensation lands selected for acquisition may include any of the following three categories:

2. Off Site Compensatory Mitigation. One or more of the following options for mitigation may be used to reduce Level 2 and Level 3 impacts to special status plants (see Section C of this Condition) to less than significant levels:

a. Acquire Off Site Compensatory Land. To fully mitigate for the loss of special status plants, the Project owner shall provide compensatory mitigation by acquiring, in fee title or conservation easement, lands meeting the specific criteria outlined in D2b below, and in an amount equal to the amount of occupied special status plant habitat disturbed by the final Project footprint. The Project footprint means all lands disturbed in the construction and operation of the Project, including all Project linears.

b. Criteria for Compensatory Acquisition Lands. If offsite acquisition is selected to meet the mitigation obligations under **BIO-19**, the Project owner shall acquire, in fee title or conservation easement, lands that meet the criteria below. The responsibilities for acquisition and management of the compensation lands may be delegated by written agreement to a qualified third party, such as a non governmental organization dedicated to habitat conservation. Additional funds shall be provided for basic long term stewardship of the conservation easement. At a minimum, long term management shall consist of the activities described in Land Trust Standards and Practices (Land Trust Alliance 2004, Practice 12A) http://www.landtrustalliance.org/learning/sp/land trust standards and practices for start up and annual management activities, including preparation of a long term management and monitoring plan. The amount of the long term management and maintenance fund shall be based on PAR or PAR like analysis. The terms and conditions for acquisition under this condition shall be modeled on those described in **BIO 10**. The acquisition lands must be within California, and must meet one or more of the following additional requirements:

- Occupied with good to excellent site integrity. Contains anHabitat, No Habitat Threats. The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special status plant. The occurrence may be smaller than the affected occurrence

-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction), with good or better habitat quality than the affected occurrence, and with a reasonable expectation of long term sustainability. The amount of land to be acquired shall be equivalent to the total acres of the affected occupied habitat mitigated at a ratio of 3:1 (3 acres acquired for every one acre of occupied habitat affected).

- Occupied but with threats to habitat quality and accompanied by an approved restoration plan. The occurrence or the site may contain threats to its integrityHabitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired as long as the population or the site cancould be reasonably expected to recover with minorhabitat restoration efforts (e.g., barricading OHV, excluding or grazing exclusion, or minor pest plant removal of invasive non-native plants) and is accompanied by a restoration plan that meets the minimum standardsHabitat Enhancement/Restoration Plan as described in Section D2c Guidelines for the Preparation of Habitat Restoration Plan below. The amount of land to be acquired shall be equivalent to the total acres of affected occupied habitat mitigated at a ratio of 3:1 (3 acres acquired for every one acre of occupied habitat affected), with the additional expense of preparing and implementing an approved habitat restoration plan, including long term monitoring. The restoration plan shall be prepared in accordance with all guidelines described below in Section D2c, Guidelines for the Preparation of Habitat Restoration Plan.II, below.

- Unoccupied but Adjacent. The project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The acquired habitat may beProject owner shall provide evidence that acquisitions of such unoccupied but it improveslands would improve the defensibility and long -term sustainability of the occupied habitat by expanding theproviding a protective buffer of protection around the occurrence so as to prevent future development of adjacent habitat and protect itsand by enhancing connectivity to undisturbed habitat. Buffer lands may or may not be dominated by the same habitats that support the special status plants but must provide some habitat continuity between the occupied habitat and undisturbed habitats of a high integrity beyond the buffer lands. Habitat integrity, connectivity, defensibility, and potential threats shall also be addressed in the proposal. The amount of land to be acquired shall be equivalent to the total acres of affected occupied habitat mitigated at a ratio of 4:1 (4 acres acquired for every one acre of occupied habitat affected)with undisturbed habitat. This acquisition may include habitat restoration efforts where appropriate, particularly when these restoration efforts will benefit adjacent habitat that is occupied by the target species.

~~4. Unoccupied and not adjacent to occupied habitat. Must contain high quality habitat that is critical to the maintenance or sustainability of the affected species and represent a potential reserve in the future (for either natural colonization or artificial). Good to high quality within the Colorado Desert near or within the Yuha Desert or West Mesa FTHL Management Areas. Acquired lands may also focus on linkages for species dispersal between major populations and refugia at higher elevations/more mesic habitats to accommodate species migration with future climate change. Habitat integrity, connectivity, defensibility, and potential threats shall also be addressed in the proposal. The amount of land to be acquired shall be equivalent to the total acres of affected occupied habitat mitigated at a ratio of 5:1 (5 acres acquired for every one acre of occupied habitat affected).~~

2. Review and Approval of Compensation Lands Prior to Acquisition. The project owner shall submit a formal acquisition proposal to the CPM ~~and CDFG,~~ describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for ~~project related impacts to~~ special -status plants in relation to the criteria ~~specified~~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~~shall provide a written response to the proposal within 30 days of receipt, explaining the reasons for approving or disapproving the proposal.

