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Michael J. Connor, Ph.D.
California Director
P.O. Box 2364, Reseda, CA 91337-2364
Tel: (818) 345-0425
Email: mjconnor@westernwatersheds.org
Web site: www.westernwatersheds.org

Working to protect and restore Western Watersheds

September 7, 2010

BY US MAIL AND BY EMAIL

Jim Stobaugh, National Project Manager
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520

Email: Jim Stobaugh <Jim_Stobaugh@blm.gov>

Re: FINAL ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED AMENDMENT TO THE CALIFORNIA DESERT CONSERVATION AREA PLAN FOR THE CALICO SOLAR (FORMERLY SES SOLAR ONE) PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA

Dear Mr. Stobaugh:

On behalf of Western Watersheds Project and myself, please accept the following comments on the Final Environmental Impact Statement and Proposed Plan Amendment to the California Desert Conservation Area Plan ("FEIS") for the Calico Solar Project (formerly the Stirling Energy Systems Solar One Project). The FEIS comment period ends September 7, 2010 so these comments are timely filed.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, research, public policy initiatives and litigation. Western Watersheds Project has a particular interest in the California Desert Conservation Area and our staff and members use and enjoy the project area's public lands and fragile resources. Western Watersheds Project has been actively involved in the environmental review for this project. Western Watersheds Project submitted timely scoping comments for the project on July 7, 2009. Western Watersheds Project submitted comments on the Draft Environmental Impact Statement for the project on June 30, 2010.

The BLM is considering two decisions: (a) whether or not to amend the CDCA Plan to allow the public lands at the proposed Calico site to be used for solar energy development, and (b) whether or not to approve the Applicant's right-of-way (ROW) application. The BLM is considering amending the California Desert Conservation Area (CDCA) Plan to allow solar energy development on up to 8,230 acres of public land in the project area. The BLM's preferred alternative for the ROW, is for an 850-megawatt power plant to be located on 6,215-

acres of relatively undisturbed public lands in California that are habitat for the state and federally listed desert tortoise, that provide habitat for sensitive wildlife and rare plant species and communities, and that include scientifically significant cultural resources.

In our prior comments, we reviewed a number of issues of concern posed by this massive project. This included the range of alternatives, and the direct, indirect and cumulative impacts on biological resources including desert tortoise, desert bighorn sheep, Mojave fringe-toed lizard, the white-margined beardtongue, and other sensitive and at risk species including the Mohave ground squirrel, impacts to habitat donated for conservation purposes and impacts to significant and numerous historical and cultural resources. We note that NEPA requires the BLM to address significant issues not simply recognize that the public has raised them. We offer the following specific comments on the FEIS.

The CDCA Plan Amendment/FEIS Project Conflicts with State Policy in Violation of NEPA.

The National Environmental Policy Act (NEPA) implementing regulations specify that NEPA documents must analyze "Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned". 40 C.F.R. § 1502.16(c). On September 3, 2010 - as the comment period on the FEIS drew to a close - the CEC committee reviewing the Calico Solar Project licensing process issued a determination that they cannot recommend approval of the configuration of the Calico Solar Project as currently proposed by the Applicant due to the scope and scale of high quality habitat affecting desert tortoises and bighorn sheep that would be lost in order to construct and operate the project.[1] In our comments we stated that the environmental review for this project is being rushed and requested the BLM to issue a Supplemental DEIS that fully analyses the impacts of the project. Since the CEC will not license the Calico project as currently proposed, the BLM must suspend its environmental review pending clarification as to what if any project will be moving forward, and then issue a new NEPA document for public review as appropriate.

The CDCA Plan Amendment/FEIS Analysis of Alternatives Violates NEPA.

The NEPA implementing regulations specify that NEPA documents must analyze a full range of alternatives. 40 C.F.R. § 1502.14. The consideration of alternatives "is the heart of the environmental impact statement." NEPA requires agencies to "Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." NEPA directs agencies to "Include reasonable alternatives not within the jurisdiction of the lead agency." NEPA requires agencies to "Rigorously explore and objectively evaluate all reasonable

[1] California Energy Commission Docket No. 08-AFC-13. Application For Certification for the Calico Solar Project (Formerly SES Solar 1) Committee Order Directing Further Review of Reduced Footprint Alternatives and Notice of Committee Conference.

alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated."

In the FEIS the BLM has failed to consider and analyze alternatives that would allow the project to proceed but would avoid impacts to desert tortoise, rare plants, cultural resources and other scarce and sensitive resources.

In the FEIS the BLM considers three action and one No Action alternative for the ROW, and two land use plan (LUP) amendment alternatives:

- Alternative 1: Proposed Action (850 megawatts [MW], 8,230 acres).
- Alternative 1a: Agency Preferred Alternative (850 MW, 6,215 acres).
- Alternative 2: Reduced Acreage Alternative (275 MW, 2,600 acres).
- Alternative 3: Avoidance of Donated and Acquired Lands Alternative (850 MW, 7,050 acres).
- Alternative 4: The No Action Alternative denies the Calico Solar Project ROW Grant and does not amend the CDCA Plan Amendment.
- Alternative 5: LUP Amendment: Deny Calico Solar Project ROW Grant/Amend CDCA Plan to Allow Other Solar Energy Projects on the Project Site.
- Alternative 6: LUP Amendment: Deny Calico Solar Project ROW Grant/Amend the CDCA Plan to Prohibit Other Solar Energy Projects on the Project Site.

In the FEIS, the BLM has adopted Alternative 1a as the preferred alternative. If the BLM decides to approve the ROW grant, the BLM will also amend the CDCA Plan as required by the ROW. FEIS at C-4. Presumably then, the BLM's proposed action for the CDCA plan amendment is to allow solar development on 6,215 acres in the project area. Or is it? What happens if the subsequent BLM ROD for the ROW modifies the size of the ROW? The FEIS is unclear in not specifying what acreage would be subject to land use modification to allow solar development under the land use plan amendment.

The BLM has eliminated from detailed study alternatives that would avoid or minimize impacts to biological resources or avoid or minimize impacts to public lands. Locating the project on private lands would obviously minimize impacts to public land resources. Despite NEPA's mandate to consider reasonable alternatives not within the jurisdiction of the lead agency, the BLM dismissed this alternative from detailed study on the grounds that the analysis of impacts would not define issues or provide a basis for choice in a manner any different than the No Action Alternative. But given the size of the project, there will be cumulative effects from constructing the project on private lands that cannot possible be the same as "no action". BLM also argues that the applicant would have to buy the land and acquire multiple parcels which would be costly and time-consuming. But by this token, the BLM will never consider private land alternatives for projects.[2] This is not in keeping with the spirit or intent of NEPA.

[2] It also raises questions over the feasibility of acquisition of replacement habitat to actually mitigate impacts to biological resources.

In order to address impacts to LWCF acquisitions and donated lands, the BLM has contrived Alternative 3. This is not a reasonable alternative since it compensates for the loss of impacts to the acquired and donated lands by increasing the project footprint and thus drastically increasing impacts on other resources.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Desert Tortoise.

Although the species has been listed for over 20 years and desert tortoise populations are declining throughout its range, the preferred alternative will impact a very large number of federal and state listed desert tortoises. The FEIS estimates that over 340 adult and juveniles will be directly or indirectly impacted by the project. The FEIS fails to analyze the significance of the desert tortoise population at the project site and the importance of the habitat there in the light of the population declines that have occurred throughout the region. The FEIS fails to consider that desert tortoise critical habitat designation and subsequent DWMA designation are based on data collected over 20 years ago. The FEIS fails to explain why this population appears to be doing so well and thus fails to analyze what the impacts of the loss of the proposed project site will have on desert tortoise recovery. The CEC proposed mitigation ratio of 5:1 for acquisition of replacement habitat is an attempt to recognize the significance of the population. However, this is arbitrary based on comparative mitigation ratios for ground disturbance in DWMA. Full analysis may establish that an appropriate mitigation ratio should to be much higher.

All the site alternatives reviewed in the FEIS would have "Direct and indirect short-term and long-term adverse impacts on desert tortoises on the project site, in the immediate project vicinity, and at translocation receptor sites, and to desert tortoise critical habitat within the Ord-Rodman DWMA; incremental contribution to significant cumulative adverse impacts on desert tortoise habitat and connectivity." FEIS at ES-13.

The March 2006 WMP ROD includes "Goal 3: ensures genetic connectivity among tortoise populations, both within the West Mojave Recovery Unit, and between this and other recovery units." The FEIS does not explain how the proposed plan amendment will be consistent with this biological goal. Desert tortoises require linkage habitat to maintain connectivity. Although the FEIS recognizes that the project would impact connectivity, the proposed mitigations do not address how the loss of linkage habitat will be mitigated. The agency preferred alternative has a marginal reduction in the size of the project footprint. While this might provide some kind of potential movement corridor for wildlife, if the habitat fragments that remain are not contiguous and are not large enough to maintain viable desert tortoise populations it will not function as linkage habitat. The FEIS undertakes no analysis of the degree of fragmentation, viability of the fragmented populations, nor does it establish if the potential movement corridor is viable linkage habitat for desert tortoise.

The FEIS includes a new Draft Desert Tortoise Translocation Plan that was not made available for public review in the draft NEPA documents. FEIS Appendix I. Translocation of desert tortoises is controversial and carries a high risk not just to the translocated animals but to

resident tortoises at the recipient sites. At its March 13, 2009 meeting, the DTRO's Science Advisory Committee reached consensus that translocation is fraught with long-term uncertainties, notwithstanding recent research showing short-term successes, and should not be considered lightly as a management option.[3] The DRECP's Independent Science Advisors consider translocation of desert tortoise to be an ineffective mitigation action in their recent draft recommendations. Major risks of translocation were clearly delineated in the 1994 Recovery Plan and include: (1) the tendency of the released desert tortoises to travel or wander from the site or attempt to return home; (2) increased vulnerability to predators; (3) the potential for agonistic responses from resident or host desert tortoises; (4) the potential for introducing or spreading diseases; and, (5) genetic pollution.

Prior large scale desert tortoise translocations conducted in the CDCA have shown little success, the Fort Irwin translocation being the prime example. Accordingly, the draft translocation plan will take an experimental approach to judge success by establishing "control" groups of tortoises that are outside the project area, apparently to monitor predation rates. However, as with the Fort Irwin translocation, the proposed translocation plan does not have a true control group because there will be no group of tortoises that remain at the project site that are not translocated.

Translocation sites should be selected based on sound, science-based criteria and the manageability of the sites to maximize likely success. Unfortunately, the sites proposed in the draft plan do not meet these criteria. Proposed recipient sites for translocated desert tortoises include:

- The Pisgah ACEC. The translocation of desert tortoises to Pisgah ACEC will directly impact the ACEC's resident desert tortoise population and therefore the ACEC.
- The Ord-Rodman Desert Wildlife Management Area (DWMA). This ACEC contains the only population of Southern Mojave desert tortoises as defined by Murphy et al., 2007[4] that occurs inside a conservation area.

ACEC's are established to protect sensitive resources. They were not established to be recipient sites for displaced wildlife or to facilitate the development of ground disturbing projects.

Translocation of desert tortoises to the DWMA could place the entire Ord-Rodman DWMA tortoise population at risk for the five reasons listed above. Translocation to a DWMA directly contravenes the specific recommendation of the 1994 Desert Tortoise (Mojave Population) Recovery Plan. There are no provisions in the West Mojave Plan for a large-scale translocation of desert tortoises into the Pisgah ACEC or the DWMA that that CDCA Plan Amendment established.

[3] Meeting Summary Desert Tortoise Science Advisory Committee Meeting, March 13, 2009, San Diego Wild Animal Park, Escondido, CA. 4 pp.

[4] Murphy, R.W., Berry, K. H., Edwards, T. and McLuckie, A.M. 2007. A Genetic Assessment of the Recovery Units for the Mojave Population of the Desert Tortoise, *Gopherus agassizii*. Chelonian Conservation and Biology 6(2): 229–251.

The BLM needs to address the general issue of desert tortoise translocation within the CDCA prior to considering any individual renewable energy projects. Because they are relevant to this issue we have attached a copy of our August 31, 2009 letter on the BLM's Environmental Assessment CA-680-2009-0058. We incorporate those comments on translocation into this comment letter by reference. Because of the risks and significance of translocation, the BLM must allow full public review of the translocation plan for the Calico project prior to making a decision.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Bighorn Sheep.

The proposed project will have direct, indirect, and cumulative effects on Nelson bighorn sheep that use the site on a seasonal basis for foraging, drinking, and movement. The Project site is located in an area identified as an essential biological connectivity area between the Bristol and Ord Mountains, and the preferred alternative will result in the permanent loss of nearly 1,100 acres of habitat currently available to bighorn sheep for foraging and 400 acres of spring foraging habitat will incur secondary impacts associated with noise impacts along the northern boundary of the project.[5]

Despite the potential significance of these impacts to bighorn sheep, the FEIS simply concludes "Impacts on Nelson's bighorn sheep foraging habitat would be unavoidable." FEIS at 4-71. Yet, despite this conclusion, the FEIS fails to propose mitigation measures such as the acquisition of replacement habitat or construction of land bridges to compensate for impacts to connectivity (as called for in the West Mojave Plan).

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Mojave Fringe-toed lizard.

The FEIS Preferred Alternative does not avoid impacts to Mojave fringe-toed lizard. "Implementation of the Agency Preferred Alternative would result in the same general impacts on Mojave fringe-toed lizard habitat as the Proposed Action. The Agency Preferred Alternative would impact the same general areas of soft, friable sands that are known to support this species. In addition, this alternative would interfere with aeolian and hydrologic sediment transport on the project site, which could indirectly impact habitat for this species. Even with the 24 percent reduction in project size associated with this alternative, overall impacts on the Mojave fringe-toed lizard would be largely the same as with the Proposed Action." FEIS at 4-77.

During the CEC Hearings additional evidence was presented that the amount of Mojave fringe-toed lizard habitat on the project site has been underestimated.[6]

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[5] [5] California Energy Commission Docket 08-AFC-13 Exhibit 413. Available on line at: http://www.energy.ca.gov/sitingcases/calicosolar/documents/others/CURE_Exhibits_400-436/CURE_PT-4.pdf

[6] California Energy Commission Docket 08-AFC-13 Exhibit 804. Available on line at: http://www.energy.ca.gov/sitingcases/calicosolar/documents/others/2010-08-30_Exhibits_800_to_804_basin_and_range_watch_TN-58255%20.pdf

The analysis must include full consideration of Aeolian transport of sediment to blowsand habitat on the Pisgah ACEC to protect the Pisgah Mojave fringe-toed lizard populations. West Mojave Plan at 2-186.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to White-margined Beardtongue.

"The only apparent threats to white-margined beardtongue are construction within the utility corridor north of Pisgah Crater and at the Pisgah electrical substation and off-road travel within the occupied habitat in washes draining the Cady Mountains." WMP at 4-79. This is the area where the project is located so it thus provides important habitat for the white-margined beardtongue. The conservation strategy adopted in the WMP is to conserve habitat on public lands defined as "All known occurrences in washes south of Cady Mountains. Known occurrences within the proposed Pisgah Crater ACEC." WMP at 2-51. Further, the WMP adopted a take limit for habitat "Take would be allowed for maintenance of existing facilities within the BLM utility corridor and on private land within its range. Limited to 50 acres of occupied and potential habitat." WMP at 2-51. The FEIS fails to quantify the project's impacts to white-margined beardtongue impacts in reference to the 50 acre-threshold. The FEIS fails to quantify cumulative white-margined beardtongue loss since the West Mojave Plan ROD was signed.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Cultural Resources.

The Mojave Desert is rich in structures and artifacts of significant cultural value that are irreplaceable once lost. The proposed Calico solar project is located in an archeologically rich area. The project would have a significant direct impact on The remaining 335 cultural resources within the Project APE include: 119 archaeological sites (94 prehistoric, eight historic, and 15 multi-component [including both prehistoric and historic elements] and two indeterminate rock feature sites [lack temporal data]), 206 archaeological isolates, and 10 historic built environment resources. FEIS at C.3-1. Three of these sites were determined eligible for the National Historic Register and the California Historic Register because they may yield information important in prehistory or history.

However, the cultural surveys and analysis are incomplete. Additional evidence and testimony presented at the recent CEC Hearings[7] indicates that the project site is of great scientific significance and may harbor evidence of early human occupation of the Americas. Although the site likely harbors subsurface cultural resources, the cultural surveys have been largely surficial.

[7] California Energy Commission Docket No. 08-AFC-13 Transcript August 25, 2010 Evidentiary Hearing at 66. Available at: http://www.energy.ca.gov/sitingcases/calicosolar/documents/2010-08-25_Transcript.pdf

In order to meet NEPA's requisite "hard look", the BLM must undertake detailed and thorough surveys for cultural resources so that it can analyze the direct, indirect, and cumulative effects of the proposed project.

The CDCA Plan Amendment/FEIS Violates FLPMA.

The Federal Land Policy Management Act (FLPMA) guides the BLM's management and uses of public lands. 43 U.S.C. § 1732(a) directs that these lands be managed under principles of multiple use and sustained yield. The preferred alternative would eliminate multiple use on 6,215 acres of public lands in the CDCA and will create a de facto industrial zone. The adoption of the proposed plan amendment will change the multiple-use character of these lands which currently provides habitat for the threatened desert tortoise, bighorn sheep, Mojave fringe-toed lizards, rare plants, and cultural resources in favor of a single use that will completely displace other uses on the proposed site.

BLM has failed to conduct an adequate inventory of the resources of the affected lands as required by 43 U.S.C. § 1711(a), including the inventory of cultural resources, listed species, and sensitive species. Without this baseline inventory, BLM cannot ensure that its decisions will prevent unnecessary and undue degradation of the public's lands in violation of FLPMA sections 1732(b) and 1732(d)(2)(a).

The CDCA Plan Amendment/FEIS Does Not Comply with the Land Use Plan and BLM Policy.

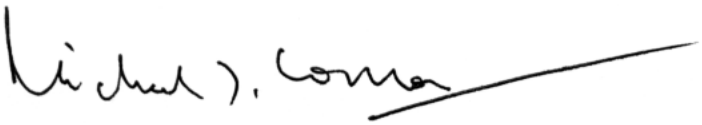
BLM Handbook 1745 - *Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants* - requires that "Decisions for making introductions, transplants, or reestablishments should be made as part of the land use planning process (see BLM Manual Section 1622). Releases must be in conformance with approved RMPs. A Land Use Plan Amendment must be prepared for proposed releases if management direction is not provided in the existing Land Use Plan (see BLM Manual Section 1617, emphasis added)." The FEIS describes a draft translocation plan that will result in large-scale movement and translocation of desert tortoises. There is no consideration in the California Desert Conservation Area Plan as amended by the WMP Plan for desert tortoise translocations on this scale. Therefore, a plan amendment is required to comply with BLM policy.

The West Mojave Plan ROD signed March 2006 includes "Goal 3: ensures genetic connectivity among tortoise populations, both within the West Mojave Recovery Unit, and between this and other recovery units." The preferred alternative does not explain how the proposed plan revision will help the BLM meet this biological goal and comply with current CDCA Plan as amended.

In summary, in order to comply with NEPA and FLPMA, the BLM must deny the Calico solar project and should adopt a plan amendment that makes the project area unavailable to renewable energy projects.

If we can be of any assistance or provide more information please feel free to contact me by telephone at (818) 345-0425 or by e-mail at <mjconnor@westernwatersheds.org>.

Yours sincerely,



Michael J. Connor, Ph.D.
California Director
Western Watersheds Project
P.O. Box 2364
Reseda, CA 91337

ATTACHMENT: August 31, 2009 comment letter from Western Watersheds Project on the Bureau of Land Management's Environmental Assessment CA-680-2009-0058 for the Translocation of Desert Tortoises onto Bureau of Land Management and Other Federal Lands in the Superior-Cronese Desert Wildlife Management Area, San Bernardino County, California.

Michael J. Connor, Ph.D.
California Director
P.O. Box 2364, Reseda, CA 91337-2364
Tel: (818) 345-0425
Email: mjconnor@westernwatersheds.org
Web site: www.westernwatersheds.org

Working to protect and restore Western Watersheds

By E-mail

August 31, 2009

Chris Otahal
U.S. Department of the Interior
Bureau of Land Management
Barstow Field Office
2601 Barstow Road
Barstow, CA 92311
<caftirwin@blm.gov>

Re: **Environmental Assessment for the Translocation of Desert Tortoises onto Bureau of Land Management and Other Federal Lands in the Superior-Cronese Desert Wildlife Management Area, San Bernardino County, California Bureau of Land Management Environmental Assessment CA-680-2009-0058**

Dear Mr. Otahal:

On behalf of Western Watersheds Project and myself, please accept the following comments on the Environmental Assessment for the Translocation of Desert Tortoises onto Bureau of Land Management and Other Federal Lands in the Superior-Cronese Desert Wildlife Management Area, San Bernardino County, California Bureau of Land Management Environmental Assessment CA-680-2009-0058 ("EA").

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, scientific study, public policy initiatives, and litigation. Western Watersheds Project and its staff and members use and enjoy the public lands, including the lands at issue here, and its wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes. Western Watersheds Project has a particular interest in the desert tortoise and recently petitioned the Department of Interior to list the Sonoran desert tortoise population under the Endangered Species Act.

The purpose of the project is to translocate large numbers of desert tortoises from areas that are now within the boundaries of Fort Irwin and that will be used by the Army for training, to public lands and compensation lands acquired by the Army. The proposed action outlined in the EA encompasses two desert tortoise translocation efforts; the continued removal of tortoises from critical habitat in the Southern Expansion Area according to protocols in the "Original Plan" which is predicted to require moving up to 89 tortoises on to eight sections of BLM managed lands within the Superior-Cronese DWMA; and, the removal of 516 to 1,143 tortoises

from the Western Expansion Area according to the USGS "Amended Translocation Plan" onto Army and BLM managed lands within the Superior-Cronese DWMA (EA at 9-10). The BLM is deciding whether or not to authorize translocation of desert tortoises onto public lands managed by BLM, consistent with the USGS Original and Amended Translocation Plans, and with the associated Biological Opinions.

The proposed project is highly controversial, of great public interest, and of special interest to Western Watersheds Project members. In 2008, the Army translocated 569 desert tortoises from the Southern Expansion Area ("SEA") and then halted the project when massive fatalities of translocated and resident tortoises occurred. According to the U.S. Fish and Wildlife Service's draft Biological Opinion, over 252 resident and translocated tortoises died, many of these deaths (67%) being attributed to predation by coyotes. The actual number of deaths is unknown in part because not all affected tortoises are being tracked, and mortalities continue to be reported. Large scale desert tortoise translocation is experimental, and thus scientifically controversial, and the large number of tortoise mortalities engendered in the 2008 translocation fueled public indignation. Despite this, the BLM released the EA with only a 15-day comment period and without adequate public notice in defiance of both the Federal Land Policy Management Act ("FLPMA") and the National Environmental Policy Act ("NEPA"). Although we submitted timely scoping comments on the proposed project (see attached letter dated 02/18/09) we received no official notification of the release of the EA. When we asked the Bureau why we had not been notified we were informed that there was no record of our involvement. After we forwarded a copy of Dr. Quillman's acknowledgment of our scoping comments we were then told that our comments were indeed in the record. Evidently, the BLM has either erred in not informing all the interested public or has ignored our scoping comments. Either way, the agency falls short of its obligations under NEPA and FLPMA. Notices to interested individuals and organizations are also required by BLM Handbook 1745 which sets out BLM policy governing species relocations.

On August 6, 2009 we submitted a joint request with five other interested organizations requesting a 60-day extension of the comment period because of the complex and controversial nature of the project. The BLM agreed to extend the comment period to August 31, 2009. We applaud the BLM for granting the extension. However, NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. We requested copies of various personal communications that are referenced in the EA that relate directly to the environmental effects of the proposed project. We were told that obtaining these would require a FOIA request, which we immediately submitted. We received these documents at the end of the comment period, leaving little or no time to review and digest the information. This flaunts both the spirit and intent of the NEPA and FLPMA requirements to involve the public in making decisions.

The National Environmental Policy Act requires agencies to take a "hard look" at the environmental impacts of its actions. The purpose of an EA is to provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement ("EIS") or issue a finding of no significant impact ("FONSI") for a project. NEPA requires considerations of both context and intensity of the impacts of a project in determining if it significantly impacts the human environment. As we show below, based on these two criteria the project clearly falls into

the "will significantly impact" category and an EIS is required. The Bureau has determined that its proposed action, to allow the Army to release desert tortoises from Fort Irwin onto public lands in the western translocation area, is likely to adversely affect the desert tortoise.[1]

(1) Baseline Data on the Prior Desert Tortoise Translocation.

The large scale translocation of any animal, especially a listed species, is inherently complex. In this regard, the results of the Army's prior desert tortoise translocation effort should inform the process. *A priori*, at least the basic data from that effort needs to be presented. However, there is considerable confusion in the EA and associated documents even over the numbers of desert tortoises that have been affected and have died. The EA and the USFWS draft Biological Opinion[2] indicate that 569 desert tortoises were translocated from the Southern Expansion Area ("SEA"). Transmitters were left in place on 357 (i.e. 63%) of these animals following translocation. Some of the resident tortoises at the receptor sites and at control sites (sites where no tortoises were translocated to) were also processed and fitted with transmitters. Both the EA and draft Biological Opinion set this at 289 tortoises (149 controls and 140 recipients). The total number of tracked (i.e. transmittered) tortoises is thus 646. The actual number of resident desert tortoises at the receptor and control sites has not been determined. However, according to the EA, over 430 resident desert tortoises have been monitored in various studies. Since this was referenced by a personal communication, it is unclear if the 141 (i.e. 430-289) non-tracked resident tortoises were simply encountered during monitoring, if they were located in systematic surveys, were used in the various research projects, or what percentage of the total number of resident tortoises they represent. On August 27, 2009 we received a copy of the referenced personal communication (Email from R. Averill-Murray, dated 07/17/09). It was not helpful in clarifying this question.

The EA cites an unreleased analysis of predation of the tracked tortoises performed by the Desert Tortoise Recovery Office ("DTRO"). This analyzed population included 149 control, 140 recipient, and 357 translocated tortoises, i.e. 646 animals. Of these 646 tortoises, 147 died from "various causes". This number calculates to 23% of the tracked tortoises. The EA (at 3) states that animals that were lost due to transmitter failure, difficulty in tracking, or undetected predation events were excluded from this analysis but does not provide the number that was excluded. Assuming that this was greater than zero, the overall mortality rate was higher than 23%. The EA is silent on the number of tortoise deaths attributed to predation versus other causes. The draft Biological Opinion (at 48) states, "To conduct research on how translocation affected desert tortoises, workers placed transmitters on 149 control, 140 resident, and 357 translocated desert tortoises. As of April 2009, coyotes had killed 169 desert tortoises; an additional desert tortoise was reported as 'depredated.' Five desert tortoises died of natural causes, 7 were killed by common ravens, 1 was killed by a vehicle, and 15 were euthanized. The cause of death was reported as unknown in 43 cases and as 'other' for 5 desert tortoises; no cause of death was reported for 6 desert tortoises. In total, approximately 252 desert tortoises died while translocation was under way (unpublished data: Excel file 'mortalities 071709'). We

[1] Letter from the BLM California Desert District Manager to Diane Noda, USFWS, requesting initiation of consultation over the plan to translocate desert tortoises from Fort Irwin to Public Lands, dated July 23, 2009.
[2] Biological Opinion for the Proposed Addition of Maneuver Training Lands at Fort Irwin, California (8-8-09-F-43R). Draft dated July 30, 2009. 89 pp.

understand that a small number of desert tortoises have died since April but we have not received final reports on these animals." Assuming that the 252 mortalities were among the 646 tracked tortoises as indicated in the quote, this would give a mortality rate of 39%. The 170 deaths by predation would amount to 26%.

It is unclear why the DTRO and draft Biological Opinion numbers are so disparate, especially since they were generated within the same agency. The loss of at least 252 adult desert tortoises is appalling in itself, even more so as it does not account for an unknown number of untracked tortoises that may have been affected. The lack of clarity relating to what happened during the first translocation is not helpful, and simply fuels further controversy. The various agencies involved need to better communicate with each other and with the public, and develop a clear and transparent process that will allow for the realistic documentation of the effects of the translocation that is required to meet NEPA's requisite "hard look".

(2) Baseline Desert Tortoise Data & Carrying Capacity at Proposed Translocation Sites.

The proposed action is to translocate up to 89 tortoises from the SEA and 516 to 1,143 tortoises from the Western Expansion Area ("WEA") (EA at 3-4). The draft Biological Opinion cites the same number from the SEA and assumes about 1,100 tortoises could be moved from the WEA based on the midpoint of the upper estimates from two separate studies. The numbers of resident desert tortoises at the various receptor sites identified in the map (EA Figure 2) are unknown since no site specific abundances have been determined nor apparently are any planned. Instead, the agencies rely on density estimates generated in the range-wide line distance sampling ("LDS") surveys, so we will follow their lead.

The EA identifies 205 sections in the Superior-Cronese DWMA as suitable for translocation of tortoises from the WEA based on modeling analysis. The EA (at 9) assumes an abundance of 19 desert tortoises per square mile, i.e. 3,952 tortoises on the 205 sections.[3] The draft Biological Opinion assumes 16.4 desert tortoises per square mile, i.e. 3,362 tortoises on the 205 sections.[4] If 1,100 tortoises are translocated this would increase the density on the 205 sites by 28% based on the EA numbers and 33% based on the draft Biological Opinion numbers. The most recent LDS data available, that provided in the DTRO's draft 2007 Monitoring Report[5], gives an estimate of 5.9 tortoises/sq km (with 95% confidence intervals of 3.72- 9.25), i.e. 15.2 tortoises per square mile (with 95% confidence intervals of 9.6- 24). Using that data, which we consider to be the most reliable estimate based on the recent improvements in sampling and statistical methodologies, the population estimate would be 3,132 and the translocation of 1,100 tortoises would increase the density on the 205 sites by 35%. These numbers are of course very simplistic estimates. Ten years ago, as part of the West Mojave Plan planning effort, tortoise sign surveys were conducted across what would become the Superior-Cronese DWMA. While not quantitative, this exercise indicated that the distribution of desert tortoises is patchy. The applicability of the DWMA-wide based LDS estimate to specific sites is also unclear since this

[3] The EA cites Medica, personal communication as the source of the 19/sq mile number. In the response to our FOIA request we were sent an earlier, undated draft version of a translocation plan that cites "Medico [*sic*], personal communication". Confusion could have been avoided if the BLM had used the actual DTRO monitoring reports.
[4] Yet again, an example of the agencies using different datum.
[5] Range-Wide Monitoring of the Mojave Population of the Desert Tortoise: 2007 Annual Report U.S. Fish and Wildlife Service Desert Tortoise Recovery Office, Draft dated November 2008. 50pp.

technique is geared towards obtaining trends at the range-wide and recovery unit levels. The new USGS proposed plan will avoid translocating tortoises within a 5 km buffer zone around any diseased resident tortoises. While this is an important improvement to the protocol, it will likely diminish the available receptor sites since *Mycoplasma*-positive animals have been detected in the area. Other factors too, may diminish the available receptor sites. However, the bottom line is that translocation of the WEA tortoises could increase tortoise densities by one third, and could directly impact over 3,000 resident tortoises. This level of impact cannot be discounted as minor and underscores the need for a complete EIS. Among other things, the increased density plus stress of capture, translocation, and release into foreign habitat may increase susceptibility of desert tortoises to *Mycoplasma* infections across a large area of the Superior-Cronese DWMA.

In our scoping comments, we had raised the need for the current desert tortoise carrying capacity to be estimated at the translocation sites. In the EA's response to comments section, by the comment "Need for analysis of carrying capacity of receptor sites" is the response "Addressed in sections 2.1.1.1 and 2.1.1.2". However, the issue is not addressed in either section (or elsewhere) unless the EA is referring to the unsupported claims in the sentence "Also, since there seems to be little connection between drought and non-drought conditions and mortality levels of translocated tortoises, the developers of the translocation plan considered food availability not a factor which needs be considered in the timing of translocation efforts" (EA at 7). Carrying capacity is the inherent ability of the land to support a given number of tortoises per unit area (West Mojave Plan at 3-94). While forage availability may be one factor the BLM uses in determining carrying capacity for livestock, it is not an appropriate delimiter for the ability of an area to support more desert tortoises. Instead, site-specific consideration of all the resources required over the life of a tortoise with respect to the size of the population is required: including food plants, cover sites, social hierarchies and territories, predators, essential constituents of habitat, and other ecological parameters (USFWS, 1994). This is especially important for receptor sites identified as being in "die-off regions", because the actual cause of the die-offs is so rarely known. If the translocation sites are not at carrying capacity, there must be an ecological reason. As such, adding more tortoises may create a surplus to what the local, receptor site can handle successfully. This could fuel increased density-dependent mortality via various means including parasites, disease, predation, and take by automobiles. Under the ESA, agencies must utilize their authorities in furtherance of the purposes of the Act and thus must take the most conservative approach in favor of the species and habitat when there are data gaps, like there are here. The lack of basic site-specific information such as desert tortoise abundance at each receptor site is a significant data gap.

According to the EA (at 8), relocation of the remaining SEA tortoises would result in the density increasing up to approximately 30 animals per square mile on eight sections of land. Apparently, this is to maintain the integrity of the ongoing tortoise research project. This could thus impact 240 desert tortoises in the Southern Translocation Area. The EA (at 28) states, "While this increased translocation density (relative to the Amended Translocation Plan) may exasperate the issues of disease transmission and predation, the USGS/University of Nevada-Reno team (and independent reviewers) have concluded that this increased density would not significantly raise the threat of disease or predation above background levels and that the conservation benefits gained by the on-going research would outweigh these potential drawbacks

(Todd Esque, USGS, personal communication)." The EA is silent on why the threat of disease or predation would not be above background levels. In fact, since the research sites are well within the range of movement of translocated tortoises, the carrying capacity of the SETA sites is unknown, and these sites are within the same general area that experienced massive coyote depredation rates in 2008, the benefit of staying with the original translocation protocol is not only unclear but appears to be outweighed by the risks not just to these 240 resident and translocated tortoises but even to the tortoises at the nearby research sites. The ESA requires the agencies to minimize incidental take. We see no evidence in the EA that staying with the original translocation protocol for the remaining SEA tortoises will do so.

(3) The Fort Irwin Desert Tortoise Translocation and Predation.

The EA and supporting documents take the view that the Fort Irwin translocation had no effect on coyote depredation but rather that the massive loss of tortoises would have occurred anyway. This is based on similar predation rates observed among translocated, control and resident tortoises that were tracked as part of the research effort in the original translocation. However, no data is available (and evidently was never collected) on the fate of the resident tortoises that were not part of the research study; nor is it clear if survival data was collected on those translocated tortoises whose transmitters were removed at release. The EA (at 3) references a personal communication as the source of its information on these similar predation rates. This was the email from Roy Averill-Murray dated 07/17/09. It contains the two paragraphs that were cut and pasted into the EA with no additional supporting data.

The translocation involved extensive manipulation of the tracked desert tortoises including transmitter attachment and removal, repeated monitoring, and the presence of large numbers of biologists and support staff at the receptor sites. Some of the receptor sites were close to human habitation. All these factors could contribute to alerting predators and altering predation rates. Boarman *et al* (1998) reviewed possible effects of transmitter attachment on chelonians. They concluded "Studies should be conducted to evaluate the effect that transmitters and their attachment methods have on turtles and tortoises with the results reported in the literature." That observers may influence predation rates is a known issue for desert tortoises. For example, Bjurlin and Bissonette (2004) raised concern that monitoring may facilitate predator detection of desert tortoise nests and cautioned that a systematic study of researcher impact on predator behavior is warranted. In a preliminary study of the possible risks of tracker dogs attracting predators such as coyotes when being used to locate desert tortoises, Cablk *et al* (2004) found that human presence alone may attract coyotes especially with prolonged stays. Cablk also provides a brief literature review of related studies. The large scale of the Fort Irwin translocations would make these kinds of observer effects of particular concern.

The Draft Biological Opinion includes the following table; a similar table was shown by Dr. Esque during his presentation at the 2009 Desert Tortoise Council Symposium.

