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CALICO SOLAR

Applicant's Comments on the SA/DEIS

Application for Certification (08-AFC-13)

April 2010

Submitted to:
Bureau of Land Management
2601 Barstow Road
Barstow, CA 92311

Submitted to:
California Energy Commission
1516 9th Street, MS 15
Sacramento, CA 95814-5504

Submitted by:
SES Solar Three, LLC
SES Solar Six, LLC

Stirling Energy Systems
4800 N. Scottsdale Road, Suite 5500
Scottsdale, AZ 85251

Tessera Solar
power from stirling energy systems

April 14, 2010

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

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

RE: Calico Solar (Formerly Solar One) Project
Applicant's Submittal of Comments on the SA/DEIS

Dear Mr. Meyer and Mr. Stobaugh,

Tessera Solar hereby submits the Applicant's comments on the SA/DEIS.

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia R Bellows

Felicia Bellows
Vice-President of Development

SUMMARY OF APPLICANT'S COMMENTS

In the following document the Applicant has provided detailed comments on each section of the SA/DEIS. This section provides a summary of the comments that the Applicant feels are most significant.

Alternatives

The SA/DEIS did not consider the feasibility of either the Reduced Acreage Alternative or the Avoidance of Donated and Acquired Lands Alternative. The Applicant has provided a feasibility analysis for each of these alternatives in detail in comments on the Alternatives section and in summary below.

The Applicant does not believe the Reduced Acreage Alternative, as described in the SA/DEIS is feasible, nor does it meet most Project objectives. The alternative would increase costs dramatically as its development would not allow for a reduction in many of the overhead costs on a per MWh basis. In addition, SunCatchers are manufactured at high volume, so the more that are produced, the lower the cost over time. If only 11,000 SunCatchers were installed, rather than 34,000, the pricing averaged over these first 11,000 SunCatchers required to support the capital costs would be much higher. In addition, the operations and maintenance of a large field of SunCatchers is not much more expensive than for a smaller field. And in the Reduced Acreage Alternative, the cost will be very similar to that of the proposed Project thereby driving up the cost per MWh of the Project. The higher costs would also put ARRA funding at risk, since the prices would be higher than those projected for the funding arrangements. When all these issues are accounted for (lower SunCatcher volume, lack of ARRA funding, higher overheads and higher operations and maintenance), the cost per MWh could increase by as much as 30%. Accordingly, the increased costs bring into question the entire feasibility of the project.

The economics of the project are capped. Under the Reduced Acreage Alternative, the price currently set in the PPA and negotiated with SCE would no longer valid. SCE is limited by California's utility rate laws and regulations in the amounts that it is permitted to pay, and a substantial increase in price may be beyond SCE's ability to accept. In fact, due to all these factors, the PPA was recently negotiated and is days away from closure for the full 850 MW, rather than up to 850 MW. These factors could accordingly render the Reduced Acreage Alternative economically unfeasible and implementation of this alternative would force noncompliance with the PPA and the LGIA resulting in large penalties to the Applicant.

The Reduced Acreage Alternative would reduce the output of the project substantially. It would therefore interfere with California's ability to comply with recently-enacted laws. The 850 MW from this project are projected to provide approximately 11% of SCE RPS requirements. Reducing that output by more than half would probably render SCE unable to meet its RPS obligations. In fact, of all the proposed projects, the ones on Department of Interior Solar Energy Study Areas, like the Calico Solar Project, are critical, since the BLM has identified the areas where solar power generation is most suitable. Using only a portion of the area designated as a SESA would further hamper State and Federal renewable energy goals.

The Avoidance of Donated and Acquired Lands Alternative would have less of a reduction in output and therefore has a greater opportunity to meet Project objectives and economic feasibility. However, California needs every single MW it can get - even small incremental reductions would interfere with RPS goals. Further, reducing output on lands BLM has identified as solar-suitable would interfere with federal goals, reflected in ARRA funding, to get solar production on line in the near term. Additional costs in reconfiguring the Project around the donated lands and reduction of available acreage could lead to a higher cost per MW, which may be above what SCE is permitted to pay under California rate regulation. Finally, the quality of the donated and acquired lands would be compromised as the sections would be surrounded by Project development and the efficiency of the Calico Solar Project would be reduced from segmented development of the land, therefore this alternative would not result in an environmentally superior alternative.

The Applicant requests that consideration of each alternative's feasibility be included in the staff's final analysis.

Biological Resources

The Applicant would like to highlight three areas of concern with the biological resources analysis provided in the SA/DEIS. First, the Applicant does not understand the intent of Conditions of Certification BIO-12 and BIO-27. Second, the SA/DEIS is missing a clear explanation of Staff's definition of "special status species". Finally, the Applicant is concerned about the inconsistencies between the treatment of the many large solar projects currently under review by the CEC and/or BLM. Each of these concerns is described below and in detail in the Biological Resources section of this comment document.

The Applicant welcomes the opportunity to discuss BIO-12 and BIO-27 with Staff at the upcoming workshop on the SA/DEIS. Because much of BIO-12 and BIO-27 seems to be infeasible, the Applicant cannot meaningfully comment at this time. Additionally, many of these measures do not appear to be related to potentially significant impacts. The Applicant does not understand the intent of many items included in the Condition and would like to discuss the Condition with the appropriate staff during the workshop.

Staff describes special-status plant species with the potential to occur on the Calico Solar Project site. The Applicant requests that "special-status plant species" be limited to state and federally listed Threatened and endangered, Proposed, Petitioned, and Candidate species, or California Native Plant Society List 1A, 1B, or 2 plants. This approach would be consistent with the special-status plant species analyses for the Ridgecrest, Ivanpah, and Imperial Valley Solar projects, as well as with recent environmental impact reports prepared by San Bernardino County.

In reviewing the conditions of certification proposed by the CEC for other large-scale solar energy Projects, the Applicant is concerned about the inconsistencies between projects. The BLM has undertaken an extensive process to identify lands on which Solar Energy projects may be appropriate and as part of these efforts, the BLM designated certain areas as Solar Energy Study Areas (SESA). The SESA excluded any land identified as a sensitive land, wilderness area or other high conservation value

lands. The biological resources conditions of certification proposed for the Calico Solar Project appear to be more onerous that for other solar projects with the same potential impacts. The Applicant believes that the proposed mitigation measures and conditions of certification should be consistent for all solar projects and commensurate with the level of impact. If this standard is followed, we believe many of the additional and more detailed requirements proposed for Calico Solar are unnecessary. In addition, we believe that the wording of many of the conditions should be revised to focus on the actual mitigation desired and move the details of implementation to the verification section.

Hydrology, Water Use, and Water Quality (Soil and Water Resources)

The Applicant performed an in-depth evaluation of the Calico Solar water supply options in terms of reliability, cost, and environmental impact, particularly its efforts to obtain reclaimed water. This information was provided to the Energy Commission and BLM on December 4, 2009. The Applicant requests that CEC and BLM staff include this information in their final documents to provide the public and decision-makers a complete understanding of the water supply options and their availability. A summary of those options is provided below

In an effort to obtain a reliable water supply for Calico Solar, the Applicant carefully evaluated four supply options:

1. Mojave Water Agency (ground water)
2. BNSF (reclaimed water)
3. Lavic Valley Ground Water Wells
4. Cadiz Valley Ground Water from the BNSF Cadiz Well

These options are described below and summarized in Table 1-1.

Mojave Water Agency – After filing the AFC, the Mojave Water Agency (MWA) district expressed possible interest in providing water for the project. The source of the water would be from a groundwater well through purchase of water rights from water purveyors and delivered to the project site via truck. This option was explored for approximately nine months (February 2009 to October 2009) with MWA. During that time the Applicant attending several MWA board meetings to present the proposed export of water from the District to the project site. During the review process, the Watermaster and sub-advisory committees raised concerns because the project site is located outside the water district's boundaries. The Watermaster ultimately concluded that export via MWA is not a viable option and recommended that the Applicant pursue alternative sources for water.

Barstow Wastewater Treatment Facility – During the time that the Applicant was exploring alternatives with MWA, MWA staff suggested that the Applicant enter into discussion with BNSF. The Barstow Wastewater Treatment Plant is located at 2200 East Riverside Drive in Barstow California. It is operated by the Public Works Department of the City of Barstow and is approximately 15 miles west of the Project site. BNSF holds export rights from MWA and could supply recycled (grey) water utilizing BNSF facilities at the City of Barstow Waste Water Treatment Facility. All of the water used by the Project would have been fully offset. The water would be placed on BNSF rail cars and transported to the Project site. Use and transport of the recycled water

would require approval from MWA for a change in purpose (use), and agreements with the appropriate water districts.

Although use of the recycled water (grey water) was the applicant's preferred water source, it would also require that recycled water be transported outside of the District's boundaries. The Applicant pursued discussions with BNSF and MWA. After several meetings with both entities and the MWA board, the Watermaster determined that this option was not available because the project is outside the district's service area.

Lavic Groundwater Basin – As discussed in Section 5.5 of the AFC, the Project site lies within the Lavic Groundwater Basin. The basin is approximately 159 square miles and is bounded by non-water-bearing rocks of the Cady Mountains on the southwest. This water would require treatment of total dissolved solids and is considered unsuitable for domestic or irrigation use without treatment.

The AFC identified several potential locations for the development of water wells for the Calico project. Because of permitting concerns on the part of BLM, the test water wells for this source were relocated from federal land to private land within the Project area. The reliability of test wells is currently being evaluated.

The ground water source could serve as an emergency back-up supply if required in the future, or to supply water to the Project, pending the results of test well development.

Cadiz Valley Groundwater Basin – Burlington Northern Santa Fe (BNSF) owns and operates several water wells within the Cadiz Valley Groundwater Basin approximately 64 miles southeast of the Project site. The water would be transported via rail to the Project site. At this time, this is the applicant's preferred source of water unless sufficient water is found from wells currently being tested.

Table 1
Project Water Supply Options

Option	Description	Type and Amount Available	Reliability of Supply	Environ. Concerns	Comment
Mojave Water Agency	Ground	water		Would be fully mitigated	No longer available because project is located outside district boundaries.
City of Barstow Treatment Facility	Use of existing BNSF facilities. Requires trucking or rail to the site	Reclaimed water	Reliable supply but would require transport through facilities owned by other water districts		Option eliminated because of challenges associated with transport through facilities owned by multiple water districts; also located outside district boundaries.
Lavic Ground-Water Basin	Four test wells located on project site	Gallon per minute flow is unknown.	Unknown supply amounts to meet construction needs; sufficient flow to serve as back-up during operation; further assessment required	Potential impacts from evaporation pond; mitigate with pond design and screening	Is currently being investigated as a possible supply during operation, pending the results of test wells.
Cadiz Valley Ground Water	Requires rail or trucking to site	Ground water	Reliable	Consistent with CEC water policy; Air emissions associated with trucking water to the site	Preferred primary water supply source.

Land Use

The Applicant disagrees with Staff's assessment that the Calico Solar Project, as proposed, would not comply with Land Use LORS. With regards to the Project complying with the BLM Instruction Memorandum regarding Land and Water Conservation Funds (LWCF) lands, the Applicant does not believe that this memorandum should be elevated to the status of an applicable LORS. Instead it should be considered as interim guidance for use by the BLM and that the determination of consistency be left to the BLM's jurisdictional power to interpret and apply its own

policies. According to Appendix C of the BLM's Land Use Planning Handbook (H-1601-1), resource use decisions (e.g. allowing or prohibiting rights-of-way in certain areas) must be made during the land use planning process if the BLM anticipates it may authorize or allow a resource use. If uses are allowed, decisions must also be made regarding intensity and limits or restrictions. Regarding avoidance and exclusion areas two definitions are relevant. Further, the Project Application had been submitted to the BLM prior to the issuance of the Instruction Memorandum.

However, even if the Instruction Memorandum were to be treated as a LORS, the Calico Solar Project would be in compliance. If the LWCF lands are managed as avoidance areas (to be avoided, but may be available for location of right-of-ways with special stipulations or conditions) then it is possible that conditions be applied that would bring the Project into compliance with the Instruction Memorandum on donated lands. Interim BLM policy allows the state director to allow the use at the director's discretion upon finding that the use is consistent with the values of the LWCF lands.

The Applicant suggests that appropriate mitigation would be applied as a condition of certification so that impacts identified associated with the Instruction Memorandum on donated land and lands acquired with LWCF funding, be reduced to less than significant.

Transportation and Traffic

The Applicant agrees with Staff's intention of providing alternative transportation; however, there is no demonstrated nexus between the cumulative traffic impacts of the Calico Solar Project and the Abengoa Mojave Project. The employee travel patterns would not overlap as the Calico Solar workforce is expected to originate almost entirely in Barstow and Calico Solar is located in the opposite direction as the Abengoa Mojave Project when traveling from Barstow.

The Applicant requests that condition of certification TRANS-11 be deleted.

Global Comments and Requested Changes

The Applicant requests that implementation of the following global comments and edits be implemented into the final documents. The three main global comments include:

1. Removal of "under CEQA" language throughout the document.
2. Reference to Hector Road.
3. Inconsistent treatment of generation project activities versus SCE transmission upgrades.

"Under CEQA" Language - For impact analyses other than air quality, significance is measured no differently under NEPA than under CEQA. Accordingly, the summaries of these impact analyses should be revised to delete the qualifier "under CEQA"; impacts either are or are not significant when analyzed under CEQA and NEPA. The Applicant feels the addition of the phrase, "under CEQA" to much of the analysis is redundant and inappropriate because Staff has analyzed Project effects under NEPA as well. The deletion of the phrase from the final would accurate reflect the scope of analysis performed by Staff.

Hector Road - References to Hector Road are made throughout the document. The publicly-designated Hector Road ends soon after the exit off of Interstate 40, where the road becomes segmented into a BLM-designated open or unspecified area. The Calico Solar Project will not restrict or change the use of Hector Road as designated by the County of San Bernardino.

Transmission Upgrades - The Applicant is concerned about the inconsistencies throughout the document in the description of the Calico Solar Project and the SCE Reliability Network Upgrades. The Calico Solar Project includes the construction and operation of an 850 MW solar energy generating facility using the SunCatcher technology. Ancillary features include a transmission line which will tie into the Pisgah Substation. The Calico Solar Project does not include upgrades to existing transmission lines or substations.

As described in the Applicant's submittal of "SCE Project Description for [Calico Solar] 275 MW Early Interconnection" docketed on December 23, 2009, SCE, a separate action to accommodate the first 275 MW of the Calico Solar Project will be perform to upgrade the Pisgah substation (ground disturbance expected to be approximately 300 feet by 125 feet (0.9 acre) to provide the proposed 270-foot by 100-foot internal expansion) and install telecommunications facilities (including two separate paths along Pisgah-Lugo and Pisgah-Gale). Please note that the proposed expansion to accommodate 275 MW from the Project is not a conversion of the 230 kV Pisgah substation to a 500 kV substation.

As described in the Applicant's submittal of "Applicant's Response to CEC Transmission Line Upgrades Memo" docketed January 8, 2009, the 500 kV upgrades proposed by SCE will allow the export of approximately 1,400 MW of additional generating capacity between the Lugo and Pisgah Substations. This will accommodate not only all of the power produced by Calico Solar but other proposed generating facilities. The upgrades include the expansion of the Pisgah Substation to accommodate up to 4 AA-Banks and to replace Lugo-Pisgah No. 2 220 kV with a 500 kV Transmission Line.

The Applicant requests the distinction between the three projects (solar power plant, early transmission interconnection, and 500 kV transmission upgrade) be made throughout the final document. Both NEPA and CEQA establish procedures to ensure that agency decision-makers fully consider the potential environmental consequences of their actions. Both statutes, however, recognize that there must be a balance between the level of review required and the need for agencies to take final actions. In terms of the need to evaluate and consider separate but reasonably foreseeable projects, both statutes have struck this balance by allowing projects to go forward so long as the agencies make a good faith effort to consider the impacts which are determinable and not take any action which precludes full review and consideration of the separate action once the details of such actions are determined.

The applicant believes that the SA/DEIS contains sufficient data to evaluate the impacts associated with the Calico Solar Project and to evaluate at a reasonable level the potential for impacts to result if the SCE Reliability Network Upgrades is ultimately approved. However, the treatment of the SCE Reliability Network Upgrades is inconsistent throughout the document. The Applicant recommends applying a "could

and should" approach when discussing likely impacts and mitigation measures from the Upgrades. By this we recommend that the final document should state the expected impacts from the SCE Reliability Network Upgrades and the mitigation measures that agencies with jurisdiction over the project "could and should" adopt the mitigation measures proposed to reduce potentially significant impacts. By approving the Calico Solar Project, neither the CEC nor the BLM will make any commitment to approve the Upgrade Project should further study reveal significant and unavoidable impacts.

EXECUTIVE SUMMARY

The Applicant requests that as the comments included in this document are evaluated and edits are made to the SA/DEIS, the executive summary be updated accordingly.

EXECUTIVE SUMMARY Page ES-1

Staff describes the proposed use of land managed by the Bureau of Land Management (BLM) in the fourth paragraph.

Comment: The Applicant requests the following text revisions for clarity:

"The project proposes the use of land managed by the United States Department of the Interior, Bureau of Land Management (BLM); therefore the Applicant has submitted a request for a right-of-way (ROW) grant to the BLM. ~~In addition,~~ ~~t~~The BLM will decide whether to approve, approve with modification or deny a ROW grant to the Applicant for the Proposed Calico Solar Project. The BLM will also consider amending the California Desert Conservation Area (CDCA) Plan in this analysis. If the BLM decides to grant a ROW, the BLM would also amend the CDCA Plan as required for the Proposed Action~~,~~ or Action Alternative~~, or No Action Alternative as required~~. The BLM is the federal lead agency for the evaluation of project effects and compliance of the proposed project with the requirements of the National Environmental Policy Act (NEPA) related to possible BLM discretionary actions related to the ROW grant request."

EXECUTIVE SUMMARY Page ES-2

Staff provides the "Project Location and Description" and a discussion of Phase II in the third bullet point.

Comment: The fourth sentence of this paragraph might suggest to the reader that the SA/DEIS does not analyze any impacts of the 500-kV Pisgah to Lugo transmission line upon which Phase II would rely. In fact, the SA/DEIS includes extensive discussions of these impacts based on available information. Accordingly, the Applicant requests the following revisions to the last three sentences of the paragraph:

"This is anticipated to be provided by the proposed 500-kV Pisgah to Lugo transmission line ~~(assumed to be a project independent of the Calico Solar Project)~~, ~~This upgrade is~~ described as SCE's Full Build-out Option. Although this transmission line is a project independent of the Calico Solar Project, this SA/DEIS analyses the environmental impacts of the transmission line to the extent information is reasonably available and identifies mitigation measures that the agencies with jurisdiction over that separate project could and should impose to lessen potentially significant impacts. ~~The construction and operation of Phase II is contingent on the approval and development of transmission line.~~

EXECUTIVE SUMMARY Page ES-8

Staff provides a discussion of "Alternatives."

Comment: The Applicant requests that the SA/DEIS provide explanation for why the Private Land Alternative, which is treated favorably in section B.2, is not included in the

Build Alternatives listed in Executive Summary Table 1 or discussed in the Executive Summary. Although this may not be a reasonable alternative for BLM purposes because it involves non-BLM lands, it appears to be within a reasonable range for CEQA purposes.

EXECUTIVE SUMMARY Page ES-15 to -17

Staff provides Executive Summary Table 4, Summary of Potential Short-Term, Long-Term, and Cumulative Adverse Impacts.

Comment: For Biological Resources, the final column states "Significant and unavoidable"; adding "cumulative adverse impacts" would clarify that whereas project-level impacts would be mitigated to less-than-significant, cumulative impacts could not be mitigated to that level.

In accordance with the Applicant's comments on Cultural Resources and the existing Executive Summary text on page ES-20, please revise Table 4, which currently states that the project's individual and cumulative impacts may remain significant even with mitigation/conditions of certification. The Applicant has requested improvements to the mitigation/conditions of certification that the applicant believes would reduce both project-level and cumulative impacts to less than significant.