3. Management Plan. The project owner or approved third party shall ~~prepare~~ fund the development of a management plan for the compensation lands ~~in consultation with~~ for the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the CPM, in consultation with BLM.

4. Integrating Special-Status Plant Mitigation with Other Mitigation lands. If all or any portion of the acquired special status species habitat, state jurisdictional waters, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.

5. Compensation Lands Acquisition Requirements. The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands:

    a. Preliminary Report. The project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents

subject to review and approval by the CPM. 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. 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. 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 of the terms of any transfer of fee title or conservation easement to the compensation lands.

c. ~~Guidelines for the Preparation of Initial~~ Protection and Habitat ~~Restoration Plan~~Improvement. The ~~Project owner shall submit a detailed Habitat Restoration Plan that includes all of the following components and according to the guidelines in [1)] through [10)] below:~~project owner shall fund activities that the CPM 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 are estimated to be $27 per acre, using the estimated cost per acre for special status species habitat mitigation as a best available proxy, but actual costs will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the 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.

~~1. Define the goals of the restoration project and a measurable course of action developed to achieve those goals. The goals and objectives must meet the following performance standards described below:~~

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 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 long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved Property Analysis Record (PAR) or PAR-like analysis conducted for the compensation lands. Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be $692 for every acre of compensation lands, using as the best available proxy, the estimated cost for special status species habitat compensatory mitigation. If compensatory lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see verification section at the end of this condition), the project owner shall either: (i) provide initial payment equal to the amount of $692 per acre, multiplied by a mitigation ratio of 3:1 (for Rank 1 species) or 2:1 (for Rank 2 species), and multiplied by the number of acres the project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the Energy Commission under subsection (g), “Mitigation Security” below, in an amount equal to $692 multiplied by the number of acres the project owner proposes to acquire for compensatory mitigation at the established mitigation ratio. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area 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 $692 per acquired acre will be required for long-term maintenance and management, the excess paid will be returned to the project owner. The project owner must obtain the 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.

f. Interest, Principal, and Pooling of Funds. The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund (endowment) 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 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 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 special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the CPM.

g. 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.

6. Security. It is anticipated that the mitigation lands required under this condition will be nested in the mitigation lands required under BIO-10. Therefore, the security required under BIO-10 is adequate security for the mitigation required under this condition. However, the CPM's use of the security to implement measures in this condition and in BIO-10 may not fully satisfy the project owner's obligations under this condition.

If it is determined that the mitigation lands acquired under BIO-10 do not satisfy

provide additional security: 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. The amount of the Security shall be $692 per acre, using the estimated cost per acre for special status species habitat mitigation as a best available proxy, and multiplied by the established mitigation ratio, for every acre of habitat supporting the target special status plant species which is significantly impacted by the project. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the CPM, the Project owner shall obtain the CPM's approval 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, and the project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.

II. Compensatory Mitigation by Habitat Enhancement/Restoration: As an alternative or adjunct to land acquisition for compensatory mitigation the project owner may undertake habitat enhancement or restoration for the target special-status plant species. Habitat enhancement or restoration activities must achieve protection at a 3:1 ratio for Rank 1 plants and 2:1 for Rank 2 plants, with improvements applied to three acres, or two acres, respectively, of habitat for every acre special-status plant habitat directly or indirectly disturbed by the Project Disturbance Area (for example if the area occupied by the special status plant collectively measured is 1/4 acre than the improvements would be applied to an area equal to 3/4 of an acre at a 3:1 ratio, or one-half acre at a 2:1 ratio). Examples of suitable enhancement projects include but are not limited to the following: i) control unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control of invasive non-native plants that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows or increasing groundwater availability for dependent species.

• ~~The proposed habitat restoration project must~~If the project owner elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement project shall achieve ~~the~~ rescue of an off-site occurrence ~~on acquired compensation land~~ that is currently

assessed ~~with: a long~~ , based on the NatureServe threat ranking system[4] with one of the following threat ranks: a) long-term decline >30 ~~percent, or;~~% ; b) an immediate threat that affects >30 ~~percent~~% of the population, or~~;~~ c) has an overall threat impact that is High to Very High ~~(see NatureServe Threat Ranking system, at: http://www.natureserve.org/publications/ConsStatusAsse ss_StatusFactors.pdf, "Threats").~~ ~~• The proposed restoration must achieve~~. "Rescue" would be considered successful if it achieves an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

~~• Restoration projects may include one or more of the following types of projects: i) control unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control invasive weeds that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore critical lost or degraded hydrologic or geomorphic functions to known special status plant occurrences that have lost historic sheet flow or instream flows, as a result of diverting washes upslope by roads or ditches.~~