Location	Sample Size	Number Dead	Percent Loss
Superior-Cronese, CA	15	1	6.7
Marine Corps Air Ground Combat Center, CA	11	1	9.1

Coyote Springs Valley, NV	26	4	15.4
River Mountains, NV	19	4	21.1
Piute Valley, NV	14	3	21.4
Fort Irwin, CA	647	147	22.6
Soda Mountains, CA	29	12	41.4
Chuckwalla Bench, CA	16	7	43.8
Chemehuevi, CA	11	5	45.5

How the data was collected, actual site locations, the level of manipulation of the animals, the demographics of the sampled tortoises, when the sites were sampled, the statistical significance of the losses, how the losses to predation were actually determined, and what other causes of death were observed are not explained. However, the authors speculate that this data provides evidence of range-wide coyote depredation. The documents provide no data showing trends in coyote depredation rates over time at any of these locations. Without these data, it is difficult to determine whether depredation rates changed in 2008 and what contribution manipulation of a tortoise may have made to it subsequently being preyed upon. Certainly, if the tabulated numbers are taken at face value and the none-Fort Irwin data is representative of un-harassed tortoises, the observation of only a 6.7% loss (a single tortoise) at the Superior-Cronese site compared to the 22.6% loss in the Fort Irwin translocation is deeply troubling.[6] It suggests that the magnitude of the intervention may have contributed to the massive loss of tortoises in the Fort Irwin translocation. There is no foundation for the claim reiterated in the documents that the Fort Irwin translocation did not contribute to the massive losses. Accordingly, predation cannot be discounted and must be fully factored into the environmental analysis.

We included a brief review of literature related to coyote predation on desert tortoises in our scoping comments. Over 60 years ago, Woodbury and Hardy (1948) found evidence for coyote predation on desert tortoise and concluded that the rate probably increased in dry years when rabbit populations were low. Given the background literature and recent experience, canid depredation of desert tortoises following translocation is clearly likely to occur, and needs to be mitigated for to minimize take. We do not advocate lethal control of local coyotes, since this is at best a stopgap measure and it is unclear as to how effective coyote removal would be at reducing depredation (cf. Goodrich & Buskirk, 1995). Rather, predator distribution and presence should be criteria used in selecting translocation sites. Appropriate predator mitigation measures (such as temporary protective fencing and stringent protocols to minimize prolonged human presence at translocation sites) should be incorporated into the translocation plan. Any proposals for control of coyotes and other predators need to be fully analyzed in the NEPA documents. Coyote removal could result in new packs moving in from adjacent areas and occupying the now vacant territory, potentially compounding the problem. Lethal coyote control could have potential long-term consequences for the local desert ecosystem. Coyote removal could trigger an increase in the local rabbit and black-tailed hare population and change the availability of tortoise food plants in subsequent years. Coyote eradication could lead to increased kit fox numbers and increased predation on desert tortoise nests.

[6] On August 31, 2009 we obtained a copy of a table provided by USGS in response to a FOIA request entitled "Working Tortoise Predation Table 10Aug2009". This included the same information provided in the draft Biological Opinion with additional data columns for 2006 and 2007. The mortality for 2007 at the Superior Cronese plot was 1/16 = 6.3%, i.e. a statistically identical result to 2008. No data was provided for 2006.

The EA claims that the translocation project may have a positive long-term effect on the upward or stationary trend of desert tortoise within the DWMA by increasing the available pool of healthy adult females of reproductive age. Yet as we mentioned in our scoping comments, Berry et al (2009) reported that more females than males were killed by predators in the 2008 translocation. In the EA's response to comments section, by the comment "Need for development of protocols to address gravid females." is the response "Discussed in section 4.3.1.1". However, no such discussion occurs in that section (or elsewhere in the EA). The translocation plan must include mitigation measures to address this imbalance. The plan should include specific guidelines related to the translocation of gravid females to minimize risks to this crucial demographic group.

(4) The Experimental Nature of Large Scale Translocation.

The 1994 Recovery Plan considered translocation as a potentially important conservation tool if the techniques can be perfected, and recommended that research be conducted to achieve this. It was with this in mind that the Fort Irwin translocation was built around conducting vital research. This research is still ongoing, and large scale desert tortoise translocations remain experimental and the object of scientific controversy. This is recognized in the EA, and is why different protocols were adopted for the SEA versus WEA tortoises. The remaining SEA tortoises cannot be released according to the amended protocols (i.e., dispersed across the Southern Expansion Translocation Area), because they would compromise the study design (control animals) in the research projects currently under way.[7]

Certainly there has been some welcome progress in desert tortoise translocation related research. A recent paper by Field *et al.* (2007) provides data from a small scale translocation conducted at the LSTS in 1997-1998. They translocated tortoises that had been held at the Desert Tortoise Conservation Center in Las Vegas. They observed a 21.4% fatality in the first year that they attributed to drought conditions at the release site, and zero the second year (1998) which was one of wettest years on record for the area. Despite the small sample size, short duration of the study, and absence of long term follow up, they concluded that tortoise translocation should be considered a valid tool for desert tortoise conservation. At its March 13, 2009 meeting, the DTRO's Science Advisory Committee reached consensus that translocation is fraught with long-term uncertainties, notwithstanding recent research showing short-term successes, and should not be considered lightly as a management option.[8] Given the high degree of scientific uncertainty, large scale translocation remains experimental, scientifically controversial, and unproven as a tool for desert tortoise conservation.

The 1994 Recovery Plan proposed DWMA as protected areas within Recovery units where preserve level management would be implemented to recover the desert tortoises. While the Recovery Plan entertained the concept of "experimental zones" within DWMA, it recommends that these be limited to no more than 10% (Recovery Plan at 36). Neither the

[7] Per 07/16/2009 e-mail from Roy Averill Murray to Chris Otahal.
[8] Meeting Summary Desert Tortoise Science Advisory Committee Meeting, March 13, 2009, San Diego Wild Animal Park, Escondido, CA. 4 pp.

Recovery Plan nor the governing land use plan (West Mojave Plan) envisioned making entire DWMA experimental zones.

(5) Range of Alternatives.

The NEPA implementing regulations specify that NEPA documents must analyze a full range of alternatives. Based on the information and analysis presented in the sections on the Affected Environment (40 C.F.R. § 1502.15) and the Environmental Consequences (40 C.F.R. § 1502.16), the NEPA document should present the environmental impacts of the proposed action and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. The regulations specify that agencies shall:

> (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
> (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
> (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
> (d) Include the alternative of no action.
> (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
> (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

In our scoping comments, we had recommended that the BLM consider an alternative based on the recommendations of the 1994 Desert Tortoise Recovery Plan. This alternative would fully implement the recommendations of the 1994 Desert Tortoise Mojave Population Recovery Plan Appendix B. This alternative would identify translocation sites outside the DWMA. Analysis of this alternative would have provided a baseline for fully analyzing risks to the tortoises and to the DWMA, since tortoises would be translocated outside the DWMA under this alternative. We are surprised that the BLM has not just ignored our proposed alternative but has failed to consider any alternative based on the current Desert Tortoise Recovery Plan in the EA. In doing so, the BLM has failed to explore and evaluate a reasonable range of alternatives.

The EA reviews four alternatives; the proposed action under which tortoises would be translocated onto BLM managed and Army owned lands in the Superior-Cronese DWMA guided by the USGS original and amended translocation plans; alternative A which is the same as the proposed action but would also allow tortoises from the SEA to be translocated onto 65 square miles of the Soda Mountains Wilderness Study Area ("WSA") at the east end of the Superior-Cronese DWMA; alternative B under which tortoises would be translocated onto 62 square miles of Army and state owned lands in the Superior-Cronese DWMA; and "no action", under which no translocation and no army training would occur.

Although the BLM claims to have analyzed alternatives A and B in depth, the habitat quality of the WSA lands, the Army acquired lands, and the state lands is not described and no

maps are provided to even indicate the locations. Again, the BLM is failing to take a hard look at environmental consequences and what's best for this listed species. The EA (at 12) states, "For the purposes of the analysis in this EA, it is assumed that all of these lands would be available for receiving translocated animals, though[t] it is likely that some locations would be deemed unacceptable for translocation". The absence of habitat quality and suitability data, and basic maps of the locations make it difficult for the public to appreciate the relative merits of these alternatives. The EA also makes incorrect assertions about management on the state and the Army's acquired compensation lands. The general management of these lands essentially reflects what is going on, on the public lands around them. What is different though is that these lands are not open to BLM's multiple use policy and therefore are not available for mining and energy development, etc. If the Army's compensation lands are transferred to the BLM they will be open to these developments and other consumptive uses. The EA should consider alternatives under which the Army's compensation lands are not transferred to BLM or are only transferred if the BLM guarantees that these lands will be conserved in perpetuity for the purposes of conserving and recovering desert tortoises and other special status species.

For alternative B, receptor sites would be on Army compensation lands and state lands only. However, state lands were considered unsuitable in the site selection decision support model (Amended Translocation Plan at 30). Further, according to the Amended Translocation Plan, State lands are not being considered due to the administrative burden related to such activities (Amended Translocation Plan at 6). Thus, it is unclear why this alternative is even being considered in the EA.

Under the "no action" alternative the translocation effort would not take place on BLM managed lands and no military activities would take place. For the purposes of analysis, it is assumed that conditions on BLM managed lands would not change from the current baseline conditions. Yet, based on bald claims made in the EA and associated documents, some 25% or so of the DWMA's adult tortoises were depredated by coyotes in 2008. This is a catastrophic level of change that cannot be ignored. Why does the BLM not expect densities of desert tortoise to change if predation is such an issue? Assuming that densities will not change is not helpful in establishing the base-line for impacts from the proposed action, particularly if mortality continues at the rates observed in the prior translocation.

(6) Clearance Surveys.

The clearance surveys for the WEA tortoises described in the EA and Amended Translocation Plan could result in large numbers of tortoises being left in the training area. The proposed action is to undertake a single pass survey by tortoise pedestrian survey teams through one kilometer blocks. If more than four adult tortoises are found within any one square kilometer block, then the block would be surveyed a second time in its entirety. Four tortoises per square kilometer equal 10.3 tortoises per square mile. But the Amended Translocation Plan (at 4) also indicates that the percentage of tortoises detected on a single pass was only 70%. Assuming this detection rate is correct and is achievable under field conditions, the trigger for a second survey would be an abundance greater than 14.8 tortoises per square mile. This density is similar to the actual Superior-Cronese DWMA abundance of 15.2 adult tortoises per square mile

determined in the most recent range wide LDS monitoring. Thus, the trigger for a second "sweep" is finding an average number of tortoises for the area.

Because the second sweep will only occur on habitat that supports equal or higher numbers of tortoises than the average abundance for the area, the clearance surveys will leave a large number of tortoises within the WEA. It is difficult for us to calculate the number of tortoises that would be left since we do not have access to the agencies' survey data.[9] However, for a worse-case scenario if we assume that the LDS abundance of 5.9 tortoises/km^2 (15.2 tortoises/mile^2) is a median value, half of the WEA (125 km^2) would not receive a second pass, and 221 (i.e. 5.9 x 125 x .3) adult tortoises would be missed from areas that received only a single pass. The total number of adult tortoises actually left in the WEA would be higher since the detection rate for 2 passes is 95% (i.e. 5% missed), and an unknown number of hatchlings and young tortoises will also be missed. The criteria for triggering a second sweep will not minimize incidental take and should be reconsidered.

(7) Selection of Translocation Sites.

Translocation sites should be selected based on sound, science-based criteria and manageability to maximize likely success.

The Amended USGS plan incorporates "die-off" as a positive factor in choosing translocation sites. Die-off regions are identified as areas in which the carcass encounter rate exceeded the live encounter rate in the range-wide LDS monitoring. However, the efficacy of using this ratio is unclear since both carcasses and live tortoises are likely to be more frequently encountered in higher tortoise density areas, but available carcasses are easier to find than are live tortoises depending on the conditions on the day of the survey. Use of this factor in choice of translocation sites also assumes that whatever caused the die-off is no longer an issue in those areas. Since we rarely know the cause of die-offs, this hypothesis needs critical evaluation, and requires ground-truthing at each translocation site. Recent studies of tortoise and wildlife translocations emphasize the need to abate existing threats for translocations to be successful (Fischer and Lindenmayer, 2000; Fields *et al.*, 2007). The cause of any die-offs needs to be determined so that the threat(s) can be ameliorated.

Translocation sites should be selected in areas where resident desert tortoises share similar genetic backgrounds. In this case, the project would translocate desert tortoises throughout the range of what has been identified as a genetically distinct "Central Mojave" population of desert tortoises (Murphy *et al.*, 2007). Murphy *et al.* considered the range of this population to encompass Rowlands' Central Mojave botanic region (Rowlands, 1995). The Superior-Cronese DWMA boundary was based on administrative boundaries, roads and other defined barriers. While it includes much of the Central Mojave it also overlaps with the West Mojave botanic unit. The USGS (Amended Translocation Plan at 21) apparently considered

[9] Today, August 31, 2009, we obtained a copy of Walde, A. D., Boarman, W. I. and Woodman, A. P. *Desert Tortoises Estimates on the Western Expansion Area of Fort Irwin dated 6 February 2009*. They surveyed 62 sq km plots in the WEA in a single pass survey. They found densities of 5 or fewer tortoises on 44 plots and 6 or more tortoises on 18 plots. This suggests that our worse-case scenario may be over-optimistic; more than half of the plots may only get a single sweep.

genetic integrity in choosing possible translocation sites but did not explicitly acknowledge the significance of the Central Mojave desert tortoise population. Since no maps were provided, it is unclear if the lands that would be used under alternative B fall within the Central Mojave region. The Central Mojave botanic region boundary, not the Superior-Cronese DWMA boundary, should be the delimiter for translocation sites used in the decision support modeling, so that translocation does not compromise the genetic integrity of the Central Mojave desert tortoise population.

We had commented that the habitat quality of translocation sites should be comparable to the habitat from which the tortoises have been removed based on site-specific surveys of soils, hydrology, vegetation, invasive species, and anthropogenic threats. The BLM describes the tortoises and their habitat within the DWMA as having been "adversely affected by multiple stress factors, including anthropogenic factors and disease and drought that swept through populations in the 1990's" (EA at 4). It is unclear if these factors have been ameliorated. The decision support model appendix mentions the condition of vegetation at receptor sites but it is unclear if this consideration was added to the model (Amended Relocation plan at 31). Nor does the model seem to have incorporated invasive weed presence and fire risk. The feasibility of being able to close off the area around translocation sites should disease containment be required was not addressed. The decision support model has also not explicitly addressed predator distribution. While proximity to human habitation may be of some value, the model could certainly have factored in proximity to open waters since water availability may be rate-limiting for coyote distribution, and coyote sign is much higher around developed waters (DeStefano *et al*, 2000).

(8) Biological Goals, Objectives, Outcomes, Criteria for Success.

The EA does not provide explicit biological goals and objectives for the translocation project. Is the translocation a large experiment, is it meant as a conservation measure, or is it merely to address the human-tortoise conflict created by the expansion of Army training activities?

The EA claims that the translocation project may have a positive long-term effect on the upward or stationary trend of desert tortoise within the DWMA by increasing the available pool of healthy adult females of reproductive age (EA at 25). Certainly, adding tortoises will temporarily increase the number of tortoises, but there is a difference between temporarily increasing the total population size by releasing tortoises and increasing the breeding or effective population size. The latter will require that the translocated tortoises integrate with residents, adapt to the new local ecological conditions, and form a stable, breeding population. The claim that the translocation may positively benefit the population trends is hypothetical at best, and should be clearly construed as such.

The EA describes large-scale monitoring that will occur but does not explain how this data will be used, and without any stated biological goals and objectives its utility cannot be determined. The Amended Translocation Plan mentions the development of testable hypotheses several times, but does not specify these.

The lengthy time-scale over which translocations must be monitored to determine their success or failure is an important consideration that is repeated extensively in the scientific literature (see for example, Dodd and Seigel, 1991; Fischer and Lindenmayer, 2000). Both the method of release and the distance of release from capture sites affect the behavior of translocated desert tortoises (Walde *et al.*, 2009). If the goal of the large-scale translocation is population augmentation, then measurable long term objectives must be specified. The 5 year monitoring period may provide information on initial survival, but it is an insufficient to determine the success of population augmentation and the success of translocation as a conservation tool. The NEPA documents should provide clear biological and conservation goals and objectives, expected outcomes, and benchmark criteria that measure the success in achieving the established goals and objectives.

(9) Health and Disease Issues, and Contingency Planning.

The USGS have incorporated important, additional protocols to evaluate the health status of translocated desert tortoises into the Amended Translocation Plan. These protocols will reduce but not eliminate the risk of infectious tortoises being moved into the DWMA.

The Amended Translocation Plan also proposes sampling resident tortoises at 64 sample points located across the translocation area. This will provide data on the disease status of tortoises that will be used to modify the translocation area. Translocated tortoises will not be released within a 5 km buffer around any detected diseased resident tortoises.[10] This is an important improvement over the Original Translocation Plan, however its likely effectiveness is not addressed and no alternative buffer sizes are considered. Since 5 km is less than half the maximum distance moved by many tortoises in previous translocations, the measure may reduce but will not eliminate the risk of translocated tortoises moving into the home range of infected resident tortoises. This factor is of particular concern with species like the desert tortoise that have complex social behavior, since translocated tortoises may disrupt the social structure of resident populations by displacing residents (Berry, 1986). Long distance movements by both translocated and resident tortoises could lead to disease spread and place the larger population at risk of epidemics. In this respect, Walde *et al.* (2009) reported that one of the 2008 translocated tortoises moved as far as 23 km. The translocation plan should include an epidemiological analysis, and the EA should consider additional measures such as temporary fencing to reduce the risk posed by tortoises making long distance movements.

We are concerned about the adequacy of the sampling of resident tortoise populations in the Western Expansion Translocation Area ("WETA") to determine their health status. The Amended Translocation Plan proposes to sample tortoises at 64 sites throughout the WETA. The number of tortoises to be sampled at each site is unclear. Sample sizes for the resident tortoises need to be appropriate to detect the presence of *Mycoplasma* and other diseases. In the 2008 translocation, some 7 of 142 sampled translocated tortoises (i.e. about 5%) initially tested positive or suspect positive for *Mycoplasma agassizii* or *M. testudineum* (Berry et al, 2009). Based on that report, a large sample size would be needed to determine absence of disease among residents at each of the 64 sites. This must be addressed in the EA and supporting

[10] Presumably, the buffer zones will have a 5 km radius, not diameter. Neither the Plan nor the EA are explicit on this.

documents. In addition, none of 64 proposed disease sampling sites are on the "red squares" on the Amended Translocation Plan maps. These "red squares" are not slated as translocation sites but may be adjacent to the "green square" translocation sections and form a checkerboard in some areas. Because a higher live tortoise to carcass ratio was a negative factor in the model used to select translocation sites, the adjacent and nearby "red squares" may have higher tortoise densities. Since disease transmission may be density dependent, sampling should also be conducted in any "red squares" with higher tortoise densities that are within the expected range of movement of translocated tortoises.

In our scoping comments, we raised the need for contingency planning to deal with potential disease outbreaks that could be triggered by the translocation including quarantine measures. This has not been done. The agencies must do more than simply monitor tortoises for disease but describe specific remedies that will taken to avoid disease outbreaks reaching epidemic levels. The NEPA analysis should identify counter-measures should disease epidemics be detected, and should include specific triggers for implementation of these counter-measures.

(10) Risk Assessment.

The BLM recognizes that this large-scale translocation will adversely affect desert tortoises. It may result in some lethal and non-lethal Section 9 ESA take, and if the carrying capacity at a translocation site is exceeded, may result in adverse modification of critical habitat and retardation of recovery of the population. Translocated tortoises may undergo long-distance movements, can disrupt the social behavior of residents (Berry, 1986) and may result in other stresses such as weight loss (Gowan *et al.*, 2009) that could contribute to the outbreak of clinical signs of disease and disease spread. Because negative social interactions could result in resident tortoises moving off site, there is a risk of both resident and relocated tortoises contracting and spreading infectious disease. The USGS amended plan has recognized the importance of this issue in building in a 5 km buffer around areas with infected tortoises. The 5 km buffer is based in part on a distance that is 50% of the maximum linear movements made by tracked tortoises in prior translocations. Since tortoises are known to move considerably more than 5 km, the buffer may diminish but does not remove the risk. The large-scale proposal to translocate tortoises throughout the Superior-Cronese DWMA places the entire West Mojave population, particularly the Central Mojave type tortoises described by Murphy et al, at risk. The agencies should formally evaluate this risk not just recognize it, and a credible, quantitative risk assessment should be made for each alternative analyzed in the NEPA process.

(11) Use of Best Available Science.

The Endangered Species Act clearly mandates that "Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an ''agency action'') is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this

paragraph each agency shall use the best scientific and commercial data available." (Emphasis added). In this case, the project would translocate desert tortoises throughout the range of what has been identified as a genetically distinct "Central Mojave" population of desert tortoises (Murphy *et al.*, 2007). This entire Central Mojave population would be placed at risk by the proposed action. Loss of this population would produce a significant gap in the range of the species. None of the documents including the EA, the various translocation plans, and the draft Biological Opinion even mention Murphy *et al.* let alone analyze the potential impacts to this identified population.

The EA list of references does not include a single citation from the primary literature; all the listed references are derivative agency documents. Instead, the EA relies heavily on "personal communications". In many cases, these "personal communications" consist of nothing more than the actual wording that was inserted into the EA and contain no substantive, supportive data or references. This is particularly egregious with respect to the controversial claims that there is little connection between drought and predator prey base availability and the success of desert tortoise translocation. The claims made in the personal communications all cite the similar mortalities among the 2008 translocated, resident, and control tortoises. These provide no data on mortality among non-manipulated residents, and as discussed above, data in the Biological Opinion shows lower mortality at a nearby Superior-Cronese site and does not support this claim.

The EA also misrepresents existing literature. For example, the EA (at 8) states that "Climate change and drought were not regarded as threats to the desert tortoise in the 1994 Recovery Plan". The Recovery Plan certainly recognized drought as an issue (USFWS, 1994). And, even though the Recovery Plan was written in 1994, it was a far-seeing document that incorporated climate change considerations. Climate change was incorporated into the population viability analysis (Recovery Plan at C3), threats analysis including fire (Recovery Plan at D24), and research on "climate and vegetation" was included in its implementation schedule. While criticizing the Recovery Plan, the EA fails to mention that the proposed translocation does not follow the science-based recommendations of that plan.

(12) Monitoring Programs.

The NEPA documents must explain the monitoring programs that will be in place to judge both the short and long term effectiveness of the translocation based on sound biological goals and objectives. Because most of the affected resident tortoises will not be tracked, funding should be ear-marked to assure routine inclusion of the Superior-Cronese DWMA in the range-wide LDS monitoring effort, or additional population monitoring protocols developed to ensure that the non-transmittered resident tortoises that will be affected by the translocation receive appropriate short and long term monitoring. The NEPA documents should include the timelines, and estimated costs and sources of funding for all components of the monitoring programs.

(13) Compliance with BLM Policy and Land Use Plans.

All translocations must fully comply with relevant BLM policies. BLM Handbook 1745 requires that "Decisions for making introductions, transplants, or reestablishments should be

made as part of the land use planning process (see BLM Manual Section 1622). Releases must be in conformance with approved RMPs. A Land Use Plan Amendment must be prepared for proposed releases if management direction is not provided in the existing Land Use Plan (see BLM Manual Section 1617, emphasis added)." There is no consideration in the California Desert Conservation Area Plan as amended by the West Mojave Plan EIR/EIS for using the designated DWMAs for large-scale desert tortoise translocations. This is recognized in the EA at 4 – "translocation of desert tortoises is not specifically addressed in the CDCA Plan, as amended". Therefore, a plan amendment is required to comply with BLM policy.

In addition, BLM Handbook 1745 at .1.12A requires that the activity plan be site-specific and include "Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important factors. (See BLM Manual Sections 1619, 6780, and 4120)." As we discussed above, the EA does not adequately describe existing ecological conditions nor does it address the capability of the habitat at the translocation sites to support additional tortoises.

The BLM should adheres to its own policy and prepare an EIS that proposes and analyses an amendment to the CDCA Plan that provides the required management direction with respect to desert tortoise translocation. It could then use that guidance to develop a translocation plan for the Fort Irwin tortoises that includes the required site-specific analyses to comply with BLM policy, FLMPA, and NEPA.

(14) Miscellaneous Issues.

Under the proposed action desert tortoises would not be translocated to wilderness. However, the USGS proposes to monitor tortoises in Wilderness as a "control" group in its Amended Translocation Plan. In addition, some of the potential translocation sites are in areas under active consideration for wilderness designation by Senator Feinstein and thus may not be available. The NEPA documents should analyze potential impacts of monitoring to Wilderness values and any potential cumulative impacts to areas being considered as wilderness.

The different alternatives may have different impacts on cultural resources. For example, Alternative A apparently would include the Cronese Lakes ACEC, although the maps are inadequate to ascertain this and the ACEC is not mentioned by name. The proposed action appears to include translocation sites within the Blackwater Well Archeological District. All ground-disturbing activities in these areas should be scrutinized and fully analyzed in the NEPA documents.

(15) Continued Public Involvement.

We requested in our scoping comments that the translocation plan should incorporate specific measures aimed at keeping the public informed on the progress of translocations, including providing daily or weekly updates of translocation numbers, demographics, and any losses on the California Desert District website. Given the high level of interest in the desert tortoise, providing meaningful and timely data should be an essential component of management if the agencies are to engender public support for this highly controversial project.

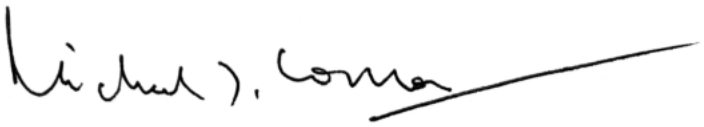
(16) Conclusions.

The purpose of an EA is to provide sufficient evidence and analysis to determine whether a project requires preparation of an environmental impact statement (EIS) or whether issuance of a finding of no significant impact is merited. [CEQ NEPA Implementing Regulations, 40 C.F.R. §1508.9]. Given the significance of the proposed translocation to desert tortoise survival and recovery, the unanswered questions outlined above, the need for a land use plan amendment, the considerable scientific controversy, and the intense public interest the 2008 translocation generated, the EA provides no basis for a FONSI and a comprehensive EIS is clearly required for this project. Given the Army's wish to begin training in the SEA and WEA, the BLM should immediately embark on initiating the required EIS.

We hope that you find our comments useful. Please continue to keep Western Watersheds Project informed of all further substantive stages in the NEPA process and document our involvement as members of the 'interested public' in the record.

If I can be of any assistance or provide more information please feel free to contact me by telephone at (818) 345-0425 or by e-mail at <mjconnor@westernwatersheds.org>.

Yours sincerely,



Michael J. Connor, Ph.D.
California Director
Western Watersheds Project
P.O. Box 2364
Reseda, CA 91337
(818) 345-0425
<mjconnor@westernwatersheds.org>

cc. Diana Noda, Ray Bransfield, USFWS
Larry LaPre, Steve Borchard, BLM California Desert District
Mickey Quillman, Roxie Trost, BLM Barstow Field Office

Attachment: Western Watersheds Project Scoping Comments on the Proposed Fort Irwin Desert Tortoise Translocation. Dated February 18, 2009.

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Katten
Katten Muchin Rosenman LLP

2029 Century Park East
Suite 2600
Los Angeles, CA 90067-3012
310.788.4400 tel
310.788.4471 fax

CYNTHIA L. BURCH

September 3, 2010

Via E-Mail and FedEx

Mr. Jim Stobaugh
National Project Manager
Bureau of Land Management
1340 Financial Blvd
Reno, NV 89502

BLM Director (210)
Attention: Brenda Williams
1620 L Street, NW., Suite 1075
Washington, DC 20036

Re: Comments on Final Environmental Impact Statement and Protests to Proposed Grant of Right-of Way to Calico Solar LLC under the FLPMA and to Amendment of the California Desert Conservation Area Plan

Dear Mr. Stobaugh and Ms. Williams:

BNSF Railway ("BNSF") appreciates the opportunity to comment on the Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan ("FEIS") for the Calico Solar (formerly SES Solar One) Project ("Project") proposed by Calico Solar, LLC ("Calico Solar") released August 6, 2010. The proposed Project would require the Bureau of Land Management ("BLM") to issue a right-of-way ("ROW") over public lands in compliance with the Federal Land Policy and Management Act of 1976 ("FLPMA"). Issuance of the ROW would require an amendment of the California Desert Conservation Area Plan ("CDCA"). This letter serves both as BNSF's comments on the FEIS and BNSF's protest of the proposed right-of-way under the FLPMA and the CDCA amendment.

1. Brief Procedural Background

Calico Solar first filed its Application for Certification before the California Energy Commission ("CEC") on December 22, 2008. On March 30, 2010, consistent with the Memorandum of Understanding between BLM and the CEC (the "MOU"),[1] the BLM and CEC issued the Staff Assessment and Draft Environmental Impact Statement ("SA/DEIS"). By doing so, BLM

[1] Attached as Appendix B to the FEIS.

confirmed its obligation to comply with the procedural and substantive requirements of the National Environmental Policy Act ("NEPA"). The CEC confirmed its corollary obligation to comply with the California Environmental Quality Act ("CEQA"). The MOU sets forth BLM's and the CEC's respective duties and responsibilities in relation to preparing the SA/DEIS and acknowledges that "[t]he assessments provided by the Parties must be sufficient to meet all federal and state requirements for NEPA and CEQA." [MOU at p. 4]

On May 5, 2010, the CEC issued a Notice of Availability, Staff Assessment and Draft Environmental Impact Statement for the Proposed Calico Solar Project ("Notice of Availability"). The Notice of Availability stated that "[t]he Energy Commission and the BLM have been jointly conducting the state and federal environmental review for the Calico Solar Project and recently released a joint SA/DEIS; however, the two agencies have now determined that it is necessary to produce separate, but coordinated, final environmental reviews and decision documents." [Notice of Availability at p. 1.]

The Transportation and Safety section of the SA/DEIS referenced access roads and a grade-separation bridge on BNSF's Right-of-Way ("RoW"), but there was no environmental study relating to the impacts of those proposed Project features. [See SA/DEIS at C.11-6 and C.11-7.] The Transportation and Safety section of the SA/DEIS noted that glare and glint impacts had not been analyzed and the CEC Staff was in the process of obtaining additional information. [See SA/DEIS at C.11-15.] On July 1, 2010, BNSF provided written comments on the SA/DEIS to the CEC and BLM.[2] A Supplemental Staff Assessment (the "SSA") was issued on July 21, 2010. The Transportation and Safety section was blank with the exception of two figures giving general depictions of the Project and various temporary and permanent roadways, noting that it "will be filed subsequently." [See SSA at C.11-1.]

On July 29, 2010, BNSF provided written comments on the SSA to the CEC and BLM.[3] That same day, BNSF filed a Petition to Intervene. BNSF was granted intervenor status on August 3, 2010. On August 4-6, 2010, the CEC held evidentiary hearings in Barstow in furtherance of the CEC's responsibility to complete a CEQA-equivalent review process in relation to the certification decision-making process. On August 9, 2010, the CEC Staff issued Supplemental Staff Assessment Part II ("SSA Part II"), which contained a narrative Transportation and Safety section with proposed Conditions of Certification. The SSA Part II contained a Glare & Glint Study at Appendix A, which was prepared by Staff because Staff determined that Applicant had not prepared a sufficient Glare & Glint study.[4] On August 18, 2010, the CEC held an evidentiary

[2] Attached hereto as Exhibit "A."

[3] Attached hereto as Exhibit "B."

[4] Testimony of Staff expert Alan Lindsley ("Lindsley"), 8/18/2010 TR at 29:3-6.

hearing in Sacramento, during which the CEC heard testimony and reviewed evidence regarding Transportation and Safety issues, including access roads and other proposed structures on the RoW and glare and glint.

During the August 18th hearing, Calico Solar presented no testimony regarding Glare & Glint, but did offer Exhibit 105, which is the Imperial Valley study that the Staff had already determined was insufficient.[5] During the August 18th hearing, Staff confirmed Calico Solar had not conducted any of the requisite environmental studies and analyses regarding access to and proposed structures within the BNSF RoW.[6]

The FEIS was issued on August 6, 2010, before any of the CEC hearings relating to Traffic and Transportation. Section 4.15 of the FEIS deals with Traffic and Transportation. That section specifically notes that "[t]his section was developed from Section C.11 Transportation and Traffic in the SA/DEIS." [FEIS at Section 4.15.] The FEIS, however, does not properly analyze the impacts of glare and glint previously identified in the SA/DEIS. The FEIS does reference the temporary access roads proposed by Calico Solar within the BNSF RoW. This reference, however, is a brief comment in the mitigation measures section that it will be an "all-weather road designed to allow for fire-truck and emergency vehicle access." [See FEIS, at Section 4.15.4.] There is no reference to any environmental study or analysis performed relating to the impacts of those proposed Project features.

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[5] At the conclusion of the final evidentiary hearing on August 25-26, 2010, the CEC properly excluded Exhibit 105 from the Record.

[6] Testimony of CEC Staff Member Marie McLean ("McLean"), 8/18/2010 TR at 239:7-18.

> MR. LAMB: Okay. Ms. Bellows had testified just a little while ago about doing proper studies, analyses for the impacts of the roadways that had been studied and analyzed around the project.
>
> Do you recall that?
>
> MS. McLEAN: Yes.
>
> MR. LAMB: There have been no studies, no analyses, no environmental review of any roadways within the right of way, correct?
>
> MS. McLEAN: I don't – I'm not sure.
>
> MR. LAMB: Well, are you aware of any, ma'am?
>
> MS. McLEAN: Right at the moment, no.

The FEIS does not address the comments previously submitted by BNSF on July 1 and 29, 2010. Nor does it address the concerns expressed by BNSF in its Post-Hearing Brief. Consistent with the May 5th Notice of Availability, the FEIS does not incorporate by reference or otherwise adopt the study, analysis and concomitant findings of the CEC in relation to the CEC's supplemental staff assessments.[7]

2. Brief Factual Background Relating To BNSF[8]

BNSF is one of the two Class 1 railroads operating in California. As noted in the FEIS, BNSF provides long-haul freight service throughout the U.S. over a 32,000-mile route. Its double-track transcontinental mainline, traversed by as many as 80 trains per day, carries interstate commerce from the Ports of Los Angeles and Long Beach to U.S. Midwestern, Southwestern and Eastern markets. The Project proposes to place 34,000 SunCatchers, a 5,000-foot transmission line, substation, and maintenance facilities, along both sides of approximately five miles of BNSF's mainline. The mainline section where the Project proposes to emplace 34,000 SunCatchers has two at-grade crossings, a significant curve, changes elevations, requires engineers to adjust speed through curves and elevation changes, and has six signals that serve as critical safety features on which engineers rely to ensure that they do not collide with other trains moving through the section.[9]

3. Comments And Protests

Given the importance of this transcontinental rail corridor, it is essential that safety along BNSF's mainline be maintained. Accordingly, BNSF has significant concerns the construction and operation of the Project not adversely impact BNSF operations or otherwise impose unacceptable safety risks to BNSF personnel and operations.

NEPA requires BLM to prepare the FEIS in such a manner that it may "serve as an action-forcing device to ensure that the policies and goals defined in NEPA are infused into the ongoing programs and actions of the federal government." As such, the FEIS is more than simply a disclosure document, it is to "be used by federal officials in conjunction with other relevant [information] to plan actions and make decisions." 20 C.F.R. 1502.1

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[7] The FEIS does note that it "may consider" these materials. [See, e.g., FEIS Section 4.15.4.]

[8] BNSF incorporates herein the evidentiary record of exhibits, filings, and testimony introduced during the CEC evidentiary hearing process. For the BLM's convenience, BNSDF attaches hereto the BNSF exhibits offered and admitted during the CEC proceeding, the BNSF Post-Hearing Brief, and Extracts from relevant testimony.

[9] See Intervenor BNSF's Post-Hearing Brief and Exhibits 1200-1206.

BLM cannot abdicate its NEPA responsibilities. *Greene County Planning Board v. Federal Power Commission*, 455 F.2d 412 (2d Cir.), *cert. denied*, 409 U.S. 849 (1972) (Federal Power Commission cannot allow applicant to take the lead in preparing environmental impact study). While coordination with other federal and state agencies is encouraged, and tasks can certainly be apportioned to other agencies, as lead agency BLM must independently evaluate all information submitted and be responsible for its accuracy. 40 C.F.R. 1506.5(c) (lead agency responsible for scope, contents and legal adequacy of EIS); s*ee also, Sierra Club v. Lynn*, 502 F.2d 43 (5th Cir. 1974), *cert. denied*, 421 U.S. 994 (1975) *reh'g denied*, 422 U.S. 1049 (1975) (requiring Housing and Urban Development to independently review, analyze, and judge all information submitted as part of the environmental impact study by the local government applicant agency).

Here, with the decision to forego further joint preparation of environmental reviews as set forth in the May 5, 2010 Notice of Availability, BLM must prepare a comprehensive FEIS that fully and completely assesses Traffic and Transportation issues related to the Project. In particular, the issues raised by the SA/DEIS must be fully evaluated and assessed, to include corresponding mitigation measures, if necessary and appropriate. The FEIS fails to meet BLM's requirements under NEPA. There is no environmental analysis whatsoever of the impact of utilizing temporary "all-weather" access roads within the BNSF RoW. Nor is there any analysis of the glare and glint issues identified in the SA/DEIS.