For Land Use and Recreation, the third column entry is "No Significant short term and long term adverse impacts *reduced* with mitigation/Conditions of Certification incorporated." Elsewhere in this Table, if the project's impact would be less than significant, the language is the same as that quoted, absent the "reduced." If this is a typographical error, please delete "reduced." If the conclusion is that a significant project land use impact would not be reduced by any mitigation/condition of certification, please revise the entry to make that clear.

EXECUTIVE SUMMARY Page ES-18 to -34

Staff summarizes any potential impacts to each resource area.

Comment: For impact analyses other than air quality, significance is measured no differently under NEPA than under CEQA. Accordingly, the summaries of these impact analyses should be revised to delete the qualifier "under CEQA"; impacts either are or are not significant when analyzed under CEQA and NEPA.

EXECUTIVE SUMMARY Page ES-19 to -20

Staff summarizes potential impacts to Biological Resources.

Comment: Executive Summary Table 4 states that with mitigation, all project impacts to Biological Resources would be mitigated to less-than-significant, but that cumulative impacts to "Newberry Springs watershed streams, desert tortoise, Mohave fringe-toed lizard, big horned sheep occupied range, white-margined beardtongue, and wildlife movement and connectivity" would remain significant and unavoidable. The text at pages ES-19 to ES-20 does not discuss these significant and unavoidable cumulative impacts. The text of the Executive Summary should include all impacts, whether project-

level or cumulative, that are identified in Table 4. The Applicant requests that the two discussions be reconciled.

EXECUTIVE SUMMARY Page ES-20 to -21

Staff summarizes potential impacts to Cultural Resources.

Comment: The Applicant requests that staff please revise the Executive Summary in accordance with the updated information provided in the applicant's comments on Cultural Resources and Native American Values.

In addition, this text does not currently address cumulative impacts. As noted above, the applicant believes that with its suggested improvements to mitigation/conditions of certification, the project's impacts to cultural resources would be less than significant at both the project and cumulative levels. The Executive Summary should clearly state, in both the summary table and in this text, its conclusion regarding cumulative cultural resources impacts.

EXECUTIVE SUMMARY Page ES-22

Staff summarizes potential impacts to Geology, Paleontology, and Minerals.

Comment: Under Geology, Paleontology and Minerals, the discussions of the two action alternatives should be revised for clarity. The first sentence of each paragraph describing the alternatives currently reads: "Like the proposed project, the potential is low for significant adverse impacts to the … Alternative from geological hazards during its design life and *moderate to high paleontological* resources from the construction, operation, and closure of the *proposed project*." This appears to be a typographical error, but it might create the incorrect impression that the project site has moderate to high value as a paleontological resource. The Applicant requests that the italicized language be deleted and both sentences be revised to match the discussion of the proposed project, as follows: "Like the proposed project, the potential is low for significant adverse impacts to the … Alternative from geological hazards during its design life and to potential geologic, mineralogic, and paleontologic resources from the construction, operation, and closure of the Alternative."

EXECUTIVE SUMMARY Page ES-24

Staff summarizes potential impacts to Land Use.

Comment: The Applicant requests that staff please revise the Executive Summary text regarding Land Use and Recreation consistent with the Applicant's comments on that chapter of the SA/DEIS. Concerning lands acquired with LWCF funds, the BLM interim policy states that "…lands acquired with LWCF funds, are to be managed as avoidance/exclusion areas for land use authorizations that could result in surface disturbing activities." It then clarifies that "avoidance" areas may be used for surface disturbing activities as long as mitigation is applied to the impacts by instructing BLM managers to advise applicants "…to avoid these lands or provide details on how they

would plan to operate or mitigate their project in a manner consistent with the values of the lands donated or acquired for conservation purposes."

The Applicant submits that the Instruction Memorandum is not an applicable LORS; and that the determination of consistency be left to the BLM's jurisdictional power to interpret and apply its own policies; however, the Project would be consistent with the memorandum. The Project incorporates management according to conservation purposes, with minimal grading, water use, and other impacts compared to other alternative energy technologies. The Project will be mitigated consistent with the California Desert Conservation Area (CDCA) Plan, and the Project occurs entirely within a BLM-designated Solar Energy Study Area (SESA). The BLM has identified SESAs as areas where "sensitive lands, wilderness, and other high-conservation-value lands were excluded." (BLM News Release, July 27, 2009).

The Applicant requests the inclusion of mitigation for "avoidance" areas. There is no clear policy that expressly denies all development within these areas, and the Applicant believes that significant impacts are avoidable through mitigation. Potential mitigation for LWCF lands are proposed as conditions in the Biological Resources section of the SA/DEIS that would diminish the effects of the project to less than significant. Proposed conditions include several avoidance and minimization measures, as well as replacement land acquisition. The Applicant believes that the use of these lands can be mitigated "…in a manner consistent with the values of the lands donated or acquired for conservation purposes." With mitigation incorporated, the Project would comply with the interim policy.

In addition, Executive Summary Table 4 does not appear to match the discussion at page ES-24. Whatever conclusion is drawn regarding the significance of the proposed project's land use impact, the Applicant requests that staff please verify that the same conclusion is reported in both the Table and the text.

EXECUTIVE SUMMARY Page ES-29 to -30

Staff summarizes potential impacts to Traffic and Transportation.

Comment: A paragraph regarding waste management appears to have been mistakenly inserted in the Traffic and Transportation discussion at pages ES-29 to ES-30. The paragraph should be deleted.

EXECUTIVE SUMMARY Page ES-34 to -35

Staff summarizes "Noteworthy Public Benefits".

Comment: The discussion of Noteworthy Public Benefit (2), regarding paleontology, should be clarified to note that the likelihood of encountering paleontological resources on the project site is low.

INTRODUCTION

INTRODUCTION Page A.11

Staff describes the "Applicant Objectives."

Comment: The Applicant requests the following revisions to the text to emphasize the contribution to the Renewable Portfolio Standard (RPS):

"The applicant's project objectives are set forth below. The fundamental objective is to build a solar project that generates 850 MW of renewable solar energy that will help the State meet its Renewable Portfolio Standard (RPS) goals for new renewable electric generation. To assist in meeting the requirement for additional generating capacity, the applicant has developed solar technology which requires commercial-scale development to demonstrate its technical and commercial viability, and has entered into power purchase agreements to provide power from renewable sources into the California Independent System Operator (CAISO) system.

- Provide up to 850 MW of renewable electric capacity under a PPA to SCE,
- Contribute to the 20% renewables RPS target set by California's governor and legislature,
- Contribute 4% of SCE's peak load and 11% of SCE's RPS requirement,
- Assist in reducing greenhouse gas emissions from the electricity sector,
- Contribute to California's future electric power needs, and
- Assist the CAISO in meeting its strategic goals for the integration of renewable resources, as listed in its Five-Year Strategic Plan for 2008-2012 (CAISO 2007)."

PROPOSED PROJECT

General Comment:

PROPOSED PROJECT Page B.1.-4

Staff describes the SunCatcher technology.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"The SunCatcher™ is a 25-kilowatt-electrical (kW) solar dish Stirling system designed to automatically track the sun and collect and focus solar energy onto a power conversion unit (PCU), which generates electricity. The system consists of an approximately 40-foot~~-high-by-38-foot-wide~~ diameter solar concentrator in a dish structure that supports an array of curved glass mirror facets."

PROPOSED PROJECT Page B.1-5

Staff describes the dish assembly.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"The SunCatcher Dish Assembly would be fitted with a trunnion that attaches to the pedestal. Each Dish Assembly would consist of an approximately ~~38-foot-wide-by~~ 40-foot diameter ~~high~~ steel structure that supported an array of curved glass mirror facets."

PROPOSED PROJECT Page B.1-7

Staff describes the onsite roads.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"The ~~AFC~~ applicant propose~~d~~s the development of the following roadways on the project site: approximately 25.2 miles of ~~paved~~ surface-treated roadways, approximately 168 miles of north-south access routes, and approximately 102 miles of east-west access routes. The roadways and access routes would be surface-treated to reduce fugitive dust while allowing full access to all dishes and infrastructure."

PROPOSED PROJECT Page B.1-9

Staff describes site grading and drainage.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"After brush has been trimmed, blading for roadways and foundations would be conducted between alternating rows to provide access to individual SunCatchers. Blading would consist of limited removal of terrain undulations. Although ground disturbance would be minimized wherever possible, the applicant proposes that

localized rises or depressions within the individual 1.5-MW solar groups would be removed to provide for proper alignment and operation of the individual SunCatchers. ~~Paved~~ The treated roadways would be constructed as close to the existing topography as possible, with limited cut-and-fill operations to maintain roadway design slope to within a maximum of 10%.

The layout of the proposed Calico Solar Project would maintain the local pre-development drainage patterns where feasible, and water discharge from the site would remain at the southern and western boundaries. The ~~paved~~ treated roadways would have a low-flow, unpaved swale or roadway dip as needed to convey nuisance runoff to existing drainage channels/. It is expected that storm water runoff would flow over the crown of the paved roadways, which are typically less than 6 inches from swale flow line to crown at centerline of roadway, thus maintaining existing local drainage patterns during storms. The applicant has proposed that ~~unpaved roads would utilize~~ low-flow culverts would be used on emergency access routes, and all other roads would be at-grade."

PROPOSED PROJECT Page B.1-9

Staff describes the proposed Arizona crossings.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"Arizona Crossings (roadway dips) would be placed along the roadways ~~or low-flow culverts consisting of a small-diameter storm drain with a perforated stem pipe,~~ as needed to cross the minor or major channels/swales. These designs would be based on Best Management Practices (BMPs) for erosion and sediment control."

PROPOSED PROJECT Page B.1-9

Staff describes roadway maintenance.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"It is anticipated that roadway maintenance would be required after rainfall events. For minor storm events, it is anticipated that the ~~unpaved~~ some of the treated roadway sections may need to be bladed to remove soil deposition, along with sediment removal ~~from stem pipe risers at the culvert locations~~."

PROPOSED PROJECT Page B.1-13

Staff describes mirror washing and fire protection water.

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"**Mirror Washing and Fire Protection Water**: The Main Services Complex will include a location for an approximately ~~175,000~~ 230,000-gallon tank that will be used to store water for SunCatcher mirror washing and fire protection applications."

ALTERNATIVES

General Comment:

The SA/DEIS does not provide an analysis of the feasibility of many of the alternatives, but makes assumptions with regards to the output from each of the alternatives. The Applicant provides a summarized feasibility analysis for both the Reduced Acreage Alternative and the Avoidance of Donated and Acquired Lands Alternative below.

ALTERNATIVES Page B.2-1

The alternative would also reduce impacts to visual resources to less than significant.

Comment: As is discussed in detail in the visual resources section of this document, the Applicant does not believe that the Reduced Acreage Alternative will result in impacts to visual resources that are less than significant. While impacts to visual resources may be reduced, this alternative still involves the development of over 2,600 acres of desert land that will be immediately visible to the majority of highly sensitive viewers in the area. The development of the Reduced Acreage alternative would still amount to a visually dominant industrial feature and a high degree of change to many of the key observation points. Therefore, the Reduced Acreage Alternative would also cause significant adverse impacts to visual resources. The Applicant requests the finding of less than significant impact from the Reduced Acreage Alternative be revised to the potential for significant impacts.

ALTERNATIVES Page B.2-1

However, as highlighted in Section C.1 (Air Quality), the Reduced Acreage Alternative would reduce the benefits of the proposed Calico Solar Project in displacing fossil fuel fired generation and reducing associated criteria pollutants emissions. The extent to which the Reduced Acreage Alternative would be feasible or meet Project Objectives is uncertain.

Comment: The Applicant does not believe the Reduced Acreage Alternative, as described in the SA/DEIS is feasible, nor does it meet most of the Project objectives.

The alternative would increase costs dramatically. The development of the Reduced Acreage Alternative would not allow for a reduction in many of overhead costs on a per MWh basis. These costs include construction of a main services complex, Project transmission line, Project substation, and the bridge over I-40, etc. that would be required in the development of both the proposed Project and the Reduced Acreage Alternative. In addition, SunCatchers are manufactured at high volume, so the more that are produced, the lower the cost over time. If only 11,000 SunCatchers were installed, rather than 34,000, the pricing averaged over these first 11,000 only would be much higher. The higher costs would also put ARRA funding at risk, since the prices would be higher than those projected for the funding arrangements. In addition, the operations and maintenance of a large field of SunCatchers is not much more expensive than for a smaller field. And in the Reduced Acreage Alternative, the cost will be very similar to that of the proposed Project thereby driving up the cost per MWh of the Project. When all

these issues are taken into account (lower SunCatcher volume, lack of ARRA funding, higher overheads and higher operations and maintenance), the cost per MWh could increase by as much as 30%. Accordingly, the increased costs bring into question the entire feasibility of the project.

The economics of the project are capped. Under this alternative, the price currently set in the PPA and negotiated with SCE would no longer be valid. SCE is limited by California's utility rate laws and regulations in the amounts that it is permitted to pay, and a substantial increase in price may be beyond SCE's ability to accept.

In fact, due to all these factors, the PPA was recently negotiated and is days away from closure for the full 850 MW, rather than up to 850 MW. These factors could accordingly render the Reduced Acreage Alternative economically unfeasible, and implementation of this alternative would force noncompliance with the PPA and the LGIA resulting in large penalties to the Applicant.

Additionally, the Reduced Acreage Alternative would impact Project schedule and engineering. This would delay construction, causing the Project to possibly miss the ARRA funding deadline this year. Tessera Solar has also applied to the Department of Energy (DOE) for a loan guarantee for an 850 MW Project. Reduction of Project output could jeopardize the receipt of the loan. The project cannot proceed without AARA funding and DOE loan guarantees, which are intended to facilitate the production of new renewable energy technology in the near term. The delay would interfere with these federal goals.

This alternative would reduce the output of the project substantially. It would therefore interfere with California's ability to comply with recently-enacted laws. In 2002, California established its Renewable Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. The 2003 Integrated Energy Policy Report recommended accelerating that goal to 20 percent by 2010, and the 2004 Energy Report Update further recommended increasing the target to 33 percent. In 2006 under Senate Bill 107, California's Renewables Portfolio Standard (RPS) was created and codified the 20 percent goal. It is one of the most ambitious renewable energy standards in the country. The RPS program requires electric utilities and providers to increase procurement from eligible renewable energy resources by at least 1 percent of their retail sales annually, until they reach 20% by 2010. Reaching the 20% goal, in turn, is a key factor in California's plans to reduce its greenhouse gas emissions as required by the California Global Warming Solutions Act of 2006.

The 850 MWs from this project are projected to provide approximately 11% of SCE RPS requirements. Reducing that output by more than half would probably render SCE unable to meet its RPS obligations. Alternative solar projects could not remedy such a deficit, since California needs the entirety of the Project and completion of other renewable projects currently pending before the CEC and BLM to attempt to comply with the 2010 goal. In fact, of all these projects, the ones on these BLM lands are critical, since the BLM has identified the areas where solar power generation is most suitable.

Not using this solar-suitable land for solar production would likely preclude California from meeting its RPS goals.

The selection of the Reduced Acreage Alternative could reduce the Project's output to even less than Staff's estimate of 275 MW based on possible flood zones below the railroad. The Reduced Acreage Alternative was not developed to maximize the amount of land that could be cleared for Desert Tortoise in accordance with the Project schedule and receipt of ARRA funding. As such, the selection of the Reduced Acreage Alternative could limit the amount of construction that would be able to be performed during 2010 and could jeopardize the Project's receipt of the ARRA funding.

The Applicant requests that consideration be given to the feasibility of this alternative in the final version of Staff's analysis.

ALTERNATIVES Page B.2-1

The Avoidance of Donated and Acquired Lands Alternative would reduce the benefits of the proposed Calico Solar Project in displacing fossil fuel fired generation and reducing associated criteria pollutant emissions. The extent to which the [Avoidance of Donated and Acquired Lands Alternative] would be feasible or meet project objectives is unclear.

Comment: The Avoidance of Donated and Acquired Lands Alternative would have less of a reduction in output and therefore has a greater opportunity to meet Project objectives and economic feasibility. However, California needs every single MW it can get - even small incremental reductions would interfere with RPS goals. Further, reducing output on lands BLM has identified as solar-suitable would interfere with federal goals, reflected in ARRA funding, to get solar production on line in the near term. Additional costs in reconfiguring the Project around the donated lands and reduction of available acreage could lead to a higher cost per MW, which may be above what SCE is permitted to pay under California rate regulation. Finally, the quality of the donated and acquired lands would be compromised as the sections would be surrounded by Project development and the efficiency of the Calico Solar Project would be reduced from segmented development of the land, therefore this alternative would not result in an environmentally superior alternative.

Additional engineering constraints on this alternative were discussed in the Applicant's response to CEC and BLM Data Request 138 and are as follows:

1. Sedimentary transport management at the southern boundaries of the Catellus parcels will be extremely difficult. Management design will require additional basin areas, encroaching on land that would otherwise be used for SunCatcher development.

2. Disrupted site continuity will present logistical challenges for construction and maintenance access. This will be especially difficult for parcel 4, which will require travel outside the Project boundaries.

3. Collection and distribution will require additional design, material and construction at Section 4. Overhead collection/distribution may be needed.

4. Project generating capacity will be decreased by approximately 190 MW.

The Applicant requests that consideration be given to the feasibility of this alternative in the final version of staff's analysis.

ALTERNATIVES Page B.2-8

Additionally, the applicant states the purpose of the project as:

- to provide upto 850 MW of renewable electric capacity under a 20-year power purchase agreement (PPA) to SCE;

Comment: The Applicant has renegotiated the PPA with SCE for 850 MW rather than up to 850 MW. Please revise the Applicant's purpose as follows:

Additionally, the applicant states the purpose of the project as:

- to provide ~~upto~~ 850 MW of renewable electric capacity under a 20-year power purchase agreement (PPA) to SCE;

ALTERNATIVES Page B.2-9

After considering the objectives set out by the applicant, the Energy Commission has identified the following basic project objectives, which are used to evaluate the viability of alternatives in accordance with CEQA requirements:

- construct and operate an up to 850 MW renewable power generating facility in California capable of selling competitively priced renewable energy consistent with the needs of California utilities;

Comment: Due to the change in the PPA and the need for a considerable amount of renewable energy generation in California to meet legislatively-mandated goals, please revise the Energy Commissions objective as follows:

Additionally, the applicant states the purpose of the project as:

- construct and operate an ~~upto~~ 850 MW renewable power generating facility in California capable of selling competitively priced renewable energy consistent with the needs of California utilities;

ALTERNATIVES Page B.2-13

The boundaries of the Reduced Acreage Alternative are shown in **Alternatives Figure 1**. This area was designed to avoid sensitive cultural resources and areas that were mapped as occupied tortoise habitat (live tortoise and/or active burrows and sign). It also excludes all donated lands and lands acquired by BLM with conservation funds. The boundaries of the Reduced Acreage Alternative do not coincide with the Applicant's Phase I project boundaries.

Comment: The Reduced Acreage Alternative was not developed to maximize the amount of land that could be cleared for Desert Tortoise in accordance with the Project schedule and receipt of ARRA funding. As such, the selection of the Reduced Acreage Alternative could limit the amount of construction that would be able to be performed during 2010 and could jeopardize the Project's receipt of the ARRA funding. The Applicant requests the analysis reflect this possibility.

ALTERNATIVES Page B.2-14

As stated above, the Reduced Acreage Alternative is evaluated in this SA/DEIS because it would substantially reduce the impacts of the project. Additionally, the Reduced Acreage Alternative would allow the applicant to demonstrate the success of the Stirling engine technology and construction techniques, while minimizing impacts to the desert environment. A scaled-down project was suggested in numerous scoping comments.