If the Project owner elects to undertake a habitat enhancement project for mitigation, they shall submit a Habitat Enhancement/Restoration Plan to the CPM for review and approval, and shall provide sufficient funding for implementation and monitoring of the Plan. The amount of the Security shall be $692 per acre, using the estimated cost per acre for special status species habitat mitigation as a best available proxy, at the ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special-status plant species which is directly or indirectly impacted by the project. The amount of the security may be adjusted based on the actual costs of implementing the enhancement, restoration and monitoring. The implementation and monitoring of the enhancement/restoration may be undertaken by an appropriate third party such as NFWF, subject to approval by the CPM. The Habitat Enhancement/Restoration Plan shall include each of the following:

1. Goals and Objectives. Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. The objective of the proposed habitat enhancement plan shall include restoration of a target special-status plant occurrence that is currently threatened with a long-term decline. The proposed enhancement plan shall achieve an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

[4] Master, L., D. Faber-Langendoen, R. Bittman, G. A., Hammerson, B. Heidel, J. Nichols, L. Ramsay, and A. Tomaino. 2009. *NatureServe Conservation Status Assessments: Factors for Assessing Extinction Risk.* NatureServe, Arlington, VA. Online: http://www.natureserve.org/publications/ConsStatusAssess StatusFactors.pdf, "Threats". See also: Morse, L.E., J.M. Randall, N. Benton, R. Hiebert, and S. Lu. 2004. An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity. Version 1. NatureServe, Arlington, Virginia. Online: http://www.natureserve.org/publications/pubs/invasiveSpecies.pdf

2. ~~Estimate~~Historical Conditions. Provide a description of the pre -impact or historical conditions (before the site was degraded by weeds or grazing or ~~OHV~~ORV, etc.), and the desired conditions~~;~~.

3. Site Characteristics. Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species~~;~~.

4. Ecological Factors. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.~~;~~

5 Methods. Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long -term maintenance required. The implementation phase of the ~~restoration~~enhancement must be completed within five years~~;~~.

6. Budget. Provide a detailed budget and time -line, and develop clear, measurable, objective -driven annual success criteria~~;~~.

7. Monitoring. Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the restoration and the benefit to the affected species. The Plan shall ~~initially~~ include a minimum of five years of quarterly monitoring, and ~~subsequent~~then annual monitoring for the remainder of the ~~life of the Project~~enhancement project, and until the performance standards for rescue of a threatened occurrence are met. At a minimum the progress reports shall include: quantitative measurements of the projects progress in meeting the ~~restoration~~enhancement project success criteria, detailed description of remedial actions taken or proposed, and contact information for the responsible parties.

8. ~~Ensure~~Reporting Program. The Plan shall ensure accountability with a reporting program that includes progress toward goals and success criteria. Include names of responsible parties.

9. Contingency Plan. Describe the contingency plan ~~and adaptive management measures~~ for failure to meet annual goals.

10 Long-term Protection. Include proof of ~~the existence of~~ long ~~term protection for the acquired site.~~ -term protection for the restoration site. For private lands this would include conservations easements or other deed restrictions; projects on public lands must be contained in a Flat-Tailed Horned Lizard Management Area, Wildlife Habitat Management Area, or other land use protections that will protect the mitigation site and target species.

~~Mitigation Security. The Project owner shall provide financial assurances to the CPM under terms modeled on those specified in **Section 3** of **BIO-10**, to guarantee that an adequate level of funding is available to implement the mitigation measures described~~

above. These funds shall be used solely for implementation of the measures associated with the project in the event the project owner fails to comply with the requirements specified in 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. Financial assurance can be provided to the CPM in the form of 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 BLM, to ensure funding. The amount of the security shall be determined according to the mitigation ratios described in **D2b** [1) through 4)], Off-Site Compensatory Mitigation section of this condition. The amount of security shall be adjusted for any 7change in the Project footprint as described above.

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), under terms modeled on those in Section A.3(i) in Condition of Certification **BIO-10**.

The responsibility for acquisition of compensation lands may be delegated to /a third party other than NFWF, such as a qualified land trust or other non1governmental organization supportive of habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to /approval by the CPM in consultation with BLM prior to land acquisition, restoration, or management activities.

III. Compensatory Mitigation by Conducting or Contributing to a Special Status Plant Species Distribution Study: As determined by the CPM, in the event that there are no opportunities for mitigation through acquisition or restoration/enhancement, a Scientific Study of Distribution and Status for the affected special status plant species may be implemented or funded. Information on the distribution, status, or health of known occurrences, ecological requirements, and ownership and management opportunities is very limited for many of the special status species that occur on the project or have potential to occur on the project, especially the late summer and fall blooming species. Some of these late blooming species are only known from a few viable occurrences in California, and historic occurrences that have not been relocated or surveyed since they were first documented. The objectives of this study would be to better understand the full distribution of the affected species, the degree and immediacy of threats to occurrences, and ownership and management opportunities, with the primary goal of future preservation, protection, or recovery of the affected species within California. Additionally, the study should delineate other areas in the region that should be avoided or protected due to rare plant presence. To further ensure protection, study data shall be published in the state's rare plant database.