Moreover, under FLPMA, a right-of-way issued by the BLM must contain terms and conditions that "protect Federal . . . economic interests . . . [and] protect the other lawful users of the lands adjacent to or traversed by such right-of-way." 43.U.S.C. §1765(b). As a major transcontinental transportation corridor responsible for the shipment of a significant portion of the goods to and from the west coast, the federal government has an important economic interest in ensuring that rail traffic is not interrupted. This issue has been raised repeatedly by BNSF and it has not been addressed by the FEIS. Additionally, the FEIS fails to analyze or address how the proposed Project will protect BNSF's lawful use of its RoW. Moreover, the FPLMA makes it clear that it does not grant the Secretary the right to terminate, restrict, or impede the rights of a holder of a pre-FLPMA right-of-way. 43 U.S.C. §1769; s*ee also, City and County of Denver, by and Through Bd. Of Water Com'rs v. Bergland*, 695 F.2d 465 10th Cir. 1082) (US Forest Service cannot impede City's planned water project inasmuch as it is an authorized use of a pre-FLPMA right-of-way through national forest lands). Here, the Record[10] clearly reflects that the glare and glint resulting from the proposed SunCatchers will have a material adverse impact on train operations and safety on the BNSF RoW.

[10] BLM has participated in all evidentiary hearings held by the CEC and has received all documents filed in this action as an interested agency to the CEC proceeding.

Both the FLPMA and the CDCA require that lands adjacent to the proposed Project right-of-way be protected. Such protection cannot be accomplished without "full and fair discussion of significant environmental impacts" (40 C.F.R. 1502.1) and a discussion of the "means to mitigate adverse environmental impacts" (*Id.*) as required by NEPA, 42 U.S.C. 4321 *et seq.*). Moreover, BNSF does not believe that a determination can be made that the proposed CDCA amendment is in accordance with applicable laws and regulations and will provide for the immediate and future management, use, development, and protection of the public lands within the CDCA, as required by Chapter 7 of the CDCA.[11]

A. Traffic and Transportation – Glint and Glare[12]

1. The FEIS fails to adequately describe the impacts of glint and glare from the Project on BNSF's rail line.

The FEIS fails to provide a "full and fair discussion of significant environmental impacts" as required by NEPA with regard to the Project's impacts relating to glint and glare. 40 C.F.R. 1502.1. Without such a discussion, the BLM District Manager, Desert District is not able to determine the environmental impact of the proposed CDCA amendment as required by Chapter 7 of the CDCA. The FEIS analysis regarding Traffic and Transportation finds that a project may have an adverse impact if, among other things it would alter rail traffic or conflict with existing policies, plans, or programs. FEIS 4-319 – 4-320. As has been addressed in BNSF's

[11] BNSF notes that, throughout the evidentiary hearings, CEC Staff and Commissioners commented on the tight time frames under which they were working because Calico Solar had temporal restrictions in relation to anticipated funding through the American Recovery and Reinvestment Act of 2009 ("ARRA"). Indeed, US Fish & Game's Ashleigh Blackford even commented that "we have not had enough time with the ARRA finding deadlines to, you know, pursue gathering that information." 8/25/2010 TR at 120:14-16. While BNSF is sympathetic to Calico Solar's funding issues, ARRA does not serve as a waiver to the procedural and substantive requirements of NEPA or the FLPMA.

[12] The FEIS fails to address or respond adequately to other critical BNSF concerns that were raised in the CEC evidentiary hearings. Those concerns resulted in a number of Conditions of Certification proposed by BNSF and agreed to by Calico Solar. [See Exhibit 1209.] BNSF expressly reserves those issues as set forth in Exhibits 1207-1209, its Post-Hearing Brief, and the Record in this matter. Accordingly, the Conditions of Certification introduced during the CEC evidentiary hearing and set forth in Exhibit 1209 should be incorporated into the FEIS as mitigation measures. BNSF focuses its comments and protests in this submission on issues raised in relation to Traffic and Transportation that were not adequately addressed by the FEIS and were not he subject of adequate Conditions of Certification during the CEC evidentiary hearing.

submissions to the BLM on the joint Staff Assessment/Draft Environmental Impact Statement ("SA/DEIS"), the portion of the BNSF mainline along which the Project is proposed to be built is curved. An essential signal for rail traffic is located in the vicinity near Hector Road. Signals are critical safety features. Calico Solar proposes to locate the nearest SunCatchers as close as 223' from the right of way, on both sides of the transcontinental mainline track for approximately five miles. Daytime glint and glare from the 34,000 SunCatcher mirrors and associated structures, in particular when the mirrors are in offset tracking position, may significantly impact BNSF engineers' ability to see the signal. The situation would be exacerbated by the site elevations which Calico Solar has proposed. Experts for both the Staff and BNSF uniformly agree that a comprehensive study has not been done and needs to be done before any SunCatcher is put into place.

Both FRA regulations and the BNSF General Code of Operating Rules ("GCOR"),[13] BNSF's federally-regulated operating procedures, require BNSF to maintain visual contact with signals. The illuminated background created by the SunCatcher field could interfere with this contact, because it could result in an engineer perceiving the signal to be dark or to be displaying a white light. Both of these circumstances, under GCOR Section 9.4, require the engineer immediately to stop the train. This often requires an emergency application of the brakes, risking derailment of the train, collision with another train, and other catastrophic events. When a train has been stopped through emergency application of the brakes, GCOR Section 6.23 requires the engineer to inspect all cars, units, equipment and track pursuant to BNSF special instructions and rules. This can cause significant delays to rail operations with ramifications reaching from the Ports of Los Angeles and Long Beach to Chicago and beyond. Thus, glint and glare are critical safety and operational issues.

The FEIS addresses glint and glare as relates to potential impacts on wildlife (FEIS pp. 4-40 – 4-41), and as relates to possible visual or scenic impacts with an emphasis on changes in aesthetic values. FEIS pp. 4-349. The FEIS acknowledges the visual impacts to rail where it states: "From [the BNSF Railroad], the Proposed Action would create a strong degree of contrast. The magnitude of change from this viewpoint would be very high, and the Proposed Action would dominate the landscape." FEIS 4-345. The FEIS, however, does not address the potential for glint and glare to adversely affect the safety of rail operations and personnel on BNSF property adjacent to the proposed right-of-way for the Project.

[13] Exhibit 1210.

2. The FEIS fails to discuss potential mitigation measures for the glint and glare impacts of the Project.

Without an adequate discussion of glint and glare impacts, the discussion of the "means to mitigate adverse environmental impacts" required by NEPA (40 C.F.R. 1502.1) is impossible. The discussion of mitigation measures for Traffic and Transportation defers discussion of mitigation measures until the issuance of the Record of Decision, and states: "When developing the Record of Decision for the proposed Calico Solar Project and CDCA Plan Amendment, the BLM may consider the SA/DEIS Conditions of Certification, additional Conditions of Certification from the Supplemental SA, and other mitigation measures developed by the BLM and other regulatory agencies." FEIS 4-334. As a result, with the exception of the below, BNSF is unable to provide meaningful comments on possible mitigation measures at this time

In response to BNSF's comments on the SA/DEIS regarding glint and glare, the BLM stated: "The Proponent will work closely with BNSF to ensure that BNSF's safety concerns are addressed and appropriate measures taken to ensure the safety of BNSF trains and personnel and Calico Solar personnel." FEIS G-119. However, the FEIS does not propose to condition the issuance of the proposed right-of-way or the approval of the CDCA amendment upon Calico Solar cooperating as described, nor does it propose any mitigation measures to address these adverse environmental impacts. BNSF therefore requests that the following be incorporated into the Project as Mitigation Measure TRANS-1:

TRANS 1 – Prevention of Glare and Glint from SunCatchers to BNSF Train Crews and Motorists on Hector Road; Route 66; Interstate 40

The purpose of this condition of certification in the CEC AFC proceeding and as a mitigation measure in the FEIS is to prevent adverse visual impacts from glint and glare on rail operations and other modes of transportation. This mitigation measure is divided into two sections. Section One concerns the performance of a study to analyze the impact of glint and glare from the SunCatchers and the corresponding impact, if any, on a railroad engineer's ability to see and respond to signals, and additional mitigation measures, if recommended by the study. Section Two concerns general location, operating, reporting procedures, and mitigation measures pertaining to the SunCatcher mirrors.

I. Glare/Glint Study and Implementation of Additional Mitigation Measures, if Necessary

Prior to the first SunCatcher disc being mounted on a pedestal, a site-specific Glare/Glint study shall be performed at applicant's expense to address the Glare/Glint issues relating to BNSF's rail operations raised by BNSF with respect

to the potential impact of the proposed SunCatchers on BNSF rail operations. The site specific study shall commence immediately upon BNSF's selection of the experts to perform the study. If an impact to BNSF rail operations is identified, the Glare/Glint study will suggest mitigation measures to address any such impact. The recommended mitigation measures shall be reviewed by BNSF to determine whether the mitigation measures will ensure that the engineer can accurately see and respond to signals and they are consistent with BNSF guidelines and FRA regulations. If BNSF agrees on the proposed mitigation measures identified in the study, said mitigation measures shall be implemented by applicant at applicant's expense. Immediately after the installation of the first SunCatcher mirrors near the BNSF Railway right-of-way but before operation of the mirrors, the applicant will work with BNSF Railway to ensure that the operation of the SunCatcher mirrors will not interfere with the railroad engineers' ability to accurately see and respond to appropriate signal lights. Moreover, Calico Solar must warrant and represent that Calico Solar's proposed Project will not interfere with BNSF's critical rail operations and that Calico Solar will immediately eliminate any interference if it occurs.

II. General Location, Operating, and Reporting Procedures

A. Subject to the results of the study performed under Section I, and resulting mitigation required thereunder, if any, the project owner shall accomplish the following:

1. Modify the offset tracking procedure to use a 25-degree offset instead of the proposed 10-degree offset.

2. Ensure the morning stow position-to-offset position transitions occur at least 30 minutes before sunrise and end in the 25 % offset tracking position.

3. Ensure that the "Night Stow" should occur 30 minutes after sunset to avoid any intrusive light effects.

4. Ensure that the minimum distance from any SunCatcher reflector assembly to the BNSF right-of-way (RoW) or any public roadway shall be a minimum of 223 feet to reduce the possibility of temporary flash blindness or any other adverse visual impact identified by the study performed under Section I. In addition, during the normal tracking and offset tracking positions, the project operator shall adhere to the following procedures and specifications.

B. The Applicant, in consultation with and subject to the approval of BNSF, shall develop and implement an emergency glare and glint response program that includes all of the following:

a. Monitoring plan that requires (1) the use of video surveillance trucks (or other equipment recommended by the experts as a result of the study performed under Section I) to identify and document intrusive light conditions, covering all hours of operation on a weekly basis for five years; and (2) monitoring of the status of individual SunCatchers during all hours of operation to immediately identify any units with the potential to create glare within the BNSF Railway right-of-way; or on I-40,, Route 66, or Hector Road.

b. Procedures that allow motorists and train operators, including AMTRAK and BNSF, to report to the project owner, as well as to the FRA, Caltrans, California Highway Patrol (CHP), and the County of San Bernardino, in the case of complaints from motorists, any problems with glint or glare resulting from the operation or malfunction of SunCatchers. The procedures for public reporting of glare and glint problems shall be developed in consultation with the FRA, California Department of Transportation (Caltrans) District 8 office, California Highway Patrol (CHP), and San Bernardino County. These procedures shall include a toll-free number for reporting problems as well as a process for written notification to the project owner and to California Department of Transportation (Caltrans, District 8) and San Bernardino County, in the case of complaints from motorists; or to AMTRAK or BNSF Railway, or both, in the case of complaints from train operator or passengers.

c. Upon receipt of a complaint, procedures for the immediate (1) stowing and/or repositioning of all units to avoid reported glare and glint within the BNSF Railway right-of-way or on I-40, Route 66, or Hector Road; and (2) investigation and resolution of complaints received from train operators or motorists or both as well as any incidences of intrusive light conditions identified by the video surveillance or other equipment specified by the experts as a result of the study in Section I. The expert performing the study under Section I shall be consulted to determine the source of the interference with an engineer's ability to see and respond to a signal and whether the interference has been eliminated. Within 48 hours, the expert will conduct and initial investigation and confer with representatives from the applicant, BNSF and CPM regarding resolution of the reported issue.

d. Process for evaluating intrusive light conditions identified by the video surveillance (or other equipment recommended by the experts as a result of the study performed under Section I) and determining, in consultation with the experts, what operational or other changes may be warranted to reduce or eliminate the identified intrusion.

e. Procedures for documenting instances when units with the potential to create glare and glint are identified, or when train operators or motorists complain of glare or glint, and the actions taken in response to those instances or complaints.

f. Periodic reports to the Project CPM detailing instances of SunCatcher malfunction, public complaints about glare or glint, or video-detected problems (or other equipment recommended by the experts as a result of the study performed under Section I) that are covered by the emergency glare response program.

3. The FEIS list of Applicable Laws, Regulations, Plans and Policies relating to Traffic and Transportation is incomplete.

FEIS Table 3-33, Traffic and Transportation Laws, Regulations, Plans and Policies, fails to include a number of applicable laws, regulations plans and policies relating to rail. As described above, BNSF is required to operate in a manner consistent with FRA regulations and GCOR.[14] BNSF is also subject to statutory requirements relating to train signals, including but not limited to the Rail Safety Improvement Act of 2008, which reserves to the FRA the sole and exclusive right, among other things, to control and regulate:

[14] Railroads are required to file their operating rules and any amendments thereto with the FRA. The operating rules are intended to ensure safety in railroad operations (GCOR Section 1.1), and railroads are required to periodically monitor compliance with their operating rules. 49 C.F.R. 217.9. Railroads must periodically instruct their employees on the meaning and application of the operating rules (49 C.F.R. Part 217.11), and must have a program to monitor the conduct of their certified locomotive engineers and their compliance with "provisions of the railroad's operating rules that require response to signals that display less than a 'clear' aspect..." 49 C.F.R. Part 240.303(d)(1)(i). A railroad is required to revoke the certificate of an engineer who fails to meet the qualification requirements of Part 240, which may be established by an engineer's failure to control a train in accordance with a signal. 49 C.F.R. Part 240.307. A railroad's failure to comply with the provisions of these regulations subject the railroad to civil penalties.

a. "[P]erformance standards for processor-based signal and train control systems" [49 U.S.C. §20171(7)];

b. "[The] qualification of new or novel technology at highway-rail grade crossings" [49 U.S.C. §20171(7)];

c. The duties and responsibilities, to include specifically limiting the duty hours, of railway signal employees [49 U.S.C. § 21104]; and

d. Federally funded capital projects designed to, among other things, "mitigat[e] environmental impacts [and implement] communication and signalization improvements." [49 U.S.C. §24401(2)].

Based on the evidence received at the CEC evidentiary hearings, which are incorporated herein by reference,[15] the issuance of the proposed right-of-way to Calico Solar and the approval of the CDCA amendment may adversely affect BNSF's ability to operate consistent with these laws, regulations and standards. Moreover, an approval of the CDCA amendment would require the BLM Desert District Manager to make a threshold determination that the proposed CDCA amendment is in accordance with applicable laws and regulations. CDCA Chapter 7. Because the FEIS does not include all applicable laws, regulations, plans and policies, that threshold determination cannot be made.

Table 3-33 must therefore be augmented with the following:

Law Regulation, Plan or Policy	**Description**
Federal: CFR; Title 49, Transportation, Part 209 to Part 244, Federal Railroad Administration.	Federal regulations concerning rail safety.
Federal: Federal Railroad Safety Act of 1970 (FRSA)	FRSA granted the Federal Railroad Administration rulemaking authority over all areas of railroad safety.

[15] See Extracts of relevant testimony, attached hereto.

Rail Safety Improvement Act of 2008 (RSIA)	RSIA reserves to the FRA the sole and exclusive right, among other things, to control and regulate rail signals and crossings and related technology.
BNSF General Code of Operating Rules	Federally-regulated rules governing operation of railroads, with a focus on safety.

B. Traffic and Transportation – Access

As noted above, the FEIS states that the analysis regarding Traffic and Transportation finds that a project may have an adverse impact if, among other things it would alter rail traffic or conflict with existing policies, plans, or programs. FEIS 4-319 – 4-320. However, the FEIS does not address potential impacts to rail from any access roads and at-grade and above-grade crossings proposed to be constructed over the BNSF right-of-way, nor does it propose any mitigation for impacts to rail other than those associated with the temporary access road.[16] BNSF is concerned that any proposed access roads and at-grade and above-grade crossings be constructed in conformance with applicable railroad laws, regulations, plans and policies, including those listed above, and that they be constructed using materials which meet with approval from the proper regulatory authority. These access roads and at-grade and above-grade crossings, subject to BNSF's voluntary agreement to allow them, must be conditioned on measures which ensure the safety of railroad operations.

To address these concerns, BNSF requests that a proper environmental study be conducted of the potential impact of the proposed access roads and at-grade and above-grade crossings within the

[16] The FEIS includes the following mitigation measure relating to the temporary access road:

> Temporary Access Road. The temporary access road would be an all-weather road designed to allow for fire-truck and emergency vehicle access during all weather and soil conditions. The Applicant shall prepare a safety plan for ensuring that all state and federal safety requirements for railroad crossings are followed, including those required by the CPUC and the Federal Railroad Administration (FRA).

FEIS Section 4.15.4.

BNSF RoW and that the following mitigation measure be incorporated into the FEIS:

TRANS-2 Construction of All-Weather Roads and Bridge.

If an easement is granted and the applicant begins construction, the applicant shall construct an all-weather road according to (1) California State Fire Marshall specifications as outlined in *California Fire Code* Section 902.2.1 et seq. These roads shall be treated with Soiltac or its equivalent, subject to obtaining proper authority from BLM and the Regional Water Quality Control Board.

In addition, the applicant shall coordinate its activities with BNSF Railway. Those activities include working with the California Public Utilities Commission to ensure compliance with provisions of the *California Public Utilities Code* Sections 1201- 1220.

During construction of both the temporary and permanent road, temporary crossing of BNSF tracks, and permanent crossing of BNSF tracks, the applicant shall prepare and coordinate with BNSF Railway; California Public Utilities Commission; and Federal Railroad Administration a safety plan for ensuring that all state and federal safety requirements for railroad crossings are followed.

That plan shall be reviewed and coordinated with BNSF Railway and appropriate regulatory agencies to ensure compliance with all state and federal requirements and approved by those agencies.

4. Conclusion

For all the foregoing reasons, BNSF respectfully requests that the BLM supplement the FEIS to include: (1) a comprehensive glare/glint study that will address the impact of 34,000 SunCatchers on BNSF rail operations and safety; and (2) a proper environmental analysis of the potential impact of the proposed access roads and at-grade and above-grade crossings within the BNSF RoW. BNSF further requests that the Conditions of Certification set forth in Exhibit 1209 and as set forth hereinabove in TRANS 1 and TRANS 2 be incorporated into the FEIS and adopted by the BLM. Finally, BNSF protests the issuance of the proposed right-of-way to Calico Solar under the FLPMA and approval of the CDCA amendment proposed as part of the Calico Solar Project, as set forth hereinabove.

Respectfully submitted,

Cynthia Lea Burch

Cynthia Burch
For BNSF Railway

Table of Attachments

Tab	Description
1	Exhibit 1200 – Prepared Direct Testimony of Dennis Skeels
2	Exhibit 1201 – Prepared Direct Testimony of Edward Phillips
3	Exhibit 1202 – Prepared Direct testimony of Thomas Schmidt
4	Exhibit 1203 – Prepared Direct Testimony of Joseph Schnell
5	Exhibit 1204 – Prepared Direct Testimony of Dennis Skeels
6	Exhibit 1205 – Prepared Direct Testimony of David Krauss, Ph. D.
7	Exhibit 1206 – Prepared Direct Testimony of Edward Phillips
8	Exhibit 1207 – BNSF Comment Letter to BLM dated July 1, 2010
9	Exhibit 1208 – BNSF Comment Letter to BLM dated July 29, 2010
10	Exhibit 1209 – Conditions of Certification
11	Exhibit 1210 – BNSF General Code of Operating Rules
12	BNSF's Post-Hearing Brief
13	Extracts of Relevant Testimony, CEC Evidentiary Hearing of August 5, 2010
14	Extracts of Relevant Testimony, CEC Evidentiary Hearing of August 18, 2010

PATRICK C. JACKSON
600 N. DARWOOD AVENUE
SAN DIMAS, CALIFORNIA 91773

PHONE: (909) 599-9914
E-MAIL: ochsjack@earthlink.net

August 31, 2010

Jim Stobaugh, National Project Manager
P.O. Box 12000
Reno, Nevada 89520
Jim_Stobaugh@blm.gov

[US MAIL & E-MAIL]

BLM Director (210)
Attention: Brenda Williams
1620 L Street, NW, Suite 1075
Washington, DC 20036

[OVERNIGHT MAIL]

Re: Comments and Protests to the Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Calico Solar (formerly SES Solar One) Project, San Bernardino County, California

Dear Jim Stobaugh and Brenda Williams:

I hereby submit my comments and protests to the Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Calico Solar (formerly SES Solar One) Project, San Bernardino County, California (PRMP-A/FEIS).

I. INTRODUCTION AND CRITICAL INFORMATION

On August 6, 2010, the Department of The Interior Bureau of Land Management published the Notice of Availability of the PRMP-A/FEIS.

This document is timely as it is being submitted within 30 days of the Notice of Availability.

The following information is included pursuant to 43 CFR 1610.5-2.

Person Filing Protest:	Patrick C. Jackson
Mailing Address:	600 N. Darwood Avenue, San Dimas, Calif. 91773
Telephone No.	(909) 599-9914

II. INTEREST OF PERSON FILING PROTEST

I, Patrick C. Jackson, own land adjacent to the proposed Calico Solar Project (Project) and will be **adversely affected** by the Project and the Proposed Amendment to the California Desert Conservation Area (CDCA) Plan. I am submitting these comments and protests (Protest) on my behalf and on behalf of two other owners of private properties adjacent to the Project.

I have actively participated in the planning process of the Project since 2008 and as an Intervenor since July 14, 2009, when the Committee designated to conduct proceedings in California Energy Commission, Docket No. 08-AFC-13, Application for Certification for the Calico Solar Project granted my Petition to Intervene.

All issues within this Protest have been raised and submitted during the planning process.

III. ISSUE DOCUMENTS

The following documents were previously submitted to Jim Stobaugh and Richard Rotte, Project Manager, Calico Solar Project, Alan Stein and/or Roxie Trost during the planning process. These documents are hereby incorporated in this Protest.

1.	December 8, 2008	Patrick C. Jackson December 8, 2008, 3:09 PM, E-Mail to Richard Rotte
2.	December 13, 2008	Patrick C. Jackson December 13, 2008, Letter to Alan Stein, BLM, California Desert District Office, and Christopher Meyer, Project Manager, Siting, Transmission and Environmental Protection Division, California Energy Commission
3.	January 15, 2009	Patrick C. Jackson January 15, 2009, Letter to Alan Stein, BLM, California Desert District Office
4.	March 12, 2009	Patrick C. Jackson March 12, 2009, Letter to Roxie C. Trost
5.	March 21, 2009	Patrick C. Jackson March 21, 2009, Letter to Richard Rotte

6.	May 31, 2009	Patrick C. Jackson May 31, 2009, 8:16 AM, E-Mail to Jim Stobaugh
7.	June 29, 2009	Patrick C. Jackson June 29, 2009, 4:01 PM, E-Mail to Jim Stobaugh
8.	June 29, 2009	Patrick C. Jackson June 29, 2009, 9:09 PM, E-Mail to Jim Stobaugh
9.	August 23, 2009	Patrick C. Jackson August 23, 2009, Letter to Felicia Bellows and Camille Champion, Tessera Solar
10.	September 5, 2009	Patrick C. Jackson September 5, 2009, Letter to Jim Stobaugh and Rich Rotte
11.	October 25, 2009	Patrick C. Jackson October 25, 2009, Letter to Jim Stobaugh and Rich Rotte
12.	October 25, 2009	Patrick C. Jackson Status Report No. 1
13.	November 7, 2009	Patrick C. Jackson November 7, 2009, Letter to Jim Stobaugh and Rich Rotte
14.	November 7, 2009	Patrick C. Jackson November 7, 2009, 9:19 AM, E-Mail to Jim Stobaugh and Richard Rotte
15.	November 9, 2009	Patrick C. Jackson November 9, 2009, 4:27 PM, E-Mail to Richard Rotte
16.	December 13, 2009	Patrick C. Jackson December 13, 2009, Letter to Rich Rotte
17.	December 13, 2009	Patrick C. Jackson December 13, 2009, Letter to Rich Rotte
18.	December 19, 2009	Patrick C. Jackson Status Report No. 2
19.	January 14, 2010	Patrick C. Jackson Status Report No. 3
20.	January 23, 2010	Patrick C. Jackson January 23, 2010, Letter to Roxie C. Trost
21.	February 6, 2010	Patrick C. Jackson February 6, 2010, Letter to Roxie C. Trost
22.	February 13, 2010	Patrick C. Jackson Status Report No. 4
23.	March 13, 2010	Patrick C. Jackson Status Report No. 5

24.	April 22, 2010	Patrick C. Jackson April 18, 2010, Letter to Shawn R. Jackson, Esq., e-mailed to Roxie Trost on April 22, 2010
25.	May 1, 2010	Patrick C. Jackson's Comments on the Staff Assessment and Draft Environmental Impact Statement for the Calico Solar Project Application for Certification (08-AFC-13) San Bernardino County, Part 1
26.	May 5, 2010	Patrick C. Jackson May 5, 2010, 4:48 PM, E-Mail to Jim Stobaugh, Richard Rotte, Alan Stein, Roxie C. Trost & William Quillman
27.	May 27, 2010	Patrick C. Jackson's Comments on the Staff Assessment and Draft Environmental Impact Statement for the Calico Solar Project Application for Certification (08-AFC-13) San Bernardino County, Part 2
28.	June 26, 2010	Patrick C. Jackson's Comments on the Draft Environmental Impact Statement For The Calico Solar Project
29.	July 25, 2010	Patrick C. Jackson's Prehearing Conference Statement
30.	August 15, 2010	Patrick C. Jackson's Reply Brief on the Private Property Access Issue and Objection and Motion to Strike Applicant's Exhibit 82-B
31.	August 19, 2010	Patrick C. Jackson August 19, 2010, 4:26 PM, E-Mail to Richard Rotte
32.	August 21, 2010	Patrick C. Jackson August 21, 2010 Letter to Felicia Bellows
33.	August 23, 2010	Patrick C. Jackson August 23, 2010, 3:41 PM, E-Mail to Richard Rotte
34.	August 23, 2010	Patrick C. Jackson August 23, 2010, 5:37 PM, E-Mail to Richard Rotte

IV. BACKGROUND

On December 2, 2008, the Tessera Solar/Calico Solar, LLC, (Applicant) submitted an Application for Certification (AFC) to the California Energy Commission (CEC) for a proposed 8,230-acre solar project in the Hector area of San Bernardino County, California. In conjunction

with the AFC, the Applicant's predecessor, Stirling Energy Systems, LLC (SES) previously submitted three applications for rights-of-way (ROW) to construct the solar project, now known as Calico Solar Project (Project). The Project has been revised to 6,215 acres of BLM-managed land and portions of 130 acres of privately owned land the Applicant has acquired since 2008.

In May 2008, SES Solar One, LLC, entered into an Agreement for Private Crossing (Agreement) with Burlington Northern Santa Fe (BNSF) Railway Company and added gates and barricades at the railway crossing at Hector Road. The Agreement and gated crossing blocked Hector Road and gave the Applicant **exclusive** access to thousands of acres of BLM-managed and private lands outside the Project area and **landlocked** the private lands adjacent to the Project.

The Applicant proposes and the PRMP-A/FEIS mandates the closure of long-established California Desert Conservation Area (CDCA) Plan designated open routes and the substitution of alternative "Public Access Routes" but the **Applicant's "Public Access Routes" have not been proven legal or safe for public use. The Applicant also has not conducted environmental studies for the off-site "Public Access Routes" as required by the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).**

Since 2008, I have protested the gated BNSF crossing at Hector Road and the proposed closure of CDCA designated open routes. As part of this protest, I requested the BLM Barstow Field Office provide information on Hector Road under the Freedom of Information Act (FOIA). The BLM Barstow Field Office did not provide all of the requested information and I filed an appeal with the United States Department of the Interior (DOI) Office of the Solicitor. The appeal is ongoing.

V. ISSUES AND PARTS PRMP-A/FEIS PROTESTED

I am submitting this document to urge the Bureau of Land Management (BLM) Director to rule the Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS do not comply with all applicable laws, ordinances, regulations and standards (LORS) on the grounds the proposed CDCA Plan amendment does not comply with:

1. Federal Land Policy and Management Act of 1976 as amended (FLPMA),
2. California Desert Conservation Area (CDCA) Plan 1980 as amended,
3. National Environmental Policy Act (NEPA),
4. California Environmental Quality Act (CEQA),
5. Endangered Species Act (ESA),
6. *Southern Utah Wilderness Alliance v. Bureau of Land Management,* 425 F.3d 735 (10th Cir. 2005) (*SUWA v. BLM*) and
7. *Center for Biological Diversity v. Bureau of Land Management,* 422 F.Supp.2d 1115, 1166-67 (N.D. Cal. 2006) (*CBD v. BLM*).

I request the BLM Director rule the closure of existing CDCA designated "open routes" and the substitution of the Applicant's "Perimeter Road" and "Public Access Routes" do not comply with FLPMA, CDCA, NEPA, CEQA, ESA, *SUWA v. BLM* and *CBD v. BLM*.

I also request the BLM Director rule the Land Use and the Traffic and Transportation sections are incomplete and do not comply with NEPA and CDCA on the grounds the withholding of information by the BLM Barstow Field Office prevents me and other interested third parties from participating fully in the PRMP-A/FEIS process.

VI. PRMP-A/FEIS PROPOSED ROUTE CLOSURES

The public and private property owners have been using CDCA designated open routes in the Hector area for over fifty years to access the lands in the Project area and the Proposed Amendment to the PRMP-A/FEIS would close the open routes necessary for the adjacent private property owners to access their properties. The PRMP-A/FEIS states:

> *Approval of the Proposed Action would necessitate the closure of portions of a number of BLM routes in the project area that are currently open. The open routes within the project area that would have segments closed include AF045, AF052, AF053, AF058, AF298, AF132, AF133, and AF0450 (Table 4-42). . . .*
>
> *The BLM route closures in the project site would be a direct impact on recreational access to those route segments within the project site. Route closures would also cause a direct impact on access from Hector Road interchange to the Cady Mountains and the other destinations in the vicinity of the project because travelers would be required to use alternate routes potentially resulting in longer travel times.*
>
> *Routes AF045, AF050, and AF058 have been used to gain access to privately-owned lands outside the project area in Sections 8, 9, 13, 16, 17, Township 8 North, Range 5 East. BLM routes AF132, AF133 and Af0450 (sic) have been used to gain access to privately owned properties outside the project in Section 1, Township 8 North, Range 5 East and Section 36, Township 9 North, Range 5 East.* ***Route closures resulting from approval of the Proposed Action would constitute a direct impact on the owners of the private properties adjacent to the project area****, and indirect impacts on the owners on the owners of private properties in the project vicinity.*
>
> *A proposed project access road outside the project site perimeter fence would provide non-exclusive alternative access from AF 133, on the western boundary of the project site, to Sections 1 and 36 adjacent to the project site on the north, and on to AF051 on the eastern/southeastern boundary of the project site (Figure A-29). Mitigation for BLM route closures within the project site would be provided by authorizing the development of a non-exclusive use perimeter road outside the facility fence. The road would be located between the project site perimeter fence and a tortoise exclusion fence on the northern boundary of the project site.*
>
> *Access to private properties in Sections 8, 9, 16 and 17 would remain from Hector Road and AF0410. A draft consideration under consideration by the CEC would require that the project site southern boundary fence be located no closer than*

360 feet from the northern edge of I-40. An existing frontage road on the north side of I-40 would provide access to Section 13 from both the Pisgah Road interchange to the east, and the Hector Road interchange to the west.

There would be long-term adverse direct impacts on travel in the project vicinity because of BLM route closures. The closures would be for the life of the Calico Solar Project, but would be somewhat mitigated by the provision of alternate access routes to private properties and recreation and other destinations in the project vicinity.[1] [Emphasis added]

Part of the preceding statement is not correct. The "proposed project access road outside the site perimeter fence would **not** provide non-exclusive alternative assess from AF133, on the westerly boundary of the project site" as AF133 will be closed.[2]

VII. THE ROUTES TO BE CLOSED IN THE PROJECT AREA ARE CDCA DESIGNATED OPEN ROUTES AND VALID FLPMA RIGHTS OF WAY

The public and the private property owners of the lands adjacent to the Project have been using CDCA designated open routes for over fifty years to access the lands in the Project area. The CDCA designated open routes are valid Federal Land Policy Management Act (FLPMA) right of ways.[3] Sec. 701. [43 U.S.C. 1701 note] (a) of The Federal Land Policy and Management Act of 1976 as amended states:

> Nothing in this Act, or in any amendment made by this Act, shall be construed as terminating any valid lease, permit, patent, right-of-way, or other land use right or authorization existing on the date of approval of this Act.

The CDCA open routes are valid FLPMA right of ways and the BLM can not close these rights of way and deprive private property owners' their "land use right" to use existing rights of way to access their lands. The Courts have upheld FLPMA rights-of-way and land use rights.

The decision by the United States Court of Appeals for the Tenth Circuit in *Southern Utah Wilderness Alliance v. Bureau of Land Management*, 425 F.3d 735 (10th Cir. 2005) (hereinafter *SUWA v. BLM*), reads, in pertinent part:

> In 1866, Congress passed an open-ended grant of "the right of way for the construction of highways over public lands, not reserved for public uses." Act of July 26, 1866, ch. 262, § 8, 14 Stat. 251, 253, *codified at* 43 U.S.C. § 932, *repealed by* Federal Land Policy Management Act of 1976 (FLPMA), Pub.L. No. 94-579 § 706(a), 90 Stat. 2743. This statute, commonly called "R.S. 2477," remained in effect for 110 years, and most of the transportation routes of the West were established under its authority. During that time congressional policy promoted the development of the unreserved public lands and their passage into

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1 PRMP-A/FEIS, pp. 4-326, 4-327.

2 *Id.*, 4-326.

3 Patrick C. Jackson Status Report No. 5; Application for Certification, p. 5.7-131.

private productive hands; R.S. 2477 rights of way were an integral part of the congressional pro-development lands policy.

In 1976, however, Congress abandoned its prior approach to public lands and instituted a preference for retention of the lands in federal ownership, with an increased emphasis on conservation and preservation. *See* FLPMA, 43 U.S.C. § 1701 *et seq.* As part of that statutory sea change, Congress repealed R.S. 2477. There could be no new R.S. 2477 rights of way after 1976. But even as Congress repealed R.S. 2477, it specified that any "valid" R.S. 2477 rights of way "existing on the date of approval of this Act" (October 21, 1976) would continue in effect. Pub. L. No. 94-579 § 701(a), 90 Stat. 2743, 2786 (1976). The statute thus had the effect of "freezing" R.S. 2477 rights as they were in 1976. *Sierra Club v. Hodel*, 848 F.2d 1068, 1081 (10th Cir. 1988), overruled on other grounds by *Village of Los Ranchos De Albuquerque v. Marsh*, 956 F.2d 970, 971 (10th Cir. 1992) (en banc).

The difficulty is in knowing what that means. Unlike any other federal land statute of which we are aware, the establishment of R.S. 2477 rights of way required no administrative formalities: no entry, no application, no license, no patent, and no deed on the federal side; no formal act of public acceptance on the part of the states or localities in whom the right was vested. As the Supreme Court of Utah noted 75 years ago, R.S. 2477 "'was a standing offer of a free right of way over the public domain,'" and the grant may be accepted "without formal action by public authorities." *Lindsay Land & Live Stock Co. v. Churnos*, 285 P. 646, 648 (Utah 1929), (quoting *Streeter v. Stalnaker*, 85 N.W. 47, 48 (Neb. 1901)). In its *Report to Congress on R.S. 2477: The History and Management of R.S. 2477 Rights-of-Way Claims on Federal and Other Lands* 1 (June 1993), the Department of the Interior explained that R.S. 2477 highways "were constructed without any approval from the federal government and with no documentation of the public land records, so there are few official records documenting the right-of-way or indicating that a highway was constructed on federal land under this authority." [Emphasis added]

The Tenth District's ruling in *SUWA v. BLM* holds that valid R.S. 2477 rights-of-way cannot be identified and therefore the BLM cannot contend the CDCA designated open routes in the Project area are not valid FLPMA right of ways.