Comment: Since the scoping period closed, Tessera Solar completed construction of its reference plant, Maricopa Solar, a 1.5 MW power plant located in Arizona. The plant has been in commercial operational since January 15th, 2010, with electricity being transmitted as early as December 23, 2009. Maricopa Solar has demonstrated an availability of approximately 98%. The Applicant believes that the development and success of the Maricopa Solar Project should demonstrate to both Staff and the public that both the SunCatcher technology and the proposed Calico Solar construction techniques are effective and will be applied successfully to utility-scale solar energy production. Please revise the paragraph as follows:

~~As stated above, the Reduced Acreage Alternative is evaluated in this SA/DEIS because it would substantially reduce the impacts of the project. Additionally, the Reduced Acreage Alternative would allow the applicant~~ A scaled-down project was suggested in numerous scoping comments. Tessera Solar has developed Maricopa Solar, a 1.5 MW pilot project in Arizona. With an average 98% availability, it has ~~to~~ demonstrated the success of the Stirling engine technology and construction techniques, while minimizing impacts to the desert environment. Both BLM and CEC staff have visited the Maricopa Solar project. ~~A scaled-down project was suggested in numerous scoping comments.~~

ALTERNATIVES Page B.2-21

The BLM and DOE are preparing a Programmatic Environmental Impact Statement (PEIS) on solar energy development in six states in the western U.S. (Arizona, California, Colorado, New Mexico, Nevada, and Utah) (USDOE 2008). As part of that PEIS, the BLM and DOE identified 24 tracts of BLM-administered land for in-depth study for solar development, some or all of which may be found appropriate for designation as solar energy zones in the future. The public scoping period on the solar energy zone maps ended in September 2009. The Draft PEIS is anticipated to be published in 2010.

Comment: The Applicant requests the following information be added to the end of the paragraph referenced above as follows to enhance the comparison between the Calico Solar Project and the Private Land Alternative:

The BLM and DOE are preparing a Programmatic Environmental Impact Statement (PEIS) on solar energy development in six states in the western U.S. (Arizona, California, Colorado, New Mexico, Nevada, and Utah) (USDOE 2008). As part of that PEIS, the BLM and DOE identified 24 tracts of BLM-administered land for in-depth study for solar development, some or all of which may be found appropriate for designation as solar energy zones in the future. The public scoping period on the solar energy zone maps ended in September 2009. The Draft PEIS is anticipated to be published in 2010. It should be noted that the Calico Solar Project is sited to be within the Department of Interior's proposed Pisgah Solar Energy Study Area (SESA). According to a BLM news release issued June 29, 2009, SESAs include "Only lands with excellent solar resources, suitable slope, proximity to roads and transmission lines or designated corridors, and containing at least 2,000 acres of BLM-administered public lands were considered for solar energy study areas. Sensitive lands, wilderness and other high-conservation-value lands as well as lands with conflicting uses were excluded.

CUMULATIVE SCENARIO

General Comment:

The Applicant has no comments regarding cumulative scenario at this time. The Applicant believes that although the scope of the cumulative scenario may be over-estimated, the analysis provided in each of the resource area sections of the SA/DEIS is geographically specific to that resource and the Applicant's comments are provided within the resource area sections of this document.

AIR QUALITY

General Comment:

The discussion and subsequent conditions seem appropriate for the Calico Solar Project. The majority of the conditions (AQ-1 through AQ-4 and AQ-7) are mitigation measures to control dust that the Applicant includes in the Project. Conditions AQ-5 and AQ-6 are intended to mitigate emissions from diesel construction equipment, and maintenance and operations vehicles.

AIR QUALITY Page C.1-12

Staff describes background air concentrations for use in the modeling and impacts analysis.

Comment: Background air quality data used by staff in air analyses were different than presented in the AFC and subsequent data request responses, although the modeling conclusions do not change.

AIR QUALITY Page C.1-17

Staff provides maximum daily and annual emissions calculations.

Comment: CEC staff re-calculated the daily and annual VOC emissions from the gasoline tank, the resulting emissions are lower than what the Applicant estimated. This re-calculation does not change any significance determination.

AIR QUALITY Page C.1-34

Staff provides annual emissions calculations for the "Avoidance of Donated and Acquired Lands Alternative."

Comment: The Table 17 title states it presents construction emissions, although the Applicant believes this table presents the operations emissions.

AIR QUALITY Page C.1-49

Staff states in **AQ-SC2** "The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with Conditions of Certification AQ-SC3, AQ-SC4, and AQ-SC5. Verification must be at least 60 days prior to the start of any ground disturbance."

Comment: The Applicant requests that verification of the condition be revised from 60 days to 30 days.

AIR QUALITY Page C.1-49

Staff provides construction fugitive dust control measures in **AQ-SC3**.

Comment: The Applicant requests that the verification be revised as follows:

"C. Any other documentation deemed necessary by the BLM Authorized Officer, CPM, and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

1. The following fugitive dust mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by AQ-SC2.

   A. The main access roads through the facility to the power block areas will be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may not include a crushed rock (gravel or similar material with fines removed) top layer, prior to initiating construction in the main power block area, and delivery areas for operations materials (chemicals, replacement parts, etc.) will be paved or treated prior to taking initial deliveries."

   B. All unpaved construction roads and unpaved operation and maintenance site roads, as they are being constructed…"

AIR QUALITY Page C.1-51

Condition of Certification **AQSC-4** states, "The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed:

> Step 1: The AQCMM or Delegate shall direct more intensive application of the existing mitigation methods within 15 minutes of making such a determination.
>
> Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression if Step 1, specified above, fails to result in adequate mitigation within 30 minutes of the original determination.
>
> Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2, specified above, fails to result in effective mitigation within one hour of the original determination. The activity shall not restart until the AQCMM or Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shutdown source. The owner/operator may appeal to the CPM or BLM Authorized Officer any directive from the AQCMM or Delegate to shut down an activity, if the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM or BLM Authorized Officer before that time.

Comment: The Applicant requests, that because of the specific nations of this language that it be presented as verification for Condition AQSC-4 rather than as part of the condition itself.

AIR QUALITY Page C.1-53

AQ-SC6 requires that on-road and off-road vehicles meet the appropriate vehicle emission standards.

Comment: The Applicant requests that the condition text be revised as indicated below:

"The project owner, when obtaining dedicated on-road or off-road vehicles for mirror washing activities and other facility maintenance activities, shall only obtain ~~new~~ model year vehicles that meet California on-road vehicle emission standards or appropriate U.S.EPA/California off-road vehicle emission standards for the model year when obtained."

AIR QUALITY Page C.1-54

Staff states in **AQ-SC7** "The project owner shall provide a site Operations Dust Control Plan including all applicable fugitive dust control measures identified in the verification of AQ-SC3 that would be applicable to reducing fugitive dust from ongoing operations. Plan identifies the dust and erosion control procedures, including effectiveness and environmental data for the proposed soil stabilizer, that will be used during operation of the project and that identifies all locations of the speed limit signs. The performance requirements of AQ-SC4 shall also be included in the Operations Dust Control Plan. At least 60 days prior to the start of commercial operation, the project owner shall submit… for review and approval a copy of the site Operations Dust Control Plan."

Comment: The Applicant requests that verification of the condition be revised from 60 days to 30 days.

AIR QUALITY Page C.1-55

Staff provides an equipment description for Application No. 00010423 (Emergency Generator), as an engine being driven by a Cummins, Model QSL9-G3 NR3, which is an ARB Certified Tier III engine, serial number unknown, Year of manufacture unknown, 399 bhp, Direct Injected, Turbo Charged, operating at a maximum of 1800 rpm, fueled on ARB diesel, with a maximum fuel consumption rate of 19.2 gph, powering an electrical generator Cummins, QSL9-G3 NR3, 399 hp, T2 diesel engine.

Comment: The Applicant suggests that one manufacturer should not be specified, and the general type of diesel engine should instead be listed.

AIR QUALITY Page C.1-57

Staff provides an equipment description for Application No. 00010422 (5,000 gallon Above Ground Non-Retail Gasoline Dispensing Facility), as the gasoline tank being an Oldcastle Aboveground Below-Grade Fuel Vault with Balance Vapor Recovery System and Buried Vapor Return Piping, 5,000 gallon capacity.

Comment: The Applicant suggests that one manufacturer should not be specified, and a general type of gasoline tank should instead be listed.

BIOLOGICAL RESOURCES

General Comment:

In reviewing the conditions of certification proposed by the CEC for other large-scale solar energy Projects, the Applicant is concerned about the inconsistencies between projects. The BLM has undertaken an extensive process to identify lands on which Solar Energy projects may be appropriate and as part of these efforts, the BLM designated certain areas as Solar Energy Study Areas (SESA). The SESA excluded any land identified as a sensitive land, wilderness area or other high conservation value lands. The biological resources conditions of certification proposed for the Calico Solar Project appear to be more onerous that for other solar projects with the same potential impacts. The Applicant believes that the proposed mitigation measures and conditions of certification should be consistent for all solar projects and commensurate with the level of impact. If this standard is followed, we believe many of the additional and more detailed requirements proposed for Calico Solar are unnecessary. In addition, we believe that the wording of many of the conditions should be revised to focus on the actual mitigation desired and move the details of implementation to the verification section.

BIOLOGICAL RESOURCES Page C.2-2

Staff describes special-status plant species with the potential to occur on the Calico Solar Project site.

Comment: The Applicant requests that "special-status plant species" be limited to state and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate species or California Native Plant Society List 1A, 1B, or 2 plants. This approach would be consistent with the special-status plant species analyses for the Ridgecrest, Ivanpah, and Imperial Valley Solar projects, as well as with recent Environmental Impact Reports (EIRs) prepared by San Bernardino County.

BIOLOGICAL RESOURCES Page C.2-5

Staff describes potential effects to Nelson's bighorn sheep.

Comment: The Applicant has proposed to relocate the northern boundary fenceline to avoid impacts to bighorn sheep habitat and the movement of bighorn sheep in the area. The newly proposed fenceline was included in the most recent submittal of the proposed Project layout (submitted March 10, 2010) and included in the SA/DEIS as Project Description-Figure 2. With this modification, the amount of bighorn sheep habitat within the perimeter fence would be reduced from 458.5 acres to 175 acres.

BIOLOGICAL RESOURCES Page C.2-9

Staff describes the regional setting, including land use designations in the vicinity.

Comment: The Applicant notes that the BLM has undertaken an extensive process to identify lands on which Solar Energy projects may be appropriate. As part of these efforts, the BLM designated certain areas as Solar Energy Study Areas. The SESA

excluded any land identified as a sensitive land, wilderness area or other high conservation value lands. The Applicant requests that staff include the following discussion in the "Regional Setting":

"The project site occurs entirely within designated Solar Energy Study Areas (SESA) which the BLM has identified as areas where 'sensitive lands, wilderness, and other high-conservation-value lands were excluded.'" (BLM News Release, July 27, 2009).

BIOLOGICAL RESOURCES Page C.2-21

Biological Resources Table 1 entry for golden eagle (*Aquila chrysaetos*)

Comment: The Applicant requests that the table entry for golden eagle (*Aquila chrysaetos*) be modified to reflect that golden eagle is present as a foraging species onsite. No potential nesting habitat occurs onsite. The nearest known potential nest site is approximately two miles from the northern project boundary.

BIOLOGICAL RESOURCES Page C.2-22 through -24

Staff describes special-status plant species with the potential to occur on the Calico Solar Project site.

Comment: The Applicant requests that "special-status plant species" be limited to state and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate species or California Native Plant Society List 1A, 1B, or 2 plants. This approach would be consistent with the special-status plant species analyses for the Ridgecrest, Ivanpah, and Imperial Valley Solar projects, as well as with recent EIRs prepared by San Bernardino County.

BIOLOGICAL RESOURCES Page C.2-31

Staff describes the results of helicopter surveys for golden eagles conducted in March 2010, based on draft data provided by the Applicant.

Comment: The Applicant's consultant, URS, has re-evaluated one of the photos of incubating raptors and determined that the species was a red-tailed hawk and not an eagle. Only one active eagle nest was detected within a 10 mile radius of the Project site. Please revise the second paragraph as follows:

"Golden eagles were observed flying over the project site during both the 2007 and 2008 surveys (SES 2009aa), and this species is considered present within the project area and was documented in the vicinity of the project (within a 10-mile buffer area). Nesting habitat does not occur onsite, and the observed individuals likely nest in the nearby Cady Mountains and forage over the project area. Information provided by the BLM and the applicant indicate that up to six potential nesting sites occur within a 10-mile radius of the site. To document potential nest sites for golden eagles, the applicant conducted helicopter surveys for this species in March 2010. ~~Two~~ One active nest~~s~~ ~~were~~ was detected by the applicant within a 10-mile radius of the proposed project during the 2010 helicopter surveys."

BIOLOGICAL RESOURCES Page C.2-33

Staff describes the population of bighorn sheep in the Cady Mountains north of the Project area.

Comment: The Applicant has proposed to relocate the northern boundary fenceline to avoid impacts to bighorn sheep habitat and the movement of bighorn sheep in the area. The newly proposed fenceline was included in the most recent submittal of the proposed Project layout (submitted March 10, 2010) and included in the SA/DEIS as Project Description-Figure 2. With this modification, the amount of bighorn sheep habitat within the perimeter fence would be reduced from 458.5 acres to 175 acres. Disturbed areas associated with the detention basins outside the fence would be revegetated with bighorn sheep and desert tortoise forage species.

BIOLOGICAL RESOURCES Page C.2-35

Staff describes the desert kit fox and its protection under Title 14, California Code of Regulations.

Comment: The desert kit fox is a fur-bearing mammal protected from trapping and hunting. The Applicant requests the following revisions to the paragraph:

"The desert kit fox can be found in much of the same habitat as the badger in the Mojave Desert. While the desert kit fox is not listed as a special-status species by the State of California or the USFWS, it is protected under Title 14, California Code of Regulations (Title 14, Section 460) from trapping and hunting. Kit foxes are primarily nocturnal…"

BIOLOGICAL RESOURCES Page C.2-41

Staff describes "Vegetation Impacts."

Comment: The actual area that will need to be re-mowed after reaching a shrub height of eight inches is a very small percentage of the SunCatcher array area, approximately five percent of the total array acreage. Approximately 95 percent of the array acreage will be allowed to regenerate.

Only a portion of the project site requires grading activities. The seed banks will remain intact on the majority of the site where vegetation will remain intact or vegetation will be mowed.

BIOLOGICAL RESOURCES Page C.2-45 to -46

Staff describes impacts to special-status plants.

Comment: The Applicant requests that "special-status plant species" be limited to state and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate species or California Native Plant Society List 1A, 1B, or 2 plants. This approach would be consistent with the special-status plant species analyses for the Ridgecrest, Ivanpah, and Imperial Valley Solar projects, as well as with recent EIRs prepared by San Bernardino County.

The Applicant would like to note that the 2007 and 2008 botanical survey methodology was submitted to and approved by the appropriate agencies prior to commencement of the surveys.

The Applicant also notes that 2010 botanical surveys are currently in process to document the potential presence of additional species during a high rainfall year.

BIOLOGICAL RESOURCES Page C.2-51

Staff describes occurrences of Emory's crucifixion thorn.

Comment: Two additional individuals of Emory's crucifixion thorn were detected during the burrowing owl survey. A total of three specimens are currently known for the site.

BIOLOGICAL RESOURCES Page C.2-53

Staff discusses transplantation and translocation of special-status plant species.

Comment: The Applicant proposes to collect seed and cuttings to conserve the genetic resource of CNPS List 1B and 2 plants. Seeding areas of suitable habitat in undisturbed sites within and adjacent to the project areas would provide some conservation benefit. Uncommon cacti species would be translocated to undisturbed sites to avoid loss of individuals.

BIOLOGICAL RESOURCES Page C.2-55

Staff recommends a 250-foot buffer area surrounding each occurrence of white-margined beardtongue and Emory's crucifixion thorn.

Comment: The Applicant notes that 250 feet is a very large area to buffer known rare plant locations that often are only single individuals. For example, a 250 buffer around the three Emory's crucifixion thorn individuals would exclude nearly 15 acres of land from the Project area. Given the Project layout, this is an onerous measure that results in isolated species occurrences with minimal conservation benefit. A focus on offsite conservation as envisioned by the West Mojave Plan is more practicable and beneficial.

On the Calico project site, the Applicant proposes the condition be modified to install construction fencing around and avoid any ground disturbance in the immediate vicinity of Emory's crucifixion thorn located on the project site. The location of the construction fencing should be specified by the Designated Biologist as part of the verification to the condition.

BIOLOGICAL RESOURCES Page C.2-63 to -64

Staff describes the modified desert tortoise survey protocol.

Comment: The Applicant notes that the desert tortoise survey protocol was reviewed by both CEC and BLM staff prior to implementation and they are consistent with alternative protocols provided by the USFWS.

BIOLOGICAL RESOURCES Page C.2-69

Staff describes desert tortoise mitigation requirements.

Comment: Based on discussions with the applicable agencies, the Applicant understands that in-lieu mitigation would also be appropriate. The Applicant requests the following revision to the discussion:

"To achieve the required level of mitigation to compensate for impacts to desert tortoise in areas north of the BNSF Railroad Energy Commission staff believes that a 3:1 ratio is required. In-lieu mitigation, including the purchase of offsite lands with high habitat value, could also be appropriate. Habitat in this area is more complex, numerous tortoise sign has been detected by the applicant and staff, and the area is contiguous with other occupied, higher quality desert tortoise habitat. This mitigation ratio is consistent with past Energy Commission mitigation requirements for projects with impacts to desert tortoise (for example, High Desert Power Plant Project and the Victorville 2 Hybrid Power Project), as well as staff's recommended mitigation as stated in the Final Staff Assessment for the Beacon Solar Energy Project, and with Incidental Take Permits issued by CDFG for other non-Energy Commission jurisdiction projects in the region.

State Desert Tortoise Mitigation Requirements

To satisfy CDFG's full mitigation standard and to comply with requirements of a State Incidental Take Permit for desert tortoise, the proposed mitigation must meet certain criteria described in Title 14 CCR, Sections 783.4(a) and (b). These criteria include requirements that the proposed mitigation would be capable of successful implementation and that adequate funding is provided to implement the required mitigation measures and to monitor compliance effectiveness of the measures. In order to ensure that the project meets these requirements, the CDFG typically requires and the Energy Commission would require that lands acquired for mitigation purposes for a listed species be managed and protected in perpetuity for the benefit of that species. As described above, the CDFG has recommended the following mitigation strategies that fulfill the state's full mitigation standard for desert tortoise. CDFG requires a 1:1 ratio for the area between the BNSF Railroad and I-40. This mitigation requirement would be achieved through the application of the standard BLM 1:1 ratio and mitigation strategy (i.e., payment of fees) described below. For all other areas a 3:1 ratio is required. This ratio would include both the 1:1 ratio (fee payment) required by the BLM and the 2:1 ratio required by the CDFG and USFWS. In-lieu mitigation, including the purchase of offsite lands with high habitat value, could also be appropriate.

BLM Desert Tortoise Mitigation Requirements

This desert tortoise mitigation approach for the Calico Solar Project must satisfy BLM's policies for lands within the Western Mojave Planning Area (BLM et al. 2005). No law, regulation, policy, or plan would permit BLM to require assessing more than a 1:1 compensation ratio for habitat that lies outside of Desert Wildlife Management Areas (DWMA) such as the Calico Solar Project site. Integrating State and BLM Desert Tortoise Mitigation The Calico Solar Project must integrate the mitigation requirements for desert tortoise that would satisfy policies and requirements of both the CDFG and BLM. The CDFG and BLM have made substantial progress toward developing a mitigation framework that would work for both State and federal agencies, as described

in a July 23, 2009. In-lieu mitigation, including the purchase of offsite lands with high habitat value, could also be appropriate."

BIOLOGICAL RESOURCES Page C.2-101

Staff describes impacts associated with evaporation ponds and states that the Applicant has not proposed any specific measures to reduce or avoid impacts of the ponds to wildlife.