At a minimum, the study shall include the following:

1. Occurrence and Life History Review. The Study would include an evaluation of all documented, historical, and reported localities for the affected species and a review of current information on the species life history. This would include a review of the CNDDB database, records from regional and national herbaria,

~~ature review, consultation with U.C. Riverside, San Diego Natural History Museum, and other educational institutions or natural heritage organizations in California, Arizona, and Nevada, etc.), other biotechnical survey reports from the region, and information from regional botanical experts.~~

2. ~~Conduct Site Visits to Documented and Reported Localities. Documented and reported occurrences would be evaluated in the field during the appropriate time of the year for each late blooming species. If located, these occurrences would be evaluated for population size (area and quantity), population trend, ecological characteristics, soils, habitat quality, potential threats, degree and immediacy of threats, ownership, and management opportunities. GPS location data would also be collected during these site visits.~~

3. ~~Survey Surrounding Areas. Areas surrounding the occurrences that contain habitat suitable to support the affected species shall be surveyed to determine the full extent of its range and distribution. If additional populations are found, collect data (GPS and assessment) on these additional populations consistent with III.2 above.~~

4. ~~Prepare a Status and Distribution Study Report. A report shall be prepared that contains the results of the surveys and assessments. The report shall contain the following components: a) Range and Distribution (including maps and GPS data); b) Abundance and Population Trends; c) Life History; d) Habitat Necessary for Survival; d) Factors affecting Ability to Survive and Reproduce; e) Degree and Immediacy of Threat; f) Ownership and Management Opportunities for Protection or Recovery; g) Sources of Information, and g) Conclusions. The conclusions shall contain the following factors: i) present or threatened modification or destruction of its habitat; ii) competition; iii) disease; iv) or other natural occurrences (such as climate change) or human-related activities. This valuable information will provide a better understanding of the ecological factors driving the distribution of these species, identify opportunities for mitigation, and management opportunities for recovery. All data from this study will be submitted for incorporation into the CNDDB system and the study report will be made available to resource agencies, conservation groups, and other interested parties.~~

~~The cost to implement or fund the study shall be no greater than the cost for acquisition, enhancement, and long-term management of compensatory mitigation lands based on the specifications and standards for acquisition or restoration/enhancement described under D.I and D.II.~~

Verification: ~~Progress reports~~ The Special Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification **BIO-7**.

Raw GPS data, metadata, and CNDDB field forms shall be submitted to the CPM within two weeks of the completion of each survey. A preliminary summary of results for the

late summer ~~and~~ /fall botanical surveys shall also be submitted to the CPM and BLM's State Botanist ~~no later than September 30, 2010 and October 30, 2010, respectively. The Final Summer~~ within two weeks following the completion of the surveys. If surveys are split into more than one period, then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report, GIS shape files, and metadata shall be submitted to the BLM State Botanist and the CPM no less than 30 days prior to the start of ground ~~disturbing activities~~-disturbing activities. The Final Report shall include a detailed accounting of the acreage of Project impacts to special status plant occurrences. Where avoidance shall not provide for the long-term viability of the special status plants, the report will document the reasons why avoidance is deemed to not be effective.

A draft Conceptual Special Status Plant Mitigation Plan as described in Section C shall be submitted to the BLM State Botanist and the CPM for review and approval no less than 30 days prior to the start of ground-disturbing activities, if required.

The Project owner shall immediately provide written notification to the CPM, CDFG, USFWS, and BLM if it detects a State- or Federal-Listed Species, or BLM Sensitive Species at any time during its late summer/fall botanical surveys or at any time thereafter through the life of the project, including conclusion of project decommissioning.

No less than 30 days prior to the start of ground-disturbing activities, the project owner shall submit grading plans and construction drawings ~~depicting~~to the CPM which depict the location of Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition.

~~No less than 30 days prior to ground disturbing activities the Project owner shall submit to the CPM for review and approval, in consultation with the BLM State Botanist, a draft Special Status Plant Mitigation Plan. If state or federal listed plants are potentially affected, the Project owner shall also submit the Special Status Plant Mitigation Plan to CDFG and USFWS. The Plan shall contain, at a minimum, a conceptual proposal for compensatory mitigation through acquisition and possible restoration. If avoidance is mandatory (in accordance with Section C 1 and D 1 of this condition) the draft Plan shall include grading plans and other relevant construction drawings clearly depicting the location of the avoided plants.~~

If the mitigation actions required under this condition are not completed prior to ground-disturbing activities, the project owner shall provide the CPM with approved Security as described above.

No later than 12 months after the start of ground-disturbing project activities, the project owner shall submit a formal acquisition proposal to the CPM describing the parcels intended for purchase, and shall obtain approval from the CPM, in consultation with CDFG, BLM and USFWS, prior to the acquisition. If NFWF or another approved third party is handling the acquisition, the project owner shall fully cooperate with the third party to ensure the proposal is submitted within this time period; the project owner,

funding and satisfied the provisions of this condition no later than 12 moths after start of ground-disturbing project activities. The project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM, CDFG, BLM and USFWS of such completion, no later than 18 months after the issuance of the Energy Commission Decision. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline. Provision of such funds will satisfy the project owner's obligations under this condition.