In its decision, the Tenth District also stated:

Until very recently, the BLM staunchly maintained that it lacked authority to make binding decisions on R.S. 2477 rights of way.(7) Illustrative of this position is the BLM's decision (or lack thereof) in *Alfred E. Koenig*, A-30139 (November 25, 1964). There, an applicant seeking to purchase certain tracts of land asked the BLM to adjudicate the validity of an asserted R.S. 2477 right of way. The BLM refused on the ground that courts, not it, should be the final arbiter of R.S. 2477 claims. The Secretary of the Interior affirmed:

The Bureau's decision does leave the question of the status of the [R.S. 2477] road uncertain both for appellant and for the small tract lessees who may be affected by any determination regarding the status of the road insofar as it conflicts with lands leased by them or which may be patented to them. However, ... this Department has considered State courts to be the proper forum for determining whether there is a public highway under that section of the Revised Statues and the respective rights of interested parties. Thus, although the Bureau's conclusion may seem unsatisfactory to all of the parties concerned here, it was the proper conclusion in the circumstances as the questions involved are matters for the courts rather than this Department. *Id.* at 2-3. This refusal to adjudicate R.S. 2477 disputes has been the consistent position of the BLM and the IBLA for over one hundred years.(8) In its 1993 Report to Congress, the BLM explained that "[n]o formal process for either asserting or recognizing R.S. 2477 rights-of-way currently is provided in law, regulations, or DOI policy," and that "[c]ourts must ultimately determine [sic] the validity of such claims." U.S. Department of the Interior, *Report to Congress on R.S. 2477: The History and Management of R.S. 2477 Rights-of-Way Claims on Federal and Other Lands* 25 (June 1993) (hereinafter cited as *1993 D.O.I Report to Congress*). [Emphasis added]

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(7) *Kirk Brown*, 151 IBLA 221, 227 n.6 (1999) ("Normally, the existence of an R.S. 2477 road is a question of state law for adjudication by state courts."); *Sierra Club*, 104 IBLA 17, 18 (1988) ("[T] he Department has taken the position that the proper forum for adjudicating R.S. 2477 rights-of-way is the state courts in the state in which the road is located."); *James S. Mitchell, William Dawson*, 104 IBLA 377, 381 (1988) ("[T]he Department has taken the consistent position that, as a general proposition, state courts are the proper forum for determining whether, pursuant to [R.S. 2477], a road is properly deemed to be a 'public highway.'"); *Leo Titus, Sr.*, 89 IBLA 323, 337 (1985) ("[T]his Department has considered State courts to be the proper forum for determining whether there is a public highway under [R.S. 2477] and the respective rights of interested parties."); *Nick DiRe*, 55 IBLA 151, 154 (1981) ("[T]he question of the existence of a 'public highway' [under R.S. 2477] is ultimately a matter for state courts . . . ."); *Homer D. Meeds*, 26 IBLA 281, 298 (1976) ("[T]his Department has considered State courts to be the proper forum to decide ultimately whether a public highway under [R.S. 2477] has been created under State law and to adjudicate the respective rights of interested parties. *Herb Penrose*, A-29507 at 1-2 (July 26, 1963) ("State courts are the proper forums for determining the protestant's rights and the rights of the public to use the existing . . . [R.S. 2477] road."); Solicitor's M-Opinion, *Limitation of Access to Through-Highways Crossing Public Lands*, M-36274, 62 I.D. 158, 161 (1955) ("Whatever may be construed as a highway under State law is a highway under [R.S. 2477], and the rights thereunder are interpreted by the courts in accordance with the State law.").
(8) .*Wason Toll Road Co. v. Creede*, 21 Pub. Lands Dec. 351, 354-55 (1895) appears to go the other way, holding that a townsite patent would issue subject to an existing R.S. 2477 right of way. But the Land Department abandoned this position the next year in *Dunlap v. Shingle Springs & Placerville R.R. Co.*, 23 Pub. Lands Dec. 67, 68 (1896). *See The Pasadena and Mt. Wilson Toll Road Co. v. Schneider*, 31 Pub. Lands Dec. 405, 408 (1902) (noting supersession).

In summing its decision, the Tenth Circuit states, in pertinent part:

> In sum, nothing in the terms of R.S 2477 gives the BLM authority to make binding determinations on the validity of the rights of way granted thereunder, and we decline to infer such authority from silence when the statute creates no executive role for the BLM. This decision is reinforced by the long history of practice under the statute, during which the BLM has consistently disclaimed authority to make binding decisions on R.S. 2477 rights of way. Indeed, there have been 139 years of practice under the statute--110 years while the statute was in force, and 29 years since its repeal--and the BLM has not pointed to a single case in which a court has deferred to a binding determination by the BLM on an R.S. 2477 right of way. We conclude that the BLM lacks primary jurisdiction and that the district court abused its discretion by deferring to the BLM.

The Tenth Circuit ruling in *SUWA v. BLM* mandates the BLM lacks the unilateral authority to make binding determinations on the validity of existing rights-of-way and the BLM can not close CDCA designated open routes as closure of the routes would constitute as an irreversible binding determination.

The Applicant and the BLM do not have the authority to amend the CDCA Plan to deprive the private property owners of adjacent lands of their right to use CDCA designated open routes. The CDCA states, in pertinent part:

> The need for access across public lands to permit utilization of State and privately owned lands and to permit authorized developments on public lands, including mining claims, is recognized.[4]

The BLM has long recognized the right of private property owners in the Project area to use CDCA designated open routes to access their lands.

> In the West Mojave Plan amendment to the California Desert Conservation Plan, the BLM identified motorized vehicle access needs and designated open routes to provide for a variety of activities. The activities identified in the plan include access to private land. Mr. Patrick Jackson may use designated open routes as long as his use does not exceed a level defined as casual use. '*Casual use* means activities ordinarily resulting in no or negligible disturbance of the public lands, resources, or improvements.' (43CFR2801.5)[5]

Given established history and the above facts and law, I request the BLM Director rule the CDCA designated open routes in the Project area remain open in keeping with FLPMA and CDCA and so the adjacent private lands will not be landlocked.

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[4] U.S. Department of Interior Bureau of Land Management, *The California Desert Conservation Area Plan 1980 as amended,* p. 11.

[5] Roxie C. Trost February 25, 2010 letter to Shawn R. Jackson, Esq.

VIII. THE APPLICANT'S PROPOSED PERIMETER ACCESS ROADS DO NOT COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS)

The Applicant's proposed perimeter access roads are not safe and do not comply with all applicable laws, ordinances, regulations and standards (LORS).

1. The Applicant has not presented evidence as required by CEQA the proposed perimeter access roads are safe.[6] The proposed perimeter access roads are to be within 223 feet of the Project's SunCatchers and motorists on the perimeter access roads will be subject to flash blindness from glint and glare.[7]

2. The Applicant and the BLM have not established the necessary environmental baseline conditions for the proposed perimeter access roads as required by *Center for Biological Diversity v. Bureau of Land Management*, 422 F.Supp.2d 1115, 1166-67 (N.D. Cal. 2006).

3. The Applicant has not presented evidence motorists on the perimeter access road can cross the Southern California Edison (SCE) right-of-way or the BNSF railroad crossing on the east side of the Project.

IX. THE APPLICANT'S PROPOSED PUBLIC ACCESS ROUTES DO NOT COMPLY WITH CEQA GUIDELINES

Prior to the Applicant installing gates and barricades blocking Hector Road at the Burlington Northern Santa Fe (BNSF) railway crossing, the private property owners in Sections 1 and 36 traveled approximately 4.5 miles on Hector Road from Interstate 40 to access their lands. The gated BNSF crossing and the Applicant's "Proposed Public Access Routes" will force the private property owners and the public to use approximately 24 miles of mostly desert dirt roads from Newberry Springs or approximately 17 miles of desert dirt roads from Ludlow to access their lands. The additional traffic on the "Proposed Public Access Routes" will expose motorists to hazardous desert conditions and increase the threat to biological resources including endangered desert tortoises.

The Applicant's "Proposed Public Access Routes" are depicted on Exhibit 82-B, Figure No. 2 - Proposed Public Access Routes And Post-Construction Route Designations Calico Solar Project of the Applicant's Submittal of Rebuttal Testimony docketed with the CEC on July 29, 2010.

The Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS do not comply with CEQA Guidelines as these sections do not identify the environmental consequences of the "Proposed Public Access Routes". The Applicant has not presented evidence of any environmental studies conducted on the "Proposed Public Access Routes".

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[6] CEQA Guidelines, § 15002(a).

[7] Testimony given at Evidentiary Hearing before the California Energy Resources Conservation and Development Commission, August 18, 2010.

CEQA Guidelines Section 15002(a)(1) through (3) state, in pertinent part:

The basic purposes of CEQA are to:

(1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.

(2) Identify ways that environmental damage can be avoided or significantly reduced.

(3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

Section 15088.5(a) of the CEQA Guidelines state:

A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. [Emphasis added]

The fact the Applicant has not presented any evidence to show environmental studies were conducted on the 24 and 17 miles of "Proposed Public Access Routes" is significant, as the:

1. westerly "Proposed Public Access Routes" cross Troy Dry Lake,

2. easterly "Proposed Public Access Routes" pass through the Pisgah Crater Area of Critical Environmental Concern (ACEC) and

3. segments of the off-site "Proposed Public Access Routes" traverse or are within washes.

As to the easterly "Public Access Routes," Section 3.14.6.1 of the PRMP-A/FEIS states:

The Pisgah Crater ACEC was designated to cover a portion of the Pisgah Crater and surrounding area. The crater and lava flow are uncommon landforms in the western Mojave Desert. It also contains lava tubes of several types, some of which are used as bat roosts. The Pisgah Crater area has a high genetic biodiversity within species of reptiles and small mammals. The ACEC includes areas where populations of crucifixion thorn, white-margined beardtongue, sand linanthus, and Mojave-fringe-toed lizard occur. Desert tortoise also occurs in

this area. Management of the ACEC allows the existing land uses at the time of designation, including mining, utility easements, rockhounding, and competitive recreation events to continue.[8]

The Applicant's easterly "Proposed Public Access Routes" will force the public and private property owners to drive through the Pisgah ACEC and the "increased activities could lead to direct and indirect impacts on the wildlife populations and their habitats for which the ACEC was designated."[9]

Segments of the Applicant's off-site "Public Access Routes" traverse private lands and the Applicant has not presented evidence the routes are legal and travelers would not trespass onto private lands by using the routes.

As the Applicant has not conducted environmental studies for the "Proposed Public Access Routes," I request the BLM Director rule the Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS do not comply with CEQA Guidelines §§ 15088.5(a), 15151.

I also request the BLM Director rule the Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS are incomplete as the PRMP-A/FEIS does not mention or discuss the off-site "Public Access Routes".

X. RECORDS REQUESTED UNDER THE FREEDOM OF INFORMATION ACT

On December 13, 2009, I requested records the BLM has on Hector Road under the Freedom of Information Act (FOIA). The request for information was made in accordance with 5 U.S.C. § 552 *et seq.* and Title 20 California Code of Regulations § 1716(d).

To date, I have not received all the records I requested and I filed a FOIA appeal with the United States Department of the Interior (DOI) Office of the Solicitor on May 8, 2010. This appeal is ongoing.[10]

As a matter of record: On December 13, 2009, I also requested records the BLM has on water well quantity testing and water well sites under FOIA. I have not received all the records I requested and I filed a FOIA appeal with the DOI Office of the Solicitor on May 8, 2010. This appeal is also ongoing.[11]

The National Environmental Policy Act (NEPA) requires the BLM to provide information requested under FOIA.[12]

Title 42, Chapter 55, § 4332(2)(C)(i) states, in pertinent part:

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8 PRMP-A/FEIS, p. 3-135.

9 *Id.*, p. 4-311.

10 Patrick C. Jackson Status Report No. 5.

11 *Id.*

12 Federal Register, Vol. 75, No. 35, February 23, 2010, p. 8046.

The Congress authorizes and directs that, to the fullest extent possible:

(2) all agencies of the Federal Government shall -

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of human environment, a detailed statement by the responsible official on -

(i) the environmental impact on the proposed action.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and **to the public** as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes.[13] [Emphasis added]

The Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS do not comply with NEPA as the BLM Barstow Field Office withheld significant information necessary for the sections to comply with NEPA.

The Memorandum of Understanding Between the U.S. Department of Interior, Bureau of Land Management California Desert District and the California Energy Commission Staff Concerning Joint Environmental Review For Solar Thermal Power Plant Projects (BLM/CEC MOU) states, in pertinent part:

The assessments provided by the Parties must be sufficient to meet all federal and state requirements for NEPA and CEQA and shall be included as part of the joint Preliminary Staff Assessment/Draft Environmental Impact Statement and the joint Final Staff Assessment/Final Environmental Impact Statement. [Emphasis added]

To date, the BLM Field Office has not provided relevant and material information requested under FOIA. In not providing the requested information, the BLM's actions do not meet the legal requirements of Title 20 California Code of Regulations § 1716.

The BLM's withholding of relevant and material records prevents me and other interested parties from presenting evidence and participating fully in commenting on the PRMP-A/FEIS as required under NEPA and Title 20 California Code of Regulations §§ 1711, 1723(b).

Pursuant to the BLM/CEC MOU, the BLM Director is bound by California Code of Regulations to rule the BLM Barstow Field Office did not comply with Title 20 California Code of Regulations § 1716 and further rule the Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS are incomplete and do not comply with all applicable LORS.

[13] 42 USC § 4332.

XI. THE PRMP-A/FEIS DOES NOT COMPLY WITH SECTION 1500.1 OF THE NATIONAL ENVIRONMENTAL ACT (NEPA)

Sec. 1500.1, Purpose of the National Environmental Policy Act, states:

(a) The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. It establishes policy, sets goals (section 101), and provides means (section 102) for carrying out the policy. Section 102(2) contains "action-forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act. The regulations that follow implement section 102(2). Their purpose is to tell federal agencies what they must do to comply with the procedures and achieve the goals of the Act. The President, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive requirements of section 101.

(b) NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.

(c) Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork--even excellent paperwork--but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. These regulations provide the direction to achieve this purpose. [Emphasis added]

NEPA requires the BLM to provide information requested under FOIA.

Enacted in 1970, NEPA is a fundamental tool used to harmonize our economic, environmental, and social aspirations and is a cornerstone of our Nation's efforts to protect the environment. NEPA recognizes that many Federal activities affect the environment and mandates that Federal agencies consider the environmental impacts of their proposed actions before acting. Additionally NEPA emphasizes public involvement in government actions affecting the environment by requiring that the benefits and risks associated with proposed actions be assessed and publicly disclosed.[14] [Emphasis added]

The Land Use and the Traffic and Transportation sections of PRMP-A/FEIS do not comply with Section 1500.1 of NEPA as the BLM Barstow Field Office withheld significant information on CDCA designated open routes requested under FOIA.

[14] Federal Register, Vol. 75, No. 35, February 23, 2010, p. 8046.

XII. THE PRMP-A/FEIS DOES NOT COMPLY WITH NEPA AS THE BLM'S WITHHOLDING OF INFORMATION PREVENTS THE PUBLIC TO BE INVOLVED IN THE DECISION-MAKING PROCESS

The Council of Environmental Quality for NEPA:

> . . . wants to develop more effective and accessible tools for citizen involvement in government decision-making. These actions are designed to provide carefully-tailored new assessment and reporting requirements, facilitate agency compliance with NEPA, and enhance the quality of public involvement in governmental decisions relating to the environment.[15] [Emphasis added]

XIII. PROTESTS AND REQUESTS

1. I protest the closure of long-established CDCA designated open routes necessary for private property owners to access their lands.

2. I protest the substitution of proposed perimeter public access roads that will be unsafe and not comply with *CBD v. BLM*.

3. I protest the substitution of the Applicant's imaginary "Proposed Public Access Routes" which have not been proven legal or safe for public use.

4. I protest the closure of CDCA open routes and the substitution of non-existent alternative "Public Access Routes" which will **landlock** the private lands adjacent to the Project.

5. I protest the Applicant not presenting evidence of environmental studies conducted on the off-site "Public Access Routes" as required by NEPA, CEDA and ESA.

6. I protest the BLM Barstow Field Office withholding information requested under FOIA which prevents me and other interested parties in participating fully in the PRMP-A/FEIS process.

7. I request the BLM Director rule the Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS are incomplete and do not comply with FLPMA, CDCA, NEPA, CEQA, ESA, *SUWA v. BLM* and *CBD v. BLM*.

8. I request the BLM Director rule the Land Use and the Traffic and Transportation sections are incomplete and do not comply with NEPA and CDCA on the grounds the withholding of information by the BLM Barstow Field Office prevents me and other interested third parties from participating fully in the PRMP-A/FEIS process.

---

[15] *Id.*

9. I request the BLM Director rule the Land Use and the Traffic and Transportation sections of the PRMP-A/FEIS be revised to comply with all applicable LORS and recirculated for public comment.

Respectfully submitted,

Original Signed By

Patrick C. Jackson
Private Property Owner & Intervenor

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

In the Matter of: Application for Certification for the Calico Solar Project (Formerly SES Solar One)	Docket No. 08-AFC-13

DECLARATION OF SERVICE

I, **Patrick C. Jackson**, declare that on **August 31, 2010**, I served and filed copies of the attached ***Comments and Protests to the Final Environmental Impact Statement and Proposed Amendment to the California Desert Area Plan for the Calico Solar Project, San Bernardino County, California.*** The original document, filed with the Docket Unit, is accompanied by a copy of the most recent *Proof of Service* located on the web page for this project at:

http://www.energy.ca.gov/sitingcases/calicosolar/

The document has been sent to the Commission, as well as all parties in this proceeding as shown on the *Proof of Service*, in the following manner:

FOR SERVICE TO THE APPLICANT AND ALL OTHER PARTIES:

XX sent electronically to all e-mail addresses on the Proof of Service list and

XX by depositing in the United States mail at **San Dimas, California**, with first-class postage thereon fully prepaid and addressed as provided on the attached *Proof of Service* to the mailing addresses shown on the Proof of Service NOT marked "E-mail Service Preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

XX sending the original signed document and one electronic copy, mailed and e-mailed respectively, to the address below:

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

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

August 31, 2010	Original Signed By
Date	Patrick C. Jackson

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

APPLICATION FOR CERTIFICATION

For the CALICO SOLAR *(Formerly SES Solar One)*

Docket No. 08-AFC-13

PROOF OF SERVICE
(Revised 8/9/10)

APPLICANT
Felicia Bellows
Vice President of Development
& Project Manager
Tessera Solar
4800 North Scottsdale Road,
#5500
Scottsdale, AZ 85251
felicia.bellows@tesserasolar.com

CONSULTANT
Angela Leiba
AFC Project Manager
URS Corporation
1615 Murray Canyon Rd.,
#1000
San Diego, CA 92108
angela_leiba@URSCorp.com

APPLICANT'S COUNSEL
Allan J. Thompson
Attorney at Law
21 C Orinda Way #314
Orinda, CA 94563
allanori@comcast.net

Ella Foley Gannon, Partner
Bingham McCutchen, LLP
Three Embarcadero Center
San Francisco, CA 94111
ella.gannon@bingham.com

INTERESTED AGENCIES
California ISO
e-recipient@caiso.com

Jim Stobaugh
BLM – Nevada State Office
P.O. Box 12000
Reno, NV 89520
jim_stobaugh@blm.gov

Rich Rotte, Project Manager
Bureau of Land Management
Barstow Field Office
2601 Barstow Road
Barstow, CA 92311
richard_rotte@blm.gov

Becky Jones
California Department of
Fish & Game
36431 41st Street East
Palmdale, CA 93552
dfgpalm@adelphia.net

INTERVENORS
County of San Bernardino
Ruth E. Stringer,
County Counsel
Bart W. Brizzee,
Deputy County Counsel
385 N. Arrowhead Avenue,
4th Floor
San Bernardino, CA 92415-
bbrizzee@cc.sbcounty.gov

California Unions for Reliable
Energy (CURE)
c/o: Loulena A. Miles,
Marc D. Joseph
Adams Broadwell Joseph
& Cardozo
601 Gateway Boulevard, Ste. 1000
South San Francisco, CA 94080
lmiles@adamsbroadwell.com

Defenders of Wildlife
Joshua Basofin
1303 J Street, Suite 270
Sacramento, California 95814
e-mail service preferred
jbasofin@defenders.org

Society for the Conservation of
Bighorn Sheep
Bob Burke & Gary Thomas
P.O. Box 1407
Yermo, CA 92398
cameracoordinator@sheepsociety.com

Basin and Range Watch
Laura Cunningham &
Kevin Emmerich
P.O. Box 70
Beatty, NV 89003
atomictoadranch@netzero.net

INTERVENORS CONT.

Patrick C. Jackson
600 N. Darwood Avenue
San Dimas, CA 91773
e-mail service preferred
ochsjack@earthlink.net

Gloria D. Smith, Senior Attorney
***Travis Ritchie**
Sierra Club
85 Second Street, Second floor
San Francisco, CA 94105
gloria.smith@sierraclub.org
travis.ritchie@sierraclub.org

Newberry Community
Service District
Wayne W. Weierbach
P.O. Box 206
Newberry Springs, CA 92365
newberryCSD@gmail.com

Cynthia Lea Burch
Steven A. Lamb
Anne Alexander
Katten Muchin Rosenman LLP
2029 Century Park East,
Ste. 2700
Los Angeles, CA 90067-3012
Cynthia.burch@kattenlaw.com
Steven.lamb@kattenlaw.com
Anne.alexander@kattenlaw.com

ENERGY COMMISSION

ANTHONY EGGERT
Commissioner and Presiding Member
aeggert@energy.state.ca.us

JEFFREY D. BYRON
Commissioner and Associate Member
jbyron@energy.state.ca.us

Paul Kramer
Hearing Officer
pkramer@energy.state.ca.us

Lorraine White, Adviser to
Commissioner Eggert
e-mail service preferred
lwhite@energy.state.ca.us

Kristy Chew, Adviser to
Commissioner Byron
e-mail service preferred
kchew@energy.state.ca.us

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

Steve Adams
Co-Staff Counsel
sadams@energy.state.ca.us

Christopher Meyer
Project Manager
cmeyer@energy.state.ca.us

Jennifer Jennings
Public Adviser
e-mail service preferred
publicadviser@energy.state.ca.us

ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037
TEL: (650) 589-1660
FAX: (650) 589-5062
lmiles@adamsbroadwell.com

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-6201
FAX: (916) 444-6209

DANIEL L. CARDOZO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
JASON W. HOLDER
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
LOULENA A. MILES
ROBYN C. PURCHIA

FELLOW
AARON G. EZROJ

OF COUNSEL
THOMAS R. ADAMS
ANN BROADWELL
GLORIA D. SMITH

September 7, 2010

VIA E-MAIL [ORIGINAL WITH ATTACHMENTS TO FOLLOW BY OVERNIGHT MAIL]

Jim Stobaugh
BLM Project Manager
U.S. Bureau of Land Management
1340 Financial Boulevard
Reno, Nevada 89520
Jim_Stobaugh@blm.gov

Re: Comments on the Final Environmental Impact Statement for the Calico Solar Project and the Proposed California Desert Conservation Area Plan Amendment

Dear Mr. Stobaugh:

We submit these Comments on the Final Environmental Impact Statement ("FEIS"), prepared for the Calico Solar, LLC Project and the Proposed California Desert Conservation Area Plan Amendment (collectively "Project"), on behalf of California Unions for Reliable Energy ("CURE") and William Perez. As explained more fully below, the FEIS does not comply with the requirements of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq*., and approval of the Project would violate the Federal Land Policy Management Act ("FLPMA"), 43 U.S.C. § 1701 *et seq*., the National Historic Preservation Act ("NHPA"), 16 U.S.C. § 470 *et seq*. and the Endangered Species Act ("ESA"), 16 U.S.C. § 1531, *et seq*. BLM may not approve the Project until it has complied with all relevant law, and evaluated the Project impacts in a supplemental EIS, as required by NEPA.

CURE is a coalition of labor unions whose members construct, operate, and maintain power plants throughout California. CURE encourages sustainable development of California's energy and natural resources. Environmental degradation jeopardizes future growth and jobs by causing construction

moratoriums, destroying cultural or wildlife areas, consuming limited fresh water resources, causing water pollution, and imposing other stresses on the environmental carrying capacity of the state. This in turn reduces future employment opportunities for CURE's members. Additionally, union members live, recreate and work in the communities and regions that suffer the impacts of projects that are detrimental to human health and the environment. CURE therefore has a direct interest in enforcing environmental laws to minimize the adverse impacts of projects that would otherwise degrade the environment. Finally, CURE members are concerned about projects that risk serious environmental harm without providing countervailing economic benefits. The NEPA process allows for a balanced consideration of a project's socioeconomic and environmental impacts, and it is in this spirit that CURE offers these comments.

William Perez is the Business Manager of the Building & Construction Trades Council of San Bernardino & Riverside Counties. Mr. Perez owns land near the proposed Project site and has a personal interest in protecting the Mojave Desert, including the proposed Project site, from unnecessary adverse impacts in order to protect the area for future study and recreation. Mr. Perez enjoys camping, hiking and spending time with his family in the project region.

The Bureau of Land Management ("BLM") and the California Energy Commission ("CEC") prepared a joint Staff Assessment/Draft Environmental Impact Statement ("SA/DEIS") for the Project to satisfy the requirements of NEPA and California Environmental Quality Act ("CEQA"), California Public Resources Code § 21000 *et seq*. Following publication of the SA/DEIS, BLM and the CEC informed the public that environmental review of the Project would be bifurcated, and that BLM would publish a final EIS that would evaluate the Project in accordance with NEPA. These comments are directed toward BLM's FEIS and the technical appendices attached to the FEIS.

We have reviewed the FEIS and its technical appendices in conjunction with other studies and materials developed as part of the concurrent review of the Project by BLM and CEC. These comments were prepared with the technical assistance of David Whitley, Ph.D., Scott Cashen, M.S., Boris Poff, Ph.D. and David Marcus. The comments and qualifications of Dr. Whitley, Mr. Cashen, Dr. Poff and Mr. Marcus are attached. We request that you consider and respond to these consultants' comments separately and individually.

I. NEPA VIOLATIONS

NEPA supplements and augments the authority of each federal agency, vesting each federal agency with the "responsibility and power to protect the environment and integrate environmental, social, and economic objectives when carrying out other federal agency functions."[1] Each federal agency is directed to "interpret the provisions of the Act as a supplement to its existing authority and as a mandate to view traditional policies and missions in the light of the Act's national environmental objectives."[2] Consistent with NEPA's mandate, the CDCA Plan requires BLM to analyze the environmental effects and the economic and social impacts of granting and/or implementing an applicant's request to amend the CDCA to accommodate a specific proposed use.[3] BLM's rationale shall be based on "the principles of multiple use, sustained yield, and maintenance of environmental quality."[4]

A. <u>BLM Must Prepare a Supplemental Environmental Impact Statement</u>

"An agency's NEPA responsibilities do not end with the initial assessment; supplemental documentation "is at times necessary to satisfy the Act's action-forcing purposes."[5] As stated by the Supreme Court in *Marsh v. Oregon Natural Resources Defense Council*,

> It would be incongruous . . . with the Act's manifest concern with preventing uninformed action, for the blinders to adverse environmental effects, once unequivocally removed, to be restored prior to the completion of agency action simply because the relevant proposal has received initial approval.[6]

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[1] Ronald E. Bass et al., The NEPA Book: A Step by Step Guide to How to Comply with the National Environmental Policy Act (2d. Ed. 2001), p. 2.
[2] 40 C.F.R. § 1500.6
[3] *See id*. ("Analysis of Proposed Amendments").
[4] *See id*. ("Decision Criteria for Approval or Disapproval") and 40 C.F.R. § 1500.6.
[5] *Klamath Siskiyou Wildlands Center v. Boody*, 468 F.3d 549, 562 (9th 2006).
[6] 490 U.S. 360, 371 (1989).

A supplemental EIS must be prepared if the agency makes "substantial changes" in the proposed action that are relevant to environmental concerns or if there are "significant new circumstances or information" relevant to environmental concerns and bearing on the proposed action or its impacts.[7] "This is a low standard." [8] A plaintiff need only raise a "substantial question regarding whether a project may have a significant effect."[9] If a change to an agency's planned action affects environmental concerns in a different manner than previous analyses, the change is surely "relevant" to those same concerns.[10]

1. BLM Must Supplement the EIS Because BLM Determined There May Be Additional Significant Effects on Cultural Resources and Now Proposes a New Testing Regime That Will Itself Result in Potentially Significant Adverse Environmental Effects

According to Dr. David Whitley, cultural resources in the Project area have the potential to provide critical information that could inform the debate about when human habitation began in North America.[11] The FEIS acknowledges the current lack of conclusive information about early human habitation in the Project area: "Human utilization of the Mojave region as early as the Paleo-Indian Complex (10,000 to 8,000 cal B.C.) has been proposed though no conclusive information to date has been published that validates such early dates."[12] Thus, information relevant to the earliest use of the region would be useful for contextualizing the archeological resources on the Project site and for furthering the understanding of human occupation of the region.

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[7] 40 C.F.R. § 1502.9(c)(1)(i)-(ii); *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989).
[8] *Klamath Siskiyou Wildlands Center*, 468 F.3d at 562.
[9] *Id.*; *see also Price Road Neighborhood Association, v. United States Department of Transportation*, 113 F.3d 1505, 1509 (9th Cir. 1997) ("supplemental documentation is only required when the environmental impacts reach a certain threshold-i.e. significant (defined at 40 C.F.R. § 1508.27) or uncertain")
[10] *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 707 (10th Cir. 2009) ("*New Mexico")*.
[11] Rebuttal Testimony of David S. Whitley on behalf of CURE, Submitted to the California Energy Commission on August 16, 2010.
[12] FEIS p. 3-53.

The Applicant's cultural resources technical report identified just such information - a spear point (SBR 5600) that may be 11,000 years old.[13] The spear point is an example of the type of resource that can inform the debate about the first peopling of North America. In fact, the Project site is located in close proximity to a number of other sites that may contain some of the earliest known remains of human occupation in North America, such as the controversial "Calico Early Man" site, on the National Register of Historic Places, just west of the Project area.[14] The "Manix Lake Lithic Industry," which occurs in the immediate region (and possibly within the project area), has been similarly cited as evidence for early Pleistocene (Ice Age) use of the desert.[15] One of the oldest petroglyphs in America, dating to before 12,000 years ago, is present in the Rodman Mountains, west of the Project.[16] Thus, early, and potentially very early, human use of the Project region, has been repeatedly demonstrated by archaeologists. According to Dr. Whitley, it is possible (if not highly likely) that the site contains important evidence that will address the first peopling of the Americas debate.

The BLM concluded in the FEIS that the Project area has 335 known cultural resource sites (identified solely from a visual inspection of the ground surface), three of which are eligible for the National Register.[17] The FEIS unequivocally states that the remaining 332 sites are not eligible for the National Register.[18] However, on August 25, 2010, *after release of the FEIS*, the BLM, in consultation with the California State Historic Preservation Office, conceded that additional testing should be conducted to determine whether additional significant cultural resources are present on the Project area.

On August 25, 2010, the BLM determined that it will be necessary to conduct subsurface testing to determine whether any of the remaining 332 sites that will be subject to ground disturbance, contain resources that are eligible for the National

[13] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.
[14] Id.
[15] Id.
[16] Id.
[17] FEIS p. 4-216.
[18] FEIS p. 4-218.

Register of Historic Places.[19] The BLM reached this new conclusion nearly a month after the issuance of the FEIS. Specifically, according to BLM's State Archeologist Dr. Charlotte Hunter:

> The State Historic Preservation Officer [SHPO] has proposed a method that I believe can satisfy the concerns of both agencies … for those sites that are impacted, we would do ten-centimeter strips in the site that's being affected, the archaeological monitor would determine if the stripping could continue, and another ten centimeters would be removed in order for the archaeological monitor to gather enough data to determine the significance or to add to a larger body of knowledge.[20]

Dr. Hunter's acknowledgement of the potential for subsurface cultural resources is a ***significant departure from the conclusions reached in the FEIS*** and constitutes significant new information bearing on the potential for new significant adverse environmental effects from the proposed project. In this instance, the BLM's complete reversal about the potential for significant subsurface resources constitutes new circumstances relevant to environmental concerns that necessitate the circulation of a supplemental EIS.

Also, after the release of the FEIS, the BLM further revealed that the now-anticipated subsurface testing would be conducted using *mechanical excavation*.[21] This new proposal "will have a significant impact on the environment in a manner not previously evaluated and considered."[22] At the California Energy Commission evidentiary hearing on the proposed Project, the BLM testified that it now proposes mechanical excavation under every SunCatcher unit that is installed.

> MS. MILES: So that means that every site where a SunCatcher will be put into the ground there will be testing; is that correct?

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[19] Comment of Dr. Charlotte Hunter at California Energy Commission evidentiary hearing on Calico Solar Project, August 25, 2010, pp. 20-24, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.
[20] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.
[21] Id. at pp. 45-46.
[22] *S. Trenton Residents Against 29 v. Fed. Highway Admin.* (1999) 176 F.3d 658, 663.

> DR. HUNTER: That every site that is impacted by construction in the form of ground disturbance will be tested.
>
> MS. MILES: And will there be only mechanical excavation, or will hand excavation also occur on the sites?
>
> DR. HUNTER: It will be mechanical.

The use of mechanical excavation in sites *known* to contain cultural resources was not mentioned in the DEIS or the FEIS and would pose significant unmitigated impacts to cultural resources on the Project site.[23] Although mechanical excavation for subsurface testing may be appropriate in areas where there are *no known* cultural resources, mechanical excavation is not appropriate in *known* archeological sites because mechanical equipment can destroy the resources that the agency is seeking to protect.[24]

Dr. Whitley specifically testified under oath at the California Energy Commission proceeding on the Project that mechanical excavation is an inappropriate method for subsurface testing in areas of known cultural resources because it could destroy resources that the BLM was seeking to protect. Mechanical excavation has its own significant effects on cultural resources. Instead, hand excavation of the ground surface in known archeological sites is the appropriate method to probe for resources:

> [S]tandard archaeological practice requires as carefully controlled excavations as possible. That's why we hand excavate archaeological sites using a trowel and …a whisk broom. Mechanical excavation can be controlled to a certain degree, but the level of control -- is, frankly, at the point of mass destruction. By the time you've found an archaeological deposit using mechanical excavation, you've effectively destroyed a significant part of it. Normally we only use mechanical excavation to find buried archaeological sites in locations where there is not the existing evidence -- there is not evidence that a site is

[23] Testimony of Dr. David Whitley at California Energy Commission evidentiary hearing on Calico Solar Project, August 25, 2010, pp. 71-72, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.
[24] Id. at pp. 67-68.

> already present. We wouldn't take a backhoe into a site and dig into it to see if it had a subsurface deposit. We would take a backhoe out onto an area that had no evidence of archeology and use it to strip down the soil to see if there was something deeply buried underneath. That's an important distinction, and it seems to be one that has gotten confused in this process.[25]

Thus, the BLM now proposes to employ techniques to determine whether eligible resources are present on the Project site with a testing method that is likely to destroy the resources the BLM is seeking to protect. Importantly, this method was not disclosed during the environmental review process in the DEIS or FEIS. Thus, mechanical testing is a "substantial change" in the proposed action that is relevant to environmental concerns and bears on the proposed action or its impacts.[26] As the BLM is well aware if a change to an agency's planned action affects environmental concerns in a different manner than previous analyses, the change is surely "relevant" to those same concerns.[27]

Not only will mechanical excavation constitute a new potentially significant effect on cultural resources, but it would violate the BLM's 8110 manual. The BLM 8110 Manual provides: "Test excavation must be limited to a scale that would not substantially alter the property's significant archaeological features, that is, those that make it eligible for inclusion in the National Register of Historic Places."[28] Dr. Whitley emphasizes that mechanical test excavations could destroy the features that could make these sites eligible.

Moreover, reliance on mechanical excavation in known archeological sites is contrary to the Secretary of the Interior Standards and Guidelines for Evaluation. Specifically, the Standards provide that when "archeological testing or structural analysis is needed for evaluation, it should not proceed beyond the point of providing the information necessary for evaluation and should not unnecessarily

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[25] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.
[26] 40 C.F.R. § 1502.9(c)(1)(i)-(ii); *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989).
[27] *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 707 (10th Cir. 2009) ("*New Mexico")*.
[28] The Foundations for Managing Cultural Resources, Bureau of Land Management, Section 8110.2.

affect significant features or values of the property."[29] However, mechanical excavation – as now proposed – would likely result in the inadvertent destruction of the sites.[30]

BLM must analyze significant effects on cultural resources associated with the new proposal to use mechanical excavation in a supplemental EIS that is circulated for public review and comment.