Comment: In the Applicant's response to Data Request 54 of the CEC and BLM Data Request Set 1, Part 1, the Applicant provided the follow evaporation pond management plan:

"During operation of the Project, trace element concentrations (i.e., selenium, arsenic, boron, and sodium) of the evaporation pond water will be monitored quarterly.

a.) Should the water contain substantial concentrations of trace elements, such as selenium or arsenic, a detailed initial monitoring program of the evaporation pond water will be designed and implemented (Bradford et al. 1991). It would be necessary to characterize water trace element content initially and monitor the pond water quarterly for threshold levels of trace elements that may be harmful to wildlife (i.e., selenium, arsenic, and sodium).

b.) Trace elements that have the potential to harm wildlife and that will be monitored include selenium, arsenic, boron, and sodium.

c.) Waterbirds, doves, and seed-eating songbirds are most at risk from drinking water having high concentrations of trace elements and sodium. The species detected onsite listed below are included in these at-risk groups of birds. The species are presented in Table DR55-1 below.

Table DR55-1
Species Detected Onsite

Scientific Name	Common Name
Amphilspiza bilineata	black-throated sparrow
Amphispiza belli	sage sparrow
Callipepla californica	California quail
Carpodacus mexicanus	house finch
Junco hyemalis	dark-eyed junco
Spizella passerina	chipping sparrow
Zenaida macroura	mourning dove
Zonotrichia leucophrys	white-crowned sparrow

d.) Remedial actions that could be taken if the ponds become a hazard for wildlife include frequent decanting of the pond water to increase the percent solids and reclaim some of the water, and/or covering the evaporation pond to minimize wildlife access. The cover would be designed to minimize

attraction of predator and scavenger species. Wildlife access could also be prevented by constructing perimeter fences and installing wire mesh screens 5-10 feet above and over the ponds. The mesh screens would be designed to ensure successful exclusion of wildlife, with focus on preventing smaller wildlife from being trapped by the pond covers and waterfowl from becoming more susceptible to predation.

e.) Events that might trigger implementation of the aforementioned remedial actions include results of the quarterly monitoring of the pond water that suggest a high concentration of harmful trace elements or detection of wildlife mortality directly linked to the pond water."

References:

Bradford, D.F., L.A. Smith, D.S. Drezner, and J.D. Shoemaker. 1991. Minimizing contamination hazards to waterbirds using agricultural drainage evaporation ponds. Environmental Management 15 (6): 785-795.

Gordus, A.G., H.L. Shivaprasad, and P.K. Swift. 2002 Salt toxicosis in ruddy ducks that winter on an agricultural evaporation basin in California Journal *of Wildlife Diseases*, 38(1): 124-131.

Stolley, D.S. and C.U. Meteyer. 2004. Peracute Sodium Toxicity in Free-ranging Black-bellied Whistling Duck Ducklings. *Journal of Wildlife Diseases*, 40(3): 571-574.

Windingstad, R.M., F.X. Kartch, R.K. Stroud, and M.R. Smith. 1987. Salt Toxicosis in Waterfowl in North Dakota. Journal of Wildlife Diseases, 23(3):443-446.

BIOLOGICAL RESOURCES Page C.2-157

In the Verification for **BIO-1**, staff states "If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM and BLM's Authorized Officer at least ten working days prior to the termination or release of the preceding Designated Biologist."

Comment: Applicant will need more time than stated in the condition to replace a Designated Biologist should the need arise. Applicant requests that the condition be revised from "ten working days prior to termination or release" to "as soon as possible."

BIOLOGICAL RESOURCES Page C.2-158

Staff proposes Condition **BIO-2** regarding "Designated Biologist Duties," that include:

"Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way."

Comment: The Applicant requests that it be possible to train other workers through WEAP for the daily inspection activities in the Active Construction Area. Applicant suggests revising condition to state that other workers trained through WEAP may make the daily inspection activities and report to the Designated Biologist.

BIOLOGICAL RESOURCES Page C.2-159

Staff provides verification for **BIO-3**.

Comment: The Applicant requests that the text of the verification be revised as follows:

"If additional biological monitors are needed during construction, the specified information shall be submitted to BLM's Authorized Officer and the CPM for approval at least ~~ten~~ five days prior to their first day of monitoring activities."

BIOLOGICAL RESOURCES Page C.2-164 to -168

Staff provides Condition of Certification **BIO-8.**

Comment: The Applicant requests that the underlined portions of each numbered item remain as part of the condition, and that the text that follows each underlined portion be moved to the verification.

BIOLOGICAL RESOURCES Page C.2-164

Condition of Certification **BIO-8 (1)** Limit Distubance Areas and Perimeter Fencing states:

"Fencing for the proposed retention basins shall be removed after their construction to provide passage and forage opportunities for Bighorn sheep and to facilitate movement of desert tortoise."

Comment: The Applicant would like to clarify that in order to reduce impacts to Bighorn sheep and desert tortoise movement, the detention basins will not be within the permanent perimeter fencing. During construction, the area will be fenced with desert tortoise exclusion fencing and this fencing will be removed after construction of the detention basins is complete.

BIOLOGICAL RESOURCES Page C.2-166

Condition of Certification **BIO-8 (9)** Avoid Wildlife Pitfalls

Comment: The Applicant requests the following text revision:

"a. Backfill Trenches. At the end of each work date, the Designated Biologist shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled~~. If backfilling is not feasible,~~ or all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access, or fully enclosed with desert tortoise-exclusion fencing. All trenches, bores, and other excavations outside the areas permanently fenced with desert tortoise exclusion fencing shall be inspected periodically~~, but no less~~

~~than three times,~~ throughout the day and at the end of each workday by the Designated Biologist or a Biological Monitor."

BIOLOGICAL RESOURCES Page C.2-167 to -168

Condition of Certification **BIO-8 (16)** Control and Regulate Fugitive Dust

Comment: The Applicant requests the following text revision:

"b. Water the disturbed areas of the active construction sites ~~at least three times per day and more often~~ as needed if uncontrolled fugitive dust is noted."

To be consistent with Condition **AQ-SC3**, the Applicant requests the following text revision:

"c. Enclose, cover, water twice daily, and/or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a 5% or greater silt content when such piles are going to remain inactive for more than 10 days."

BIOLOGICAL RESOURCES Page C.2-168 to -170

Staff provides Condition of Certification **BIO-9.**

Comment: The Applicant requests that the introductory paragraph and underlined portions of each numbered item remain as part of the condition, and that the text that follows each underlined portion be moved to the verification.

BIOLOGICAL RESOURCES Page C.2-168

Staff proposes Condition **BIO-9** (2) Monitoring During Grading.

Comment: The Applicant requests the following revisions:

"The Designated Biologist or Designated Biological Monitor is to remain onsite daily while grubbing and grading are taking place to avoid or minimize take of listed species, to check for compliance with all impact avoidance and minimization measures, and to check all exclusion zones to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones. Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to BLM's Authorized Officer and the CPM."

BIOLOGICAL RESOURCES Page C.2-169 to -170

Staff proposes Condition of Certification **BIO-9** (7) Notification of Injured, Dead, or Relocated Listed Species.

Comment: The Applicant requests the following revisions:

"Immediately notify in writing if the project owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods specified in the conditions of certification.

In the event of a sighting in an active construction area (e.g., with equipment, vehicles, or workers), injury, kill, or relocation of any listed species, the CPM, BLM, CDFG, and USFWS shall be notified immediately by phone by the Designated Biologist or Biological Monitor. Notification shall occur no later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine if further actions are required to protect listed species. Written follow-up notification via FAX or electronic communication shall be submitted to these agencies within ~~two~~ five calendar days of the incident and include the following information as relevant:

a.) Injured Desert Tortoise. If a desert tortoise is injured as a result of project-related activities during construction, the Designated Biologist shall immediately take it to a CDFG-approved wildlife rehabilitation and/or veterinarian clinic. Any veterinarian bills for such injured animals shall be paid by the project owner. Following phone notification as required above, the CPM, BLM, CDFG, and USFWS shall determine the final disposition of the injured animal, if it recovers. Written notification shall include, at a minimum, the date, time, location, circumstances of the incident, and the name of the facility where the animal was taken.

b.) Desert Tortoise Fatality. If a desert tortoise is killed by project-related activities during construction or operation, or if a desert tortoise is otherwise found dead, submit a written report with the same information as an injury report. These desert tortoises shall be salvaged according to guidelines described in the Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoise (Berry 2001). The project owner shall pay to have the desert tortoises transported and necropsied. The report shall include the date and time of the finding or incident."

BIOLOGICAL RESOURCES Page C.2-171 to -172

Staff provides Condition of Certification **BIO-10.**

Comment: The Applicant requests that the first paragraph and underlined portions of each numbered item remain as part of the condition, and that the text that follows each underlined portion be moved to the verification. The specifics of the revegetation plan will be provided and approved by the applicable agencies prior to construction.

BIOLOGICAL RESOURCES Page C.2-171

Staff provides Condition **BIO-10 (2)** Topsoil Salvage.

Comment: Only a portion of the project site requires grading activities. The seed banks will remain intact on the majority of the site where vegetation will remain intact or vegetation will be mowed. The Applicant requests that the text be revised as follows:

"Topsoil Salvage. Topsoil shall be stockpiled from the project site for use in revegetation of the disturbed soils, as necessary and feasible. The topsoil excavated shall be segregated, kept intact, and protected, under conditions shown to sustain seed bank viability. The upper 1 inch of topsoil which contains the seed bank shall be scraped and stockpiled for use as the top-dressing for the revegetation area, as necessary and feasible. An additional 6 to 8 inches of soil below the top 1 inch of soil shall also be

scraped and separately stockpiled for use in revegetation areas, as necessary and feasible. Topsoil shall be replaced in its original vertical orientation following ground disturbance, ensuring the integrity of the top one inch in particular. All other elements of soil stockpiling shall be conducted as described on pages 39-40 of Rehabilitation of Disturbed Lands in California (Newton and Claassen 2003).

BIOLOGICAL RESOURCES Page C.2-174 to -179

Staff provides Condition of Certification **BIO-12** Special Status Plant Impact Avoidance and Minimization.

Comment: The Applicant does not understand the intent of many items included in BIO-12 and therefore cannot meaningfully comment on these measures. The Applicant would like to discuss the Condition with the appropriate staff during the workshop.

The Applicant proposes that the Condition be written similarly to that required of the Palen Solar Project:

"**BIO-19** The Project owner shall finalize and implement the draft Special-Status Plant Species Impact Avoidance and Mitigation Plan (AECOM 2010a, DR-BIO-98) that meets the approval of BLM's Authorized Officer and the CPM."

BIOLOGICAL RESOURCES Page C.2-180

Staff provides Condition of Certification **BIO-13** Mojave Fringe-Toed Lizard Mitigation.

Comment: The Applicant does not understand the intent of many items included in **BIO-13** and therefore cannot meaningfully comment on these measures. The Applicant would like to discuss the Condition with the appropriate staff during the workshop.

BIOLOGICAL RESOURCES Page C.2-181 to -184

Staff provides Condition of Certification **BIO-15** Desert Tortoise Clearance Surveys and Exclusion Fencing.

Comment: The Applicant requests that the introductory paragraph and underlined portions of each numbered item remain as part of the condition, and that the text that follows each underlined portion be moved to the verification.

BIOLOGICAL RESOURCES Page C.2-182

Condition of Certification **BIO-15 (1)** Desert Tortoise Exclusion Fence Installation.

Comment: The Applicant would like to revise the following text to include a clarification: "To avoid impacts to desert tortoises, permanent desert tortoise exclusion fencing shall be installed along the permanent perimeter security fence and temporarily installed along the applicant's utility corridors."

BIOLOGICA L RESOURCES Page C.2-185

Staff provides the verification for Condition of Certification **BIO-16**.

Comment: The Applicant requests the following revision:

"Within ~~30~~ 90 days after initiation of relocation and/or translocation activities, the Designated Biologist shall provide to BLM's Wildlife Biologist and the CPM for review and approval, a written report identifying which items of the Plan have been completed, and a summary of all modifications to measures made during implementation of the Plan."

BIOLOGICAL RESOURCES Page C.2-185

Staff provides Condition of Certification **BIO-17 Desert Tortoise Compensatory Mitigation**.

Comment: The Applicant understands that in-lieu mitigation, including the purchase of offsite lands with high habitat value, could also be appropriate.

For donated and acquired lands, the Applicant notes that there is no biological or other rationale included in the staff's analysis for requiring 3:1 mitigation in addition to the baseline mitigation requirements. The mitigation requirements applied to donated and acquired lands should be at a 1:1 ratio. There is also no justification provided for state mitigation in addition to the 3:1 baseline mitigation that is being proposed.

BIOLOGICAL RESOURCES Page C.2-189

Staff provides Condition of Certification **BIO-18 Raven Monitoring, Management, and Control Plan**.

Comment: As written, the condition is open ended as to the cost. There are also no criteria for evaluating the reasonableness on the costs of any potential plan. While the Applicant is willing to work with the USFWS and pay its fair share on this effort, it believes the costs should be clearly understood and a cap of $50,000 be placed on the in-lieu fee.

BIOLOGICAL RESOURCES Page C.2-190

Staff provides Condition of Certification **BIO-19 Pre-construction Nest Surveys and Impact Avoidance Measures for Migratory Birds**.

Comment: The Applicant requests the following text revisions:

"Pre-construction nest surveys shall be conducted if ~~construction activities~~ vegetation clearance will occur within 500-feet of potential nesting sites during the breeding period (from February 1 through August 15)."

BIOLOGICAL RESOURCES Page C.2-191

Staff provides Condition of Certification **BIO-20 Pre-construction Surveys for Golden Eagles**.

Comment: The Applicant requests the following text revisions to apply to golden eagles in the vicinity with on slopes facing the project site:

"Pre-construction nest surveys for Golden Eagles shall be conducted annually if construction activities will occur within 500-feet of potential nesting sites during the breeding period (from February 1 through August 15)."

"3. If active nests are detected during the survey, a ~~0.5~~ 0.2-mile no-disturbance buffer zone shall be implemented within the project boundaries if the active nest site is within the line of sight of the project area."

BIOLOGICAL RESOURCES Page C.2-194

Staff provides Condition of Certification **BIO-24 Bighorn Sheep Mitigation**.

Comment: The Applicant requests the following text revisions:

"To compensate for project impacts to Nelson's bighorn sheep the project owner shall finance~~, construct, and manage~~ the construction and management of an artificial water source (guzzler) in the eastern part of the Cady Mountains for the life of the project."

BIOLOGICAL RESOURCES Page C.2-197

Staff provides Condition of Certification **BIO-27 Streambed Impact Minimization and Compensation Measures**.

Comment: The Applicant does not understand the intent of many items included in **BIO-27** and therefore cannot meaningfully comment on these measures. The Applicant would like to discuss the Condition with the appropriate staff during the workshop.

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES

General Comment:

The Applicant is concerned that the SA/DEIS relies on the Programmatic Agreement to resolve adverse effects/significant impacts, but it does not consistently show how and when this will occur. The Applicant requests that these edits be evaluated and included in the SSA/FEIS.

Archaeologists for the Applicant have completed the site revisits for the remaining 75% of sites within the APE at the direction of BLM and CEC. The 75% site revisits were completed March 1, 2010. The Revised Class III Cultural Resources Technical Report , inclusive of 100% site revisits and data responses will be published in May 2010.

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-5

Staff describes the "Evaluation of Historical Significance Under CEQA"

Comment: The Applicant verified with the County on April 13, 2010 that the County has not identified any historically significant resources within the Project vicinity. The Applicant requests the following revision to the last sentence of the first paragraph:

"The term, "historical resource," therefore, indicates a cultural resource that is historically or locally significant and eligible for listing in the CRHR."

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-53

Previously Recorded Cultural Resources

Staff states that the record search identified 78 cultural resources previously recorded in the Project APE.

Comment: The result of the record search identified 79 previously recorded cultural resources within the search radius not 78. Please delete the text below and revise the corresponding table 3 (see following comment).

"A total of ~~78~~ 79 cultural resources have been previously recorded in the Project APE and 1-mile search radius (Table 3). Forty-two of these previously recorded resources are archaeological sites, 28 are prehistoric isolates, and nine are historic-era resources (two of which are built-environment). Sixteen of the cultural resources occur within the Project APE (1 isolate, 13 prehistoric sites, and 2 historic sites); 63 occur within the 1-mile search radius (32 isolates, 29 prehistoric, and 2 historic sites), and three sites occur in both the APE and the 1-mile search radius (1 prehistoric site, and 2 historic sites) ~~(Confidential Appendix E, Cultural Resources)~~."

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-54

Cultural Resources Table 3.

Comment: There is an error in Table 3 starting with isolate 36-064410. Please use revised Table 3 provided below with the correct results of the record search.

Cultural Resources Table 3
Previously Recorded Cultural Resource Sites in the Project APE and One-Mile Radius

Primary #	Trinomial	Cultural Resource Description	Dimensions
36-061410		Black on white pottery sherd	NA
36-061415		Isolated jasper flake	NA
36-061416		Two isolated chalcedony flakes	NA
36-061417		Isolated chalcedony flake	NA
36-061420		Isolated chalcedony flake and isolated rhyolite flake	NA
36-061421		Isolated jasper flake	NA
36-061423		Isolated cryptocrystalline silicate flake	NA
36-061424		Isolated white cryptocrystalline silicate flake	NA
36-061425		Isolated white cryptocrystalline silicate flake	NA
36-061426		Isolated red cryptocrystalline silicate flakes	NA
36-061427		One isolated red cryptocrystalli ne silicate flake tool and one red cryptocrystalline silicate flake	NA
36-061428		Two isolated cryptocrystalline silicate flakes	NA
36-061429		Isolated cryptocrystalline silicate flake	NA
36-061430		Isolated cryptocrystalline silicate flake	NA
36-061431		Isolated cryptocrystalline silicate flake	NA
36-061432		Isolated cryptocrystalline silicate flake	NA
36-061433		Two isolated cryptocrystalline silicate flakes	NA
36-061434		Isolated cryptocrystalline silicate flake	NA
36-061435		Isolated cryptocrystalline silicate flake	NA
36-061436		Isolated cryptocrystalline silicate flake	NA
36-061459		Three isolated cryptocrystalline silicate flakes	NA
36-061460		One multidirectional core and one flake of same material	NA
36-061461		One red cryptocrystalline silicate flake	NA
36-064406		Isolated chert flake and one piece of angular waste	NA
36-064407		Two isolated chalcedony flakes	NA
36-064408		Isolated red jasper flake fragment	NA
36-064409		Isolated agate bifacial core	NA
36-064410		One isolated re d jasper fla ke and a se cond f lake with dorsal scars	NA
	CA-10649H	Small lithic test and quarry area with flakes and one core	NA
36-001585	CA-SBR-1585	Also known as EM-266, this is a Petroglyph site	NA