No fewer than 90 days prior to acquisition of compensatory mitigation lands, the project owner shall submit a formal acquisition proposal and draft Management Plan for the proposed lands to the CPM, with copies to CDFG, USFWS, and BLM, describing the parcels intended for purchase and shall obtain approval from the CPM prior to the acquisition. No fewer than 90 days prior to acquisition of compensatory mitigation lands, the project owner shall submit to the CPM and obtain CPM approval of any agreements to delegate land acquisition to an approved third party, or to manage compensation lands; such agreement shall be executed and implemented within 18 months of the Energy Commission's certification of the project.

The Project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM of such completion no later than 18 months after the start of project ground-disturbing activities. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline.

If habitat enhancement is proposed, no later than six months following the start of ground-disturbing activities, the project owner shall obtain CPM approval of the final Habitat Enhancement/Restoration Plan, prepared in accordance with Section D, and submit to the CPM or a third party approved by the CPM Security adequate for long-term implementation and monitoring of the Habitat Enhancement/Restoration Plan.

Enhancement/restoration activities shall be initiated no later than 12 months from the start of construction. The implementation phase of the ~~restoration on acquired lands~~enhancement project shall be completed within five years of initiation. ~~During the initial five year period, quarterly reports shall be submitted to the CPM no more than 30 days after the end of each quarter. After completion of the initial five year period, the Project owner shall submit a monitoring report yearly for the life of the project to monitor effectiveness of restoration measures and description of any planned remedial actions or additional habitat restoration measures to be performed in the upcoming year~~Until completion of the five-year implementation portion of the enhancement action, a report shall be prepared and submitted as part of the Annual Compliance Report. This report shall provide, at a minimum: a summary of activities for the preceding year and a

summary of activities for the following year; quantitative measurements of the ~~Project~~project's progress in meeting the ~~restoration~~enhancement project success criteria; detailed description of remedial actions taken or proposed; and contact information for the responsible parties.

~~Within 90 days after completion of Project construction, the Project owner shall provide to the CPM an analysis with the final accounting, based on GIS analysis of post construction aerial photography, of the amount of special status plants and their habitat disturbed during Project construction. This shall be the basis for the final number of acres of habitat required for acquisition, as described in Section C.~~

~~If the Project owner elects to fund the acquisition and initial improvement of compensation lands through NFWF by depositing funds for that purpose into NFWF's REAT Account, payment of the initial funds for acquisition and initial improvement must be made at least 30 days prior to the start of ground disturbing activities. No later than 12 months after the start of ground disturbing project activities, the project owner, or a third party approved by the CPM, in consultation with CDFG and BLM, shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase and shall obtain approval from the CPM, in consultation with CDFG, BLM, and USFWS, prior to acquisition. The PAR or PAR like Analysis shall be completed no later than 18 months from the start of ground disturbing activities, after which the amount will be adjusted. If acquisition is proposed, the Project owner shall submit to the CPM for review and approval, in consultation with the BLM State Botanist, a final Special Status Plant Mitigation Plan for proposed acquisition lands no later than 18 months from the start of ground disturbing activities.~~

~~Draft agreements to delegate land acquisition to CDFG, BLM, or an approved third party and agreements to manage compensation lands shall be submitted to Energy Commission staff for review and approval (in consultation with CDFG) prior to land acquisition. Such agreements shall be mutually approved and executed at least 30 days prior to start of any project-related ground disturbance activities. The project owner shall provide written verification to the CPM that the compensation lands have been acquired and recorded in favor of the approved recipient(s). Alternatively, before beginning project ground-disturbing activities, the project owner shall provide Security in accordance with Mitigation Security section D of this condition. Within 180 days after the land purchase, as determined by the date on the title, the project owner shall provide the CPM with a management plan for review and approval, in consultation with CDFG, BLM, and USFWS, for the compensation lands and associated funds.~~

If a Status and Distribution Study is proposed, the study shall commence no later than six months following the start of ground-disturbing activities. The draft study shall be submitted to the CPM and BLM Botanist for review and approval no more than two years following the start of ground-disturbing activities. The final study shall be submitted no more than 30 months following the start of ground-disturbing activities.

Within 18 months of ground-disturbing activities, the Project owner shall transfer to the CPM or an approved third party the difference between the Security paid and the actual

habitat improvement, and funding the long-term maintenance and management of compensatory mitigation lands; and/or (2) implementing and providing for the long-term protection and monitoring of habitat enhancement or restoration activities.