2. BLM Must Supplement the EIS Because the Project Will Result in Unanalyzed Significant Adverse Environmental Effects to Desert Tortoise

The Project will directly impact 6,215 acres (approximately ten-square miles) of public land that provides valuable habitat and habitat connectivity for a sizable and healthy population of desert tortoises. Desert tortoises are a species listed as threatened under the California and Federal Endangered Species Acts. In reviewing the biological resources present on the Project site, biologist Scott Cashen testified that the area represents an extremely healthy ecosystem, one that cannot be mitigated if destroyed.[31] The BLM and California Energy Commission Staff concluded that the Project's effects on the wildlife within the proposed perimeter of the Project would be severe.[32] However, BLM has both underestimated the number of tortoises that would be impacted and failed to provide an adequate assessment of the significant effects on the species from the translocation of desert tortoises into offsite populations.

a. The BLM Has Not Accurately Estimated Signficant Effects on Desert Tortoise

Although the DEIS estimated that the Project would require removal of **100 desert tortoises** off of the Project site, the DEIS did not provide any estimates of

[29] Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines [As Amended and Annotated], accessed at: www.nps.gov/history/local-law/arch_stnds_3.htm
[30] Testimony of Dr. David Whitley at California Energy Commission evidentiary hearing on Calico Solar Project, August 25, 2010, pp. 71-72, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.
[31] Rebuttal Testimony of Scott Cashen on behalf of CURE, submitted to the California Energy Commission on July 29, 2010, p. 1.
[32] DEIS p. C.2-2.

the overall number of tortoises that would be impacted by the Project on the Project site or on the receptor locations. In omitting estimates of the number of tortoises that would be impacted overall (including those at receptor locations and reference sites), the DEIS did not provide the public with a basic understanding of the magnitude of the impacts that the Project would cause.

The FEIS paints a dramatically different picture in terms of the number of tortoises likely to be impacted, and still lacks analyses of indirect impacts. The FEIS concludes that approximately **883 desert tortoises** will be directly or indirectly affected by development of the agency preferred project (alternative 1a).[33] The FEIS concedes however that this number could be as high as **1,228 tortoises**. Moreover, the FEIS estimate only includes tortoises on the Project site and tortoises that will be physically disease-tested and radio-collared off the Project site.[34] Thus, the estimate of 883-1,228 tortoises that will be impacted by the Project **does not include tortoises** that will not be handled but will nevertheless be impacted by increased predator densities and other inadvertent effects of human disturbance in areas around the Project site and in the receiver and control sites.

BLM failed to accurately disclose indirect impacts to offsite desert tortoise populations. Nevertheless, the FEIS estimate that the Project will impact 883-1,228 tortoises is ten times higher than what was disclosed and discussed in the DEIS. The change from 100 tortoises impacted to 1,228 tortoises impacted constitutes significant new information relevant to environmental impacts that warrants recirculation of the EIS for comment and response.[35] And, certainly, this change has implications on the proposed action and its effects that are not yet known and which will certainly affect the environmental in a different manner.[36]

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[33] FEIS p. 4-77; Testimony of Teresa Miller at California Energy Commission evidentiary hearing on Calico Solar Project, August 25, 2010, p. 215; Testimony of Chris Otahol at California Energy Commission evidentiary hearing on Calico Solar Project, August 18, 2010, p. 389, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.

[34] For every desert tortoise that is translocated off the project site, two additional tortoises will require handling offsite for monitoring purposes in the receptor site and in a reference site.

[35] 40 C.F.R. § 1502.9(c)(1)(i)-(ii); *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989).

[36] *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 707 (10th Cir. 2009) ("*New Mexico").*

It has also become clear since the release of the FEIS that two of the named receptor locations in the FEIS, the northern "linkage" area and the Pisgah Area of Critical Environmental Concern ("ACEC") will not be appropriate locations to accept more than collectively two tortoises.[37] The remaining tortoises that will require translocation exceed the capacity of the identified receptor locations. Therefore, BLM does not have adequate receptor locations for the tortoises that would need to be moved for Project development.

The California Department of Fish and Game ("CDFG") Senior Environmental Scientist Tonya Moore also reached the conclusion that BLM needs to gather additional data and conduct additional analysis before embarking on this unprecedented and risky translocation effort. At the California Energy Commission evidentiary hearing on August 18, 2010, Ms. Moore explained that the BLM's translocation effort is unprecedented in size for the Department and the environmental analysis coupled with the Applicant's draft desert tortoise translocation plan collectively do not provide adequate information about the translocation effort:

> First, it should be noted, the department has never permitted … a project this large for this amount of tortoises. In fact, the region has never permitted this number, and the largest number of desert tortoises permitted by the department in incidental take permit that I could find was one that went up to about 54 desert tortoises. So evaluating this information and analyzing it is actually at this scale is a first for the department. And so we're trying to make sure that we're analyzing it correctly. That said, as far as the information that was in here, I believe that it is not adequate to determine whether this project is fully mitigated for …it appears to us that we don't have enough translocation areas, we cannot anticipate and/or analyze what will happen to the recipient/host…population with the information that we have. And therefore, we're stating that we need -- we need more information to proceed with that… What we're stating is it is hard to analyze what will happen to a host population when you're not sure

[37] FEIS p. 4-55.

> where the host population is and/or all the impacts of that host population.[38]

Ms. Moore's concerns are shared by CURE, Sierra Club and the Defenders of Wildlife. The determination that the identified receptor areas will not be adequate to receive desert tortoises is significant new information bearing on environmental concerns that triggers the need for supplemental analysis. It is apparent that a substantial planning effort is needed prior to the conclusion of the BLM's analysis on this Project. As Dr. Berry warned at the conclusion of her comments at the California Energy Commission evidentiary hearing:

> **If the approval is given …then it becomes more difficult to craft solutions and places to put tortoises, especially** if the sites are not previously identified and the sites aren't good sites to begin with.[39]

The DEIS and FEIS have not provided adequate or accurate information to inform the public and decision-makers about the magnitude of the impacts to desert tortoise populations in the Project region. BLM must identify the receptor sites and provide an analysis of the likely impacts to those populations that include identification of impacts to the offsite tortoise populations that are not directly handled. Finally, BLM should revise the translocation plan so that it is complete, and this should be circulated to the public for review and comment.

b. The Desert Tortoise Translocation Plan Must Be Revised and Recirculated for Review and Comment

The desert tortoise translocation plan is the cornerstone of BLM's strategy to minimize impacts to the desert tortoise population on the Project site. The translocation plan was not released with the DEIS and has only been circulated for the first time in the FEIS. The translocation plan is rife with omissions, inaccuracies and wholesale incompetence.

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[38] Testimony of Tonya Moore at California Energy Commission evidentiary hearing on Calico Solar Project, August 18, 2010, pp.265-266 and 270-271. Available at www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.

[39] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.

Dr. Kristin Berry, a renowned desert tortoise biologist who is currently studying the nearby Ft. Irwin translocation effort, testified under oath at the California Energy Commission regarding the inadequacy of the current translocation plan:

> "The translocation plan seems to be hastily assembled, lacks basic and careful science, and it's not a rigorous, thoughtful plan. Very little background information is presented and no supporting scientific or quantitative data on such important topics that are raised in the documents such as annual and perennial vegetation, soils and surficial geology…The second point I'd like to make is that the writers of the translocation plan used layers of assumption unsupported by scientific evidence, and I'd like to give some examples…In the plan they mention a proposed buffer of 2.5 kilometers around a diseased or zero positive animal, and that kind of buffer is not supported by current evidence. For example, in our Fort Irwin project and in our progress report for 2009 we found that translocated tortoises move a mean distance of 2.4 kilometers with a minimum of 275 meters and a maximum of 12.6 kilometers. Thus a translocated tortoise with that kind of buffer would be likely to come in contact with an infected tortoise."[40]

Dr. Berry's warnings that the Translocation Plan needs a lot of improvement should be heeded. She has witnessed first-hand the tragedy of the nearby Ft. Irwin translocation effort that has resulted in 50% mortality of desert tortoises.[41]

Similarly, Scott Cashen reviewed the newly released translocation plan and found it wholly inadequate. Mr. Cashen's testimony on the translocation plan is attached and incorporated herein.[42] According to Mr. Cashen's professional opinion, if the translocation plan were to be adopted, most of the tortoises on the Project site would not survive.[43]

Finally, it is not clear that desert tortoise translocation should be conducted as a minimization strategy. Dr. Berry testified that the very high mortality rate of

[40] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.
[41] Id.
[42] Testimony of Scott Cashen on Desert Tortoise Translocation Plan.
[43] Id.

the tortoises in the nearby Ft. Irwin translocation effort leads her to believe that translocation may not be an effective minimization strategy:

> Now there's very little scientific evidence that translocation is a successful mitigation or minimization measure for Desert Tortoises. And that is a very important point, because we all are supposed to be focusing on how to recover this threatened species. The studies on translocations conducted to date have been short term and some have not demonstrated success if we measure success in terms of survival.[44]

NEPA requires the BLM to circulate a draft translocation plan in the DEIS in order to obtain meaningful input and revise the plan prior to approving the Project. Now, the translocation plan is new and incorrect. The BLM's decision to present the numbers of impacted tortoises and this mitigation strategy for the first time in the FEIS undermines public participation and fundamentally violates the NEPA process.

B. BLM Failed to Adequately Respond to Public Comments

NEPA's procedural requirements "are to be strictly interpreted to the "fullest extent possible" in accordance with the policies embodied in the Act . . . grudging, pro forma compliance will not do."[45] "NEPA's public comment procedures are at the heart of the NEPA review process.[46] Responsible opposing viewpoints must be included in the final EIS; "this reflects the paramount Congressional desire to internalize opposing viewpoints into the decision-making process to ensure that an agency is cognizant of all the environmental trade-offs that are implicit in a decision."[47] In responding to public comments on a DEIS, agencies are "obliged to provide "meaningful reference" to all responsible opposing viewpoints concerning the agency's proposed decision . . . . Moreover there must be a good faith, reasoned analysis in response."[48]

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[44] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.
[45] *State of Cal. v. Block*, 690 F.2d 753, 769 (9th 1982) (citing 42 U.S.C. § 4332(1) and *Lathan v. Brinegar*, 506 F.2d 677, 693 (9th Cir. 1974).
[46] *State of Cal.*, 690 F.2d at 770.
[47] *Id.* at 770-71.
[48] *Id.* at 773 (internal citations omitted).

Agencies are held to a more stringent standard with regard to responses to comments submitted by expert federal agencies. Specifically, courts have *required* the agency to respond to such comments and "to discuss at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised."[49] "This disclosure requirement obligates the agency to make available to the public ***high quality*** information, including accurate scientific analysis, expert agency comments and public scrutiny, before decisions are made and actions are taken."[50]

Here, BLM failed to provide a good faith, reasoned analysis in response to public comments. These omissions violate NEPA.

1. BLM Failed to Provide a Good Faith Reasoned Response to CURE's Comments Regarding Climate Change

The evaluation of global climate change under NEPA must include an analysis of the Project in the *context of* global climate change; the agency's analysis should not be limited to the greenhouse gas (GHG) emissions associated with the proposed project.[51]

> The environmental analysis and documents produced in the NEPA process should provide the decision maker with relevant and timely information about the environmental effects of his or her decision . . . . [i]n this context, climate change issues arise in relation to the consideration of (1) the GHG emissions effects of a proposed action . . . *and* (2) *the relationship of climate change effects to a proposed action or alternatives, including the relationship to proposal design, environmental impacts, mitigation and adaptation measures.*[52]

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[49] *See Center for Biological Diversity v. U.S. Forest Service*, 349 F.3d 1157, 1167 (citing 40 C.F.R. § 1502.9(b)).
[50] *Id.* (citing 40 C.F.R. § 1500.1(b)) (emphasis added).
[51] *See Center for Biological Diversity v. Kempthorne*, 588 F.3d 701, 711 (9th Cir. 2009) (holding that the U.S. Fish and Wildlife Service adequately analyzed a major federal action's impacts to polar bears in the context of a warming climate").
[52] Council on Environmental Quality, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, Feb. 18, 2010.

"With regards to the effects of climate change on the design of a proposed action and alternatives, Federal agencies must ensure the scientific and professional integrity of their assessment of the ways in which climate change . . . could effect" the proposed action.[53] As recognized by the Council on Environmental Quality, "climate change can affect the environment of a proposed action in a variety of ways . . . [for example] climate change can affect the integrity of a development or structure by exposing it to a greater risk of floods, storm surges, or high temperatures."[54]

In comments submitted on the DEIS, CURE stated that, "The DEIS failed to consider the role that climate change will have in shaping and exacerbating the Project's impacts on the environment."[55] Specifically, CURE's expert Dr. Boris Poff, hydrologist for the Mojave National Preserve, noted that,

> Climate change can have an influential role in shaping the project's impacts on the environment in terms of hydrologic response and soil erosion. Provided that intense summer storms are responsible for a majority of the runoff that occurs at the project site, the Nature Conservancy Climate Wizard (http://www.climatewizard.org/) would suggest that summer rainfall in southeastern California may increase by as much as 50% by 2080 in the summer, which could be accompanied by significant increases in rainfall intensity and erosivity (Angel et al. 2005). Significant increases in rainfall quantity, intensity, and erosivity will have a profound impact on the landscape, especially on the morphology of the washes where solar dishes are proposed. Changes to the morphology of the washes would significantly impact the structural stability and flood preparedness of the solar dishes placed in the washes.[56]

In response to CURE's comments, the FEIS provides, "The understanding of how and when climate change may result in noticeable effects on the different species and habitats within the Mohave Desert is unknown and speculative at this time. Similarly, changes in hydrologic regimes for a specific area are unknown at this time. Based on these reasons, BLM has determined that discussion of climate

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[53] *Id*. at p. 6.
[54] *Id*.
[55] *See* CURE Comments on the DEIS.
[56] Comment of Dr. Boris Poff on the DEIS for the Calico Solar Project.

change on hydrological regimes and biological resources are not necessary in this analysis."[57]

This statement does not rise to the level of a "reasoned" response. NEPA requires agencies to provide a "reasoned analysis containing quantitative or detailed qualitative information."[58] As such, the information provided in those sections of the FEIS does not respond to CURE's comments regarding *the effect of climate change on the proposed Project*. BLM's response violates NEPA, because BLM's response hardly equates to a good faith effort to respond to public comment.

2. BLM Failed to Provide a Good Faith Reasoned Response to CURE's Comments Regarding Project Impacts to Special Status Bats

NEPA requires agencies to take a "hard look" at the environmental consequences of a proposed action.[59] A hard look is defined as a "reasoned analysis containing quantitative or detailed qualitative information."[60] The level of detail must be sufficient to support reasoned conclusions by comparing the amount and the degree of the impact caused by the proposed action and the alternatives.[61] An EIS must provide a "full and fair discussion of significant environmental impacts and shall inform the decision-makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment."[62]

In comments submitted on the DEIS, CURE's expert Scott Cashen raised the following concerns regarding the Project's impacts on special status bats:

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[57] FEIS p. G-45.
[58] BLM, NEPA HANDBOOK, P. 55 (Jan. 2008) ("NEPA Handbook"), available at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf.
[59] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); *Dubois v. U.S. Dep't of Agric.*, 102 F.3d 1273, 1284 (1st. Cir. 1996); see also *South Fork Band Council Of Western Shoshone Of Nevada v. U.S. Dept. of Interior*, 588 F.3d 718, 727 (9th Cir. 2009).
[60] BLM, NEPA HANDBOOK, P. 55 (Jan. 2008) ("NEPA Handbook"), available at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf.
[61] NEPA Handbook, p. 55; *see also* 40 C.F.R. § 1502.1 (2009).
[62] 40 C.F.R. § 1502.1.

> In order to mitigate adverse impacts on potential bat communities, the DEIS has recommended the implementation of Bat Impact Avoidance and Minimization Measures ("BIO-26"), which includes pre-construction surveys in all areas of suitable bat habitat (i.e., rock outcrops and railroad trestles). The survey methods provided in BIO-26 do not correspond with the guidelines established by the [West Mojave Plan]. Whereas the DEIS requires roosting surveys to be conducted during the maternity season (1 March to 31 July), the WMP indicates that surveys must take place in both the summer and winter "to determine if bats utilize a potential roost for hibernation or for maternity colonies." Additionally, "surveys that indicate a roost is used in one of the seasons should be repeated during the other season to determine if bats use the roost for both functions." Because the DEIS does not provide mitigation that satisfies these survey requirements, the Project does not comply with the WMP.[63]

The BLM and the Energy Commission technical Staff agree that special status bats occur on the Project site and that nearby offsite areas may contain roosts that could be impacted.[64]

In response to CURE's comments, however, the FEIS provides as follows:

> Construction of the Calico Solar facility would not be expected to result in the loss of maternity colonies, day roosts, or hibernacula for bats. These features are not known to occur on the project site, and while bats will utilize large trees for day roosts, the habitat on the project site (primarily creosote bush scrub and windrows of sparse salt cedar) is generally not suited for this behavior; however, it may be possible that some areas of the project site that have rock outcrops or exposed lava formations may have limited potential to support small bat roosts. [65]

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[63] FEIS p. G-77.
[64] *See* DEIS, pp. C.2-33-34, C.2-40; FEIS, p. C-42-43.
[65] FEIS p. G-78.

BLM provides no citations to support these claims because it cannot. As stated in Mr. Cashen's comments on the DEIS, BLM did not conduct (or require the Applicant to conduct) the surveys necessary to establish the absence of roosting bats, as is required by the West Mojave Plan.[66] Indeed, BLM provides *no evidence* to support its claim that construction of the Calico Solar Project is not likely to result in the loss of bat roosts.

BLM's response to CURE's comments is based on assumptions that are contrary to information provided in the DEIS and the FEIS. For example the FEIS states: "because potential roost sites occur on the project site (e.g., railroad trestles, areas of rock outcrop) and special-status bats are known to occur nearby at Pisgah Crater, the BLM would require the development of a Bat Protection Plan and implementation of project mitigation measures by the Applicant to address potential impacts to bats."[67] BLM's response to CURE's comment is not consistent with information in the FEIS and entirely fails to address CURE's comments regarding the effects on bat roosts on or adjacent to the Project site. As such, BLM failed to provide a good faith reasoned response to CURE's comments in violation of NEPA.

3. BLM Failed to Respond to Comments Submitted by Scott Cashen Regarding the Effectiveness of Unidentified Compensation Land to Mitigate for Significant Effects on Desert Tortoise

At the California Energy Commission evidentiary hearing, the agencies announced that the Applicant will need to provide 18,761 acres of compensation land, 4,743 more acres than the 14,018 acres BLM had required the Applicant to purchase in the DEIS.[68] A fraction of that land may be substituted with habitat rehabilitation but the mitigation will largely need to be satisfied through a land purchase.

CURE previously submitted comments on the DEIS outlining concerns that even the prior lower estimate of desert tortoise mitigation lands that the Applicant would need to purchase may not be available on the private

[66] Comment of Scott Cashen on DEIS for Calico Solar Project.
[67] FEIS p. 4-72.
[68] Transcript of California Energy Commission Evidentiary Hearing on Calico Solar Project, August 25, 2010.; DEIS p. C.2-185

market. The agency's new mitigation proposal requires the Applicant to acquire even more compensation lands to mitigate for potential impacts to desert tortoise *that may not be available*:

> [T]here is no evidence that qualifying lands exist. Thus, the mitigation measure may not be appropriate or enforceable. The compensation lands must be identified now in order to ensure that significant impacts to desert tortoise are adequately mitigated.[69]

The FEIS doesn't directly respond to the comment that adequate land may not exist to mitigate the impacts:

> "[t]he mitigation measures are consistent with current state and federal policies and guidelines, and have been developed through extensive coordination with the California Energy Commission, California Department of Fish and Game, and US Fish and Wildlife Service. The BLM has initiated formal consultation under the Endangered Species Act to address adverse impacts to the special-status species and designated critical habitat."

BLM's response does not satisfy its obligation under NEPA because it provides no evidence that lands of adequate quality and quantity will be available for purchase to mitigate impacts to desert tortoise. Although it may be true that BLM is coordinating the review of this Project with other agencies, there is nothing in the record that shows that there is adequate land available to mitigate impacts to this Project, or to the other proposed Projects on desert tortoise land in the Project area.

It bears repeating that with regard to responses to comments submitted by expert federal agencies, the agency must "make available to the public *high quality* information, including accurate scientific analysis, expert agency comments and public scrutiny, before decisions are made and actions are taken."[70] The FEIS does not contain evidence showing that adequate compensation lands are available. This

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[69] FEIS, p. G-93.
[70] *Center for Biological Diversity v. U.S. Forest Service*, 349 F.3d 1157, 1167 (9th Cir. 2003) (citing 40 C.F.R. § 1500.1(b)) (emphasis added).

is compounded by BLM's rush to develop large renewable power plants in this region. Other projects will similarly require mitigation land for impacts to desert tortoise. The surge of immense solar power projects throughout the region makes it unrealistic to expect that the Applicant will be able to acquire equivalent or better habitat to compensate for the destruction of habitat for desert tortoise that this Project will cause.

Moreover, as Mr. Cashen testified under oath at the California Energy Commission that purchasing numerous smaller pieces of land will not compensate for the loss of one large intact piece of land that currently supports a reproducing desert tortoise population.

> And the consensus among the desert tortoise experts … and the recovery plan is that a large block of contiguous intact high-quality habitat is essential for the species. And the reason that I bring this up is because we've had some discussion this morning about the cost associated with acquisition and BLM and staff have both concluded that in order to meet the mitigation requirements that Applicant was going to have to purchase several parcels. Multiple. There was no single large parcel out there to purchase to satisfy the mitigation requirements. And so in doing so, we've exchanged one large block of habitat for several smaller ones which we -- which the desert tortoise community has agreed is not as valuable as one large block of habitat.[71]

The FEIS provides no evidence to show that this substantial amount of privately-owned acreage, of equivalent or better habitat function and value for all of the species significantly impacted by the Project, is available for purchase. In light of the current wave of renewable energy projects being proposed within the region, it is questionable that this vast amount of suitable habitat acreage can be acquired.

BLM is required to include *high quality* information in the FEIS, such as *accurate scientific* analysis and expert agency comments, to meet the public disclosure requirements of NEPA.[72] Here, BLM has impermissibly strayed from its

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[71] Testimony of Scott Cashen at California Energy Commission evidentiary hearing on Calico Solar Project, August 5, 2010, pp. 195-196. Available at www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.

[72] *See Center for Biological Diversity*, 349 F.3d at 1167.

duty under NEPA by failing to undertake a good faith effort to examine the proposed Project's effects on the environment. In effect, BLM has misled the public by obscuring the mitigation for one of the most controversial aspects of the proposed Project. BLM's failure to adequately analyze the Project violates NEPA.

C. Failure to Take a "Hard Look" At Environmental Consequences

Section 101 of NEPA declares it is a matter of national policy to preserve important historic, cultural, and natural aspects of our national heritage. To achieve this goal, NEPA requires that agencies take a "hard look" at the environmental consequences of a proposed action.[73] A hard look is defined as a "reasoned analysis containing quantitative or detailed qualitative information."[74] The level of detail must be sufficient to support reasoned conclusions by comparing the amount and the degree of the impact caused by the proposed action and the alternatives.[75]

An EIS must provide a "full and fair discussion of significant environmental impacts and shall inform the decision-makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment."[76] "General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided."[77] *"[L]ack of knowledge does not excuse the preparation of an EIS; rather it requires [the agency] to do the necessary work to obtain it*."[78]

An EIS must provide a full and fair discussion of every significant impact, as well as inform decision-makers and the public of reasonable alternatives which

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[73] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); *Dubois v. U.S. Dep't of Agric.*, 102 F.3d 1273, 1284 (1st. Cir. 1996); see also *South Fork Band Council Of Western Shoshone Of Nevada v. U.S. Dept. of Interior*, 588 F.3d 718, 727 (9th Cir. 2009).
[74] BLM, NEPA HANDBOOK, P. 55 (Jan. 2008) ("NEPA Handbook"), available at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf.
[75] NEPA Handbook, p. 55; *see also* 40 C.F.R. § 1502.1 (2009).
[76] 40 C.F.R. § 1502.1.
[77] *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998).
[78] *National Parks & Conservation Association v. Babbitt,* 241 F.3d 722, 733 (9th Cir.2001), *abrogated on other grounds by Monsanto Co. v. Geertson Seed Farms*, 2010 WL 2471057, 12 (U.S.) (U.S., 2010) (emphasis added).

would avoid or minimize adverse impacts.[79] The impacts analysis must include a discussion of the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented.[80] The discussion of impacts must include both "direct and indirect effects (secondary impacts) of a proposed project."[81]

As stated in CURE's comments on the DEIS, BLM failed to take a hard look at the Project's effects on cultural and biological resources. The FEIS similarly fails to analyze the Project's effects on these resources.

1. BLM Failed to Take a "Hard Look" at the Significant Cultural Resources Consequences of the Project

In the DEIS and FEIS, BLM failed to take a hard look at the Project's significant effects on cultural resources. We incorporate by reference CURE's comments on the DEIS because the comments are still applicable. The BLM failed to adequately identify the cultural resources that constitute the affected environment and, as a result, have not, and could not, identify the environmental consequences of the project on these resources or develop appropriate mitigation.

a. BLM Did Not Adequately Define the Affected Environment

The California Energy Commission Staff archeologist recently concluded that it was not possible to determine the Project's impacts to cultural resources based on the analysis done by the Applicant:

> Energy Commission staff believes, contrary to the recommendations of the applicant, that the implementation of the proposed action would permanently destroy a large portion of a prehistoric archaeological landscape that may reasonably exist on the project site. The permanent loss of this landscape would be a significant impact requiring mitigation.[82]

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[79] *Id.*
[80] *Id.* at § 1502.16.
[81] *Id.* at § 1502.16(b); *see also Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).
[82] California Energy Commission Supplemental Staff Assessment for the Calico Solar Project p. C.2-96.

California Energy Commission Staff also explained why sampling and subsurface testing is required to accurately characterize the affected environment:

> What is compelling about the current project area in terms of substantiating staff's argument for some degree of site sampling is that: (1) a large number of formed artifacts were reported in the DPR forms for the sites in the project area; (2) being on public land, there is a high likelihood that unauthorized artifact collection (i.e., looting) has occurred in the project area (as reported in the Class III technical report), which may have skewed the surface visibility of lithic materials (particularly diagnostic artifacts) and correspondingly, any conclusions drawn about the sites based on surface observations alone; (3) the geology of the area is such that a sizable expanse of toolstone-quality material was available and actively exploited by prehistoric inhabitants over an apparently broad expanse of time, and the sites' constituents reflect the importance of lithic raw material procurement and initial treatment activities; and (4) while the project area of analysis was predominantly a lithic raw material procurement/assaying area, there is also evidence of other activities beyond primary lithic reduction (e.g., secondary/tertiary lithic reduction, late-stage bifacial tools, fire affected rock, and groundstone artifacts). The sites in the project area do not uniformly reflect basic toolstone procurement only, and it appears that other activities were also occurring there. Thus, given the size and quantity of the pavement quarry area, staff believes an attempt to more accurately characterize the technology and reduction organization through structured sampling of the sites prior to their permanent destruction by the project's construction is warranted.[83]

According to testimony of Dr. Whitley, additional analysis and testing is also necessary to develop appropriate mitigation measures for each of the Project's adverse impacts.[84] The types of mitigation that will be appropriate will vary

[83] California Energy Commission Supplemental Staff Assessment for the Calico Solar Project p. C.2-95.
[84] Rebuttal Testimony of David S. Whitley on behalf of CURE, Submitted to the California Energy Commission on August 16, 2010.

depending upon the nature of the specific resource, and the significance values that are identified through the additional analysis and testing.[85] A prehistoric village containing a cemetery, for example, will likely be determined significant based both on its religious importance to Native Americans, and its potential to yield valuable scientific information about the past. A prehistoric tool-making workshop, in contrast, may be identified as significant solely due to its potential to provide archaeological information.[86]

These very different types of resources would require substantially different mitigation that was not analyzed anywhere in the FEIS.

b. BLM Neglected to Develop Adequate Mitigation for Cultural Impacts

The DEIS concluded that all adverse impacts that may be identified would be mitigated through the development of a programmatic agreement ("PA") pursuant to the National Historic Preservation Act. The DEIS committed that the "**PA will be included in the Final EIS**, and the Record of Decision will include the final signed PA."[87]

However, **in the FEIS**, BLM explained that the significant resources had been excluded from the Project area and that the development of a **PA would no longer be necessary** to mitigate for adverse effects to cultural resources.[88]

After BLM's release of the FEIS, BLM has now decided a PA is necessary and that additional testing will be required to determine the extent of the impacts to cultural resources on the Project site.[89] The recent 180-degree shift in mitigation strategy for significant effects on cultural resources belies the BLM's continued failure to take a hard look at the resources on the Project site. Moreover, BLM has not drafted the PA or circulated it for public review and comment in the FEIS, as the DEIS stated would occur.

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[85] Id. at pp. 3-4.
[86] Id.
[87] DEIS p. C.2-12.
[88] FEIS pp. 4-217-218 and G-110.
[89] Comment of Dr. Charlotte Hunter at California Energy Commission evidentiary hearing on Calico Solar Project, August 25, 2010, pp. 20-24, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.

It is not surprising, given BLM's failure to establish a baseline for cultural resources at the Project site, that the significant effects analysis provided in the FEIS is vastly inadequate. BLM's "analysis" in the FEIS is insufficient under NEPA because it is devoid of evidence that would ensure that BLM has been informed of the environmental consequences of the proposed action, and because it precludes meaningful public comment. Certainly, the discussion provided in the FEIS falls far short of the "full and fair discussion of every significant impact" that is required under NEPA.

This scant record clearly demonstrates that BLM failed to take a "hard look" at cultural resources within the Project site and its area of impact, as required by NEPA. In the absence of evidence, the only reasonable conclusion that could be drawn from the impact analysis provided is that BLM should not act at all in order to avoid significant adverse impacts to cultural resources.[90]

c. PA Does Not Comply With Full & Fair Disclosure Requirements

In deferring the development of the PA until after the circulation of the FEIS, the BLM has improperly shielded the mitigation plan from public scrutiny in violation of NEPA. The National Historic Preservation Act's Section 106 process will not cure this defect. This process is not open to the public and does not meet NEPA's public disclosure requirements.

NEPA requires that an EIS provide a full and fair discussion of every significant impact, as well as inform decision-makers and the public of reasonable alternatives which would avoid or minimize adverse impacts.[91] The impacts analysis must include a discussion of the relationship between short-term uses of the environment … and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented.[92]

In contrast, BLM, in consultation with other agencies, can determine who is allowed to participate in the preparation of the PA, pursuant to section 106:

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[90] *See* CDCA Plan, p.6 ("Management Principles").
[91] *Id.*
[92] *Id.* at § 1502.16.

> Certain individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties. (36 CFR § 800.2)

It is a blatant and egregious violation of NEPA to defer the entire environmental review process, from the identification of the resources in the affected environment to the determination of environmental consequences and mitigation measures, until after both the DEIS and FEIS have been released for review and comment. Furthermore, to defer the identification of impacts and development of mitigation to the Section 106 consultation process where members of the public would have to apply and demonstrate an interest before being allowed to participate, offends the fundamental public disclosure requirements of NEPA.

The BLM must develop the PA now as part of the NEPA process and provide the public with an opportunity to review the PA, comment on the PA, and receive responses to comments from BLM on this mitigation strategy for cultural resources.

d. PA Does Not Comply with the National Historic Preservation Act

Section 106 of the National Historic Preservation Act directs federal agencies to take into account the effects of their actions on historic properties PRIOR TO the issuance of any license.[93] While the Advisory Council's regulations for carrying out consultation pursuant to Section 106 allow for "conducting or authorizing nondestructive project planning activities before completing compliance with section 106,"[94] this may only occur if no decisions are made that would "restrict the subsequent consideration of alternatives to avoid, minimize, or mitigate the undertaking's adverse effects on historic properties."[95] If a PA is developed to mitigate significant impacts to cultural resources, the PA must fully consider the impacts to cultural resources and propose mitigation for those impacts, PRIOR to the issuance of any license for the Project.

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[93] 16 U.S.C. 470f.
[94] 36 CFR 800.1(c).
[95] Id.

2. BLM Failed to Take a "Hard Look" at Impacts to Biological Resources

a. BLM Did Not Take a Hard Look at Impacts to Golden Eagle

Golden Eagles are protected under the Bald and Golden Eagle Protection Act.[96] Permits are required for all activities that disturb eagles.[97] USFWS regulations indicate the USFWS may consider the loss of the forage habitat on the Project site to constitute substantial interference with normal breeding, feeding, or sheltering behavior, which would be considered a "take."[98] The USFWS established minimum inventory and monitoring efforts that "are essential components" to avoiding and minimizing disturbance and other kinds of take of golden eagles.[99] Research indicates golden eagles selectively use available habitat, and that they concentrate their foraging activities in select "core" areas.

The Project's large-scale land use conversion would remove 10-square miles of known foraging habitat for golden eagles.[100] The Project may also impact golden eagles due to the Project's basic design because large mirrored disks may pose collision risks.[101] Golden eagles were seen foraging over the Project site on numerous occasions and nesting golden eagles were found nearby during a helicopter reconnaissance survey.[102] During the survey, the Applicant found one active nest that contained an incubating adult golden eagle and approximately eight inactive but potential golden eagle nests within a ten-mile radius of the project.[103] The active nest is located approximately 3.5 miles east of the proposed Project area. Even though an active nest was detected, the Applicant failed to conduct golden eagle surveys in accordance with USFWS regulations and, therefore, failed to

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[96] 16 U.S.C. 668-668d.
[97] Eagle Permit Regulations at 50 C.F.R. Part 22.
[98] 50 CFR 22.26.
[99] Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols and Other Recommendations in Support of Golden Eagle Management and Permit Issuance, U.S. Fish and Wildlife Service (February, 2010). www.fws.gov/southwest/es/oklahoma/Documents/Wind%20Power/Documents/USFWS_Interim_GOEA_Monitoring_Protocol_10March2010.pdf
[100] DEIS p. C.2-4.
[101] *Id.* at C.2-5.
[102] FEIS p. 3-38.
[103] *Id.*

establish an accurate environmental setting for impacts to golden eagles. Thus, the approval of the Project may result in an unanalyzed and unpermitted take of golden eagle in violation of the Bald and Golden Eagle Act. Project approval may also violate the California Endangered Species Act, because golden eagles are designated as "fully protected" under California law[104] and thus may not be taken or possessed.

According to CURE's expert biologist, Scott Cashen, the Project could eliminate a substantial amount of core habitat (perhaps all) used by at least one pair of breeding eagles.[105] Loss of core foraging habitat may result in nest failure and a violation of the Eagle Act.[106] This loss was never adequately quantified or mitigated.

Consequently, by failing to establish the affected environmental setting for golden eagle, BLM failed to take the hard look at the Project's impacts required by NEPA.

b. BLM Failed to Take a Hard Look at Impacts to Desert Tortoise

NEPA requires an analysis of the indirect effects of the proposed agency action.[107] An indirect effect is a reasonably foreseeable environmental effect that is caused by the action."[108] The BLM failed to take a hard look at the proposed action's impacts to desert tortoises in the receptor sites such as the Ord-Rodman Desert Wildlife Management Area ("DWMA"). Although the FEIS includes a cursory statement about potential effects at receptor sites, the FEIS does not contain detailed analysis and instead defers this analysis to future planning efforts:

If desert tortoises are translocated into the Ord-Rodman DWMA, direct and indirect, adverse impacts could result from the introduction of diseases and potential density increases that lead to over-population. This could adversely impact the existing tortoise population and habitat for which the DWMA was established; however, potential impacts have been considered in the development of

[104] California Fish & Game Code §§ 3511.
[105] Rebuttal Testimony of Scott Cashen on behalf of CURE, submitted to the California Energy Commission on July 29, 2010, p. 10.
[106] Id.
[107] 40 C.F.R. § 1502.16(b).
[108] *See Sierra Club v. United States Department of Energy*, 255 F.Supp2d 1177 (D.Colo. 2002).

a draft Desert Tortoise Translocation Plan and would be mitigated during the implementation of desert tortoise translocation activities under a final Desert Tortoise Translocation Plan that is approved by the BLM, CDFG, and USFWS.[109]

The FEIS's conclusory and unsupported statements do not constitute the hard look required by NEPA.