Primary #	Trinomial	Cultural Resource Description	Dimensions
	CA-SBR-1793H	Pottery sherds, one awl, two bifaces	NA
CA-SBR-1889		Lithic scatter containing metates, projectile p oints and debitage	NA
CA-SBR-1893		Also known as SBCM 674, t his site consists of two projectile points, scrapers, flakes, and bone wh ich were collected at time of recordation	NA
CA-SBR-1905		Jasper quarry with sparse sca tters consist ing of flakes, bifaces and scrapers	NA
	CA-SBR-1907	Large quarry area containing debitage, cores, and bifaces	NA
CA-SBR-1908		Low density, sparse cobble testing/ quarry a rea consisting of cryptocrystalline silicate, basalt and rhyolite materials.	NA
CA-SBR-1988		Flaking stat ions with at least 11 loci a nd two cleared circles	NA
CA-SBR-2330	H	Lavic Chinese Labor Camp with Glasgow pott ery along with hearths recorded next to th e Santa Fe Railroad near Lavic Siding.	NA
CA-SBR-2910	H	Also known as National Old Trails Highway 66 / SM364. This is an early 20th century two lane paved road at Mile Post 183 where it becomes a graded dirt road.	NA
CA-SBR-3515		Two rock rings, it was not determined if they we re historic or prehistoric	NA
CA-SBR-3516		Lithic quarry sit e containing fla kes and cores of chert material and historic trash scatter	NA
	CA-SBR-3076	Two rock circles made of volcanic basalt	NA
	CA-SBR-4307	Several lithic scatters	NA
	CA-SBR-4308	Two lithic reduction stations that contain flakes and cores	NA
CA-SBR-4309		Lithic scatter with a lithic reduction station. Possible basalt and andesite tools present on site.	NA
CA-SBR-4405	H	A booth and cargo loading platform located where the railroad splits.	NA
CA-SBR-4558	H	Also known as SBCM 4918, This site is a 1930s and 1940s mangane se mining area containing a g alvanized steel structure, mill tail ings, mine and hist oric trash scatters	NA
CA-SBR-4681		Lithic scatter	NA
CA-SBR-5600		Lithic reduction station	NA
	CA-SBR-5598	Large cobble test/quarry area	NA
	CA-SBR-5599	Lithic scatter and rock rings	NA
	CA-SBR-5794	Cobble quarrying and lithic reduction area	NA

Primary #	Trinomial	Cultural Resource Description	Dimensions
CA-SBR-5795		Lithic scatter originally containing 100s of flakes, several biface fragments and cores	NA
	CA-SBR-5796	Low density lithic scatter containing flakes and cores	NA
	CA-SBR-5797	Low density lithic scatter with dozens of flakes and cores	NA
CA-SBR-6511		Very large low density lithic scatter containing debitage and shatter	NA
CA-SBR-6512		Also known as MP-26, this is a small low density lithic scatter that contains debitage	NA
CA-SBR-6513		Also known as MP-27, this is a single segregated lithic reduction locus containing approximately 15 felsite flakes total	NA
	CA-SBR-6517	Small flake scatter with one core and eight flakes	NA
CA-SBR-6518		Small cobble test and quarry area with two segregated reduction Loci and debitage	NA
CA-SBR-6519		A single segregated reduction locus made up of approx. four flakes	NA
CA-SBR-6520		Small cobble test and quarry area with one segregated reduction locus and debitage	NA
CA-SBR-6521		Low density cobble test and quarry area with debitage, cores, bifaces, and blanks	NA
CA-SBR-6522/ H		Low density cobble test and quarry area with debitage, cores, bifaces, and blanks	NA
CA-SBR-6525		Also known as MP-84, this is a low density lithic scatter that contains one lithic reduction locus, flakes, and debitage	NA
CA-SBR-6526		Also known as MP-85, this site contains two adjacent lithic reduction loci and flakes	NA
CA-SBR-6527		Also known as MP-86, this site is a small low density flaked stone scatter	NA
	CA-SBR-6528	Also known as MP-87, this is a small density lithic scatter	NA
	CA-SBR-6693H-NRHP	Railroad Line built in 1883 for the Atlantic and Pacific Railroad Co., associated artifacts include track and train parts, railroad tableware, and insulator glass fragments	NA
CA-SBR-6786		Cobble quarrying area comprised of approx. 200 flakes and 4 cores	NA
	CA-SBR-6836	Small lithic scatter containing approx. six jasper flakes	NA
	CA-SBR-6895	Single segregated reduction locus containing flakes	NA
	CA-SBR-6896	Small, sparse lithic scatter consisting of 13 flakes, no tools	NA

Primary #	Trinomial	Cultural Resource Description	Dimensions
CA-SBR-6897		Small moderately dense lithic scatter consisting of approx. 20 cryptocrystalline flakes.	NA
CA-SBR-6898		Cryptocrystalline lithic scatter with over 50 flakes and four bifaces.	NA
CA-SBR-7114		Moderately dense lithic scatter with 51 crypto crystalline flakes representing all stages of reduction.	NA
	CA-SBR-7115	Very sparse lithic scatter along lava ridges	NA
CA-SBR-7116		Possible pot hu nter deposit, se veral flaked lithics in a small cluster	NA

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-79

Staff describes the results of the cultural resource field inventory.

Comment: Please revise the total counts of archaeological resources identified and recorded in the Class III intensive pedestrian survey (April 2009) within the Project APE as shown in the text below:

"The URS archaeological team identified a total ~~401~~ 391 archaeological resources in the project APE as part of the initial Class III archaeological field survey, including 248 isolates and ~~139~~ 143 archaeological sites (9 of which were updates) within the Calico Solar Project APE. Of the ~~139~~ 143 new and updated archaeological sites, 128 are prehistoric, 11 historic, and 4 multi-component. Resources listed and described below in Table 5 are newly identified."

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-87

Staff describes the re-recordation of a 25 percent sample of archaeological sites in the Project APE.

Comment: At the direction of the BLM and CEC, URS archaeologist completed the remaining 75% site revists and updates March 1, 2010. The Revised Class III Cultural Resources Technical Report , inclusive of 100% site revisits and data responses will be published in May 2010. The Applicant suggests revising the text as shown below:

"Based on the results of the original 20% site revisit, LSA was then subsequently tasked by BLM-Barstow and the Energy Commission to design a field strategy for the rerecordation of an approximately 25% sample of the sites in the APE. As requested by BLM-Barstow and Energy Commission staff, the sample of sites identified for the rerecordation effort were randomly selected and stratified according to landform by LSA from the 139 archaeological sites initially identified by URS (Glenn and Nixon 2009). The intent of the field strategy developed by LSA was to provide a framework in which the resources could be adequately characterized and documented. URS was then tasked with re-recording the 25% sample of sites in accordance with the field strategy

developed by LSA. ~~It is intended that the remaining 75% of the sites within the APE would also be subject to re-recordation; however, due to time constraints, the remaining 75% re-recordation effort of sites in the APE will be addressed as part of the terms and conditions of the Programmatic Agreement.~~ Archaeologists for the Applicant have completed the site re-visits for the remaining 75% of sites within the APE at the direction of BLM and CEC. The 75% site revisits were completed March 1, 2010. The Revised Class III Cultural Resources Technical Report , inclusive of 100% site revisits and data responses will be published in May 2010."

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-98

Staff describes National Old Trails Road [CA-SBR-2910H].

Comment: The archaeologist for the Applicant does not recommend site CA-SBR-2910H (National Old Trails Road/Rte 66) to be a "contributing resource" to the eligibility of the existing historic property (Route 66). Additionally, there is no evidence to support the statement that site CA-SBR-13064 (RSS-017) is a rest stop associated with the existing segments of National Old Trails Road occurring within the Project APE. The statement that this site is a rest stop is unsupported in the Class III intensive pedestrian survey technical report. Given the available data from the recent site revisits and additional research (see references below) there remains insufficient data to definitively identify or classify site RSS-017 in a specific historic or prehistoric function. The Applicant suggests deleting this statement throughout the document (see suggested revisions below).

"The eight segments of National Old Trails Highway in the Project APE are isolated, segmented, in generally poor condition, and retain little integrity. Research did not reveal any associations with distinctive or significant person, event, persons, design, or construction, and all data potential has been accounted for during the recordation process. These segments of National Old Trails Highway in the Calico Project APE is a typical example of an early automobile roadway and data potential is considered exhausted through recordation. Therefore, the eight segments of National Old Trails Highway within the APE are recommended as ~~contributing~~ non-contributing elements to the existing historic property for the National Register and ~~as~~ not a historic resource pursuant to California Register under any of the criterion for eligibility. It is ~~also~~ recommended that additional research address the gravel mining associated with the construction of the National Old Trails Road and ~~at the possible associated rest stop at site RSS-017~~ sites identified along this road."

References

Civilian Conservation Corps Legacy, 2004. California. Electronic document, http://www.ccclegacy.org/ camps_california.htm, accessed 12 February 2010.

Hatheway, Roger, 2001. *The Late "Prehistory" of Route 66 in the California Mojave Desert*. On file, Archaeological Research Center, San Bernardino County Museum, Redlands, California.

Robinson, John W., 2005. *Gateways to Southern California: Indian Footprints, Horse Trails, Wagon Roads, Railroads, and Highways*. Big Santa Anita Historical Society, Arcadia, California.

Thompson, Richard D., 2001. **Sagebrush Annie and the Sagebrush Route.** Desert Knolls Press, Apple Valley, California.

Personal communication with Claira Beth Pinell (long time Barstow resident)

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-102

Staff describes the Early Twentieth Century Gravel Mining Landscape.

Comment: Archaeologists for the Applicant reviewed the proposed Early Twentieth Century Gravel Mining Landscape using guidelines of the National Park Service and the State of California. The Class III intensive pedestrian survey technical report, data responses for the 25% sample, and recent completion of the remaining 75% site re-visits do not support or recommend the proposed gravel mining district. Archaeologists for the Applicant suggest deleting the text below and replacing with the discussion provided.

~~"Staff proposes the designation of a historical archaeological landscape, an industrial landscape that represents the apparent early twentieth century gravel mining operation in the south-central portion of the project area and that it apparently associated with the construction of the National Old Trails Road. The landscape, on the basis of the results of the 25% sample of the cultural resources inventory for the proposed action, presently includes the area that exhibits the distinctive pattern of scarification that was the result of this operation and the historical archaeological component of RSS-017, an apparent early twentieth century rest area alongside the National Old Trails Road. The further inventory of potential contributing elements to the proposed landscape, refinements to the recordation of those elements, and determinations on the historical significance of the landscape as a whole and of the individual contributing elements, both as contributing elements and as stand-alone archaeological resources would be made under provisions in the proposed PA.~~

A grouping of cultural resources and their setting must be historically or functionally related and visually convey a historical theme or environment to be considered eligible for listing in the NRHP as a landscape. In addition, the landscape must possess sufficient historical significance and integrity. The proposed location of gravel mining activity in the Project area may display a functional uniformity if their association with this specific activity (gravel mining) can be clearly determined. Research and site revisits have found no conclusive data to determine the age of ground disturbances or associated features (surface mining) along the National Old Trails Road that occur within the Project APE. In addition to the National Old Trails Road, within the Project area there have also been several (historic and modern) past projects that may be attributed to the surface disturbance found within the APE, such as the BNSF railroad and three pipelines within the same area as the disturbances. San Bernardino County was responsible for route planning at the time the National Old Trails Road was designated, and the route may or may not have been professionally engineered. No historical as-built drawings of the highway have been located, and thus, a direct association between

surface disturbances remains ambiguous. Modern surface prospects also occur in the Project APE. These modern prospects are found on modern maps (1982 U.S.G.S. 7.5-minute topographic quadrangles), and are absent from historic maps (1955 U.S.G.S. 15-minute quadrangles).

In addition, the majority of surface prospects lack diagnostic material (documentation and/or datable cans/refuse). Therefore, because of the various types of disturbances within the Project APE the activity lacks sufficient data to be directly attributed directly to gravel mining for the construction and maintenance of National Old Trails Road. Additionally, the surface mining activity cannot be clearly linked with the early twentieth century period because of the number of historic and modern ground disturbing related projects that have taken place in this area overtime, the lack of directly associated temporally diagnostic artifacts, and absence of historical documentation providing location and time period for this specific activity.

The boundaries of a district or landscape "must be a definable geographic area that can be distinguished from surrounding properties by changes such as density, scale, type, age, style of sites, buildings, structures and objects, or by documented differences in patterns of historic development or associations" (U.S. Department of the Interior, National Park Service 2002:6).

While the spatial relationship between historic road and surface gravel mining disturbance is distinctive, the utilization of the surface for stone resources, within the Project APE cannot be well-bounded. Defining an early twentieth century gravel mining district associated with the portions of the National Old Trails Road that occur within the Project APE would be arbitrary for a road that ran through Illinois, Missouri, Kansas, Texas, New Mexico, Arizona, and California. Additionally, the proposed gravel mining landscape cannot be distinguished from similar landscapes that occur throughout this portion of the Mojave Desert. Human-caused disturbance of desert pavement is not unique to the Project area nor are the reasons for such disturbances unique, therefore it is not possible to effectively separate the effects of gravel mining for road construction from those of gravel mining for various other reasons. The desert pavement is ubiquitous in desert environments and has provided a source of easily accessible construction material throughout history. Such areas were also frequently mined in search of valuable ores or other materials in search of a profit. Furthermore, similar historic disturbances of the pavements occur throughout Mojave Desert as well as other Southern California deserts. Like the sources in the Project area, these were utilized throughout historic and modern times. Thus, the proposed historic gravel mining landscape in the Project area is not sufficiently bounded nor distinguished from surrounding areas to meet NRHP standards.

Additionally, the recognition of an historic district is based in an understanding of its historical context so that a historical relationship can be demonstrated between its elements. The elements of the proposed district cannot be accurately dated. Only a handful of temporally diagnostic artifacts have been recorded among the areas with surface disturbance and these cannot directly be attributed to the surface disturbance activity. Without an accurately defined temporal context, it cannot be demonstrated that the elements of the proposed district are historically related.

Without a clear temporal setting, it is also unlikely that the proposed gravel mining

district would have the distinctive or significant qualities required for eligibility. First of all, a fundamental requirement of the registers is that a period of significance be identified for the district or landscape. Without dateable material, the proposed historic gravel mining landscape does not have the distinctive or significant qualities required for eligibility under Criterion C/3. Additionally, both Criteria A/1 and B/2 require information that could link the landscape with particular events and trends, or with historically significant people. Without information about who used these sites, and when they were used, neither of these criteria can be met.

Finally, the lack of datable material also severely limits the utility of these areas of disturbances to address important research issues. Data from the mechanical or manual scraping, clearing, raking, and size sorting of desert pavement materials can only address two, fairly insignificant questions: what surface materials were collected for possible use in construction of the National Old Trails Highway or other historic roads in the area; and where do these locations occur within the Project APE? These are insignificant because: (1) the desert pavement material is well-documented and obvious, and (2) the location of these activities has been thoroughly documented through the Class III intensive pedestrian survey.

In conclusion, components of the proposed district would need to be well dated to provide information about trends in historic gravel mining and technological changes through time. Whereas the surface disturbance noted within the Project area may be indirectly associated with historic gravel mining in the Project area, this indirect relationship does not provide sufficient information to link it with a historic time period or function. Therefore, surface disturbances (gravel mining) and associated features within the Project APE do not have sufficient data potential to be nominated as a historic district or to qualify for listing under Criterion D/4."

References Cited

Railway Preservation Resources

2006 *A Survey of Railway Cars and Locomotives on the National Register of Historic Places*. Electronic document: http://www.railwaypreservation.com/NationalRegister.htm, accessed 6 November 2009.

U.S. Department of the Interior, National Park Service.

2002 *Bulletin 15: How to Apply the National Register Criteria for Evaluation*. U.S. Department of the Interior, National Park Service, National Register of Historic Places, Washington, D.C.

Civilian Conservation Corps Legacy, 2004. California. Electronic document, http://www.ccclegacy.org/ camps_california.htm, accessed 12 February 2010.

Hatheway, Roger, 2001. *The Late "Prehistory" of Route 66 in the California Mojave Desert*. On file, Archaeological Research Center, San Bernardino County Museum, Redlands, California.

Robinson, John W., 2005. *Gateways to Southern California: Indian Footprints, Horse Trails, Wagon Roads, Railroads, and Highways*. Big Santa Anita Historical Society, Arcadia, California.

Thompson, Richard D., 2001. **Sagebrush Annie and the Sagebrush Route.** Desert Knolls Press, Apple Valley, California.

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-116

Staff discusses the identification and assessment of indirect impacts and recommended mitigation.

Comment: The Calico Solar Project APE does not have an "exclusion area" and no "cremation sites" were identified or previously reported in the Project APE and surrounding area to date. Please revise the text with the suggestions indicated below.

"There is a potential for indirect effects to sites in the ~~exclusion area~~ project buffers especially due to increased traffic during construction and/or visual effects ~~as described above for cremation sites.~~ It is also possible that project area grading could increase the amount of sheet washing and water runoff during heavy rainfall and indirectly cause damage to sites outside the project area. Consideration of a monitoring plan for those sites would be the foundation for mitigation, and additional measures could be developed through the PA consultation process."

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-130-131

Staff provides **C.3.8.3 MITIGATION.**

Comment: The Applicant suggests deleting the Mitigation and Conclusion Sections for potential future transmission line projects, as shown below and including additional recommended text. The recommended changes reflect that appropriate mitigation measures for cultural resources associated with the SCE project are unknown at this time, and that these mitigation measures could and should be determined by the appropriate agencies during the environmental analysis of the SCE project.

~~During the CEQA/NEPA environmental permitting process, cultural resources sites would likely be identified and then would be avoided by vehicles and construction activities. After the construction area has been identified and after work for Section 106 has been completed, archaeological sites should be evaluated for eligibility for listing in the NRHP or California Register of Historic Resources (CRHR) if it appears that any would be affected by the project. Sites that have been evaluated as "not eligible" would warrant no further consideration and avoidance would not be required. Sites that have not been evaluated and sites that are considered "potentially eligible" should be treated as eligible resources pending formal evaluation. If found to meet age and significance criteria, the historic resources identified above, including the substations and the existing 220 kV transmission line, would require Level 1 Historic American engineering Records (HAER) be completed in order to mitigate adverse effects. The crossing of the~~

~~AT&SF railroad, other historic transmission lines, and the California Aqueduct would likely result in the determination of no adverse effect.~~

~~Data recovery should be conducted as a recommended mitigation measure for archaeological sites that are recommended as eligible to the CRHR or NRHP and would be impacted by the project. Monitoring of project-related excavation within an archaeological site is not appropriate mitigation and may destroy the site. SCE should comply with provisions of the National Historic Preservation Act and should consult with a California State Historic Preservation Officer regarding appropriate mitigation should any cultural materials be encountered during construction or other ground-disturbing activities.~~

~~In the event of a site discovery during project implementation, all work would stop in the immediate area in order to afford time for documentation, evaluation, and consultation between the lead federal agency, the California State Historic Preservation Officer (SHPO), and all consulting tribes if a discovery is aboriginal in origin. Consultation with the above entities would ensue regardless of whether the discovery is located on private or federal lands. If consultation determines that the discovery is eligible for the NRHP, a consideration of effects should be undertaken pursuant to 36 CFR 800.5 of the National Historic Preservation Act (NHPA, 1966, as amended). If consultation results in a determination of adverse effects to a historic property, mitigation measures would be proposed and implemented following consultation with the California SHPO, the lead federal agency, the Advisory Council on Historic Preservation (ACHP), and all consulting Tribes, if necessary. Avoidance would be the preferable mitigation measure in all instances.~~

~~C.3.8.4 CONCLUSION~~

~~While SCE would avoid effects to known cultural sites, it is possible that the corridors have sensitive cultural resources that could be affected. This Staff Assessment/EIS concludes that it would be possible to mitigate all impacts to cultural resources to less than a significant level through the Section 106 process and implementation of recommended measures that apply to cultural resources. Known sensitive areas would be avoided, construction activities would be monitored and other appropriate mitigation similar to the Conditions of Certification identified in the **Cultural Resources and Native American Values** section of the Staff Assessment/EIS would be implemented~~.

"The SCE upgrades are designed to serve a variety of power-generating projects in the vicinity, and they are a reasonably foreseeable event if the Calico Solar Project is approved and constructed as proposed. Impacts to cultural resources from the 500 kV transmission line corridor will be fully evaluated in a future EIR/EIS prepared by the BLM and the California Public Utilities Commission outside of the jurisdiction of the Energy Commission.

Appropriate mitigation measures for cultural resources associated with the SCE project are unknown at this time, and the appropriate mitigation measures could and should be determined by the lead agencies during the environmental analysis of the SCE project."