Implementation of the special status plant impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

~~If special status plant are preserved onsite, an annual report shall be prepared that summarizes any~~The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all avoided special-status plants ~~onsite~~ to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, ~~an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends~~completed CNDDB field forms for each avoided occurrence on-site and within 100 feet of the Project boundary off-site, and description of the remedial action, if warranted and planned for the upcoming year. ~~Implementation~~ The completed forms shall include an inventory of the special-status plant ~~impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of Project construction, the Project owner shall provide to the CPM, for review and approval in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.~~occurrences and description of the habitat conditions, an indication of population and habitat quality trends.

BIO-21 Verification

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

For one year following the beginning of power plant operation the Designated Biologist shall submit quarterly reports to BLM's Biologist, 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 Biologist, CDFG, and USFWS. Quarterly reporting shall continue until BLM's 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 Biologist and the CPM to be complete, the project owner or contractor shall prepare a ~~paper~~ report that describes the study design and monitoring results to be submitted to ~~a peer-reviewed scientific journal~~ the CPM, CDFG, BLM,and USFWS. Proof of submittal shall be provided to BLM's Wildlife Biologist and the CPM within one year of concluding the monitoring study.

SOIL&WATER-2 The Imperial Valley Solar Project plans to utilize groundwater purchased from the Dan Boyer Water Company, if recycled water is not available from the Seeley County Water District for project construction. Staff assumes the well will provide water for project operations and construction if the Seeley Wastewater Treatment Plant supply is not available. This condition limits water purchases from the Dan Boyer Water Company to ~~34~~ 39.5 acre-feet per year, and specifies that water purchases and use restrictions have been met and documented by both Imperial Valley Solar and Dan Boyer Water Company. No later than ~~sixty~~ thirty (30) days before any use of water from the Dan Boyer well, the project owner shall document that all required metering devices are in place and maintained as required by the well owner's permit. An annual summary of daily water sales by the water purveyor differentiating between Imperial Valley Solar power purchases and other water customers (which need to be identified and which may be collectively accounted for) shall be submitted to the CPM in the annual compliance report. This report shall include copies of all the Dan Boyer Water Company invoices to Imperial Valley Solar as back-up for the reported sales and deliveries.

Verification: At least ~~60~~ thirty (30) days prior to use of water from the Dan Boyer Water Company for Imperial Valley Solar project, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational on the Dan Boyer Water Company well. In the annual compliance report, the project owner shall provide a report on the servicing, testing, and calibration of the metering devices.

The project owner shall submit a water use summary report to the CPM in the annual compliance report for the entire time that Imperial Valley Solar is using water from this well ~~life of the project~~. As part of this report, the project owner shall include the monthly sales invoices of all sales to Imperial Valley Solar by the Dan Boyer Water Company. The monthly sales invoices shall differentiate between water sold to Imperial Valley Solar and water sold to other customers (which need to be identified and which may be collectively accounted for). The annual water use summary report shall be based on the volume of water used by Imperial Valley Solar and shall distinguish recorded daily use of potable and operation water. The report shall include the project's daily maximum,

monthly range, and monthly average in gallons per day, and the annual use in acre-feet. After the first year and for subsequent years, this information shall also include the yearly range and yearly average potable and operation water used by the project.

SOIL&WATER-9 If water is to be used from the Dan Boyer Water Company, the project owner shall provide the CPM two copies of the following: (1) Dan Boyer Water Company's well registration ~~use permit~~; (2) documentation and proof necessary to verify that all of Imperial County's specific terms for the well permit have been met; and (3) ~~the~~ an executed Water Purchase Agreement (agreement) or option between Imperial Valley Solar and the Dan Boyer Water Company for the long term supply of groundwater for the project. The agreement shall specify the agreed upon delivery rate to meet the Imperial Valley Solar project's maximum construction and operation requirements (maximum supply of ~~34~~ 39.5 acre-feet per year).

No later than 30 days prior to use of If recycled water from the Seeley Waste Water Treatment Facility (WWTF)becomes an alternative water supply, the project owner shall provide the CPM two copies of the executed Recycled Water Purchase Agreement (agreement) with the recycled waste water purveyor for the long-term supply (40 years) of disinfected tertiary recycled water to the Imperial Valley Solar project. The project shall not use recycled connection to a recycled water pipeline for project use. The agreement shall specify a delivery rate to meet Imperial Valley Solar project's maximum operation requirements and all terms and costs for the delivery and use of recycled water at the Imperial Valley Solar project. The Imperial Valley Solar project shall not use recycled water ~~connect to the new recycled water pipeline~~ without the final agreement in place and submitted to the CPM. The project owner shall comply with the requirements of Title 22 and Title 17 of the California Code of Regulations and section 13523 of the California Water Code insofar as it applies to use of water by the Imperial Valley Solar project.

The project owner shall work with the Seeley Waste Water Treatment Facility (SWWTF) to obtain approval from the RWQCB Division of Water Rights for the diversion of flows from the New River to the Imperial Valley Solar project.