Dr. Kristin Berry of USGS, Tonya Moore of CDFG and biologist Scott Cashen all testified that the translocation plan's analysis of impacts to offsite populations is incomplete and additional analysis is needed to determine the likely impacts to these populations.[110] The Applicant's proposal to move tortoises to DWMA's is a very serious undertaking that must be carefully considered because the DWMAs were set aside by the US Fish and Wildlife Service as the core locations to enable recovery of the desert tortoise.[111] There are only 14 DWMAs and the long-term persistence of populations in DWMAs are listed as critical elements in the strategy to recover the desert tortoise in the Desert Tortoise Recovery Plan.[112] The BLM must identify which offsite desert tortoise populations will be affected and provide additional analysis of impacts to these offsite populations.

c. BLM Failed to Take a Hard Look at Impacts to Bighorn Sheep

Nelson's bighorn sheep, a BLM sensitive species, inhabits the Cady Mountains adjacent to the Project where its population consists of at least 300 animals.[113] The Project will permanently impact nearly 1,100 acres of bighorn sheep foraging habitat and an additional 400 acres of spring foraging habitat will incur secondary impacts associated with noise along the northern boundary of the Project.[114]

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[109] FEIS p. 4-310.
[110] Transcript of California Energy Commission evidentiary hearings for Calico Solar Project, August 18 and 25, 2010, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.
[111] The Desert Tortoise Recovery Plan: An Ambitious Effort to Conserve Biodiversity in the Mojave and Colorado Deserts of the United States, Kristin H. Berry (1997) at www.tortoise-tracks.org/publications/berry2.html.
[112]The Desert Tortoise (Mojave Population) Recovery Plan (1994), Available at: http://www.fws.gov/nevada/desert_tortoise/dtro_1994_recovery_plan.html
[113] FEIS p. 3-41.
[114] Rebuttal Testimony of Vern Bleich on behalf of CURE, submitted to the California Energy Commission on July 29, 2010.

The Project's destruction of foraging habitat, when coupled with other sources of disturbance (SunCatcher noise, avoidance of manmade structures and activity and surrounding habitat; increased disturbance from public traffic on a new northern boundary road; and the introduction or spread of non-native, invasive plants) to which sheep may be sensitive, are significant.[115] These significant impacts have the potential to negatively impact the population of bighorn sheep inhabiting the Cady Mountains.[116] Further, according to Dr. Vernon Bleich, the Project site is located in an essential biological connectivity area between the Bristol and Ord Mountains.

During reconnaissance surveys conducted in winter 2010 for golden eagles, the Applicant detected 62 sheep within 10 miles of the proposed project.[117] Although the Project would result in the loss of approximately 1,078 acres of spring foraging habitat, BLM inexplicably failed to require any mitigation for the loss of this habitat. Moreover, BLM failed to find that the Project would significantly impact a movement corridor for bighorn sheep.

Dr. Bleich testified about the importance of maintaining connectivity and the potential for recolonization by avoiding disruption of natural dispersal routes.[118] Dr. Bleich provided unrebutted testimony that the Project area also provides a movement corridor for bighorn sheep. BLM's failure to adequately analyze and mitigate significant impacts to bighorn sheep forage and movement violates NEPA.

3. BLM Failed to Take a Hard Look at Soil Resources

Project construction and operation will have long-term significant impacts onsite and offsite to desert soils. Desert pavement and cryptobiotic crusts are critical resources that stabilize the desert soil and prohibit fine particle transport in the winds and storm water flows from the Project site.[119] Despite being informed of

[115] Id.
[116] Id.
[117] FEIS p. 3-42.
[118] Rebuttal Testimony of Dr. Vernon Bleich on behalf of CURE, submitted to the California Energy Commission on July 29, 2010. Also see transcript of California Energy Commission evidentiary hearings for Calico Solar Project, August 5, 2010, Available at http://www.energy.ca.gov/sitingcases/calicosolar/documents/index.html.
[119] Rebuttal Testimony of Boris Poff on behalf of CURE, submitted to the California Energy Commission on July 29, 2010.

these resources, BLM failed to establish the extent of desert pavement and cryptobiotic crusts as part of the baseline environmental conditions on the Project site. Because these important features were not surveyed or acknowledged, BLM did not adequately analyze or mitigate significant impacts to onsite and offsite resources.

Dr. Boris Poff, hydrologist for the Mojave National Preserve, explained that desert pavement and cryptobiotic crusts play an important role in the hydrology and sedimentation processes on the Project site.[120] For example, disruption of crust and pavement during Project construction and operation will increase surface runoff and the rate of soil loss by an order of magnitude.[121] These increases in sediment laden runoff could significantly impact the morphology of the existing washes on and off the Project site. Also, the disruption of the crust will substantially enhance wind erosion on the Project site.

The desert pavement consists of a thin layer of rocks which has captured sand and dust over the millennia. Once the top layer is removed the accumulated sand, clay and silt below the desert pavement is easily eroded away. Dr. Poff explained that data about cryptobiotic crusts and desert pavement was omitted from the modeling of the Project's environmental impacts, rending the modeling incomplete and inadequate:

The [analysis] did not consider the water quality impacts of runoff laden with sediment from degraded desert pavement and cryptobiotic crust delivered downstream and offsite, as well as the potential for the increased sediments to be transported offsite by wind. The large-scale disturbance that is to occur on the geomorphic surfaces of the Project will lead to extensive new aeolian activity. ***Given the predominant southwestern wind direction, this will mean that a plume of sand, eroded from the disturbed area, will begin to extend from the southern edge of the Project***.[122]

The potential for wind-driven impacts on the area immediately downwind of the Project is a significant effect on soil resources that BLM failed to evaluate.

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[120] Id.
[121] Id.
[122] Id. at pp. 4-5.

II. BLM FAILED TO TAKE A "HARD LOOK" AT THE CUMULATIVE EFFECTS OF THE PROPOSED PROJECT ON THE MOJAVE FRINGE-TOED LIZARD

A proper consideration of a Project's cumulative impacts requires "'some quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.'"[123] The analysis "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects."[124]

The Mojave fringe-toed lizard occurs on the proposed project site, in areas of fine wind-blown sand deposits, such as dunes, washes, and sandy patches within scrubby vegetation.[125] The Project would interfere with sand deposits on and near the site, which would result in habitat loss and degradation for this and other sand-associated species and direct impacts to occupied habitat on and off the Project site.

The FEIS fails to analyze or mitigate cumulative impacts to Mojave fringe-toed lizards and their habitat from compaction of soils; the introduction of exotic plant species; alterations to the existing hydrological conditions; alterations in the existing solar regime from shading; modification of prey base; and altered species composition.[126] Further, the placement of fencing and other structures would provide roosting opportunities for avian predators that target lizard prey. Studies show that fencing depletes lizard populations around the edges of human development.[127]

The proposed action's contribution to a significant cumulative impact on Mojave fringe-toed lizard would be considerable. This is primarily due to the net habitat loss and interruption of suitable breeding and dispersal habitat between

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[123] *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 361 F.3d 1108, 1128 (9th Cir. 2004), quoting *Neighbors of Cuddy Mountain*, 137 F.3d at 1379-80.
[124] *Id.*(internal quotations and citations omitted).
[125] DEIS, p. C.2-4.
[126] Rebuttal Testimony of Scott Cashen on behalf of CURE, submitted to the California Energy Commission on July 29, 2010, p. 10.
[127] Id.

occupied habitat to the east and west.[128] The FEIS proposes no additional mitigation for the Project's cumulative impacts to Mojave fringe-toed lizard. Given the population dynamics exhibited by this species, including its reliance on a functioning metapopulation structure to persist, biologist Scott Cashen concluded that the cumulative impacts from the proposed action would result in the extirpation of the Mojave fringe-toed lizard from the region.[129]

The BLM failed to take a hard look at the cumulative impacts to this species.

III. BLM FAILED TO INCLUDE A COMPLETE DISCUSSION OF MEASURES REQUIRED TO MITIGATE THE PROJECT'S SIGNIFICANT EFFECTS ON DESERT TORTOISE

In addition to a scientifically defensible analysis of project impacts, an EIS must include a discussion of "appropriate mitigation measures not already included in the proposed action or alternatives."[130] All relevant, reasonable mitigation measures that could alleviate the environmental effects of a proposed action must be identified, even if they are outside the lead or cooperating agencies' jurisdiction.[131] An EIS is inadequate unless it contains "a reasonably complete discussion of possible mitigation measures."[132]

Mitigation includes "avoiding the impact altogether by not taking a certain action or parts of an action."[133] It also includes "minimizing impacts by limiting the degree or magnitude of the action and its implementation."[134] The mandate to thoroughly evaluate all feasible mitigation measures is critical to NEPA's purposes.[135] Hence, a "perfunctory description" or a "mere listing" of possible mitigation measures is not adequate to satisfy NEPA's requirements.[136] That individual harms are somewhat uncertain due to limited understanding of the Project characteristics and baseline conditions does not relieve BLM of the

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[128] Id.
[129] Id.
[130] 40 C.F.R. § 1502.14(f).
[131] NEPA Forty Questions, No. 19(b).
[132] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).
[133] 40 C.F.R. § 1508.20(a).
[134] *Id.* at subd. (b).
[135] *Id.* at § 1500.1(c).)
[136] *Neighbors of Cuddy Mountain*, 137 F.3d 1372, 1380 (9th Cir. 1998).

responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset.[137]

A. BLM Failed to Include in the FEIS Reasonable Measures to Reduce Significant Adverse Affects to Desert Tortoise

Although BLM agrees that mitigation is necessary to minimize significant adverse effects on desert tortoise, the translocation plan presented in the FEIS is nothing more than an incomplete first draft that is not scientifically defensible.

Moreover, the draft translocation plan provides absolutely no mitigation for indirect impacts to desert tortoise adjacent to the Project site or to tortoises in the receptor sites that are not handled.

For these reasons, BLM's conclusion that significant adverse impacts to desert tortoise will be fully mitigated is arbitrary and capricious and violates NEPA.[138]

1. BLM Failed to Mitigate for Project Effects to Cultural Resources

BLM failed to include in the FEIS the mitigation plan for impacts to cultural resources. A final PA has not yet been prepared, or attached to FEIS.

A plan to make a plan does not satisfy the BLM's obligation under NEPA and the NHPA. BLM clearly failed to thoroughly evaluate all feasible mitigation measures, as required by NEPA.

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[137] *See South Fork Band Council of Western Shoshone of Nevada*, 588 F.3d at 727, citing *National Parks,* 241 F.3d at 733.

[138] *See* 40 C.F.R. § 1502.14(f) (requiring the inclusion of "appropriate" mitigation measures in the EIS) and 5 U.S.C. § 706(2)(a) (a reviewing court shall "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law"); *see also Montana Wilderness Ass'n v. Fry*, 310 F.Supp.2d 1127. 1147 (D. Mont. 2004).

IV. BLM FAILED TO INTEGRATE ITS NEPA REVIEW WITH STUDIES AND ANALYSES REQUIRED UNDER THE NATIONAL HISTORIC PRESERVATION ACT, THE FEDERAL ENDANGERED SPECIES ACT AND THE BALD AND GOLDEN EAGLE PROTECTION ACT

BLM must "to the fullest extent possible . . . prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders."[139] BLM is also required to include in the "draft environmental impact statement . . . all Federal permits, licenses, and other entitlements which must be obtained in implementing the proposal."[140]

As detailed in these comments, BLM has made little effort to coordinate its environmental review with the development of the Programmatic Agreement under Section 106 of the NHPA, its consultation with the U.S. Fish and Wildlife Service regarding impacts to desert tortoise under Section 7 of the Endangered Species Act or its need for a permit under the Bald and Golden Eagle Protection Act. This haphazard and segmented environmental review has greatly comprised BLM's ability to fully evaluate the environmental consequences of the Project and the public's ability to meaningfully participate in the environmental review process. The BLM should have drafted and circulated a Programmatic Agreement, a meaningful Desert Tortoise Translocation Plan, a Draft Incidental Take Permit, Protocol Golden Eagle Surveys and the take analysis pursuant to the Bald and Golden Eagle Protection Act. Additionally, BLM must draft and circulate an analysis of the impacts associated with the transmission upgrades necessary for the Project. The analysis of the transmission upgrades must be integrated into the Biological Assessment, the Programmatic Agreement and the Translocation Plan and all federal approvals. BLM is required to prepare a supplemental EIS that adequately evaluates the Project's potentially significant effects to cultural and biological resources.

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[139] 40 C.F.R. § 1502.25(a).
[140] 40 C.F.R. § 1502.25(b).

V. BLM FAILED TO INCLUDE A COMPLETE DESCRIPTION AND ANALYSIS OF ALL CONNECTED ACTIONS

Perhaps the most glaring error in the FEIS is the failure to study a number of significant environmental impacts associated with all connected actions, such as the transmission upgrades necessary for the Project. The 850 megawatt ("Mw") Project cannot deliver 575 Mw of its power to market without the construction of a number of substantial transmission upgrades that include a 67-mile Pisgah to Lugo 500kV transmission line, an expansion of the Pisgah substation from 5 acres to 40 acres, and an additional substation in an undetermined location. The FEIS dismisses the need for this analysis by stating that the transmission line is not a proposal before the BLM yet. This is nonsensical since transmission is required for the Project to proceed, and it violates NEPA.

An EIS must include a complete description of the Proposed Project, including all connected actions. Connected actions are those actions that are "closely related" and "should be discussed" in the same NEPA document.[141] A non-Federal action may be a connected action with a BLM proposed action.[142] Under NEPA, actions are connected if they:

(i) Automatically trigger other actions which may require environmental impact statements.
(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.[143]

The BLM NEPA handbook instructs BLM to evaluate whether studying connected actions in a single NEPA document would improve the quality of analysis and efficiency of the NEPA process, and provide a stronger basis for decision-making.[144]

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[141] 40 CFR §1508.25(a)(1).
[142] BLM NEPA handbook p. 46.
[143] CEQ Regulations (40 CFR §1508.25).
[144] BLM NEPA Handbook p. 45.

Here, it is undisputed that the proposed Project cannot be constructed or operated without transmission upgrades. Because the transmission upgrades are a critical component of the Project without which the Project cannot proceed, impacts resulting from the construction and operation of transmission upgrades for the Project is a connected action that must be analyzed in this EIS. Moreover, the inclusion of the transmission impacts in the Project's EIS will undoubtedly result in a more integrated, logical and efficient analysis of the direct, indirect and cumulative impacts of the Project as is recommended in the BLM NEPA Handbook.

1. BLM Has Not Analyzed Biological Impacts of Transmission Upgrades

Roughly 80% (4,720 acres) of the area in the Pisgah to Lugo right-of-way ("ROW") is suitable habitat for desert tortoise and approximately 2,512.2 acres were classified as either good tortoise habitat or within designated critical habitat for desert tortoise.[145] The Pisgah-Lugo transmission corridor encompasses a wide range of terrain and elevation, and according to the Applicant, it crosses 17 native vegetation types (some of which are sensitive natural communities) and 3 non-native or disturbance-related vegetation types.[146] The transmission corridor would cross through the Ord-Rodman DWMA, the Pisgah ACEC, and the Upper Johnson Valley Yucca Rings ACEC. Information provided by the Applicant suggests the transmission line would also pass through the Juniper Flats ACEC.[147]

According to biologist Scott Cashen, numerous other special-status species have the potential to occur along the route were not identified by the Applicant.[148] For example, the Upper Johnson Valley Yucca Rings ACEC contains a unique assemblage of ancient vegetation. Impacts to this ACEC would be significant and unmitigable. White-margined beardtongue occurs along the transmission line route. This species has an extremely limited distribution in California, with most known occurrences in the immediate Project area.[149] The continued existence of white-margined beardtongue in California would be threatened by the Project.

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[145] SES Environmental Summary Report – Lugo – Pisgah No.2 500 kV Transmission Line and Substation Upgrades Ecosphere Environmental Services, November 21, 2008
[146] Id.
[147] Id.
[148] Rebuttal Testimony of Scott Cashen on behalf of CURE, submitted to the California Energy Commission on July 29, 2010, p. 17.
[149] Id.

Because the species is known to occur along the transmission line route, transmission upgrades required for the Project would exacerbate the threat, and might not be mitigable.

Therefore, the BLM has failed to undertake a meaningful analysis of the biological impacts that will occur as a result of the transmission upgrades necessary for the Project to operate. Although BLM has known for over a year that the transmission upgrades are connection actions under NEPA, BLM did not follow-through with the analysis. As a result, there are unanalyzed and unmitigable impacts associated with the Project that have not even been considered by BLM, not least of which will be additional significant impacts to desert tortoise.

The BLM cannot approve the Project until it provides a complete analysis of the impacts of each of the connected transmission upgrades.

2. BLM Has Not Analyzed Cultural Impacts from Transmission Upgrades

The Applicant did not conduct a cultural resources survey of the areas where the transmission upgrades would be built. The BLM attempts to defer this analysis until after the Project has been approved. However, the significant cultural resource impacts that will result from the transmission upgrades must be studied as a connected action. To permit this Project without knowing the magnitude of the cultural resources that will be affected improperly segments the analysis in violation of NEPA.

3. BLM Has Not Analyzed Impacts to Water Resources from Transmission Upgrades

Transmission upgrades will require water for construction. Construction will result in a large amount of grading and earth moving activities, most likely requiring water for dust control. Although water is in short supply in the Mojave desert and the availability of water can determine the viability of most development, this significant impact was not considered by Staff.

VI. FLPMA VIOLATIONS

Through FLPMA, Congress directed the Secretary to initiate a comprehensive planning process and to establish a long-range management plan for the "use, development, and protection of the public lands within the California Desert Conservation Area [and required that such plan] take into account the principles of multiple use and sustained yield in providing for resource use and development, including, but not limited to, maintenance of environmental quality, rights-of-way, and mineral development."[150]

The CDCA Plan has served as the management plan for the CDCA for approximately thirty years. One of the foundational management principles of the CDCA Plan is to respond to:

> "national priority needs for resource use and development, both today and in the future, including such paramount priorities as energy development and transmission, without compromising the basic desert resources of soil, air, water, and vegetation, or public values such as wildlife, cultural resources, or magnificent desert scenery. This means, in the face of unknowns, erring on the side of conservation in order not to risk today what we cannot replace tomorrow."[151]

Under this Plan, BLM inventoried the desert area with public input and identified areas appropriate for wilderness, limited, moderate and intensive uses.

> As a first step toward a mechanism for resolution of conflicts, Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA) which directed BLM to inventory CDCA resources and to prepare a comprehensive land-use management plan for the area.[152]

BLM must carefully consider the extensive programmatic inventory that went into the establishment of the CDCA plan. In keeping with the plan, BLM must not approve intensive industrialization in areas that were not designated for intensive use.

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[150] 43 U.S.C. § 1781(d).
[151] CDCA Plan, p.6 ("Management Principles").
[152] California Desert Conservation Plan of 1980 as amended, p. 5.

1. CDCA Plan Should Not Be Amended in a Piecemeal Fashion

The objective of BLM's resource management planning is to maximize resource values for the public through a ***rational, consistently applied set of regulations and procedures*** which promote the concept of multiple use management and ensure participation by the public, state and local governments, Indian tribes and appropriate Federal agencies. "Consistent" application means that the BLM's plans will adhere to the terms, conditions, and decisions of officially approved and adopted resource related plans.[153] Resource management plans are designed to guide and control future management actions and the development of subsequent, more detailed and limited scope plans for resources and uses.[154]

The BLM is proposing to amend the CDCA on a project-by-project basis for a whole swath of industrial-scale renewable power plants. Many of these proposals are not on lands designated for intensive use under the CDCA. In fact, the DEIS concluded that solar, wind, and geothermal development applications have been filed on one million acres of the California desert under BLM management.[155]

Because the CDCA was developed as a concerted effort with many federal and state agencies and enormous public input, it is improper to amend the Plan in such a piecemeal fashion on a Project by Project basis. The decision of whether to fundamentally change the character of the CDCA by permitting large industrial renewable development on areas not currently designated for intensive use should only be considered on a programmatic basis.

2. The Industrial Character of the Project Does Not Strike CDCA's Controlled Balance or Protect Sensitive Resources in Violation of the CDCA's Designation

In establishing the CDCA Plan, the California desert was inventoried for biological resources, cultural resources, recreational uses, grazing, mineral development and many other uses. As a result, the proposed action area is primarily designated as Multiple-Use Class M (Moderate Use) and is also

[153] 43 CFR § 1601.0-5.
[154] 43 CFR § 1601.0-2.
[155] DEIS p. B.3-1.

designated as Class L (Limited Use). Classes L and M are distinguished from Class I (Intensive Use), which provides for concentrated uses of lands and resources to meet human needs [such as the industrialization that would occur under the proposed Project].[156]

The BLM is considering amending the CDCA Plan to allow for solar power development on the Project site. Although renewable energy generation is a *conditionally* allowed use within Class L and M lands, BLM may only use these lands for solar power development under certain circumstances. For Class L lands, BLM may not dedicate such lands for renewable energy generation if the proposed use will significantly diminish the natural, scenic, ecological and cultural values of those lands.[157] For Class M lands, BLM must strike a controlled balance between higher intensity use and protection of public lands.[158] Although some degree of development is allowed, Class M management is also designed to conserve desert resources and to mitigate damage to those resources which permitted uses may cause.[159]

Although it might be appropriate to allow some solar development on Class M lands, not all solar development is the same size or level of intensity. The intensity and size of the use associated with the proposed Project is fundamentally incompatible with the BLM's Class L and M designations. The proposed power plant will severely impact every aspect of the resources on the site by covering the site with a network of roads, SunCatcher dishes and other infrastructure. The fragile desert pavement will be destroyed and the site will not likely recover for centuries, if ever.

Thus, the Project design has not been constrained to "maintain a controlled balance between higher intensity uses and protection of public land" as is required by the CDCA Class M designation. Nor is the Project designed to "accommodate sensitive, natural, scenic, ecological, and cultural resource values on the project site", as is required for the portions of the Project under the CDCA Limited Use designation. Thus, the Project is incompatible with the CDCA Plan designations that were adopted after a comprehensive planning effort and the BLM should not

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[156] Id.
[157] CDCA Plan, pp. 13 and 15.
[158] Id.
[159] California Desert Conservation Plan of 1980 as amended, p. 13.

override the wisdom of this planning effort for the short-term benefits that may or may not accrue from the siting of this experimental power plant.

BLM failed to assess the proposed Project's impact on sensitive values or to strike the controlled balance between the high intensity use and protection of public lands, as required by FLPMA and the CDCA Plan.

A. BLM May Not Approve the Project Because it Would Severely Diminish Wildlife Resources Within the Project Region

FLPMA requires BLM to manage public lands "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.[160]

As explained above, the FEIS determined that impacts to desert tortoise, golden eagle, burrowing owl, Mojave fringe-toed lizard and other special status species would be unavoidable if the Project is developed.[161] Moreover, due to the Project's immense size, the Project will completely block the north south corridor for a number of species, including desert tortoise and bighorn sheep. In light of this finding, BLM may not approve the Plan Amendment to allow the significant diminishment of wildlife resources within the Planning Area. Such approval would be inconsistent with the CDCA Plan.

B. BLM Failed to Evaluate and Preserve the Cultural Resources Within the Project Site

As explained above, BLM failed to adequately survey or analyze subsurface cultural resources at Project site. These resources were not analyzed in the DEIS or the FEIS; in fact, the FEIS includes no information about the direct, indirect or

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[160] *See* 43 U.S.C. §§ 1701(a)(8), 1702(c) (defining "multiple use" as "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values . . .").
[161] *See* FEIS pp. 4-57, 4-59, 4-61 and 4-63.

cumulative effects on subsurface resources other than at 3 of the 335 sites. The PA was improperly omitted from the DEIS and the FEIS.

Further, BLM has failed to devise enforceable measures to prevent significant effects to cultural resources as a result of the proposed Project. As such, BLM has unequivocally failed to evaluate and ensure that cultural resources are evaluated and preserved, as required by FLPMA and the CDCA Plan. BLM may not approve the Plan Amendment until it has ensured that it has balanced the need for development with efforts to preserve cultural resource values.

VII. NHPA VIOLATIONS

The NHPA has been characterized as a "stop, look and listen" provision.[162] The NHPA requires, prior to any federal undertaking, that the relevant federal agency "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register" and "afford the Advisory Council on Historic Preservation ... a reasonable opportunity to comment with regard to such undertaking."[163] Section 106 of the NHPA, and its implementing regulations, require the agency to undertake a three-step process.[164]

Under the NHPA, the federal agency must make a reasonable and good faith effort to (1) identify historic properties; (2) determine whether identified properties are eligible for listing on the National Register; assess the effects of an "undertaking" on any eligible historic properties found and determine whether the effect will be adverse; and (3) avoid or mitigate any adverse effects.[165] In carrying out its responsibilities under Section 106, the federal agency must also consult with "any Indian Tribe ... that attaches religious and cultural significance" to such properties.[166] The federal agency may not postpone the ***entire*** Section 106 process until after the approval of a proposed undertaking.[167] Such deferral violates the NHPA.[168]

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[162] *Muckleshoot Indian Tribe v. U.S. Forest Svc.*, 177 F.3d 800, 805 (9th Cir.1999).
[163] 16 U.S.C. § 470f.
[164] *Valley Community Preservation Com'n v. Mineta*, 231 F.Supp.2d 23, 32 (D.C. Cir. 2002).
[165] 36 C.F.R. §§ 60.4, 800.4(b), 800.4, 800.5, 800.8(e), 800.9, 800.9(a)-(b),
[166] 16 U.S.C.A. § 470a(d)(6)(B).
[167] *Valley Community Preservation Com'n v. Mineta*, 231 F.Supp.2d at 34.
[168] *See Corridor H Alternatives, Inc. v. Slater*, 166 F.3d 368, 371-73 (D.C.Cir.1999).

In this case, BLM has opted to use a PA to comply with its Section 106 obligation. A PA may not be used to improperly defer an agency's Section 106 obligations.[169] To date, BLM has failed to, (1) identify historic properties within the Planning Area; (2) determine which of these properties would be eligible for listing in the National Register; or (3) identify measures to avoid and minimize any adverse effects on eligible resources.

BLM may not approve the Project until it has made a good faith effort to comply with Section 106 of the NHPA.[170]

VIII. ESA VIOLATIONS

The Project's elimination of a sizable and healthy population of desert tortoises is a significant impact that cannot be mitigated.[171] The BLM's efforts to ***minimize*** the decimation of the tortoises on the Project site and around the Project site, and in offsite populations in recovery areas, without any information whether even minimization will work is a clear violation of the Federal Endangered Species Act ("FESA"). Substantial evidence shows that the Project would jeopardize the continued existence of the species and result in the destruction of habitat for the species. The BLM's approval of the Project would be arbitrary and capricious and would violate FESA.

The U.S. Endangered Species Act provides that each federal agency shall in consultation with and with the assistance of the U.S. Fish and Wildlife Service ("USFWS"), ensure that any agency action is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species using the best scientific and commercial data available.[172]

The agency's process begins with a determination of whether there may be an endangered/threatened species in the area to be impacted by the proposed activity, i.e., the "action area." If endangered or threatened species are present in the action

[169] *See Corridor H Alternatives, Inc.*, 166 F.3d at 371-73.
[170] *See Valley Community Preservation Com'n v. Mineta*, 373 F.3d 1078, 1089 (10th Cir. 2004).
[171] Rebuttal Testimony of Scott Cashen, July 29, 2010, p. 2.
[172] 16 U.S.C. § 1526(a)(2).

area, then the agency is required to prepare a Biological Assessment ("BA").[173] The action area is defined as "*all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.*"[174]

Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline.[175] The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.[176] Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur.[177] Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.[178]

A BA may include the results of on-site inspections, the views of recognized experts on the species at issue, a review of the literature, an analysis of the effects of the action on the species and its habitat, and an analysis of alternate actions.[179]

When preparing a BA, it must be determined whether the action "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." If the BA reveals no *potential* "jeopardy" to listed species, and the USFWS agrees, then the proposed project may proceed.[180] However, if a BA reveals that the action "may affect listed species or critical habitat", then the agency must initiate "formal consultation" with USFWS[181] and USFWS must prepare a Biological Opinion ("BO").[182] If USFWS

[173] 16 U.S.C. § 1536(c)(1).
[174] 50 C.F.R. 402.02(emphasis added).
[175] *Id.*
[176] *Id.*
[177] *Id.*
[178] *Id.*
[179] 50 C.F.R. 402.12(f).
[180] 50 C.F.R. 402.12(k)(1).
[181] 50 C.F.R. 402.14(a).

determines that the proposed action will place any protected species in jeopardy, USFWS must suggest reasonable and prudent alternatives to the proposed activity.[183]

Additionally, if new information regarding endangered species becomes available, or if environmental consequences not already evaluated come to light, then the agency must prepare either ***a new Supplemental BA or an SEIS***.[184]

Here, the evidence is indisputable that that the Project would be expected, directly and indirectly, to reduce appreciably the likelihood of both the survival and recovery of threatened desert tortoise in the wild by reducing the reproduction, numbers, or distribution of that species. BLM initiated consultation with the USFWS to evaluate the impacts to the threatened desert tortoise and its habitat. BLM and the USFWS correctly determined that the Project is likely to adversely affect the desert tortoise. However, the consultation to date is incomplete because the BLM failed to adequately or accurately define the baseline for impact assessment. Specifically, the BLM failed to adequately determine the appropriate action areas that will be impacted by the Project and the conditions on the action areas. This determination is essential to determine whether the Project impacts could reasonably be expected to, directly or indirectly, "reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species."[185] In order for consultation to be adequate, the agencies must accurately define the environmental baseline, including the description of areas where tortoises will be impacted.

The BLM failed to provide adequate and accurate facts to support the required determination that must be made under FESA. Moreover, new facts show that the Project may jeopardize the continued existence of the species triggering the requirement that USFWS provide reasonable and prudent alternatives to the proposed action, none of which have been proposed, to date. Finally, since the release of the Supplemental BA and FEIS, new and significant information has been provided to the BLM that compels the BLM to revise the Supplemental BA and recirculate the FEIS.

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[182] 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. 402.14(g).
[183] 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. 402.14(h).
[184] *Sierra Club v. US Army Corps of Engineers*, 295 F.3d 1209, 1219 (11th Cir.2002).
[185] 50 C.F.R. Sec. 402.02.

A. BLM Failed to Provide Accurate and Adequate Baseline Information to Conduct an Analysis under FESA

BLM has not adequately or accurately identified the areas that will be impacted by the development of the Project. For example, in the Supplemental BA, the BLM identified the Pisgah ACEC and the Northern Linkage Area as sites for the short distance relocation of tortoises. However, these areas are unavailable to receive more than two tortoises total.[186]

Furthermore, the primary translocation receptor area identified by the BLM in the Supplemental BA and the FEIS is the Ord-Rodman Desert Wildlife Management Area ("DWMA"). However, BLM's analysis to date is wholly inadequate to determine the baseline conditions in this DWMA. Establishing the baseline conditions in the Ord-Rodman DWMA is necessary to evaluate the likely impacts to the survival of the tortoises in this DWMA and whether it is an appropriate receptor site for any of the 131-185 tortoises that must be relocated from the Project area.

1. Ord-Rodman DWMA

According to the Applicant's proposed draft Translocation Plan, an estimated 131 (but possibly as many as 185) desert tortoises must be moved off the Project site.[187] The Translocation Plan proposes to move most of the desert tortoises found on the project site to locations in the Ord-Rodman DWMA. However, the Translocation Plan specifically states that the proposed DWMA locations can support *up to* 60 translocated tortoises. Therefore, the Applicant identified *potentially* suitable translocation sites for 62 tortoises when the Pisgah ACEC area is included. The Applicant does not have a plan for the 71 to 125 remaining tortoises requiring translocation. This error must be remedied before the Project, including the Translocation Plan, can be approved.

Additionally, ***the Ord-Rodman DWMA may not be an appropriate translocation area for <u>any</u> tortoises from the Project site***. The Ord-Rodman DWMA is one of only twelve reserves set aside in the USFWS' Desert Tortoise

[186] California Energy Commission Staff's Second Errata to the Supplemental Staff Assessment, August 17, 2010, p. 7.

[187] Desert Tortoise Translocation Plan, Ex. 93, p. 1-2; 2-15.

Recovery Plan. Each of these reserves, including Ord-Rodman, must be able to continue maintenance of the health of desert tortoise populations as an essential function of the USFWS' long-term survival strategy for the species as a whole.

Despite the threatened status of desert tortoise and the critical function of the Ord-Rodman DWMA, the BLM acknowledged that the Project could impact the health of the tortoises in the Ord-Rodman DWMA:

> The translocation of tortoises from the Project Site to the Ord-Rodman Desert Wildlife Management Area may adversely affect the [Designated Critical Habitat or DCH] through the introduction of additional animals into occupied critical habitat, through the potential introduction of diseased animals into the DCH, and through increasing population density in DCH. Also activities such as driving vehicles through critical habitat could impact vegetation, and thus degrade the Primary Constituent Elements of the DCH.[188]

Furthermore, although BLM is well-aware of the significant affects to the Ord-Rodman DWMA and to threatened desert tortoise, the BLM ***did not study*** the populations and habitat in the DWMA adequately to determine whether any areas in the DWMA are appropriate receptor locations where such impacts would not occur. Instead, the BLM listed sites within the Ord-Rodman DWMA as eligible recipient locations without conducting the necessary full health assessment, including blood and tissue samples of all resident tortoises, as has been required by USFWS.[189] In fact, disease prevalence and large die-off events have already been observed throughout the Ord-Rodman DWMA, including in the areas that the Translocation Plan has targeted for receptor areas.[190] It is undisputed that translocating tortoises into this area could exacerbate the decline of the tortoise in these areas and for the population as a whole. According to the sworn testimony of biologist Scott Cashen,

> Translocations have been implicated in unintentional spread of disease. And this is isn't just theoretical, this is real. Chytrid Fungus, which has devastated many of California's native amphibian

[188] Summary of Changes to the Desert Tortoise Biological Assessment 08-AFC-13, p. 7.
[189] Testimony of Scott Cashen on Desert Tortoise Translocation Plan; FEIS p. 4-168.
[190] Comments of Dr. Kristin Berry, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission, p. 78.

> populations, has been tracked back to failed translocation projects. We know that Desert Tortoises carry many diseases. And spread of disease is one of the primary threats to the population. It could also shift predator prey dynamics to the point of no return. And briefly to explain how that works, when you add additional prey animals to an area, the predators are more successful. They have more food, and so they can reproduce, and there's a higher survivorship of their offspring. And those offspring have a higher survivorship and they reproduce. And the population balloons to the point that they decimate the prey population to such a low level, that it can no longer recover. And the final thing is genetic contamination, and reducing an organism's ability to respond to climate change. These are all -- this is beyond what's happening to the 189 tortoises on the project site. This is what could happen when we move animals to the Ord-Rodman DWMAs without doing our homework.[191]

Consequently, the BLM analysis is fundamentally lacking in the information necessary to determine how the translocation effort would impact the desert tortoise population in the Ord-Rodman DWMA and how conditions at the Ord-Rodman DWMA would impact the newly translocated tortoises. At a minimum, BLM must conduct a comprehensive health survey of all resident tortoises in the Ord-Rodman DWMA ***prior*** to designating these areas as eligible recipient sites.[192]

2. Northern Linkage Area

The Translocation Plan identifies the 1,591-acre (2.49 square miles or 6.4 square km) "Northern Linkage Area" that sits directly north of the Project site as a potential tortoises receptor area. The BLM incorrectly assumes that the Northern Linkage Area is able to support an additional 2 tortoises per square mile (i.e., 5 additional tortoises). The Supplemental BA identifies the Northern Linkage Area as a location to move up to 12 tortoises from the Project site.[193] The Supplemental BA and the Translocation Plan are inconsistent.

[191] Testimony of Scott Cashen, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission, p. 233,
[192] Testimony of Scott Cashen on Desert Tortoise Translocation Plan.
[193] Biological Assessment, p. 4-2.

However, new information reveals that the tortoise densities in the Northern Linkage Area ***preclude movement*** of any tortoises from the Project site into this area.[194]

The widely inconsistent and inaccurate information about the existing capability of the Northern Linkage Area to accept desert tortoises, as proposed in the Translocation Plan and Supplemental BA, mandates that the BLM prepare a new analysis of where potentially displaced tortoises on the Project site would be moved and the baseline conditions at the new proposed receptor locations.

3. Pisgah ACEC

The Draft Translocation Plan proposes to move tortoises into the Pisgah ACEC.[195] However, the Applicant's biologist admitted that no more than two tortoises may be moved into this ACEC.[196]

The Draft Translocation Plan is incorrect. This incorrect information about the existing capability of the Pisgah ACEC to accept desert tortoises, as proposed in the Translocation Plan, mandates that the BLM prepare a new analysis of where potentially displaced tortoises on the Project site would be moved and the baseline conditions at the new proposed receptor locations.

4. Transmission Upgrades

The Project is a power plant that generates electricity and requires transmission infrastructure for its operation. However, the transmission infrastructure does not yet exist. Therefore, an essential and necessary part of the Project is the proposed transmission system.