CULTURAL RESOURCES AND NATIVE AMERICAN VALUES Page C.3-135

Staff provides **C.3.13 PROPOSED CONDITION OF CERTIFICATION**

Comment: The Applicant suggests revising this section according to the text provided below:

CUL-1 ~~The applicant shall be bound to abide, in total, to the terms of the programmatic agreement that the BLM is to execute under 36 CFR § 800.14(b)(3) for the proposed action. If for any reason, any party to the programmatic agreement were to terminate that document and it were to have no further force or effect for the purpose of compliance with Section 106 of the National Historic Preservation Act, the applicant would continue to be bound to the terms of that original agreement for the purpose of compliance with CEQA until such time as a successor agreement had been negotiated and executed with the participation and approval of Energy Commission staff.~~

BLM will consult with SHPO, ACHP, and invited and concurring parties to execute a PA under 36 CFR 800.14(b)(3) prior to the ROD. The PA will specify that the Applicant will prepare a Historic Properties Treatment Plan (HPTP) subject to BLM and CEC review and approval. The HPTP will require compliance with the treatment standards set forth in this condition. In the event that the PA covers substantially the same requirements as set forth in this condition, with approval of the Compliance Project Manager (CMP), the applicant may satisfy such requirements in lieu of this condition. The HPTP will:

(1) Identify all eligible resources in the Project's Area of Potential Effects (APE)
(2) Identify the resources that the Project will avoid
(3) Specify how the Applicant will avoid, minimize, or mitigate impacts that the Project may have on eligible resources.
    a. Avoidance measures may include, but not be limited to, temporary or permanent fencing, flagging, staking, or monitoring.
    b. Measures to minimize or mitigate impacts may include, but not be limited to, placement of construction within portions of eligible properties that do not contribute to the qualities that make the resources eligible, data recovery, or off-site mitigations such as public interpretation or interpretive materials or displays.
(4) Include provisions for additional cultural resources inventory and evaluation procedures
(5) Include an unanticipated discoveries plan
(6) Provide for the disposition of recovered materials and records

The HPTP will be implemented prior to issuance of a Notice to Proceed for those portions of the Project addressed in the HPTP.

In the event that Native American human remains or funerary objects found in association with such human remains are encountered on private or state land, the Applicant will treat the remains and objects in accordance with California Public Resources Code 5097.98."

GEOLOGY, SOILS, AND PALEONTOLOGICAL AND MINERAL RESOURCES

Geology, Soils, and Paleontological and Mineral Resources Page C.4-4 and C.4-11

Staff states, "Portions of the site and proposed ancillary facilities are located within designated Alquist-Priolo Fault Zones. The proposed site layout placed occupied structures outside of the 50-foot setback zone." (Page C.4-4, Alquist-Priolo Fault Zoning Act)

"The potential for actual fault-related ground rupture at the proposed Calico Solar Project is considered very low, but evidence of Holocene movement has been found on nearly every major fault in the ECSZ (Trieman et al. 2002). Events such as the Hector Mine earthquake and the unnamed earthquake of December 16, 2008 show the proposed site could be subject to intense levels of earthquake-related ground shaking in the future." (Page C.4-11, Paragraph 2)

Comment: The Applicant agrees with the assessment of the potential for ground shaking, and the conclusion that occupied structures will be placed outside of Alquist Priolo Earthquake Fault Zone. URS concluded that the potential for surface rupture of strands of the Pisgah and Lavic Lake faults across the site is moderate and included a mitigation measure (GEO-1) to conduct additional fault and geologic hazard studies as part of final design for the Project. No mitigation measures are included in the SA-DEIS for faults (there are no mitigation measures for geology, although there is a general condition requiring a geotechnical engineer and report for the project). We believe it is prudent to perform fault hazard studies that include field mapping to verify the absence of unmapped fault splays in the vicinity of habitable or important facilities as part of the final design for the Project.

Geology, Soils, and Paleontological and Mineral Resources Page C.4-11

The description of shaking hazards in the SA/DEIS includes estimates of ground motions (0.74g for 2% probability of exceedence in 50 years).

Comment: A site-specific seismic hazard analysis has not been performed for the project, however the estimates provided are higher than those estimated by URS (approximately 0.5 to 0.6g for the 2 percent probability of exceedence in 50 years). The Applicant recommends that seismic design for the project should be based on the code values provided in the geotechnical report for the project ("Geotechnical Engineering Report, Solar One," dated January 4, 2010 by Terracon Consultants, Inc.) or a site specific analysis.

Geology, Soils, and Paleontological and Mineral Resources Page C.4-28

Staff describes "noteworthy public benefits," including the "discovery, study and curation of new fossils."

Comment: The Applicant suggests that staff reiterate the low paleontological sensitivity of the site, as described on page C.4-14.

HAZARDOUS MATERIALS HANDLING

HAZARDOUS MATERIALS MANAGEMENT Page C.5-24

Condition **HAZ-5** requires, "A statement (refer to sample, attachment "A") signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to ascertain the accuracy of employee identity and employment history, and shall be conducted in accordance with state and federal law regarding security and privacy"

Comment:
The Applicant believes that this requirement may be unduly onerous, especially during peak construction periods where Project personnel could number as much as over 700 people, and requests that background investigations shall be conducted on any Project personnel who comes into contact with hydrogen or hazardous materials and planned operations personnel. This will be adequate to ensure that the necessary safety measures are in place.

PUBLIC HEALTH AND SAFETY

General Comment:

The discussion and conclusions seem appropriate for the Calico Solar Project, with one exception described below.

CEC Staff review of the applicant's Health Risk Assessment (HRA) modeling files seemed to leave them with some confusion about the analysis. Hopefully the following will clarify any uncertainty regarding the HRA conducted to analyze the operational emissions.

All Project-related operational diesel particulate matter emissions and TAC emissions from gasoline vehicles were included in the HRA. The diesel particulate matter emission sources included the stationary emergency generator and the diesel delivery trucks. The gasoline vehicles included the wash and LRU vehicles, security, staff and visitor vehicles. In the Responses to the Data Requests submitted in August 2009, Table DR 111a outlined the hourly and annual emissions that were included in the HRA.

In the HRA modeling, the total vehicle related project emissions were spread across a number of point sources representing each type of vehicle. The number of sources in the model did not necessarily match the number of each vehicle type. It was determined that sufficient accuracy in the HRA was obtained with fewer sources, thus speeding the computational time. Although the number of vehicle type sources in the model did not match the anticipated number of vehicles for the project, all vehicle-related emissions were evenly distributed among the model sources.

The annual emission rates for the mobile sources entered into the HARP model in pounds per year were entered incorrectly. The annual emissions presented in Table DR111a were correct, but unfortunately these did not get transferred correctly to the HARP model. CEC Staff re-ran the HARP model with estimated annual emissions for the mobile sources. They noted that for some sources these annual emissions might be overestimated, and this is the case for the diesel delivery trucks. Using the CEC technique for estimating the annual emissions for the HARP model, the diesel delivery trucks annual emissions are overestimated by a factor of 5.8. This overestimation in diesel delivery trucks annual emissions causes the cancer risk and the chronic non-cancer health index to be overestimated, since Tables 8 and 9 show that the diesel delivery trucks contribute the most to these health risks. Although these risks may be overestimated, they are below the significance levels, thus the project will not cause a significant impact to human health.

PUBLIC HEALTH AND SAFETY Page C.6-12

Staff states, "Construction of the Calico Solar Project is anticipated to take place over a period of 48 months."

Comment: Please note that construction impacts analyzed in the Responses to Data Requests submitted in August 2009 were based on a 41-month duration.

PUBLIC HEALTH AND SAFETY Page C.6-13

"Staff concludes that, while standard procedures were followed in the applicant's analysis, two sources of uncertainty exist for which further clarification is necessary:

The difference in the number of vehicles to be used at the facility versus the number of vehicles modeled.
The use of average annual emission rates in the HARP modeling that are lower than the peak hourly rates."

Comment: Please see the discussion in the general comments section above that addresses Staff's concerns.

PUBLIC HEALTH AND SAFETY Page C.6-14

Vehicle requirements for operations and maintenance are listed on page 144 of the August 2009 responses to data requests and include the following:

- 50 gasoline wash vehicles for cleaning solar reflector mirrors
- 28 gasoline LRU (line replacement unit) maintenance trucks
- 7 gasoline/hybrid staff and security trucks
- 120 staff cars, 5 vanpool vehicles, 10 visitor cars (all gasoline)
- 7 diesel delivery trucks

Comment: The summary from the Responses to Data Requests, August 2009 also included 16 propane forklifts.

PUBLIC HEALTH AND SAFETY Page C.6-15

Staff states, "It is not clear in the report why the number of vehicles modeled differs from the number of vehicles listed for the facility, leading to uncertainty as to whether all mobile sources were included in the modeling of emissions from facility operations."

Comment: No mobile source emissions were omitted from the HRA modeling. The total vehicle emissions were divided by the number of sources in the model, not the number of vehicles associated with the project. The number of sources in the model was selected to ensure that project related emissions were appropriately distributed across the site. It was determined that more than doubling the mobile sources in the model would not add accuracy to the HRA, it would only add to the model computational time.

PUBLIC HEALTH AND SAFETY Page C.6-15

Staff states, "Emission factors obtained from the August 2009 responses to data requests (Table DR-111a) are listed in **Public Health Table 4**. In staff's examination of the HARP modeling files provided by the applicant, it was noted that annual emissions values used are much lower than maximum 1-hour emissions values, as seen in **Public Health Table 5**. It is not possible, of course, for annual emissions to be lower than 1-hour emissions and this is contrary to the values reported in Table DR-111a, in which the annual emissions are much higher than the 1-hour emissions, as expected. This

leads to the supposition that the average annual emission values used in the applicant's HARP modeling are mistaken."

Comment: The annual emissions presented in Table 5, which were from the HARP modeling, were incorrectly transposed from Table DR111a into the model, see general comment discussion.

PUBLIC HEALTH AND SAFETY Page C.6-15

"Staff conducted additional HARP modeling in which the 1-hour emissions reported in the HARP files for each mobile source were multiplied by a factor of 2,880 hours/year, which assumes operation of vehicles for 8 hours/day, 30 days/month for 12 months/year which is the rate at which the washing and LRU vehicles are expected to operate (source: page 144 of the August 2009 responses to data requests)."

Comment: Staff acknowledges that this technique for estimating the annual emissions may overestimate some sources; however, the overestimation of the emissions from the diesel delivery trucks is a factor of 5.8. This has a significant effect on the results of the HRA. Tables 8 and 9 show the contributions to cancer risk by individual substances from each source, in these tables the main contributor to the cancer risk are the diesel delivery trucks. Therefore the cancer risk predicted by staff appears to be too high, solely from the overestimation of emissions.

HYDROLOGY, WATER USE, AND WATER QUALITY (Soil and Water Resources)

General Comment:

The Applicant estimates that Project operations will require 20 acre-feet per year (afy) of water and construction will require 136 afy, as discussed in the Supplemental filing submitted January 2010.

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-1 to -2

In (4), staff states that the Applicant has not provided information necessary to complete development of requirements to be specified in **SOIL & WATER-1, SOIL & WATER-2,** and **SOIL & WATER-3**.

Comment: Pages C.7-40 to -41 include information about the treatment wastewater, the evaporation ponds, and the wastewater collection system. On March 4, 2010, the Applicant submitted to the CEC the Regional Water Quality Control Board (RWQCB) Application for Waste Discharge Requirements for Projects Involving Discharge to Waters of the State, and requests that staff include information from these sources.

The Applicant requests that compliance with the Clean Water Act be deleted from the discussion as this is not an applicable LORS for the Project.

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-8

Staff describes the proposed project.

Comment: The Applicant requests the following changes to the text to reflect the most recent Project design:

"Site construction will be accomplished in two phases and will include the development of ~~four~~ a construction laydown area~~s~~, as shown in Project Description-Figure 2 ~~two for each of the two construction phases (Soil and Water Figure 4)~~. ~~For Phase I, one~~ The laydown area will be a ~~26~~15-acre site to be located ~~in the south east corner of the Phase I boundary~~ adjacent to the ~~eastern project entrance just north of the Pisgah Substation~~Main Services Complex. ~~The other Phase 1 laydown area will be a 14- acre site located adjacent to the Main Services Complex, provisionally identified to be constructed in the central portion of the project site. Phase 2 construction will utilize a 26- acre site located adjacent to the I-40 Hector Road off ramp. Another laydown area is an 11- acre site to be constructed south of the BNSF railroad and north of I-40.~~ Temporary site access for Phase 1 construction needs would be constructed off I-40 ~~beginning east of the Pisgah Substation and would traverse approximately 3.5 miles across Pisgah Area of Critical Environmental Concern (ACEC) requiring an approximately 30-foot Right of Way (ROW)~~ along an existing route. Long term permanent access would be would be accomplished by building a bridge over the BNSF railroad ~~along Hector Road~~ north of I-40. In addition to the proposed Calico Solar site and construction areas, there are other features and facilities associated with the proposed project (the majority of which are located on the proposed project site or construction laydown area), including:"

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-19

Staff describes the use of potable water.

Comment: The Applicant requests the following changes to the text to reflect the most recent Project design:

"This treated potable water will be available at the Main Services Complex ~~and may be piped to the Satellite Services Complex~~."

"Site construction will be accomplished in two phases, Phase 1 and Phase 2. Phase 1 construction will take place during the first 12-month period, consisting of construction of the primary access routes, the construction laydown area~~s~~, the rough grading for the Main Services Complex, ~~the Satellite Services Complex~~ and the substation site~~s~~, as well as the clearing areas disturbed by the construction of each ~~18MW or 24MW~~ solar group. The total water use for the first 12 months of construction is estimated to be ~~79,780,000 gallons or~~ approximately ~~245~~ 136 AF."

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-28

Staff describes Project roadways.

Comment: The Applicant requests the following changes to the text to reflect the most recent Project design:

"~~Paved~~ Treated roadways will be constructed as close to the existing topography as possible,…"

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-29

Staff describes Project drainage patterns.

Comment: The Applicant requests the following changes to the text to reflect the most recent Project design:

"The project site layout will maintain the local pre-development drainage patterns where feasible, and water discharge from the project site will remain a the western boundary. The ~~paved~~ treated roadways will have Arizona crossings (roadway dips) or low-flow culverts consisting of a small-diameter storm drain ~~with a perforated stemp pipe~~, as needed to cross the minor or major channels/swales."

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-30

Staff describes Project debris basins and/or low-flow culverts.

Comment: The Applicant requests the following changes to the text to reflect the most recent Project design:

"~~Debris~~ Detention basins and/or low-flow culverts consisting of a small-diameter storm drain ~~with a perforated stem pipe~~ will be installed for sediment control and to provide for storm peak attenuation."

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-65

Staff proposes Conditions of Certification/Mitigation Measures.

Comment: The Applicant recommends including a Construction Storm Water Pollution Prevention Plan (SWPPP) and Operations SWPPP as Conditions **SOIL & WATER-X** and **SOIL & WATER-Y**.

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-65 to -67

Staff proposes **SOIL & WATER-1**, requiring a Drainage Erosion and Sediment Control Plan.

Comment: The Applicant requests revising submission of the final DESCP from 90 days to 60 days prior to start of construction.

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-68

Staff proposes **SOIL & WATER 2**, stating that requirements for discharge of brine waters to evaporation ponds are pending receipt of information from the Applicant.

Comment: Pages C.7-40 to -41 include information about the treatment wastewater, the evaporation ponds, and the wastewater collection system. On March 4, 2010, the Applicant submitted to the CEC the RWQCB Application for Waste Discharge Requirements for Projects Involving Discharge to Waters of the State, and requests that staff include information from these sources.

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-68

Staff proposes **SOIL & WATER-3**, requiring a Storm Water Damage Monitoring and Response Plan.

Comment: The Applicant requests that the bullet points detailing the specific elements of the Storm Water Damage Monitoring and Response Plan, monitoring and inspection, and short- and long-term incident-based response be removed from the Condition and included in the Verification.

The Applicant also requests staff revise the following text:

"Monitor and Inspect Periodically, Before First Seasonal and After Every 5-Year Storm Event:"

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-70

Staff proposes **SOIL & WATER-4**, regarding construction and operations water use.

Comment: The Applicant requests staff makes the following revision to the Condition:

"The proposed project's use of groundwater for all construction activities shall not exceed ~~245~~ 150 AFY."

The Applicant requests that the verification of installed and operational meters be modified as follows:

Verification: "At least sixty (60) days prior to the ~~start of construction of the proposed project~~ use of water onsite, the project owner shall submit to both BLM's Authorized Officer and the CPM a copy of evidence that metering devices have been installed and are operational."

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-70

Staff proposes **SOIL & WATER-5**, regarding an assured water supply.

Comment: The Applicant requests the following revisions to the text regarding the agreement with BNSF:

"The project owner shall provide the Authorized Officer (AO) and the Compliance Project Manager (CPM) two copies of an executed Water Purchase Agreement (agreement) with the water purveyor (BNSF) for the long-term supply (30-35 years) of fresh water to the Project through a five-year agreement with the option to renew the agreement over a period of 35 years."

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-71

Staff proposes **SOIL & WATER-7**, requiring a decommissioning plan.

Comment: The Applicant requests that the verification requires submission of the decommissioning plan 30, rather than 90, days prior to the start of construction.

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-71

Staff proposes **SOIL & WATER-8**, requiring a Groundwater Level Monitoring and Reporting Plan.

Comment: The Applicant requests that the Condition of Certification **SOIL&WATER-8** be deleted. The condition requires a Groundwater Level Monitoring and Reporting Plan in accordance with the County of san Bernardino Code Title 2, Division 3, Chapter 6, Article 5 (Desert Groundwater Management Ordinance). The proposed water supply well will replace one of two wells that were abandoned by BNSF in the past year. The wells were located within 300 feet of the existing well. These wells were identified as CADIZ 1 and CADIZ 2 in DWR, 1967. Based on a review of the San Bernardino County Desert Groundwater Management Ordinance (Article 5) the proposed well is excluded from the scope. Under 33.06552c (6). Article 5 "does not apply to groundwater wells that replace abandoned wells if (i) proof of abandonment for the existing well is shown, (ii) the replacement well casing is not larger in diameter than the abandoned well, and/or (iii) the pumping capacity of the replacement well is no more than the pumping capacity of the abandoned well."

HYDROLOGY, WATER USE, AND WATER QUALITY Page C.7-73

In (4), staff states that the Applicant has not provided information necessary to complete development of requirements to be specified in **SOIL & WATER-1, SOIL & WATER-2,** and **SOIL & WATER-3**.

Comment: Pages C.7-40 to -41 include information about the treatment wastewater, the evaporation ponds, and the wastewater collection system. On March 4, 2010, the

Applicant submitted to the CEC the RWQCB Application for Waste Discharge Requirements for Projects Involving Discharge to Waters of the State, and requests that staff include information from these sources.

The Applicant requests that compliance with the Clean Water Act be deleted from the discussion as this is not an applicable LORS for the Project.

LAND USE, RECREATION AND WILDERNESS

General Comment:

With regards to the Project complying with the BLM Instruction Memorandum regarding Land and Water Conservation Funds (LWCF) lands, the Applicant requests that this memorandum not be elevated to the status of an applicable LORS, and that the determination of consistency be left to the BLM's jurisdictional power to interpret and apply its own policies; however, the Applicant submits that the Project is consistent with the LWCF Instruction Memorandum.

According to Appendix C of the BLM's Land Use Planning Handbook (H-1601-1), resource use decisions (e.g. allowing or prohibiting rights-of-way in certain areas) must be made during the land use planning process if the BLM anticipates it may authorize or allow a resource use. If uses are allowed, decisions must also be made regarding intensity and limits or restrictions. Regarding avoidance and exclusion areas two definitions are relevant.

Avoidance areas are areas to be avoided but may be available for location of right-of-ways with special stipulations or condition.

Exclusion areas are areas which are not available for location of right-of-ways under any conditions.

Based on these distinctions, if the LWCF lands are managed as avoidance areas, then it is possible that conditions be applied that would bring the Project into compliance with the Instruction Memorandum on donated lands. Interim BLM policy allows the state director to allow the use at the director's discretion upon finding that the use consistent with the values of the LWCF lands.