Before ~~If~~ recycled water from the SWWTF is used available as the project's water supply, the project owner shall do the following:

1. Submit to the CPM evidence that the SWWTF has obtained approval from the RWQCB Division of Water Rights for any diversion of flows from the New River to the Imperial Valley Solar project;

2. Submit to the CPM evidence that a final agreement has been made between the project owner and the SWWTF that specifies the delivery rate to meet Imperial Valley Solar project's maximum operation requirements and all

terms and costs for the delivery and use of recycled water by the Imperial Valley Solar project

3. Submit to the CPM evidence that metering devices are operational on the water supply and distribution systems.

4. Maintain metering devices as part of the water supply and distribution systems to monitor and record, in gallons per day, the total volume(s) of water supplied to Imperial Valley Solar project from the SWWTP. Those metering devices shall be operational for the life of the project.

5. For the first year of operation, the project owner shall prepare an annual Water Use Summary, which will include the monthly average of daily water usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet. For subsequent years, the annual Water Use Summary shall also include the annual water used by the project in prior years. The annual Water Use Summary shall be submitted to the CPM as part of the annual compliance report.

Verification: No later than ~~60~~ thirty (30) days prior to use of water from the Dan Boyer Water Company well, ~~construction~~ the project owner shall submit two copies of the well registration ~~permit~~, including the necessary documentation and proof that the specific terms of the registration ~~permit~~ have been met, and the executed agreement or option for the supply of groundwater for the project. The agreement or option shall specify that the water purveyor can provide water at a maximum rate up to 250,000 gpd and a maximum of ~~34~~ 39.5 acre feet per year to the Imperial Valley Solar project.

No later than 30 days prior to use of water from the SWWTF, the project owner shall submit the items referenced in paragraphs 1 through 3 above. During the life of the project, while water from the SWWTF is being used, the project owner shall comply with items referenced in paragraphs 4 and 5 above.

TRANS-1 The IVS Project owner shall, in coordination with Imperial County, develop and implement a construction traffic control plan prior to earth moving activities. The plan should include scheduled delivery of heavy equipment and building material deliveries, coordination with the County of Imperial to mitigate any potential adverse traffic impacts from other proposed construction projects that may occur during the construction phase of IVS Project, and adequate access for emergency vehicles to the IVS Project site.

Specifically, the overall traffic control plan shall include the following:

- Schedule delivery of heavy equipment and building material deliveries, as well as the movement of hazardous materials to the site, including the adjacent lay-down area;

- Coordinate with the Imperial County to mitigate any potential adverse traffic impacts from other proposed construction projects that may occur during the construction phase of the project; and
- Ensure there is adequate access for emergency vehicles at the project site. The construction traffic control plan shall also include the following for activities of substantial stature:
- Signing, lighting, and traffic control device placement; and
- Temporary travel lane closures and potential need for flaggers.

Verification: At least ~~60~~ thirty (30) days prior to start of site mobilization, the project owner shall provide to the County of Imperial for review and comment and the Compliance Project Manager (CPM) for review and approval a copy of the construction traffic control plan.

TRANS-2 Prior to construction, the project owner shall receive the signed agreement from the San Diego Metropolitan Transit System (MTS) regarding the authority to construct the proposed railroad crossing. After the physical improvements are completed to the railroad crossing, the project owner shall receive written approval from the MTS as to the adequacy of the improvements.

Verification: At least ~~60~~ thirty (30) days prior to the start of site mobilization, the project owner shall provide the CPM a copy of the executed agreement with MTS regarding the proposed railroad crossing. No more than 3 months after completion of the railroad crossing improvements, the project owner shall provide the CPM with a copy of written approval from MTS regarding the adequacy of the grade crossing improvements.

TRANS-4 The project owner shall prepare and implement a SunCatcher Mirror Positioning Plan that would avoid the potential for human health and safety and significant visual distractions from solar radiation exposure.

Verification: At least ~~90~~ thirty (30) days before the commercial operation of the IVS Project, the project owner shall submit the SunCatcher Mirror Positioning Plan (MPP) to the CPM for review and approval. The project owner shall also submit the plan to California Department of Transportation (Caltrans), California Highway Patrol (CHP), the Federal Aviation Administration (FAA), and Imperial County for review and comment and forward any comments received to BLM's Authorized Officer and the CPM. The Mirror Positioning Plan shall accomplish the following:

- 1. Identify the mirror movements and positions (including reasonably possible malfunctions) that could result in possible exposure of observers at various locations including those in aircraft, motorists, pedestrians, and hikers to reflected solar radiation from the mirrors.
- 2. Describe within the MPP how programmed SunCatcher operation would avoid the potential for human health and safety hazards attributable to solar radiation at locations of observers where momentary solar radiation exposure might be greater than the Maximum Permissible Exposure of 10 kW/m^2 for a period of 0.25 second or less or where excessive brightness might be hazardous to motorists.
- 3. Prepare a monitoring plan that would a) obtain field measurements in response to legitimate complaints; b) verify that the Mirror Positioning Plan would avoid the potential for health and safety hazards, including temporary or permanent blindness, at locations of possible observers; c) provide requirements and procedures to document, investigate, and resolve legitimate complaints regarding glare or excessive brightness.
- 4. The monitoring plan shall be coordinated with the FAA, Caltrans, CHP, and Imperial County and be updated on an annual basis for the first five years and at 2-year intervals after that.