Despite the Project requiring new transmission infrastructure, the Applicant did not conduct any analysis of impacts to desert tortoise associated with that infrastructure. Nor did BLM. Neither the Supplemental BA, nor the Draft

[194] California Energy Commission Staff's Second Errata to the Supplemental Staff Assessment, August 17, 2010, p. 7.
[195] Draft Translocation Plan, p. 2-3.
[196] Testimony of Teresa Miller, URS Corporation, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission, p. 215.

Translocation Plan, cover any of the transmission projects required to deliver the Project's power to the grid.

The Project's transmission includes a new 67-mile transmission line and a new 100-acre substation. Fifty-seven (57) miles of the transmission line are in a known location in a current right-of-way. This right-of-way travels directly through desert tortoise critical habitat. Furthermore, the Applicant observed tortoises during casual surveys of this area. Therefore, these activities will significantly impact desert tortoises, desert tortoise critical habitat and the species' survival. Therefore, the Project would require that additional desert tortoises be moved to develop the transmission infrastructure.

Again, the Supplemental BA fails to analyze whether the transmission components of the Project may jeopardize the continued existence of desert tortoise. The BLM undertook no efforts whatsoever to determine how many tortoises would need to be moved, where they would be moved, and whether the transmission components of the Project comply with FESA. This is a fundamental flaw in the Supplemental BA, the Translocation Plan and the FEIS and renders the analysis incomplete and inadequate in violation of FESA.

B. The Project Could Jeopardize the Continued Existence of the Species; USFWS Must Develop Reasonable and Prudent Alternatives to the Proposed Action

The Project will result in severe impacts to the desert tortoise population **on the Project site** due to the effects of handling, testing and translocation. The BLM cites recent evidence that there could be a **mortality of 25% of the translocated desert tortoises *per year***.[197] This means that nearly all of the translocated tortoises would die within four years. Tortoises are long-lived animals that have been known to survive 80-100 years. The effects of this large mortality on the adult population of desert tortoises must cannot be ignored. The California Energy Commission estimated that 194 tortoises and 436 eggs will die overall as a result of the Project.[198]

[197] California Energy Commission Staff's Second Errata to the Supplemental Staff Assessment, August 17, 2010, p. 13.
[198] Id.

Furthermore, the Project will result in severe impacts to the desert tortoise population off the Project site due to the effects of handling, testing and translocation. However, because off-site locations that will be impacted have not been identified, it is impossible to determine the number of tortoises that will be impacted. Further, not all tortoise populations are equal. Some populations are source populations that are critical to the survival of the species, because they are healthy, they reproduce and their offspring have the potential to colonize new habitat for the recovery of the species. Offsite populations in the Ord-Rodman DWMA, for example, may be a source population that has not yet been identified or studied.

Although off-site translocation areas have not been identified, BLM's rough estimate is that over a thousand tortoises could be impacted by the Project, many of which are in offsite areas. These numbers alone provide substantial evidence that the Project will jeopardize the continued existence of the species. The Project will significantly reduce the reproduction, numbers, and potentially the distribution of the desert tortoise species.

1. Importance of Project Site to Survival of the Species

The Supplemental BA relied on modeling to depict desert tortoise habitat potential in the Project region. The US Geological Survey ("USGS") generated this model to predict desert tortoise habitat quality. The map that was presented in the Supplemental BA shows a large swath of extremely high quality habitat (i.e., a score of 0.9 out of a possible 1.0) centered on the Project site.

The Project would directly impact at least 4,075 acres of extremely high quality desert tortoise habitat and an additional 2,140 acres of moderate desert tortoise habitat on the Project site. The USGS model shows few other large blocks of land with equivalently high quality habitat in the entire Project region.

Not only would the Project eliminate a considerable portion high quality habitat in the region, but it would also completely sever essential connectivity for desert tortoise the eastern and western populations of tortoises in the Mojave Desert.[199] An action of this magnitude would impede recovery of a species that is

[199] Rebuttal Testimony of Scott Cashen, p. 6.

known to require landscape-level connectivity, and, according to biologist Scott Cashen, it could very easily lead to local extinctions.[200]

The California Energy Commission biologist, Chris Huntley, testified under oath that the Project site can act as a linkage between the eastern and western populations of tortoises in the Mojave Desert.[201] The Energy Commission Staff conceded that the proposed project is located in an essential connectivity area between the Bristol and Ord Mountains.[202] This area acts as an important link between wildlife populations in the eastern and western deserts.

Moreover, due to the high density of tortoises on the Project site, the population on the Project site may be a source population, according to biologist Scott Cashen.[203] Source populations (reproducing populations that may provide individuals that recolonize offsite areas) are critically important for maintaining the overall survival of the species.[204]

Dr. Kristin Berry from USGS also testified that, "[w]ith the continuing declines in the population in California and our inability to stabilize any of the populations, …populations such as the one in the Calico area become more and more important. I might not have said that 15, 20 years ago, but I would say it now."[205]

Therefore, the Project site is important to the survival of the species.

2. Importance of DWMAs to the Survival of the Species

The Project's potentially significant impacts from 1) proposed translocation to the Ord-Rodman DWMA, an area set aside as a reserve for the recovery of the species, and 2) construction and operation of the transmission line, which is partially in the DWMA and in critical habitat also trigger a jeopardy determination.

[200] Rebuttal Testimony of Scott Cashen, p. 6.
[201] Testimony of Chris Huntley, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission, p. 155.
[202] California Energy Commission, Supplemental Staff Assessment, July 2010, p.C.2-144.
[203] Rebuttal Testimony of Scott Cashen, p. 7.
[204] Id. and See testimony of Scott Cashen, transcript of August 5, 2010 Evidentiary Hearing at the California Energy Commission, p. 190.
[205] Comments of Dr. Kristin Berry, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission, p. 87.

The USFWS and BLM specifically set aside the DWMAs for the recovery of the desert tortoise populations. By moving desert tortoise into the Ord-Rodman DWMA, the Project would result in human disturbance to the DWMA, thereby increasing the density of tortoises and potentially increasing disease that also, in turn, can increase predator density. Therefore, the Project could trigger a decline in the populations in a DWMA, a very serious impact on the overall recovery efforts for the species.

As described above, the Project will require the development of a 67-mile transmission line, primarily in desert tortoise habitat and partially in desert tortoise critical habitat. The impacts from this transmission line to the species have not been analyzed at all by the BLM. These impacts must be thoroughly analyzed as a part of the jeopardy determination.

Impacts to the Project area, when coupled with impacts to the Ord-Rodman DWMA, provide overwhelming evidence that BLM's action would jeopardize the continued existence of the species.

C. Since Critical Information in the Supplemental BA is Inadequate and Incorrect, the BLM Must Prepare and Circulate a New BA

After BLM's release of the FEIS, the Draft Translocation Plan, and the Supplemental BA, new information was made available that rendered the analysis and baseline in the Supplemental BA inadequate and inaccurate.

1. Information About Receptor Sites is Inaccurate

The Project would require the movement of a number of desert tortoises before the end of this year. The Applicant originally proposed to move those tortoises into the Northern Linkage Area and the Pisgah ACEC. Now, as mentioned above, these two relocation areas can collectively accept only TWO tortoises.

The Applicant also mentioned moving tortoises into the Ord-Rodman DWMA. However, this location has not been adequately studied to allow any translocations at this point.

The BLM must significantly revise the Supplemental BA to provide sufficient information about the Ord-Rodman DWMA as a potential translocation site, if that is the plan. The BLM must include a complete health assessment of resident populations and an assessment of the food source for desert tortoises, among other factors recommended by Dr. Kristin Berry and Scott Cashen and as incorporated herein.[206]

2. Assumption About the Importance of Project Changes Along Northern Boundary Is Inaccurate

The BLM's Supplemental BA assumes that the Applicant's reduction of the Project boundary along the Northern Boundary is a 4,000 foot reduction that would comply with the USFWS' Desert Tortoise Recovery Office recommendations.[207] However, biologist Scott Cashen conducted an independent assessment of that area and found that it is not 4,000 feet wide throughout. In fact, Project construction reduces the width to as narrow as approximately 2,400 feet.[208] Thus the BLM's Supplemental BA includes an inaccurate explanation of the linkage area north of the Project site.

The USFWS' Desert Tortoise Recovery Office recommendation for a 4,000 foot buffer is important to the survival of the species. The existing Desert Tortoise Recovery Plan of 1994 recommends that corridors be much larger. Defenders of Wildlife expert biologist Jeff Aardahl testified that:

> Connecting habitat segments should be of medium to high quality and be wide enough to accommodate several desert tortoise home range widths in contrast to the recommendation in the paper on Calico from the Service, 1.5, which equates to a distance here they refer to as several miles in width. They also state that maintaining linkages among habitat patches within recovery areas and between recovery areas is essential and will require the maintenance of connecting segments of habitat that are at least marginally acceptable to the

[206] Testimony of Scott Cashen and Comments of Dr. Kristin Berry, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission.
[207] Summary of Changes to the Desert Tortoise Biological Assessment 08-AFC-13, p. 4.
[208] Testimony of Scott Cashen, Transcript of August 5, 2010 Evidentiary Hearing at the California Energy Commission, p. 233.

> desert tortoise. My judgment is, is that the 1,100-acre exclusion area was developed probably with good intentions in mind, but I personally don't think that it's nearly adequate enough to maintain and assure a high degree of connectivity across the landscape and especially connectivity between the Western Mojave, the Eastern Mojave, and the Northern Colorado recovery areas.[209]

Thus, the BLM's Supplemental BA must be revised to correct the inaccuracies in the description of the width of the corridor and to take into account the expert opinions provided by Scott Cashen and Jeff Aardahl that the current corridor is insufficient to maintain connectivity for desert tortoise populations and violates the 1994 recovery plan.

3. Translocation Plan Is Laden with Unsupported Assumptions and Inaccuracies and Must be Substantially Rewritten Before Project Impacts Can Be Adequately Analyzed

Given the results of the Fort Irwin translocation project, the fate of the 131 to 185 tortoises that the Applicant proposes to translocate off the Calico Solar Project site is clear: most are likely to die.[210] Selection of appropriate translocation sites, health evaluation techniques, and remedial action measures each are critical considerations of a desert tortoise translocation plan that have not been adequately evaluated by BLM or USFWS.[211] Dr. Kristin Berry and Scott Cashen provided substantial testimony regarding the inadequacies of the Draft Translocation Plan for the Project.[212] BLM must conduct additional analysis and substantially revise the Supplemental BA as a result of this information and include this information in an SEIS before the Project can be approved.

[209] Testimony of Jeff Aardahl, Transcript of August 5, 2010 Evidentiary Hearing at the California Energy Commission, p. 212.
[210] Testimony of Scott Cashen on Desert Tortoise Translocation Plan, p. 4.
[211] Id.
[212] *Id*. and *See*: Comments of Dr. Kristin Berry, Transcript of August 25, 2010 Evidentiary Hearing at the California Energy Commission

D. The Severity of the Expected Mortality to Tortoises and the Impacts to Offsite Recovery Areas and Critical Habitat Show that the Project Will Jeopardize The Continued Existence of the Species and Result In the Destruction of Habitat

Based on the dismal survival rate expected for translocation (25% mortality per year), the shear numbers of individual tortoises that will be impacted and killed, and the recovery areas and critical habitat that may suffer declines in desert tortoise populations, the BLM's action would jeopardize the continued existence of the species and result in the destruction or adverse modification of critical habitat. Moreover, there is ***no evidence*** to show that the proposed translocation would alleviate jeopardy to the species. In fact, the BLM must undertake a specific analysis as to whether translocation is likely to result in higher mortality of tortoises.

The BLM has an enormous amount of analysis that still must be done to identify adequate receptor sites, study the baseline conditions at the receptor sites and analyze whether translocation would alleviate the Project's impacts to the species that, thus far, show that the Project would result in jeopardy to desert tortoise as prohibited by FESA. If the BLM approves this Project without conducting this analysis, the BLM would violate FESA.

IX. CONCLUSION

Thank you for the opportunity to submit comments on the FEIS.

Sincerely,

/s/

Loulena Miles

LAM:cnh
Attachments

Basin and Range Watch
Laura Cunningham
Kevin Emmerich
PO Box 70
Beatty NV 89003

Jim Stobaugh
BLM National Project Manager
PO Box 12000
Reno NV 89520
cacalicospp@blm.gov September 7, 2010

This comment letter is sent on behalf Basin and Range Watch, which has been involved in project planning through attending meetings, site visits and hearings for the Calico Solar Project.

Basin and Range Watch is a group of volunteers who live in the deserts of Nevada and California, working to stop the destruction of our desert homeland. Industrial renewable energy companies are seeking to develop millions of acres of unspoiled habitat in our region. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems and open spaces.

Biological Resources:

On page 4-31 of the FEIS it is admitted that the project will disturb over 7,000 acres of desert and that decommissioning and restoration will most likely not restore or revegetate the original Mojave Desert vegetation due to compaction, removal of biotic soil crusts and desert pavement, weed management, and other activities. Therefore the desert here will be permanently lost, and the area will no longer serve as functioning habitat for desert tortoise, golden eagle, Mojave fringe-toed lizard, or rare plants. Multiple use will be reduced. Therefore the No Project alternative should be chosen, and the area denied any further solar applications.

On P. 3-32 a new species or variety of lupine was found on the project site, so far endemic to the Cady Mountains. This alone should require the No Action alternative and designation of the area as an ACEC.

Section 3.4 analyzes Climate Change and greenhouse gases. Sulfur hexaflouride is mentioned as a GHG, but no analysis is given as to how to mitigate it when transmission upgrades are undertaken and 65 miles of new 500 kV line are put in. Less SF6 is emitted than CO2 in California, but its effect is 20,000 times greater according to the EPA.

Mojave fringe-toed lizard

The Mojave fringe-toed lizard, present on the project site is a California Department of Fish and Game Species of Special Concern because its small habitat patches are subject to extirpation.

Distinct Population Segments (DPS) are recognized by the Endangered Species Act, and can be listed as threatened or endangered.

The Amargosa River genetic lineage of Mojave fringe-toed lizard is a Distinct Population Segment, now being reviewed for listing under the federal Endangered Species Act.

The Mojave River Lineage includes the Pisgah area, Barstow, Kelso Dunes, and Silver Lake. Extirpation of the El Mirage and Harper Lake populations has been documented recently, as well as a population on dunes in Los Angeles County. More genetic sampling needs to be done in the Calico area and Mojave River drainage, as one or more DPSs may be resolved with finer resolution. The cumulative impacts to the Pisgah population, which has a phenotypically unique population (white body coloration), could potentially lead to further listing efforts to protect these populations.

Habitat loss, sand depletion, surface stabilization or compaction, loss of vegetation for cover and food have caused local extirpations in fringe-toed lizard populations.

Sand originates from hydrologic processes, riverine and paleolake systems, and sand transport corridors. The project has the potential to block sand flow and cut off habitat connectivity of MFTL populations in the region. Small, isolated populations may go extinct, so it is of vital importance to provide connectivity with other populations.

We visited the Calico Solar Project proposed site, San Bernardino County, on 11 July 2010. On this visit I spent 4 hours on the site and immediate vicinity. This was not a formal scientific survey, and routes were not stratified nor randomized. The visit was a reconnaissance trip that would normally be done to design a future formal survey. Certain observations, however, can be made from this type of survey. I took photographs and notes concerning Mojave fringe-toed lizard habitat quality on three routes within the Calico Project Site between the BNSF railroad track and Interstate highway 40. All photographs were geo-tagged. Track 3 was on known fringe-toed lizard habitat where I have seen this species earlier in spring: this area had finer sand and approximately 10% gravel. The other two tracks are in areas of unknown presence-absence, but may have potential habitat. Track 2 was in the west end of the project site between the BNSF railway and highway 40. Some areas of fine gravel flats with small sandy washes exist near the railway, much of the wide flat area is unsuitable for fringe-toed lizards, being hard-packed silt and fine gravel showing mud cracks, evidence of standing water after rains. The lava field had potential suitable habitat with pockets of loose fine sand. Track 1 was in the middle of the project area between the railway and highway east of Hector Road, and had a complex mosaic of desert pavement, coarse sand areas, fine sand at the bases of shrubs, sandy areas between low ridges, and small and one large wash with varying amounts of sand. Much of this could qualify as connectivity or seasonal habitat. Fringe-toed lizards were not active during this visit, and may have been in estivation

(dormancy) underground during this hot period of summer. My estimates of habitat quality were based on prior surveys in known fringe-toed lizard habitat across the range of the species. I used a rating of from 1 to 3 to describe habitat quality: 1 being good quality permanent habitat where Mojave fringe-toed lizards breed and are common; 2 is lesser quality habitat where lizards would be uncommon but still permanent residents; 3 is connectivity habitat where lizards would be expected only seasonally or irregularly in dispersal across poorer quality habitat. This last category matches what I observed at the Ford Dry Lake area, where I speculate during early spring lizards moved into hard-packed gravelly areas during seasonal activity. Habitat 3 types would be important in maintaining genetic flow between good-quality habitat patches of finer sand.

On 28 March 2010 I visited the Calico Solar Project and saw 2 adult Mojave fringe-toed lizards and one immature at 11:30 AM, on the known sandy patch south of the BNSF railway. UTM coordinates: 11S 554368 E, 3850463 N (using a Garmin GPS). Habitat consisted of sand in a wash, flat, and hillslope. I also walked in sand flat areas within 1,000 meters north of the railway in this area, which appeared to be potential fringe-toed lizard habitat as well.

Based on these field observations, it is my professional opinion that more than 164.7 acres of Mojave fringe-toed lizard habitat exists on the Calico Solar Project site, especially when considering connectivity corridors. Formal surveys should be undertaken to determine habitat extent during March through May when lizards are most active.

Connectivity habitat has not been adequately considered. Two models of sand flow can be posited for the area: 1. Sand sources come from washes pouring out of the Cady Mountains to the north of the habitat area, providing sand (considered in the Supplemental Staff Assessment); and 2. Sand flow derived from the Mojave River drainage and Troy Dry Lake to the west, moving in a sand flow corridor pushed by prevailing winds from west to east. Satellite imagery provides evidence of the latter.

Both sources probably contribute sand to the project area, but if most of the Mojave fringe-toed lizard habitat sand is from the west, then the potential exists that the project will block sand flow to the east, to Mojave fringe-toed lizard habitat patches in Pisgah Area of Critical Environmental Concern. This needs to be considered in approval of the project and mitigation. The area may be a unique geographic connectivity location, which cannot be mitigated.

Cultural Resources

On July 12, 2010, we visited the project site and found what appears to be a geoglyph on low desert pavement hills between the BNSF railway and I-40. The location is UTM 11S, 0551672E, 3850618N (WGS84). The alignment was fairly straight, with slight curves, and ended in a small cairn that appeared old and dispersed; the stones were dark and embedded, and appeared prehistoric. The alignment was about 50 meters long.

This feature should be preserved, and the area needs to be avoided from SunCatcher placement. The feature could be historically significant and needs assessment.

The quality of artifacts and features described in the FEIS indicates the need for the applicant to carry out much more thorough archaeological surveys, better assessment of what is eligible under NRHP, and potentially the entire project site should be avoided and considered for designation as an Area of Critical Environmental Concern.

Fast-tracking should not be allowed to short-cut the archaeological assessment process, undercutting science in general. There are no performance standards given for mitigation these archaeological sites, only deferral of mitigation measures to a later date. If sites are eligible for state or national historic registers they may have to be preserved in open space.

P. 3-58 of the FEIS states that the ACHP does not have a reasonable time period to comment on the finds in the project site. Clearly the finds can be considered important

to science to revealing information about the prehistory of the area, even as Dr. David Whitley related, "to the peopling of the Americas" (CEC evidentiary hearing August 12, 2010). The CDCA plan states: Ensure cultural resources are given full evaluation in land use planning. This is being denied in the rush to meet ARRA deadlines, and is unacceptable.

P. 3-63 says that desert pavements predate humans in the New World. However Dr. David Whitley disagreed with this statement. Saying new evidence shows buried archaeological resources have been found under desert pavement, including ceramics. Therefore desert pavement formation can be more recent, and the existence of such surfaces cannot be used to deny the presence of archaeological sites.

Visual Resources

We visited the Calico SES Solar One proposed site on 16 June 2009, 28 March 2010, 17 April 2010, and 11 July 2010. On these visits I spent from 7 to18 hours on the site and immediate vicinity. One of these visits was at night to view stars and nocturnal animals. I visited the Daggett Ridge southwest of the site on 29 March 2010 to observe the wind energy project proposed for the site to assess cumulative impacts large scale energy development slated for sensitive habitat would have on the region.

We feel that the scenery on the Calico Site is more deserving of preservation over development. The sweeping views of undeveloped mountains and desert basins have qualities similar to those landscapes that have been chosen for preservation of National Parks and Wilderness Areas. On each visit, we made unique plant and wildlife sightings.

We own 160 acres of land in the east Mojave Desert. If my property were to be

surrounded by Sun catcher mirrors, it would be very difficult, if not impossible to live there. Under such a proposal, my property values would go down. It is my opinion that the Calico Project will impact the view, quality of life and property values of any land-owners that have property in or adjacent to the project.

We own a 4x4 vehicle, and enjoy traveling on the dirt roads to access remote desert areas to camp, hike, and photograph natural subjects. I have driven up Hector Road to access the Cady Mountains as well as the power line road east of the project site to access the Cady Mountains. I have explored the Box Canyon route in the Rodman Mountains. I have visited many of the areas, including Pisgah Area of Environmental Concern, that lie within the western proposed boundary of the Mojave Trails National Monument, which the Calico Project would lie adjacent to.

We visited the Cady Mountains on 16 June 2009 and 17 April 2010. I hiked to two separate ridges overlooking the proposed Calico Project site. From personal experience in the Cady Mountains, the Calico project would be visible from many locations within the range, including within on the fan approach, in canyons, and along ridgelines. If legislation passes, this would all be within the view of the Mojave Trails National Monument. My visitor experience of the Monument would be negatively impacted by seeing a large industrial development so close, with glare and night lighting, as I plan to visit the Cady Mountains again in the future. Based on my NPS experience, many visitors to the new monument and the nearby Wilderness areas would not appreciate the desert landscape developed to such an extent so close to their boundaries. In my experience, desert recreationists are seeking the wide open vistas, natural landscapes, wildlife viewing, and wild feel of the American Southwest, and a large power plant with flash- glare from SunCatcher mirrors and unsightly new transmission lines could negatively affect their visit. A new National Park Service area would be perceived by visitors with even more conservation perspectives and standards than the existing California Desert Conservation Area. A new NPS area would also develop standards designating buffer zones to protect the view. The impacts to the local scenery could not be mitigated.

We have visited the Pisgah Crater Area of Critical Environmental Concern and the Rodman Mountains Wilderness Area on 28 March 2010 and 17 April 2010. The industrial look that development of the Calico project would bring to the area would take away from the wild character of these two areas.

Transmission

The 850 MW project is simply not feasible due to the need for a 65-mile long stretch of the 220kV line from the Pisgah Substation to Lugo in Hesperia needing to be replaced with a new 500 kV transmission line by SCE. No ROW application has even been filed yet for this, and therefore its location is yet to be determined, and would need separate environmental review.

SCE would also need to upgrade the Pisgah-Lugo substation to as much as 100 acres, and again no ROW application has been filed.

Sincerely,

Laura Cunningham
Kevin Emmerich
Basin and Range Watch
PO Box 70
Beatty NV 89003

BINGHAM

Ella Foley Gannon
Direct Phone: 415.393.2572
Direct Fax: 415.262.9251
ella.gannon@bingham.com
Our File No.: 0000343628

September 7, 2010

Via Mail and Email

Mr. Jim Stobaugh
BLM Project Manager
Bureau of Land Management
P.O. Box 12000
Reno, Nevada 89520

Re: Comments on Environmental Impact Statement for the Calico Solar Project

Dear Mr. Stobaugh:

We appreciate the opportunity to comment on BLM's Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Calico Solar (formerly SES Solar One) Project. The following comments are submitted on behalf of Calico Solar, LLC ("Calico"), the applicant for this project.

As the FEIS states, the main objective of the Calico Solar Project is to provide clean, renewable, solar-powered electricity to the State of California, in keeping with the state's Global Warming Solutions Act and its Renewable Portfolio Standard (RPS) program. FEIS at ES-1, 1-2. The project has been carefully refined both before and during the permitting process, in response to input from the California Energy Commission, state and federal agencies, environmental groups and the public, to avoid or reduce impacts wherever feasible, while maximizing the accomplishment of the main project objective. The project site was originally selected with BLM's support and guidance, and is located adjacent to a freeway, rail line, gas pipeline, and transmission line. Following extensive environmental analysis and consultation, Calico was able to compress its 8,230-acre proposed project onto 6,215 acres while providing the same 850-MW generating capacity. The result is Alternative 1a, which reduces the project site by approximately 25% of its original size to avoid key cultural resources and biological resources, to minimize the distance needed for potential desert tortoise translocation, and to preserve a movement corridor for desert tortoise, bighorn sheep, and other wildlife. The FEIS correctly concludes that this combination of high solar energy generation and reduced environmental impacts is not only the Agency Preferred Alternative, but also the Environmentally Preferred Alternative under NEPA.

Bingham McCutchen LLP
Three Embarcadero Center
San Francisco, CA
94111-4067

T +1.415.393.2000
F +1.415.393.2286
bingham.com

We are providing our comments in the following form. Substantive comments are set forth below. Where we have found what we believe to be clerical errors in the FEIS, we list them in the enclosed errata sheet. Because we are not certain whether all pertinent documents available to, or generated by, the CEC have been provided to BLM for inclusion in its administrative record, we enclose a list of the documents that we request be included.

Finally, when we learn the CEC's preference regarding the size and configuration of the project, we will compare the mitigation measures identified in the FEIS to the conditions of certification identified by the CEC so as to identify and resolve any inconsistencies between the two sets of mitigation requirements.

Our substantive comments on specific sections of the FEIS are as follows:

1. Introduction, Table 1-1

Table 1-1 provides a summary of revisions to the project description that BLM had received through July 12, 2010. The FEIS incorporates all of these revisions into its analysis and conclusions. After July 12, 2010, in response to communications from BNSF and Southern California Edison, and following further evaluation of local well water, Calico made three additional revisions to Alternative 1a, which have been presented to the CEC, but were not made in time to be included in the FEIS.

First, BNSF requested that the project not use the previously planned temporary construction access across its right-of-way. Instead, BNSF requested that the project use the planned permanent access route during construction. BNSF will facilitate this by building a temporary at-grade crossing in the same location where the permanent bridge crossing will be constructed. This change has been analyzed and found to cause no adverse change in the project's impacts. *See* CEC Exhibits 82, 91.

Second, Southern California Edison advised Calico that it would not be able to provide electrical power to the project until February 2011, at the earliest. *See* CEC Exhibit 82. Accordingly, Calico proposes to use two diesel generators to provide construction power until the Phase 1 upgrade to SCE's Pisgah substation is complete. The generators would be Tier 3 or, if available, Tier 4, generators, and their use would not cause the project to exceed general conformity thresholds under the Clean Air Act or otherwise cause a significant air quality impact. *See* CEC Exhibits 82 and 83. With these generators, the use of a nearby water well rather than water delivery by train and/or truck from Cadiz, and a refinement of offsite vehicle exhaust emission factors to reflect a 50 mph, rather than a 10 mph travel speed, the construction emissions from Alternative 1a will be *lower* than previously reported. *See* CEC Exhibit 83.

Third, Calico has determined that with appropriate treatment, including chlorination, water from Lavic Basin Well 3 could be used for the project's potable water requirements, eliminating the need for potable water to be trucked to the project site.

2. Chapter 2, Project Description

a. At page 2-7, the FEIS provides photographs of SunCatcher dishes. The photographs depict an older model of the dish; photographs of the current generation of SunCatcher dish are provided in the Plan of Development at page 14 (Figure 8).

b. The following statement at page 2-8 of the FEIS is incorrect and should be deleted: "Following the completion of the 30 percent engineering drawings in April 2009, the Applicant determined that it would be necessary to place SunCatcher units throughout the site, including in washes, to attain the proposed 850-MW yield."

c. At page 2-14, the FEIS states that water from Lavic Basin Well 3 is not suitable for drinking and that potable water to meet plant requirements would be delivered by truck. As stated in section 1 above, it has been determined that with both reverse osmosis and chlorination, the water from Well 3 will be potable. Accordingly, the last sentence of the third paragraph of FEIS section 2.2.3.2 should be revised along the following lines: "This water would require RO and chlorine treatment on site prior to use for potable purposes." The paragraph headed "Potable Water" on the same page should be deleted.

d. At page 2-28, the FEIS states that the total acreage of detention basins for the Agency Preferred Alternative would be the same as for the original Proposed Action. The detention basin area for the 8,230-acre Proposed Action was 600 acres, but the detention basin area for the 6,215-acre Agency Preferred Alternative is now 470 acres, with actual disturbance for detention basins comprising approximately 114 acres of the detention basin area. *See* SA/DEIS Fig. 2 (600 acres); Applicant's August 16, 2010 Detention Basin Specification and Figures (113.9-acre Detention Basin Disturbance Area).

e. Chapter 2 of the FEIS does not describe the reliability of the SunCatcher system or site security. Please see Calico's CEC Exhibits 80 and 89, and CEC Supplemental Staff Assessment pages C.5-14 – C.5-15, which provide information on these topics.

3. Section 4.2, Air Quality

At page 4-23, the FEIS describes the air quality impacts of Alternatives 1a and 3 (the Avoidance of Donated and Acquired Lands Alternative) compared to the 8,230-acre Proposed Action. The discussion of Alternative 3 includes the following sentence: "Operations emissions would be less than the Proposed Action due to the smaller footprint (7,050 acres) and less area of disturbance." The same should be said of Alternative 1a, *i.e.*, "Operations emissions would be less than the Proposed Action due to the smaller footprint (6,215 acres) and less area of disturbance." The FEIS should be clear that Alternative 1a is superior to both the Proposed Action and the Avoidance of Donated and Acquired Lands Alternative in this respect.

4. Section 4.3, Biological Resources

a. At pages 4-30, 4-34, 4-36, and elsewhere, the FEIS states that the Proposed Action includes "regular mowing" of vegetation; later, the FEIS states that Alternative 1a is similar in this respect to the Proposed Action. As stated in the CEC Supplemental Staff Assessment, Calico does not intend to mow the entire project site in the first instance, and re-mowing is anticipated to be needed on only 5% of the SunCatcher array area. SSA at C.2-48. Because mowing would be very limited in both extent and frequency, the FEIS overstates the impacts to vegetation and wildlife of Alternative 1a.

b. At pages 4-33 and 4-38, the FEIS states, without a citation, that noise from an individual SunCatcher is 84 dBA at a distance of 50 feet. In fact, sound measurements of operating SunCatchers at the Maricopa Solar site in Arizona show that the noise level from each unit is approximately 74 dBA, not 84 dBA. *See* Memorandum from Mark Storm, INCE Bd. Cert., March 22, 2010 (enclosed). Therefore, the FEIS overstates the noise impacts of the project on wildlife at all locations and should be corrected to reflect the lower expected noise levels. In addition, the reduction in the project footprint from 8,230 acres for the Proposed Action to 6,215 acres for Alternative 1a, the Agency Preferred Alternative, means that noise impacts to the north of the project will be further reduced. *See* Noise Figures (Sept. 2, 2010) enclosed.

It should also be noted that noise levels in some areas of the project site are already fairly high under existing conditions, primarily due to the presence of the BNSF rail line; long-term measurement site LT2, north of the rail tracks, showed sound levels of 75 dBA Leq and 81 dBA Ldn. *See* Application for Certification, p. 5.12-8.

c. At pages 4-83 and 4-84, the FEIS suggests that under the Proposed Action, the applicant would be required to "mitigate for the loss of 1,180 acres of donated and acquired lands." Because Alternative 1a would also utilize donated and acquired lands (1,020 acres), Calico notes that neither BLM nor the CEC would require mitigation for donated and acquired lands simply because those lands were donated or acquired with LWCF funds. Instead, mitigation would be required based on the habitat values that those lands represent. For Alternative 1a, thousands of acres of mitigation lands would be acquired; this reflects the habitat value of the site's acquired lands, donated lands, and other lands that would be utilized under Alternative 1a.

d. At pages 4-62 and 4-105, the FEIS states that the Proposed Action would cause electrocution risk to Golden Eagles. Elsewhere, however, the FEIS explains that the electrocution risk to all birds that would be caused by the types of transmission lines needed for the project would be "extremely low." FEIS at 4-41-4-42. Any electrocution risk to Golden Eagles would be extremely low.

5. Section 4.4, Climate Change

a. The FEIS asserts that the Calico Solar Project could, by disturbing desert soils, result in 115,000 tons per year of lost carbon sequestration. FEIS at 4-204, 4-207, 4-208.

Neither the FEIS for the Imperial Valley Solar Project, nor the FEIS for any other desert solar project of which Calico is aware, suggests that desert solar projects would cause such impacts, much less that any such impacts could be quantified. Moreover, the Calico FEIS does not provide usable citations for its conclusion; nothing on this topic is included in the References section of the FEIS; and Calico has been unable to locate the FEIS's references using the incomplete citations provided.

The information Calico has been able to locate states that carbon sequestration in desert soils, including the mechanism for such sequestration, is not understood. As the FEIS itself states at page 4-214, information on this topic is incomplete or unavailable, and "[a]nalytical tools necessary to quantify project-related climatic impacts and carbon sequestering are currently unavailable." That being the case, Calico respectfully submits that the FEIS should not purport to conclude that the project would cause a loss of carbon sequestration in desert soils, much less assert that that effect would occur equally every year the project is in operation, and still less attempt to quantify any purported loss of carbon sequestration for the various project alternatives.

b. At pages 4-205 – 4-206, Tables 4-24 and 4-25, the FEIS quantifies CO2 emissions due to train transport of water from Cadiz. This emissions category should be deleted because local well water is now the primary water source for the project and water will be transported to the main services complex by pipeline.

c. This section provides tables showing CO_2 emissions per kilowatt-hour for all action alternatives other than Alternative 1a. It should be noted, however, based on the tables that are provided, that if a similar table were prepared for Alternative 1a, that alternative would demonstrate the most favorable ratio of emissions per kilowatt hour.

6. Section 4.5, Cultural Resources and Paleontology

At pages 4-217 to 4-218, the FEIS states that an adverse indirect impact of the Agency Preferred Alternative is vandalism to cultural resources, in part "as a result of improved access to the project site." As noted elsewhere in the FEIS, all of the action alternatives would eliminate, rather than improve, the general public's existing access to the project site.

7. Section 4.12, Recreation

a. At pages 4-296 – 4-297, the FEIS states that the impacts of the alternatives on recreation would be the "same" as the impacts of the 8,230-acre Proposed Action. But because of their reduced footprints, all of the alternatives would reduce direct recreation impacts, and Alternatives 1a and 2 would reduce indirect impacts as well.

b. At page 4-309, the FEIS notes the potential for the project to cause on-site recreational uses to be relocated to other areas nearby, including the Pisgah Crater ACEC. However, as the FEIS states elsewhere, the project site currently receives

"minimal" use by OHV and other recreational users (page 4-230). Therefore, any recreation displacement effect would also be minimal.

8. Section 4.13, Population and Housing

At pages 4-300 to 4-301, the FEIS describes the local economic benefits of the Proposed Action as "negligible in comparison with the existing populations of the nearby communities." The FEIS also reports, however, that the Proposed Action would bring 400 construction jobs, 136 permanent jobs, a construction payroll of $159 million per year, local sales and use tax of $700,000 per year during construction and local sales tax of $650,000 per year during operations, based on $9.1 million in annual local spending during construction and $8.4 million in annual local spending during operations. Based on testimony before the CEC, representatives of local communities do not view these benefits as "negligible."

9. Section 4.16, Visual Resources

At page 4-341, Figure 4-3 is a simulated view of the Proposed Action site from Key Observation Point 1, U.S. Route 66/Interstate 40. It should be noted that this simulated view depicts the project site as it would appear without the 223-foot setback from Interstate 40 agreed to by Calico after the simulation was prepared. With this setback, the view of the Proposed Action site will change and the potential visual impacts of the Calico Solar Project on motorists will be significantly reduced.

10. Section 4.19, Irreversible and Irretrievable Commitment of Resources

At page 4-393, the FEIS identifies loss of grazing as an irreversible and irretrievable commitment of land use resources, "due to the long time frame required for site reclamation and restoration." As the FEIS states elsewhere, however, the project site is not currently used for grazing and is not known to have been used for grazing at any time in the past. Grazing is not a genuine land use resource on the project site, so lost opportunities for grazing do not represent an irreversible and irretrievable commitment of resources resulting from the Calico Solar Project.