The Applicant suggests that appropriate mitigation would be applied as a condition of certification so that impacts identified associated with the Instruction Memorandum on donated land and lands acquired with LWCF funding, be reduced to less than significant.

LAND USE, RECREATION AND WILDERNESS Page C.8-1

Staff states, "However, in an interim policy dated May 28, 2009, the State Director of the BLM issued an Instruction Memorandum regarding management of donated land and lands acquired by Land and Water Conservation Funds (LWCF), which requires LWCF lands to be managed as avoidance/exclusion areas for land use authorizations that could result in surface disturbing activities (BLM 2009a). Construction and operation of the proposed project would not comply with this policy."

Comment: Concerning lands acquired with LWCF funds, the BLM interim policy states that "…lands acquired with LWCF funds, are to be managed as avoidance/exclusion areas for land use authorizations that could result in surface disturbing activities." It then clarifies that "avoidance" areas may be used for surface disturbing activities as long as mitigation is applied to the impacts by instructing BLM managers to advise applicants "…to avoid these lands or provide details on how they would plan to operate or mitigate

their project in a manner consistent with the values of the lands donated or acquired for conservation purposes."

The Applicant submits that the Instruction Memorandum is not an applicable LORS; and that the determination of consistency be left to the BLM's jurisdictional power to interpret and apply its own policies; however, the Project would be consistent with the memorandum. The Project incorporates management according to conservation purposes, with minimal grading, water use, and other impacts compared to other alternative energy technologies. The Project will be mitigated consistent with the California Desert Conservation Area (CDCA) Plan, and the Project occurs entirely within a BLM-designated Solar Energy Study Area (SESA). The BLM has identified SESAs as areas where "sensitive lands, wilderness, and other high-conservation-value lands were excluded." (BLM News Release, July 27, 2009).

The Applicant is aware of the need for mitigation of "avoidance" areas. There is no clear policy that expressly denies all development within these areas, and the Applicant believes that significant impacts are avoidable through mitigation. Potential mitigation for LWCF lands are proposed as conditions in the Biological Resources section of the SA/DEIS that would diminish the effects of the project to less than significant. Proposed conditions include several avoidance and minimization measures, as well as replacement land acquisition. The Applicant believes that the use of these lands can be mitigated "…in a manner consistent with the values of the lands donated or acquired for conservation purposes." With mitigation incorporated, the Project would comply with the interim policy.

Please revise the last sentence of this paragraph to read:

""~~However, i~~In an interim policy dated May 28, 2009, the State Director of the BLM issued an Instruction Memorandum regarding management of donated land and lands acquired by Land and Water Conservation Funds (LWCF), which requires LWCF lands to be managed as avoidance/exclusion areas for land use authorizations that could result in surface disturbing activities (BLM 2009a). ~~Construction and operation of the proposed project would not comply with this policy.~~ In the absence of appropriate mitigation, construction and operation of the proposed project would not comply with this policy."

LAND USE, RECREATION AND WILDERNESS Page C.8-2

Staff states, "However, the proposed project would combine with other past and reasonably foreseeable future projects to substantially reduce scenic values of wilderness areas and recreational resources in the Mojave Desert and southern California desert region and therefore, would result in a significant and unavoidable cumulative land use impact in this regard."

Comment: The project would have adverse effects on the scenic values of the Project area that may combine with other projects to create a cumulative effect on the scenic values of the region. However, this issue is addressed in the Visual Resources Section of the SA/DEIS. The indirect impacts staff describes rest on a change in perception in the aesthetic value of the lands adjacent to the Project and do not include direct or indirect effects to the actual use of lands adjacent to the Project. The visual change and

viewer perception does not affect the "use" of adjacent land, but the enjoyment one receives from the aesthetics of nearby landscapes, and it should be addressed as a cumulative effect on Visual Resources.

LAND USE, RECREATION AND WILDERNESS Page C.8-5

"The applicant submitted an updated project boundaries map dated August 12, 2009. Staff requested the applicant to submit a formal description of the new boundaries, which has not been provided. As such, the project boundaries described above are from the AFC, and will be revised upon receipt of an updated description."

Comment: The Applicant submitted a Revised Calico Project Layout Figure on March 8, 2010.

LAND USE, RECREATION AND WILDERNESS Page C.8-6

Staff discusses the "Surrounding Area."

Comment: The Applicant requests that staff clarify that the closure of the at-grade BNSF crossing was an action taken separately from the Calico Solar Project. The crossing closure should be assumed to be a baseline condition. Consistent with the discussion of existing access routes in the Project vicinity, submitted by the Applicant on March 8, 2010, the Applicant requests the following recommended text revisions to clarify the discussion:

"The surrounding area consists of undeveloped desert land and mountain terrain with small rural communities in the vicinity. The closest community is Newberry Springs located approximately 10 miles west of the project site, and the closest residence is located approximately 2 miles east of the project site. In addition, north of the BNSF railway is private land, which ~~has been~~ was accessed in the past by an un-named, un-paved route that extended from Hector Road ~~where it crosses~~ to the BNSF railroad ROW. This includes the private properties in Section 1, Township 8 North, Range 5 East, and Section 36, Township 9 North, Range 5 East (Jackson 2009b). ~~Since the summer of 2008, BNSF and Calico Solar entered into an Agreement for Private Crossing. Because this crossing is private, gates and barricades have been placed at this crossing to ensure public safety and prevent public use of this crossing (SES 2009x)~~

The Calico Solar project will not restrict or change the use of Hector Road. The BLM has no authority to designate motorized access routes on or across private land for which the BLM does not hold an authorization; i.e. easement. There are no known easements held by the BLM in this area, and the BLM has not designated routes as open which cross the BNSF ROW in this area. The BNSF maintains the railroad ROW, as granted by Congress, and maintenance and access of the railroad ROW is at the railroad's discretion."

LAND USE, RECREATION AND WILDERNESS Page Page C.8-12 and 13

Staff states, "Based on staff's independent review of applicable LORS documents, the proposed project would not be consistent with certain applicable land use LORS; in

particular the current BLM Interim Policy Memorandum regarding LWCF mitigation lands (see discussion in the table below). However, implementation of the Reduced Acreage Alternative or the Avoidance of Donated and Acquired Lands Alternative would avoid LWCF lands and would be consistent with the BLM Interim Policy (see Sections C.8.5 and C.8.6, below, for a discussion of these alternatives)."

Comment: Per previous discussion, please include appropriate mitigation and consider revising as follows:

Based on staff's independent review of applicable LORS documents, with mitigation measures included to compensate for LWCF lands discussed in the Biological Resources Section of the SA/DEIS, the proposed project would ~~not~~ be consistent with applicable land use LORS; ~~in particular~~ including the current BLM Interim Policy Memorandum regarding LWCF mitigation lands (see discussion in the table below). ~~However~~ Alternatively, implementation of the Reduced Acreage Alternative or the Avoidance of Donated and Acquired Lands Alternative would avoid LWCF lands and would also be consistent with the BLM Interim Policy (see Sections C.8.5 and C.8.6, below, for a discussion of these alternatives)."

LAND USE, RECREATION AND WILDERNESS Page C.8-21

Staff discusses "Land Use Compatilbility and LORS Compliance."

Comment: The Applicant requests that staff please revise as follows:

"Staff's analysis of the proposed project's consistency with applicable federal land use LORS is presented in Land Use Table 2 (state and local LORS are not applicable). With BLM's issuance of a project-specific CDCA Plan Amendment, the proposed project would fully comply with the Plan. However, the proposed project would ~~not be~~ require mitigation to be in compliance with BLM Interim Policy Memorandum; therefore, impacts associated with compliance with this ~~federal land use LORS~~ Interim Policy Memorandum would be rendered less than significant ~~and unavoidable~~ upon incorporation of appropriate mitigation measures.

NOISE AND VIBRATION

NOISE AND VIBRATION Page C.9-7

[Noise Table 4] Edits to the table footnotes are suggested merely for consistency with Table DR68-1.

Comment:

1 Staff calculations of average of ~~15~~ 10 daytime hours
2 Staff calculations of average of ~~9~~ 8 nighttime hours

NOISE AND VIBRATION Page C.9-7

Staff states that construction is expected to occur over a period of 41 to 48 months.

Comment: The suggested text below reflects recently updated proposed construction duration:

"Construction noise is usually considered a temporary phenomenon. Construction of Calico Solar is expected to occur in two phases over a period of 41 ~~to 48~~ months."

NOISE AND VIBRATION Page C.9-11

Staff states projected power plant noise is compared to the existing ambient background (L90) noise levels at the affected sensitive receptors.

Comment: The Applicant believes that the suggested text below helps improve compatibility with subsequent paragraphs in the section that observes daytime-only Project operation and the usage of daytime ambient Leq levels at the Project's noise-sensitive receptors:

"For this reason, staff typically compares the projected power plant noise to the existing ambient background (L90) noise levels at the affected sensitive receptors."

NOISE AND VIBRATION Page C.9-12

Staff states tonal noises can be avoided by balancing the noise emissions of various power plant features during plant design.

Comment: The Applicant believes that the stricken sentence below is more appropriate for power plants that have a variety of sound generators and where noise emission balance may thus be appropriate and effective. The Applicant's project, because it involves fewer types of sound generators, may rely on other tonal noise annoyance reduction methods or techniques. The Applicant suggests the revised text:

"One possible source of disturbance would be strong tonal noises. Tonal noises are individual sounds (such as pure tones) that, while not louder than permissible levels, stand out in sound quality. ~~The applicant can avoid the creation of annoying tonal (pure tone) noises by balancing the noise emissions of various power plant features during~~

~~plant design.~~ To ensure that tonal noises do not cause annoyance, staff proposes Condition of Certification **NOISE-4**, below."

NOISE AND VIBRATION Page C.9-20

Staff provides condition **NOISE-1.**

Comment: The Applicant anticipates that certain construction processes, such as concrete pours, will need to occur outside the hours of 7:00 a.m. to 7:00 p.m.

The Applicant requests that **NOISE-1** be revised as recommended below. The Applicant submits that this special notice, combined with the requirements of mitigation measure **NOISE-2** that require the project owner to "[t]ake all feasible measures to reduce the noise at its source" if there is a complaint about project-related noise, with oversight from the CPM, would mitigate any noise impacts from necessary nighttime construction to less-than-significant and would meet the intent of the San Bernardino County LORS.

"**NOISE-1** At least 15 days prior to the start of ground disturbance, the project owner shall notify all residents within 2 miles of the site, by mail or other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project and include that telephone number in the above notice. If the telephone is not staffed 24 hours per day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction in a manner visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year. If construction outside the hours of 7:00 a.m. to 7:00 p.m. is required for any construction activity, the project owner shall provide an additional notice, to the CPM as well as to all residents within 2 miles of the site, by mail or other effective means, of the commencement and anticipated duration of the nighttime construction, at least 15 days prior to the commencement of the nighttime construction."

NOISE AND VIBRATION Page C.9-21

In **NOISE-4**, staff states no new pure-tone components shall be caused by the project.

Comment: The Applicant believes that the suggested text below helps clarify the definition of "pure tone" that is suitable for this context and provides a quantitative means of evaluation with one-third octave band data collected from the post-construction field noise survey as required by the NOISE-4 verification language.

"NOISE-4 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the noise levels due to plant operation alone to exceed an average of 51 dBA Leq measured at or near monitoring location SR2, and an average of 57 dBA Leq measured at or near monitoring location SR1.

No new pure-tone components shall be caused by the project, whereby "pure-tone" shall be understood to mean, for purposes of this condition, a prominent one-third octave band with prominence evaluated between adjacent one-third octave band project operation sound levels and using frequency-dependent prominence ratio criteria values (ΔL_P) similar to those as defined by ANSI S1.13-2005 A.8.6. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-4

The SA/DEIS states: "… Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national programs in all programs or activities receiving federal financial assistance."

Comment: The Applicant requests that staff please consider the following change: "… Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national origin ~~programs~~ in all programs or activities receiving federal financial assistance."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-5

Staff states "The total population within the 6-mile radius of the proposed site is 1043 persons and the total minority population is 20 persons, or about 25% of the total population (see **Socioeconomics Figure 1**)."

Comment: Based on Socioeconomics Figure 1, it appears the population estimated within 6 miles by CEC is 83, not 1,043. Socioeconomics Figure 1 identifies a total minority population of 20, about 25 percent of the total population, as stated above.

This analysis uses a different approach than the analysis in the Calico AFC, but reaches the same conclusion that there are no minority populations, as defined by the environmental justice guidance, within a 6-mile radius of the Project site.

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-6

Staff states: "Project construction would take place in two phases and employ an average of 700 workers a month for approximately four-year construction period. Month construction employment would peak at a maximum of 400 workers in month seven of the proposed schedule, with a total of 41 construction months (5.10-16, Calico, AFC)"

Comment: The average and maximum construction worker numbers appear to have been transposed. The average is approximately 400; the peak is approximately 700.

The Applicant requests that Staff please consider the following revisions: ""Project construction would take place in two phases and employ an average of approximately 400 ~~700~~ workers a month for the 41-month ~~approximately four-year~~ construction period. Monthly construction employment would peak at a maximum of 700 ~~400~~ workers in month seven of the proposed schedule, with a total of 41 construction months."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-7

In Socioeconomics Table 2, the SA/DEIS identifies the following peak number of construction workers: Carpenters – 40, Concrete Crews – 42, and Operators – 104.

Comment: These numbers do not quite match those in Calico Solar AFC, 5.10-17, Table 5.10-10, which identifies the following peak numbers: Carpenters – 41, Concrete

Crews – 49, and Operators – 112. Consider revising the numbers in Socioeconomics Table 2 to match those in the AFC.

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-7

Footnote 3 to Socioeconomics Table 2 in the SA/DEIS states: "The applicant has indicated that local resources, hires, and contractors would be used to the best extent practical. However, some positions would potentially need to be more specialized that may come from internal staff or outside the area."

Comment: Consider the following revisions: "The applicant has indicated that local resources, hires, and contractors would be used to the best extent practical. However, some positions would potentially need to be more specialized and ~~that~~ may come from ~~internal staff or~~ outside the area."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-8

Staff states: "There are 49 motels with a total of approximately 4,000 rooms located in Barstow. A total of 321 hotels and approximately 21,500 hotel rooms were identified within a two-hour drive of the project site (Table 5.10-4, Calico, AFC)."

Comment: These numbers are not consistent with Table 5.10-4 of the AFC. Please consider the following revisions: "There are 49 motels with a total of approximately 3,400 ~~4,000~~ rooms located within a one-hour drive of the project site ~~Barstow~~. This total includes 27 motels with a total of 1,900 rooms in Barstow. A total of 321 hotels and approximately 21,500 hotel rooms were identified within a two-hour drive of the project site (Table 5.10-4, Calico, AFC)."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-8

Staff states: "… with an additional 400 unoccupied motel and hotel rooms available elsewhere with a one hour drive of the site (primarily Victorville) (5.10-23, Calico, AFC)."

Comment: The Applicant requests Staff to consider the following minor editorial change: "… with an additional 400 unoccupied motel and hotel rooms available elsewhere within a one hour drive of the site (primarily Victorville) (5.10-23, Calico, AFC)."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-8

Staff states: ".. ; the applicant expects 20 operational jobs recruited from outside the immediate project area."

Comment: The Applicant requests that staff please consider the following minor editorial changes: ".. ; the applicant expects that workers for up to 20 operational jobs would be recruited from outside the immediate project area."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-8

Staff states: "The proposed project is located primarily on Bureau of Land Management (BLM)."

Comment: The Applicant requests that Staff please consider the following minor editorial change: "The proposed project is located primarily on Bureau of Land Management (BLM) land."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-9

Staff states: "The project would have 180 new full-time employees; the applicant expects all 180 employees would be hired within commuting distance of the project."

Comment: As noted elsewhere in the SA/DEIS, the Applicant estimates that up to 20 employees would be recruited from outside the project area. The Applicant request that staff consider the following change:

"The project would have 180 new full-time employees; the applicant expects that the majority of these ~~all 180~~ employees would be hired within commuting distance of the project, with up to 20 new employees recruited from outside this area."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-9

Staff states: "The applicant estimates that operation of the project would result in 20 workers permanently relocating to the project area."

Comment: The Applicant requests that Staff please consider the following minor change: "The applicant estimates that operation of the project would result in up to 20 workers permanently relocating to the project area."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-13

Staff states: "Similar to the proposed project, the Reduced Acreage Alternative would not a cause adverse significant impact from construction or operation."

Comment: The Applicant requests that Staff please consider the following minor editorial change:

"Similar to the proposed project, the Reduced Acreage Alternative would not ~~a~~ cause an adverse significant impact from construction or operation."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-15

Staff states: "As such, this No Project/No Action Alternative could result impacts to socioeconomics…."

Comment: The Applicant requests that Staff please consider the following minor editorial change:

"As such, this No Project/No Action Alternative could result in impacts to socioeconomics…."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-15

Staff states: "Under this alternative, the proposed the Calico Solar Project…"

Comment: The Applicant requests that Staff please consider the following minor editorial change: "Under this alternative, the proposed ~~the~~ Calico Solar Project…"

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-17

Staff states: "In addition, construction workers are unlikely to bring their families to a work site, and therefore, impact existing park service would be less…"

Comment: The Applicant requests that Staff please consider the following minor editorial change:

"In addition, construction workers are unlikely to bring their families to a work site, and therefore, impacts to existing park service would be less…"

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-17

The title of Socioeconomics Table 3 in the SA/DEIS is "Occupational Employment Projections by MSA."

Comment: The Applicant requests Staff please consider adding "Construction" to the title, so it is clear that these projections are for construction employment only, not total employment.

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-18

Staff states:

"The effect of indirect (jobs, sales, and income generated) and induced (employees spending for local goods and services) spending continues with subsequent rounds of additional spending, which is gradually diminished through savings, taxes, and expenditures made outside the area.

For purposes of this analysis, direct impacts were said to exist if the project resulted in permanent jobs and wages; indirect impacts, if jobs, wages, and sales resulted from project construction; induced impacts, from the spending of wages and salaries on food, housing, and consumer goods, which in turn creates jobs."

Comment: The Applicant finds some of the explanation of the IMPLAN confusing and repetitive of some of the information presented in the paragraphs above. Please consider the following edits:

"The effect of indirect (local spending by businesses that provide goods and services to the project ~~jobs, sales, and income generated~~) and induced (employees spending for local goods and services) spending continues with subsequent rounds of additional spending, which is gradually diminished through savings, taxes, and expenditures made outside the area.

~~For purposes of this analysis, direct impacts were said to exist if the project resulted in permanent jobs and wages; indirect impacts, if jobs, wages, and sales resulted from~~

~~project construction; induced impacts, from the spending of wages and salaries on food, housing, and consumer goods, which in turn creates jobs."~~

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-18

Staff states:

"All indirect and induced economic impacts would result from annual operations and maintenance expenditures. All construction and operation impacts would take place within San Bernardino County"

Comment: Indirect and induced economic impacts would result from both construction and operation, not just operation. Construction and operation would occur entirely within San Bernardino County, but economic impacts would also be generated outside the county. San Bernardino County was, however, the area used to model the regional economic impacts based on the availability of construction and operation labor.

The Applicant requests Staff please consider the following revisions:

"~~All indirect and induced operating impacts would result from annual operations and maintenance expenditures.~~ All estimated construction and operation impacts would take place within San Bernardino County"

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-19

In Socioeconomics Table 4, the SA/DEIS indicates that Indirect Operation Jobs and Induced Operation Jobs are N/A.

Comment: Table 5.10-17, 5.10-30, Calico AFC identifies 97 indirect and 146 induced jobs as a result of operation. Please consider revising Socioeconomics Table 4 to include these estimates.

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-21

The SA/DEIS states: "There would be an estimated average of 180 direct project-related construction jobs for the 41 months of construction."

Comment: The Applicant requests that Staff change the text as follows:

"There would be an estimated average of 393 ~~180~~ direct project-related construction jobs for the 41 months of construction."