VIS-4 To reduce the visual dominance and glare effects of the SunCatchers to motorists on Highway I-8, the applicant shall employ a combination of measures as necessary, including set-backs of the nearest SunCatcher units to a distance of ~~360~~300 223 feet from the adjoining roadway or as necessary to avoid excessive glare and reduce visual height and dominance of SunCatchers, slatted fencing as described under Condition of Certification VIS-6, and set-backs of SunCatcher units from project fencing.

Verification: At least 90 days prior to start of construction, the project owner shall present to BLM's Authorized Officer and the CPM a revised plan depicting how the proposed SunCatchers will be set back from the highway. If BLM's Authorized Officer and the CPM determine that the plan requires revision, the project owner shall provide to BLM's Authorized Officer and the CPM a revised plan for review and approval by BLM's Authorized Officer and the CPM. The project owner shall not begin construction until receiving BLM Authorized Officer and CPM approval of the revised plan.

VIS-6

1. The project owner shall insure the minimum distance from any SunCatcher reflector assembly to the property line shall be no less than ~~360~~300 223 feet to the nearest public roadway to reduce the possibility of flash blindness.

2. The project owner shall add a perforated metal diffusion shield to all SunCatchers behind the PCU to mitigate the 5% of the visible light spectrum

that is observed in the operational images. If the PCU is approximately, 5'x7', then 2' on either side of the PCU should give a significant reduction in the halo effect.

3. The project owner shall modify the "offset tracking" procedure to require a 25° offset to minimize the presence of intrusive brightness.

4. The project owner shall modify the "Morning Stow to Tracking Transitions" timing to occur 30 minutes before sunrise and end in a 25° offset tracking position, ready to move into tracking position.

5. The project owner shall modify the "Night Stow" timing so it occurs 30 minutes after sunset to avoid any intrusive light effects.

6. The project owner shall develop an Emergency Glare Response Plan to quickly redirect a malfunctioning mirror to a safe orientation.

7. The project owner shall monitor the site during all hours of operation on a weekly basis for five years using video surveillance trucks to identify and document intrusive light conditions needing correction.

Verification: Within 90 days before commercial operation of any part of the generation system, the project owner will submit an Emergency Response Plan, a visual monitoring plan and a confirmation of the intrusive light reduction of the modifications of the SunCatcher units If BLM's Authorized Officer and the CPM determine that the plan requires revision, the project owner shall provide to BLM's Authorized Officer and the CPM a revised plan for review and approval by BLM's Authorized Officer and the CPM . The project owner shall not begin commercial operation until receiving BLM Authorized Officer and CPM approval of the revised plan. Within 48 hours of receiving a glare complaint, the project owner shall provide the BLM Authorized Officer and CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation.

The project owner shall notify the BLM Authorized Officer and CPM within 48 hours after completing implementation of the proposal. A copy of the complaint resolution form report shall be submitted to the BLM Authorized Officer and CPM within 30 days.

WORKER SAFETY -8 As security only in the event that the project owner does not reach an agreement with Imperial County Fire Department pursuant to **WORKER SAFETY-7**(1), the ~~The~~ project owner shall:

Provide a $2,067,000 payment to Imperial County Fire Department prior to the start of construction. This funding shall off-set any initial funding required by **WORKER SAFETY-7** above until the funds are exhausted. This offset will be based on a full accounting by the Imperial County Fire Department regarding the use of these funds.

Verification: At least 30 days prior to the start of site mobilization the project, if project owner has not reached an agreement with the Imperial Fire Department pursuant to **WORKER SAFETY-7** (1), owner shall provide documentation of the payment described above to the CEC CPM. The CEC CPM shall adjust the payments initially required by WORKER SAFETY-7 based upon the accounting provided by the Imperial County Fire Department.

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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
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APPLICATION FOR CERTIFICATION FOR THE
IMPERIAL VALLEY SOLAR PROJECT
(formerly known as SES Solar Two Project)
IMPERIAL VALLEY SOLAR, LLC

Docket No. 08-AFC-5
PROOF OF SERVICE
(Revised 6/8/10)

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DECLARATION OF SERVICE

I, Darin Neufeld, declare that on August 18, 2010, I served and filed copies of the attached Applicant's Submittal of Reply Brief. The original documents, filed with the Docket Unit, are 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/solartwo/index.html]

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;

_____ by personal delivery;

__X__ 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:

__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-5
1516 Ninth Street, MS-4
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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.

Original Signed By
Darin Neufeld

*indicates change