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Page C.10-21

Staff states: "Total sales and use taxes during construction are estimated to be approximately $700,000; …"

Comment: The Applicant requests that Staff please consider changing the text as follows:

"Total sales and use taxes during construction are estimated to be approximately $700,000 each year for the life of the construction project; …"

TRANSPORTATION AND TRAFFIC

TRANSPORTATION AND TRAFFIC Page C.11-6

Staff discusses Hector Road.

Comment: The Applicant requests that the text be revised to clarify the un-named, unpaved non-BLM route that terminates at the BNSF crossing. This road section is frequently referred to mistakenly as "Hector Road."

"Hector Road~~, a local road running north-south, is the primary access to the Calico Solar Project site. It begins at Route 66 just south of the I-40 interchange and continues north to the project site. Hector Road ends just south of the BNSF railroad tracks and west of a gated crossing. The existing average daily traffic (ADT) on Hector Road near the vicinity of the project site is 31 vehicles per day. Hector Road~~ within the I-40 interchange is paved and controlled by Caltrans. ~~Hector Road~~ ~~n~~North of the Caltrans right-of-way (ROW), the pavement extends for about 750 feet as a 24-foot ~~paved~~ roadway controlled by San Bernardino County. From the end of this San Bernardino County-controlled segment to the gated BNSF gated crossing, exists an un-paved, un-named route that ~~the road, controlled by BLM,~~ extends for about 24 feet. This ~~BLM-controlled road~~ un-designated route terminates at the BNSF right-of-way. There are no known easements held by the BLM in this area. The BLM has not designated routes as open which cross the BNSF ROW in this area. The BNSF maintains the railroad ROW, as granted by Congress, and maintenance and access of the railroad ROW is at the railroad's discretion.

The Hector Road interchange will be used for both temporary and permanent access to the project site. The existing average daily traffic (ADT) on Hector Road near the vicinity of the project site is 31 vehicles per day. Information about temporary and permanent access to the site follows."

TRANSPORTATION AND TRAFFIC Page C.11-16

Staff discusses potential cumulative impacts.

Comment: The Applicant would like to clarify that SES Solar Three and SES Solar Six are no longer proposed projects by the Applicant.

TRANSPORTATION AND TRAFFIC Page C.11-22 to -23

Staff discusses the environmental setting.

Comment: The Applicant requests that the traffic analysis provided in the Solar One Application for Certification, as updated by the Supplement to the AFC filed in January 2010, be used as the basis for the traffic analysis. All references in the text and Traffic and Transportation Table 5 to State Route 18, Highway 247 and Highway 395 should be deleted.

TRANSPORTATION AND TRAFFIC Page C.11-23 to -24

Staff discusses environmental impacts.

Comment: The Applicant requests that the traffic analysis provided in the Solar One Application for Certification, as updated by the Supplement to the AFC filed in January 2010, be used as the basis for the traffic analysis. All references to the SCE project, Victorville, Hesperia, helicopter activities, State Route 18, Highway 247 and Highway 395 should be deleted.

TRANSPORTATION AND TRAFFIC Page C.11-22 to -23

Staff discusses "Permit and Impact Fees."

Comment: The City of Victorville and Lucerne Valley Local Area Transportation Facilities fees are not applicable to the Calico Solar Project.

TRANSPORTATION AND TRAFFIC Page C.11-25 to -26

Staff discusses mitigation.

Comment: The Applicant requests that the traffic analysis provided in the Solar One Application for Certification, as updated by the Supplement to the AFC filed in January 2010, be used as the basis for the traffic analysis. All references to State Route 18, Highway 247 and Highway 395 should be deleted.

TRANSPORTATION AND TRAFFIC Page C.11-33

Staff proposes Condition of Certification **TRANS-1**, requiring a parking and staging plan.

Comment: The Applicant would like to clarify, that elements of **TRANS-1** have been included in the Project site development plans with parking and staging identified as occurring within the Main Services Complex and the laydown area shown in Project Description Figure 2.

TRANSPORTATION AND TRAFFIC Page C.11-33

Staff proposes Condition of Certification **TRANS-2**, requiring a safety plan for the temporary access road crossing the Burlington Northern Santa Fe (BNSF) railroad.

Comment: The Applicant would like to clarify, that some elements of **TRANS-2** are included in the Project, in particular a newly improved at grade crossing is already provided with a steel swing-arm gate that deters unauthorized entry with a padlock, and the Applicant has initiated discussions with the CPUC, BNSF and FRA.

Additionally, the Applicant requests the following revision to the text:

"Temporary Access Road. The applicant proposes to construct a temporary access road to the site. This access road shall be an all-weather road designed to allow for fire-truck access during all weather and soil conditions. The road shall be constructed of materials, including culverts and paving, so that it will be safe for use in crossing washes located

on the site. In that regard, the road shall be constructed to requirements as outlined in the California Code of Regulations Title 19, section 3.05(a). This road will be used by workers, visitors, vendors, and emergency vehicles. The project will not hinder current traffic patterns. In addition, because this road, which will be gated, crosses the BNSF railroad tracks, certain safety precautions must be put in place, including a flagperson on site to control all traffic coming and going through the gates during construction hours."

TRANSPORTATION AND TRAFFIC Page C.11-34 to 35

Staff proposes Condition of Certification **TRANS-4** requiring a train safety plan.

Comment: The Applicant would like to clarify some elements of **TRANS-4**, in particular the following required safety measures:

Measure 1. A railroad safety plan that includes as a minimum provisions for the following: a. Permanent fencing with gates

Gates currently exist at the BNSF railroad crossing as part of the baseline condition.

Measure 2. Coordination with or approval of or both from California Public Utilities Commission (PUC); Federal Railroad Administration (FRA); BNSF; and AMTRAK to ensure that all required safety measures are in place. These measures should be reviewed monthly and updated as necessary.

The Applicant is currently coordinating with PUC, FRA, BNSF and AMTRAK to demonstrate their approval of the railroad crossing. The Applicant requests that these measures be reviewed *annually* and updated as necessary.

Measure 3. "Coordination with AMTRAK and BSNF to determine schedules and posting of schedules in locations suitable to be seen by workers and visitors"

The Applicant requests clarification of whether the posting of schedules would be required within worker and visitor areas within the Main Services Complex or at the railroad crossing itself.

It should be noted that upon completion of the proposed grade separated bridge crossing, the remaining construction activities and subsequent project operations traffic will no longer be in conflict with train traffic.

TRANSPORTATION AND TRAFFIC Page C.11-36

Staff proposes Condition of Certification **TRANS-6** limiting vehicle size and weight, and requiring certain permits for use of roadways.

Comment: Due to the dynamic nature of the construction environment, the Applicant suggests amending the verification as follows:

"**Verification:** ~~At least 30 calendar days prior to the start of construction, t~~The project owner shall obtain and provide copies of permits obtained from either the County of San Bernardino and the Caltrans District 8 office to BLM's authorized officer and the CPM on an as-needed basis. In the Monthly Compliance Reports (MCRs), the project owner shall

submit copies of any permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least 6 months after the start of commercial operation."

TRANSPORTATION AND TRAFFIC Page C.11-37

Staff proposes Condition of Certification **TRANS-8** requiring restoration of all public roads, easements and rights-of-way.

Comment: The Applicant would like to clarify some elements of **TRANS-8**, to reflect that the Applicant shall endeavor to cooperate to the extent feasible in accommodating public right-of-way repair or improvement in a manner that will facilitate and will not hinder the timely completion of the aforementioned improvements. The Applicant suggests amending the aforementioned condition so as not to so as not to imply that the Applicant must allow Caltrans or the County to delay the Applicant's construction work indefinitely.

"Prior to the start of site mobilization, the project owner shall consult with the County of San Bernardino and Caltrans District 8 and notify them of the proposed schedule for project construction. ~~The purpose of this notification is to request that San Bernardino County and Caltrans consider postponement of public right-of-way repair or improvement activities in areas affected by project construction until construction is completed and to coordinate with the project owner regarding any concurrent construction-related activities that are planned or in progress and cannot be postponed.~~"

TRANSPORTATION AND TRAFFIC Page C.11-37

Staff proposes Condition of Certification **TRANS-10** requiring a park-and-ride site.

Comment: The Applicant agrees with staff's intent to potentially reduce vehicle miles traveled and lower air emissions; however, there would be no demonstrated cumulative traffic impact nexus between the Applicant's Calico Solar Project and the Abengoa Mojave Project. The employee travel patterns would not overlap. The Applicant suggests that the existing park-and-ride site in Barstow would be more appropriate for use by workers.

TRANSPORTATION AND TRAFFIC Page C.11-38

Staff proposes Condition of Certification **TRANS-11** requiring bus transportation to the Project site.

Comment: The Applicant agrees with staff's intention of providing alternative transportation; however, there would be no demonstrated cumulative traffic impact nexus between the Applicant's Calico Solar Project and the Abengoa Mojave Project. The employee travel patterns would not overlap.

The Applicant requests that **TRANS-11** be deleted.

TRANSMISSION LINE SAFETY AND NUISANCE

The Applicant has no comments on the "Transmission Line Safety and Nuisance" section.

VISUAL RESOURCES

General Comment:

The Visual Resources Section of the SA/DEIS includes some of the BLM Visual Resources Management (VRM) methodology, but does not include a complete VRM analysis. The Applicant believes that the SA/DEIS document would be more complete from a NEPA perspective if it built upon the BLM VRM methodology already present in the report by more clearly establishing the interim VRM Class III for the BLM lands within the Project area and utilizing the Visual Contrast Rating system for determining impacts.

VISUAL RESOURCES Page C.13-1, C.13-22 and 23

Staff states "Impacts of the Reduced Acreage Alternative would be substantially less than the Proposed Project and the Avoidance of Donated Lands Alternative under NEPA, and are considered less-than-significant under CEQA."

Comment: In the assessment of the Reduced Acreage Alternative, CEC Staff makes the case that the impacts to visual resources associated with the Reduced Acreage Alternative would amount to less-than-significant impacts. Staff makes this determination based on the smaller size of the alternative. "Regionally, the setting and existing conditions for the Reduced Acreage alternative would not differ substantially from the proposed project. However, the setting at the boundary of the alternative would differ substantially from the proposed project. Under the alternative, substantially fewer solar dishes would be deployed and the project would be farther from the boundary of Cady Mountain WSA and nearby ACECs."

The analysis does not follow the same logic as the analysis of the Project, because the analysis of the Project considers the majority of sensitive viewers to be located along the transportation routes to the south of the project, not within the WSA and/or nearby ACECs. The majority of impacts associated with the project as analyzed through use of the KOPs are from the I-40, Route 66 and BNSF Railway. Analysis of KOPs 1, 4 and 5 all produced a finding of significant. These KOPs represent views from the I-40 and railway. According to the assessment, views from I-40, the Railway and Route 66 would not be appreciably different. Staff states: "It would not be appreciably different for viewers on I-40, which would remain the southern boundary of the project." Staff states: "The Reduced Acreage alternative would not reduce potential glare impacts on train operators, as the railroad would still pass through the site."

If the impacts to the I-40 and the railway would not be "appreciably" different, then it is not the case that impacts to these areas could be reduced to less than significant. Because impacts to the WSA were analyzed in discussion of KOP 2, and were found to be less than significant for the Project, then a change to these views should not amount to a change in the overall significance level of visual impacts originating with the reduced acreage alternative when impacts to the more sensitive viewing areas remain similar.

The Applicant disagrees that impacts to visual resources caused by the Reduced Acreage Alternative should be considered less than significant. This alternative still involves the use of over 2,000 acres of desert land that will be immediately visible to the

majority of highly sensitive viewers in the area. The development of the Reduced Acreage alternative would still amount to a visually dominant industrial feature and a high degree of change to the views experienced from KOPs 1, 4 and 5. Therefore, the Reduced Acreage Alternative would also cause significant adverse impacts to visual resources.

The Applicant recommends that the finding be changed to significant impact for the Reduced Acreage Alternative.

VISUAL RESOURCES Page C.13-39

Staff proposes Condition **VIS-1**.

Comment: The Applicant requests that the condition apply to all permanent structures, *except* for SunCatchers. While the Applicant is currently investigating the feasibility of painting the backs of the SunCatcher mirror facets a color that would minimize visual intrusion, the backs of the mirror facets are currently proposed to be painted white. Any color darker than white retains more heat and could therefore be problematic. There are many surfaces on the SunCatchers that cannot be painted due to slip critical features in which the structure requires friction that could be compromised by paint, the temperatures they would reach in the production of energy, and pre-fabrication galvanization that precludes a top-coat.

VISUAL RESOURCES Page C.13-40

Staff proposes a verification for Condition **VIS-2** requiring "At least 90 days prior to ordering any permanent exterior lighting or temporary construction lighting, the project owner shall contact BLM's Authorized Officer and the CPM to discuss the documentation required in the lighting mitigation plan."

Comment: The Applicant requests that verification of the condition be changed from 90 days prior to 30 days prior.

VISUAL RESOURCES Page C.13-41

Staff proposes Condition **VIS-3**.

Comment: According to the Revised Calico Project Layout Figure, submitted on March 8, 2010, the project is already in compliance with this condition. All SunCatchers will be located north of the existing pipeline right-of-way and at least 500 feet from Interstate 40.

VISUAL RESOURCES Page C.13-42

Staff proposes Condition **VIS-4**.

Comment: The construction laydown area is located adjacent to the Main Services Complex and not adjacent to I-40 (Proposed Project-Figure 2). The Applicant anticipates that SunCatchers will eventually be installed on the construction laydown area, and re-

vegetation of the area would therefore not be appropriate. The Applicant requests the following text revision:

"In order to minimize the visual prominence of the proposed staging area adjoining I-40 to motorists, the project owner shall provide opaque screening of the site as seen from the highway, and a set-back from the roadway of at least 250 feet. ~~In addition, the project owner shall provide a re-vegetation plan describing how the staging site will be restored following construction. The plan shall call for beginning of restoration of the site within the shortest feasible time following completion of construction.~~"

WASTE MANAGEMENT

WASTE MANAGEMENT Page C.14-13

Staff states that hazardous wastes would be temporarily stored on site.

Comment: The Applicant requests that the language be changed from temporarily store hazardous waste onsite to accumulate waste onsite, as follows:

"The hazardous wastes would be ~~temporarily stored~~ accumulated on site, transported off site by licensed hazardous waste haulers, and recycled or disposed of at authorized disposal facilities in accordance with established standards applicable to generators of hazardous waste."

WASTE MANAGEMENT Page C.14-25

Staff provides a "Cumulative Impact Conclusion."

Comment: In order for the "Cumulative Impact Conclusion" to capture the cumulative impact analysis that precedes it, the Applicant suggests the following revision to the last sentence of Section C.14.9.3:

"Therefore, staff concludes that the waste generated by the Calico Solar Project would not ~~result in~~ ~~significant~~ make a cumulatively considerable contribution to any cumulative waste management impact~~s~~ ~~either locally~~ in San Bernardino County or in the region~~ally~~."

WASTE MANAGEMENT Page C.14-27

Staff proposes a verification for **WASTE-6** stating "The project owner shall provide a reuse/recycling plan for at least 50% of construction and demolition materials prior to any building or demolition, including closure/decommissioning. At least 60 days prior to the start of any construction or demolition activities, the project owner shall submit a reuse/recycling plan to the CPM and AO for review and approval."

Comment: The Applicant requests that the submittal timeline for the reuse/recycling plan be revised from 60 days to 30 days.

WORKER SAFETY AND FIRE PROTECTION

WORKER SAFETY AND FIRE PROTECTION Page C.15-30

Staff proposes the Verification for Condition **WORKER SAFETY-2**.

Comment: The Applicant requests the following text revisions:

"**Verification**: At least thirty (30) days prior to the start of ~~first fire or commissioning~~ operations, the project owner shall submit to BLM's authorized officer and the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program.

WORKER SAFETY AND FIRE PROTECTION Page C.15-31

Staff proposes Condition **WORKER SAFETY-4**.

Comment: The Applicant requests the following text revisions:

"**WORKER SAFETY-4** The project owner shall make payments to the Chief Building Official (CBO) for the services of a Safety Monitor based upon the market rate and a reasonable fee schedule to be negotiated between the project owner and the CBO. Those services shall be in addition to other work performed by the CBO. The Safety Monitor shall be selected by and report directly to the CBO, and will be responsible for verifying that the Construction Safety Supervisor, as required in Worker Safety 3, implements all appropriate Cal/OSHA and Commission safety requirements. The Safety Monitor shall conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities."

WORKER SAFETY AND FIRE PROTECTION Page C.15-32

Staff proposes condition of certification **WORKER SAFETY-6**.

Comment: The Applicant requests the following revision to the text:

"The project owner shall either (1) reach an agreement with the San Bernardino County Fire Department regarding funding of its project-related share of capital costs to provide appropriate equipment as mitigation of project-related impacts on fire protection, HazMat, and /or EMS services along with an annual payment to maintain and provide these services, or if no agreement can be reached shall (2) fund its share of the capital costs in the amount of $350,000 ~~plus provide an annual payment of $100,000 to the SBCFD for the support of additional fire department staff commencing with the date of site mobilization and continuing annually thereafter on the anniversary until the final date of power plan decommissioning~~.

FACILITY DESIGN

FACILITY DESIGN Page D.1-7

Facility Design Table 2 provides "Major Structures and Equipment List."

Comment: The row describing the "Satellite Complex Maintenance Building Structure, Foundation and Connections should be deleted.

POWER PLANT EFFICIENCY

General Comment:

This section focuses primarily on fossil fuel use efficiency and land use efficiency. The Applicant believes an efficiency discussion would be more complete if it were to include a discussion on water use efficiency. As described in Alternatives Table 2 in the SA/DEIS, the Stirling Engine uses less than half the amount of water as the linear Fresnel technology, the concentrating solar power technology closest to the water efficiency of the Stirling Engine technology and as much as 13 times less water than the parabolic trough. Because solar generating facilities are sited in areas where water resources may be scarce, the ability to efficiently use water is crucial to successful solar energy development.

The applicant also feels that the land use efficiency discussion would benefit from a discussion of construction methods. As described in Alternatives Table 2 of the SA/DEIS, the Stirling Engine technology is one of the technologies that allows for the possibility of low impact construction and can allow for the highest degree of slope. Because of these two factors the efficiency of land disturbance within the Calico Solar site would be expected to be considerably higher than alternative technologies.

In addition, it should be noted that the acreage requested for the build out of 850 MW for the Project in addition to the technology itself, allows for building around sensitive species and cultural areas, where practicable. If development were proposed for farmed agricultural land or other disturbed land, the acreage needed for 850 MW output would be substantially reduced.

POWER PLANT RELIABILITY

The Applicant has no comments on the "Power Plant Reliability" section.

TRANSMISSION SYSTEM ENGINEERING

TRANSMISSION SYSTEM ENGINEERING Page D.5-4

Staff discusses the "Setting and Existing Conditions."

Comment: The Applicant requests that the following revisions be made to the text to reflect the latest design:

"Each SunCatcher consists of an approximately 40-foot ~~-high by 38-foot-wide~~ diameter solar concentrator in a dish structure that supports an array of curved glass mirror facets."

GENERAL CONDITIONS

The Applicant has no comments on the "General Conditions" section.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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APPLICATION FOR CERTIFICATION
For the CALICO SOLAR (Formerly SES Solar One)

Docket No. 08-AFC-13

PROOF OF SERVICE
(Revised 2/8/10)

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DECLARATION OF SERVICE

I, Corinne Lytle, declare that on April 14, 2010, I served and filed copies of the attached Applicant's Submittal of Comments on the SA/DEIS, dated April 14, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/solarone].

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

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

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

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

AND

FOR FILING WITH THE ENERGY COMMISSION:

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

OR

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

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-13
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
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I declare under penalty of perjury that the foregoing is true and correct.

Original Signed By

Corinne Lytle

*indicates change