11. Section 4.22, Summary of Unavoidable Adverse Impacts

Calico believes that the substantive analysis sections of the FEIS are generally well supported and well reasoned. However, Section 4.22, titled a "summary" of the unavoidable adverse impacts of the various Calico Solar Project build alternatives, does not accurately reflect the analyses that precede it. The summary also does not distinguish among the four "build" alternatives for the project. The BLM ROD should be based on the substantive analyses rather than on this summary.

Biological Resources. Whereas section 4.3 of the FEIS finds that the Proposed Action would cause significant unavoidable impacts to biological resources, it also finds that Alternative 1a would greatly reduce the scale and magnitude of these impacts. The

biological resources impacts of Alternative 1a are not identified as unavoidable adverse impacts in section 4.3 of the FEIS. The summary should reflect the analysis in section 4.3 and acknowledge the mitigation provided for all alternatives through the acquisition of habitat for desert tortoise. When the reduced footprints and mitigation measures are considered, Calico believes that Alternative 1a will not be found to cause, or contribute considerably to, unavoidable adverse impacts to biological resources.

As the CEC's Supplemental Staff Assessment concluded, with the reduction of the project's size from 8,230 to 6,215 acres, almost all of the impacts of the project-level and cumulative impacts of the Agency Preferred Alternative would be mitigated. The FEIS does not acknowledge, as the SSA does, that the project's provision of thousands of acres of desert tortoise habitat will also provide desert plant community and wildlife habitat, including habitat for special-status species. *See* CEC SSA at C.2-44 – C.2-45, C.2-70 (Banded Gila monster), C.2-87 (Bendire's thrasher and Swainson's hawk); C.2-4, C.2-92 – C.2-93, C.2-139 – C.2-140 (burrowing owl); C.2-89, C.2-137 (golden eagle); C.2-96, C.2-143 (American badger and desert kit fox). The combination of avoidance and minimization measures with the provision of habitat reduces the impacts of the Agency Preferred Alternative to a level that is not significant, whether the project is considered individually or in combination with cumulative projects. The FEIS should acknowledge this.

In addition, section 4.22 identifies a significant unavoidable impact to special-status species because some species potentially in the area have not been found on the project site after repeated surveys, but might in fact occur there. FEIS at 4-397. Section 4.3 of the FEIS draws no such conclusion. If this analytical approach were valid, every project would be found to result in significant unavoidable impacts to special-status species, regardless of how many surveys were conducted, because of the species that were *not* found on the project site. This conclusion is unjustified and should be deleted.

Climate Change. The climate change discussion in section 4.22 states that the project's CO_2 emissions during construction represent a short-term, unavoidable adverse impact of the build alternatives. Section 4.4 of the FEIS quantifies these construction emissions, but does not identify them as an unavoidable adverse impact of the build alternatives. In comparison to the climate change benefits of the build alternatives – and particularly Alternative 1a – these emissions are negligible.

As discussed above, the attempt in section 4.4 to identify and quantify a carbon sequestration impact from soil disturbance is unsupported and should not be used as a basis for identifying an unavoidable adverse impact of the build alternatives.

Traffic and Transportation. At page 4-399, the summary states that the closure of open BLM routes through the project site would represent an unavoidable adverse impact to private property owners and recreational users of these routes. The build alternatives would, however, provide different access routes for these travelers, so this impact would be mitigated.

Finally, section 4.22 identifies unavoidable adverse impacts to surface hydrology on and off the project site. The mitigation measures provided in the CEC Conditions of Certification would avoid any such significant impact.

Once again, we appreciate the opportunity to comment on the FEIS for this project and look forward to the next steps in BLM's consideration of the project.

Sincerely yours,

Ella Foley Gannon

Enclosures: Errata to the FEIS
Additional Documents for BLM Administrative Record
Memorandum from Mark Storm (Mar. 22, 2010)
Noise Figures from Mark Storm (Sept. 2, 2010)

A/73492797.3

ERRATA TO THE CALICO SOLAR PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT
Submitted by Applicant Calico Solar LLC

FEIS Page	Comment
ES-22	The reference to "SESA" should be "CESA" (California Endangered Species Act).
2-12	The second sentence of section 2.2.3 begins, "This means that the project would operate anywhere from a minimum of approximately 18-MW...." The correct minimum is 9-MW.
2-17	At the end of the first paragraph of section 2.2.3.5, "(approximately two times per year)" should be "(approximately three times per year)."
4-89	The parenthetical under "Limitations of the Cumulative Project Data and Data Sets" should read: "(Table 4-15 and Figure A-22)."
4-90	Under "Projects Contributing to Cumulative Effects to Biological Resources," the reference to Figure A-22 should be A-21, and Figure A-23 should be A-22.
4-104	Under "Golden Eagle," the reference to Figures A-27 and A-28 should be to Figures A-26 and A-27. In the following paragraph, the reference to Figure A-28 should be to Figure A-27.
4-109	At the top of the page, the reference to Figure A-29 should be to Figure A-28.
4-224	The first sentence of section 4.5.3.1, "Alternative 1: Proposed Action," should be revised to delete the words "not" and "any": "The construction of the Calico Solar Project is *not* expected to result in adverse effects to *any* historic properties." The original Proposed Action was found to cause significant impacts to three historic properties; this is one reason Alternative 1a, which avoids these impacts, was created.
4-263	In the first sentence of section 4.9.3.1, Figure A-19 should be Figure A-18.
4-268	Table 4-34 should be corrected to state that the regulatory limit for Receiver SR2 is 55, not 65, dBA L_{eq}. Because the existing ambient noise at SR2, unlike SR1, is 41 dBA L_{eq}, the 55 dBA L_{eq} noise limit applies at Receiver SR2.
4-269-4-270	The two paragraphs that begin at the bottom of page 4-269 ("When projected plant noise...." and "Modeled noise levels....") are repeated on page 4-270.
4-271	The first sentence of section 4.10.2.4 has not been updated to reflect the conclusion that 34,000 SunCatchers could be constructed under Alternative 3.
4-279	The first sentence of the second paragraph of section 4.11.2.1 should be revised to read, "During construction, hazardous *materials* would be transported to the facility via truck." No hazardous wastes would be transported to the facility.
4-296	In the first sentence of section 4.12.3.1, the reference to Figure A-21 should be to Figure A-20. In addition, Figure A-20 assigns numbers and letters to existing and future/foreseeable projects, but provides no key identifying the projects to which the numbers and letters refer.

CALICO SOLAR PROJECT

Additional Documents for BLM Administrative Record

CEC Docket Log #	Date	Subject
58184	08/24/2010	Applicant's Submittal of Staff's Request for Phase 1a Fencing Information
58182	08/24/2010	Applicant's Submittal of Numbers of Employees and Numbers and Types of Equipment for Oct, Nov, and Dec 2010
58156	08/23/2010	Applicant's Submittal of Staff's Request for Road Information
58108	08/17/2010	Applicant's Abstract of Analysis of Predation on Desert Tortoise Populations in Mojave Desert
58107	08/17/2010	Applicant's Submittal of Additional Testimony
58071	08/17/2010	Staff's Second Errata to the Supplemental Staff Assessment
58085	08/16/2010	Applicant's Cultural Resources Project Timeline
58084	08/16/2010	Applicant's Detention Basin Specifications & Figures
58083	08/16/2010	Applicant's Provision of Reference Cited in the Draft Tortoise Translocation Plan
58051	08/13/2010	Response to Previous August 12 Data Request
58050	08/13/2010	Applicant's Approximate Revegetation Acreage
58049	08/13/2010	Applicant's Phase 1a Desert Tortoise Figures
58030	08/11/2010	Applicant's Phase 1a Information
58014	08/10/2010	Applicant's Submittal of Design of Project Hydrogen Compressor Groups
57941	08/09/2010	Supplemental Staff Assessment Part II
57949	08/04/2010	Applicant's Submittal of Additional Air Quality Analysis Discussed at August 4 Hearing
57872	08/04/2010	Staff's Errata to the Supplemental Staff Assessment
57800	07/29/2010	Staff's Rebuttal Testimony & Errata

URS

Memorandum

Date: March 22, 2010

To: Richard Knox and Felicia Bellows, Tessera Solar

From: Mark Storm, INCE Bd. Cert.
Senior Project Engineer, URS San Diego

Subject: **Maricopa Solar – Site Noise Measurement Survey & Data Analysis**

This technical memorandum describes the results of a sound measurement survey conducted March 17, 2010 within the site boundaries of the Maricopa Solar project near Peoria, Arizona. This memo also compares selected measurement data with the results of a noise prediction model representing the sum of sixty (60) operating SunCatchers at the Maricopa Solar project site, for the intended purpose of validating input parameters used in similar noise prediction models for other Tessera Solar projects (e.g., Imperial Valley Solar).

EXECUTIVE SUMMARY

A comparison of selected field noise measurement data with predictive operational noise model results for Maricopa Solar indicates that the input sound power levels for an individual SunCatcher unit as used in Table 5.12-7 of the Imperial Valley Solar AFC remain representative and valid. As shown in Table ES-1, differences between model results and measurement readings were less than 3 dBA, and in several cases less than 1 dBA. Differences of 1 dBA or less are considered indiscernible by the average human ear and are within the measurement tolerance of a normally functioning sound level meter.[1]

Table ES-1
Predicted vs. Measured Aggregate Operating SunCatcher Sound – Maricopa Solar

Project Site Location	Measurement Site ID	Predicted SPL (dBA)	Measured SPL (L90, dBA)	Difference (Predicted – Measured, dBA)
SW corner of site	6	66.5	68.2	-1.7
Near middle of West SunCatcher field	9	74.9	74.3	0.6
Southern site fenceline	11	68.3	68.8	-0.5
Southern site fenceline	12	67.3	67.2	0.1
Eastern site fenceline	13	71.3	71.8	-0.5
NE corner of site	14	64.5	65.1	-0.6
Approx. 75' North of East SunCatcher field	15	68.5	68.4	0.1
Approx. 50' North of SunCatcher "71"	18	69.3	66.6	2.7
Approx. 100' North of SunCatcher "71"	19	67.5	64.5	3.0
Northern site fenceline	20	66.4	64.3	2.1

Source: URS Corporation 2010

[1] Ebbing & Blazier, Application of Manufacturers' Sound Data, ASHRAE, 1998, p. 178, Table 14.1.

INTRODUCTION

In April 2008, URS conducted a sound measurement survey of a single nominally operating SunCatcher at the National Solar Thermal Test Facility (NSTTF) located on the site of Sandia National Laboratories near Albuquerque, NM. The octave band center frequency (OBCF) sound power levels (PWL) derived from the sound pressure level (SPL) measurements of this operating SunCatcher were then used as input parameters to complete a predictive operational noise impact analysis as part of satisfying the requirements of a California Energy Commission (CEC) Application for Certification (AFC) for Imperial Valley Solar (formally known as Stirling Energy Systems "Solar Two") near El Centro in Imperial County, CA.

In the two years since the measurement survey at NSTTF, URS understands that the SunCatcher design has developed into a system that is represented by the functioning samples at Maricopa Solar. Concerns arose that the new design, intended to represent what is proposed to be installed in quantity at Tessera Solar sites such as Imperial Valley Solar, may have different operating characteristics from the former generation sample at NSTTF that could include different sound levels. Thus, at Tessera Solar's request, URS performed a sound measurement survey at Maricopa Solar to collect data that should help determine whether the predictive operational model input parameters—based on the measurements of the SunCatcher sample at NSTTF—are still valid for purposes of predictive noise impact assessment, or if they need to be updated to better predict future noise levels.

PREDICTION MODEL

The Cadna/A Noise Prediction Model (Version 3.72.131) was used to estimate the aggregate SPL from all 60 operating SunCatchers at Maricopa Solar. Cadna/A is a Windows based software program that predicts and assesses noise levels emanating from user-defined noise sources based on International Standards Organization 9613-2 standards for noise propagation calculations. The model uses industry-accepted propagation algorithms and accepts sound power levels (in dB re: 1 picoWatt) provided by the equipment manufacturer and other sources. The calculations account for sound attenuation via classical sound wave divergence plus attenuation factors resulting from air absorption (as influenced by temperature and relative humidity), basic ground effects, and barrier/shielding.

Apart from the SunCatchers, the sum of which was modeled as an area source within the project site perimeter, no other sound-generating sources were included in the prediction model. For instance, while the Maricopa Solar project did have an operating hydrogen compression facility located near the field office parking lot adjacent to 75th Avenue, this equipment did not appear to be a dominant noise generator during the field survey and was thus excluded from the prediction model. The contributing PWL from an individual SunCatcher appears in Table 1. The OBCF levels are identical to those used in the Imperial Valley Solar AFC (as determined from the 2008 NSTTF SunCatcher noise measurements). Other assumptions made for the prediction model include as follows:

- Flat terrain (i.e., no varying topography)
- Air temperature = 25° C
- Humidity = 20 %
- Windspeed = 0 mph
- Project Site ground absorption coefficient = 0.25

Because the ground absorption coefficients can range from zero to unity, the usage of 0.25 is conservative and assumes a mix of some porous (e.g., loose dirt) and but mostly smooth, hard (i.e., acoustically reflective) ground surfaces.

Table 1
Noise Model Sound Level Parameters

Project Component	Type of Source	Unweighted Sound Power Level (PWL, dB) at Octave Band Center Frequency (Hz)									Overall Level (dB)	A-Weighted Level (dBA)	Acoustic Height (meters)
		31.5	63	125	250	500	1,000	2,000	4,000	8,000			
SunCatcher	Point	119	111	101	93	97	95	90	88	81	120	99	7

Source: URS Corporation, 2010.
Notes: SunCatcher assembly includes measured composite levels from the Stirling Engine, electric generator, cooling fan, and air compressor.

MEASUREMENT SURVEY

From approximately 11 a.m. through 3 p.m., sound measurements were conducted at various locations on the Maricopa Solar site with a Bruel & Kjaer Model 2250 Sound Level Meter (SLM), a Type 1 instrument per American National Standardization Institute (ANSI) S1.4 and S1.43 standards. Environmental conditions appeared to be seasonally typical for Peoria, Arizona: cloudless sky, temperature ranging from 75 to 90 degrees Fahrenheit as the day progressed, with relatively low humidity and low-to-moderate average wind speeds (5-10 mph). URS observed that the Maricopa Solar field office has limited meteorological measurement capability for its SunCatcher control needs, and learned that this data is available upon request—should detailed correlation with the sound measurement data be necessary.

Individual sound measurements were of 1-3 minutes duration, considered an adequate sampling time since the dominant sound sources (i.e., the operating SunCatchers) were generally considered continuous sources of noise based on perception and URS understanding that the SunCatcher's Stirling engine runs at a steady 1,800 revolutions per minute (rpm).

Measurement and predictive model locations that are referenced in Table ES-1 appear as numbered callouts in Figure 1, which depicts a simplified Maricopa Solar site plan and its major features. Representative photographs of these measurement locations appear in Appendix A, attached to this technical memo. Not shown are the following features and sources of non-project ambient noise that adjoin the site:

- 75th Avenue, which is located immediately to the West and exhibited intermittent flows of traffic, including a mixture of vehicle types (passenger cars, motorcycles, tractor-trailer trucks, etc.). Traffic noise was only audible at measurement positions #6, 11, and 12.
- The Agua Fria Generating Station Substation, located to the South. While the Generating Station and its turbines (southerly adjacent to the Substation) appeared to be offline, the transformers of the Substation sounded audible at the Maricopa Solar southern fenceline. Substation transformer noise was only audible at measurement positions #11, and 12.
- An open, grass-covered field to the East of the Maricopa Solar site.
- An unpaved road immediately to the North, beyond which is a light industry facility that did not appear to have any activity. The unpaved road exhibited some passenger car traffic. An elevated portion of Route 60 was visible from the site, and traffic noise was occasionally audible at measurement positions #14, 15, 18, 19 and 20.
- Power transmission lines, traversing roughly east-to-west over the northern project area, did not appear to exhibit audible noise.

During the survey, with few exceptions, all sixty SunCatchers appeared to be operating at what URS understood was full capacity, associated with 900 Direct Normal Insolation (DNI) or better. One or two individual SunCatchers were observed to move into an "offset" position and temporarily discontinue Stirling engine operation. Any sound associated with such witnessed SunCatcher dish re-positioning was perceptibly inaudible from the indicated measurement positions. On one occasion, a single SunCatcher exhibited a momentary hissing noise that was audible over the ambient sound of the other operating SunCatchers and was later explained by Maricopa Solar crews as a "blow-off" event not associated with normal system operation. The sound of this hissing noise is not contained in the presented results of Table ES-1.

Other sources of intermittent audible noise noted during the survey were occasional aircraft overflights and birdcalls (e.g., from birds visibly resting on the framing of a SunCatcher dish, or from the direction of the Agua Fria Substation).

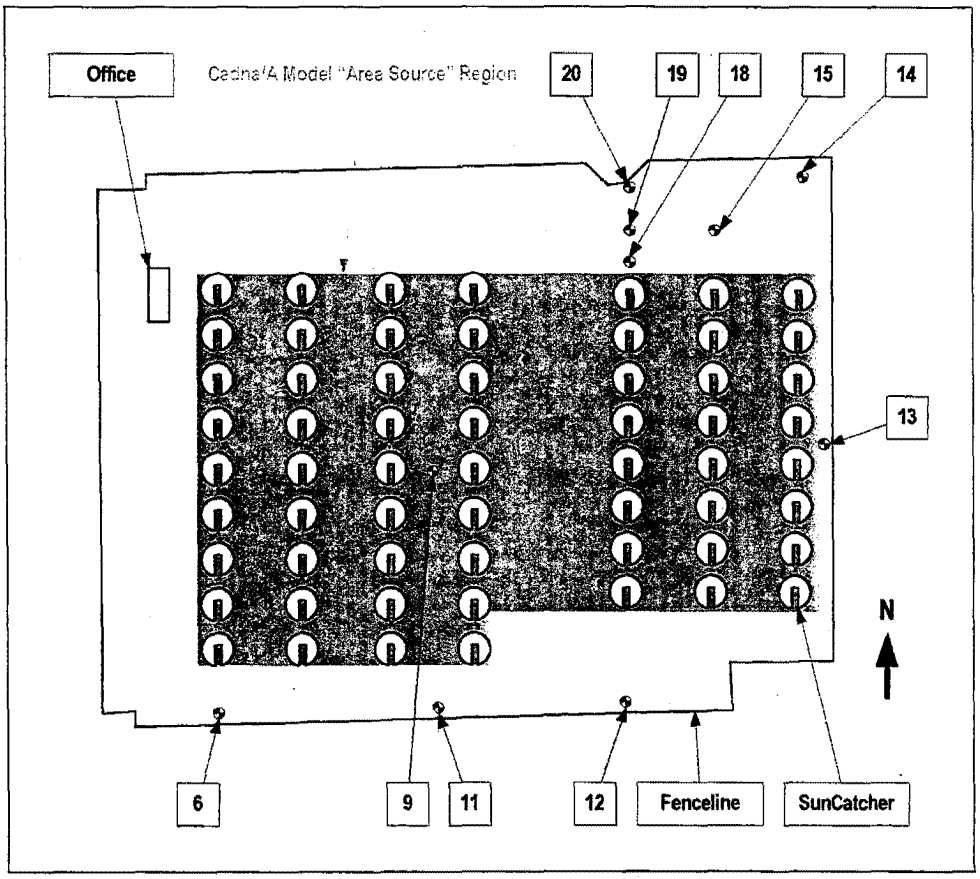


Figure 1. Measurement/model positions on Maricopa Solar siteplan (NTS)

ANALYSIS

Due to the observed presence of non-project ambient noise sources, and because the Cadna/A model of Maricopa Solar only considers the operating SunCatcher noise, the A-weighted L_{90} values from the measurements are compared to the model prediction results. Unlike L_{eq}, which is the equal-energy sound level value for all sound sources detected by the instrument microphone, the L_{90} is a statistical descriptor of the sound level value exceeded ninety percent (90%) of the measurement period. This means sound from an essentially continuous source of noise like the aggregate field of SunCatchers will be included, but the impulsive or intermittent sounds of passing road traffic or birdcalls will not. Since the difference in measured L_{eq} and L_{90} at the locations shown in Table ES-1 is not greater than 1.5 dBA, with the average difference for all ten locations equal to 1 dBA, usage of L_{90} as the comparison value seems appropriate.

Table ES-1 presents the differences between the predicted aggregate SunCatcher sound and the A-weighted L_{90} values from the measurements at ten positions within the site as shown in Figure 1. The differences are within a range of +/-3 dBA, with several within +/- 1 dBA, suggesting that the Cadna/A model is valid and, in turn, contains input PWL parameters that accurately characterize operating SunCatcher sound.

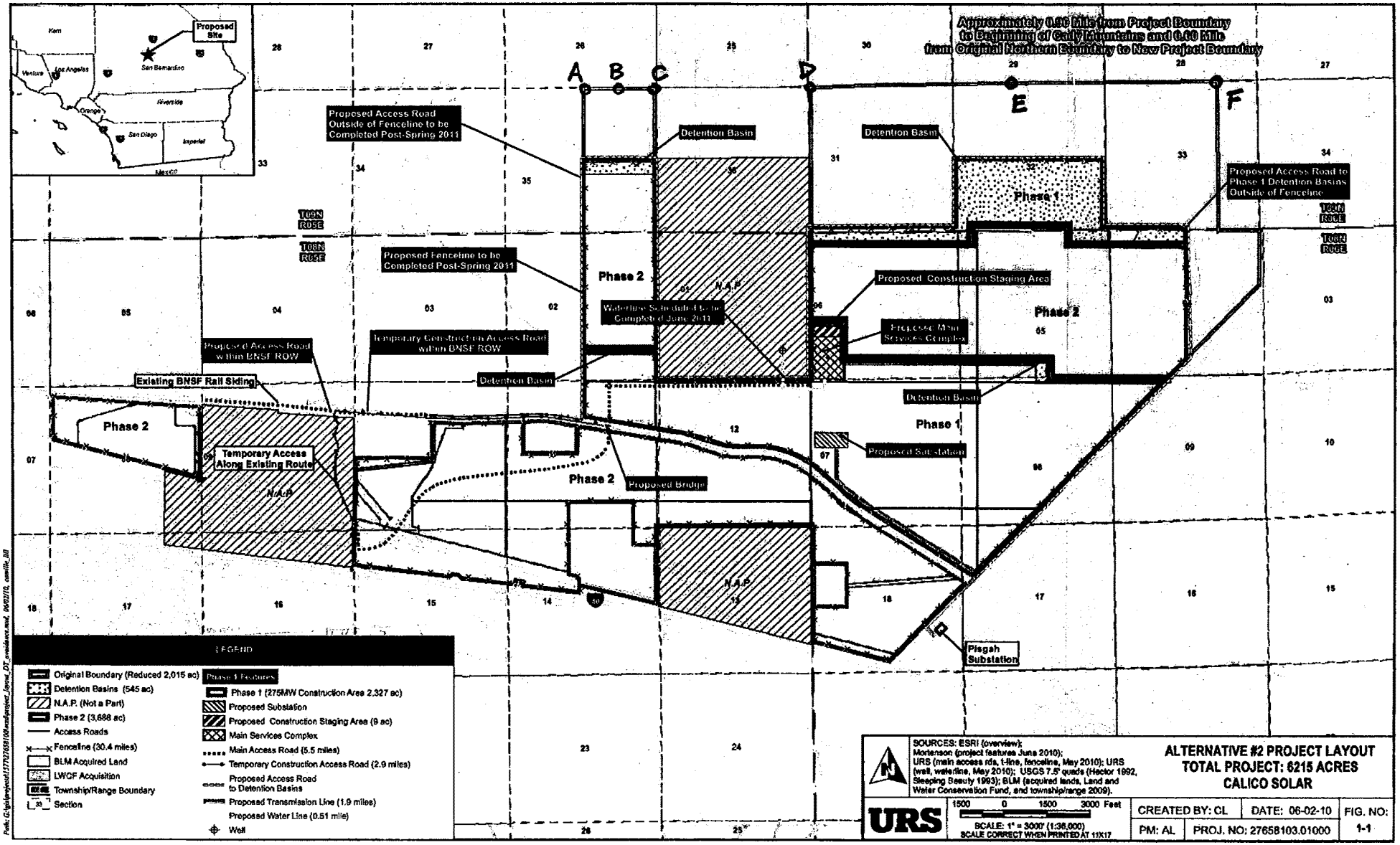
The presented positive and negative differences between the prediction and measurement data in Table ES-1 should not be interpreted as a reason to change the model input PWL parameters. These differences are expected for one or more reasons including as follows:

- Measurement tolerance of the sound level meter. Per International Organization of Standards (ISO) 3714, the standard deviation for acoustical measurements at OBCF ranging between 500 Hz and 4000 Hz is +/- 1.5 dB.
- Position of measurement location with respect to SunCatcher dish orientation. The northern measurement locations have L_{90} values that generally tend to be lower than predictions, suggesting that the SunCatcher dishes may be providing some degree of intervening barrier-type noise reduction (i.e., the dish for the nearest SunCatcher is between the Stirling engine and the sound measurement position). Correspondingly, and because one might say that the engines are more exposed, the southern measurement locations show L_{90} levels that are slightly higher than predictions. These effects, however, are estimated to be minor since the measurement positions are exposed to multiple engines by direct sound pathways that are not visibly or acoustically occluded.
- Differences between actual and modeled meteorological conditions.

A subsequent field survey could measure and collect data that might produce difference values either very similar to those shown in Table ES-1, or different but likely displaying the same variance range of +/- 3 dBA between prediction and L_{90} level.

LIMITATIONS

The opinions, findings and recommendations presented herein are based in part upon field measurements and observations of what are believed to be typical and representative conditions of current Maricopa Solar operations. The sound measurements and analyses were conducted using the professional standard of care as practiced in the industry and are representative of the activity being measured as influenced by environmental conditions existing during the measurement period. Because of the variability of factors not within the control of the investigators, no warranty can be made that the exact sound or activity levels would be obtained by subsequent field measurements. However, for similar climatic and seasonal conditions, intensity of surrounding community activity, and similar facility operations, the sound levels measured would be very similar to those reported herein.


Approximately 0.60 Mile from Project Boundary to Beginning of Cady Mountains and 0.60 Mile from Original Northern Boundary to New Project Boundary
Proposed Site
Kern
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Imperial
Mexico
A
B
C
D
E
F
Proposed Access Road Outside of Fenceline to be Completed Post-Spring 2011
Detention Basin
Detention Basin
Proposed Access Road to Phase 1 Detention Basins Outside of Fenceline
Phase 1
T08N R05E
T08N R06E
Proposed Fenceline to be Completed Post-Spring 2011
Phase 2
N.A.P.
Waterline Scheduled to be Completed June 2011
Proposed Construction Staging Area
Proposed Main Services Complex
Phase 2
Proposed Access Road within BNSF ROW
Temporary Construction Access Road within BNSF ROW
Existing BNSF Rail Siding
Detention Basin
Detention Basin
Phase 2
Temporary Access Along Existing Route
N.A.P.
Phase 1
Proposed Substation
Phase 2
Proposed Bridge
N.A.P.
Pisgah Substation
LEGEND
Original Boundary (Reduced 2,015 ac)
Detention Basins (545 ac)
N.A.P. (Not a Part)
Phase 2 (3,688 ac)
Access Roads
Fenceline (30.4 miles)
BLM Acquired Land
LWCF Acquisition
Township/Range Boundary
Section
Phase 1 Features
Phase 1 (275MW Construction Area 2,327 ac)
Proposed Substation
Proposed Construction Staging Area (9 ac)
Main Services Complex
Main Access Road (5.5 miles)
Temporary Construction Access Road (2.9 miles)
Proposed Access Road to Detention Basins
Proposed Transmission Line (1.9 miles)
Proposed Water Line (0.51 mile)
Well
SOURCES: ESRI (overview); Mortenson (project features June 2010); URS (main access rds, t-line, fenceline, May 2010); URS (well, waterline, May 2010); USGS 7.5' quads (Hector 1992, Sleeping Beauty 1993); BLM (acquired lands, Land and Water Conservation Fund, and township/range 2009).
1500 0 1500 3000 Feet
SCALE: 1" = 3000' (1:36,000)
SCALE CORRECT WHEN PRINTED AT 11X17
URS
ALTERNATIVE #2 PROJECT LAYOUT
TOTAL PROJECT: 6215 ACRES
CALICO SOLAR
CREATED BY: CL
DATE: 06-02-10
FIG. NO: 1-1
PM: AL
PROJ. NO: 27658103.01000

Original Boundary Location	Distance North of Original Northern Boundary (feet)	(meters)	Est. Operation Noise (dBA) Original Boundary Model	Alt. #2 Boundary Model	Delta (dBA)
A			66	53	13
B			69	56	13
C	0	0	66	55	11
D			66	55	11
E			70	58	12
F			66	47	18
A			62	54	8
B			64	55	8
C	250	77	62	55	6
D			61	55	6
E			64	58	7
F			61	49	12
A			60	53	6
B			61	51	10
C	500	154	60	55	5
D			60	54	6
E			63	57	6
F			59	50	9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A			61	59	2
B			61	59	2
C	2000	616	61	58	3
D			61	59	2
E			61	58	3
F			61	58	3

"Morrison, Dennis
W CTR US USA
FORSCOM" To
<dennis.w.morriso <Jim_Stobaugh@blm.gov>
n@us.army.mil> cc
08/06/2010 09:09 Subject
AM Calico Solar (UNCLASSIFIED)
Classification: UNCLASSIFIED
Caveats: FOUO

8,230-acres of public land? 34,000, 25-kilowatt (kW) Sterling solar dish systems? This kind of game playing needs to end. The corporation is attracted by free land and Stimulus law to underwrite their project so even if they go bankrupt, we, the American taxpayers will get stuck with the bill. We provide the public land, we underwrite the project, we take the risk, we pay the higher rates, we pay for the new power lines, we live with the eyesore and health issues, and we eat the cost of lower property values. They get the profits and politicians get to point to all the new temporary construction jobs they created. Just exactly what does the BLM get???

Dennis Morrison
Mojave Desert Resident/Public Land User
Classification: UNCLASSIFIED
Caveats: FOUO

From: Andy Pavlovic
To: richard_rotte@blm.gov
Sent: Saturday, September 04, 2010 8:58 AM
Subject: Calico solar project

Did anyone bother to think that global warming will probably kill the turtles anyways. Maybe the stirling dish would give them some some shade and also help in the gloabal warming process. Of course we want renewable enrgy, but its always not in our backyard. I was an evironmentalist, but have sinse change my mind, because of decisions like this. Its a real shame.
Sincerely
Andy Pavlovic

Defenders of Wildlife
Natural Resources Defense Council
Center for Biological Diversity
The Wilderness Society

September 3, 2010

(Via email: Jim_Stobaugh@blm.gov)
Jim Stobaugh, National Project Manager
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520

Re: Comments on Proposed Amendment to the California Desert Conservation Area Plan and Final Environmental Impact Statement for the Calico Solar Project

Dear Mr. Stobaugh:

By this letter the **Defenders of Wildlife** ("Defenders"), **Natural Resources Defense Council** ("NRDC"), **Center for Biological Diversity** ("CBD") and **The Wilderness Society** ("TWS") submit comments on the Proposed California Desert Conservation Area ("CDCA") Plan Amendment and the Final Environmental Impact Statement ("FEIS") for the proposed Calico Solar Project (FEIS 10-07) issued by the Barstow Field Office in August 2010. Our organizations have concurrently submitted a formal protest on this proposed CDCA Plan amendment and proposed project.

Defenders is a national environmental organization with 950,000 members and supporters in the U.S., 145,000 of whom reside in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, Defenders employs science, public education and participation, media, legislative advocacy, litigation and proactive on-the-ground solutions in order to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction. Defenders has actively participated in the planning process for this proposed project. Approval of a CDCA Plan amendment permitting this project to go forward will affect the interests of Defenders and its members because it will result in adverse impacts to species, and associated habitats, that have been listed as threatened under the Endangered Species Act, and designated special status species by the BLM; will result in unnecessary and undue destruction of public lands and biological resources; and contribute to the degradation of environmental quality in the CDCA.

NRDC is a non-profit environmental organization with 1.3 million members and online activists, more than 250,000 of whom live in California. NRDC uses law, science and the support of its members and activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC, like the other protesting organizations, has long worked to protect wildlands and natural values on public lands managed by the BLM, including the CDCA. NRDC's interests relate to ensuring that the BLM in its decision-making process complies fully with all applicable laws, including the National Environmental Policy act ("NEPA"), 42 U.S.C. § 4321 *et seq.*, and the Federal Land Policy and Management Act ("FLPMA"), 43 U.S.C. § 1701 *et seq.*, and applicable policies, as well as that the agency avoids and minimizes negative impacts to publicly-owned lands and resources in

the CDCA that would be affected by the proposed project, including in particular the federally threatened Desert Tortoise and its habitat.

CBD is a non-profit environmental organization with more than 255,000 members and online activists, including many members who live and recreate in California. The Center uses science, policy and law to advocate for the conservation and recovery of species on the brink of extinction and the habitats they need to survive. The Center has and continues to actively advocate for increased protections for species and habitats in the California deserts on lands managed by the BLM within the CDCA including the desert tortoise, bighorn sheep, and rare plants, which will be affected by the proposed project. The Center has worked to ensure robust conservation in the CDCA for over a decade and the Center's board, staff, and members use the lands and waters within the CDCA planning area, including the lands and waters that would be affected by the proposed Project, for quiet recreation (including hiking and camping), scientific research, aesthetic pursuits, and spiritual renewal. The Center has also been actively involved in efforts to limit greenhouse gas emissions and supports the development of renewable energy including solar power as a critical component of those efforts. However, like any project, siting of proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. As the Center has stressed throughout this process, renewable energy projects should avoid impacts to sensitive species and habitat, and should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable. Appropriate siting of renewable energy projects is of critical importance to the survival and recovery of imperiled species in the California deserts. The Center submitted comments on the Calico Draft Environmental Impact Statement ("DEIS") on July 1, 2010 and provided a CD with references to the BLM. Those comments are incorporated herein by reference as well.

The mission of **TWS** is to protect wilderness and inspire Americans to care for our wild places. TWS has worked for more than 70 years to maintain the integrity of America's wilderness and public lands and to ensure that land management practices are sustainable and based on sound science to ensure that the ecological integrity of the land is maintained. With more than half a million members and supporters nationwide, TWS represents a diverse range of citizens. TWS has actively participated in the planning process for this proposed project. TWS' interest in protecting the public's lands and resources from unnecessary and undue harm will be adversely affected by approving the proposed amendment as will its interest in ensuring that BLM complies fully with applicable laws, policies and regulations.

Our respective organizations strongly support the development of renewable energy to reduce greenhouse gas emissions, avoid the worst consequences of global warming and assist California in meeting its emission reduction goals. However, we believe that renewable energy development must be done right and in full compliance with applicable environmental laws. Our comments concern 1) the FEIS and Proposed Amendment to the CDCA Plan in general, 2) the purpose and need, alternatives and environmental effects, and 3) compliance with NEPA and FLPMA, and 4) compliance with BLM policies. Overall, we are concerned that BLM has failed to adequately fulfill its planning and management responsibilities for the affected public lands and their associated biological resources and values, as described in detail in our comments on the DEIS submitted by our organizations.

Our specific comments on the FEIS are as follows:

I. The Proposed CDCA Plan Amendment and FEIS Do Not Comply with NEPA

The Proposed CDCA Plan Amendment and FEIS do not comply with numerous clear requirements of NEPA, including the following:

A. The purpose and need statement is too narrow. BLM considers the purpose and need as responding to the applicant's right of way application under Title V of the FLPMA. (FEIS at 1-5). It is focused on meeting the objective of the applicant (FEIS at 1-4) and on amending the CDCA for this project only, thus essentially foreclosing serious consideration of meaningful alternatives during the formulation of the final decision. *See* National Parks Conservation Assn. v. BLM, 586 F.3rd 735 (9th Cir. 2009). The Parties commented on the DEIS in this regard, strongly advocating that BLM comply with NEPA by analyzing a range of alternatives that would contribute to achieving the national and state goals for generation and distribution of electrical energy from renewable sources. In preparing the FEIS, BLM considered a relatively large number of alternatives (i.e., 25) but prematurely dismissed all but three for further analysis. (FEIS at Ch.2)

The dismissal of private land alternatives is contrary to the requirements of NEPA, yet BLM has systematically dismissed all private land alternatives for all the "fast-track" renewable energy projects proposed in the CDCA, and failed to carry any of them forward for analysis on the ground that it has no jurisdictional authority. BLM's dismissal of private land alternatives is also based on the conclusion that they would be contrary to BLM's perceived purpose and need for the proposed project, which is to respond to the application for a right of way under Title V of FLPMA. Based on BLM's rationale for dismissing private land alternatives from analysis under NEPA, it is reasonable to conclude that private land alternatives will never be carried forward to analysis under NEPA for any project. This is clearly a violation of NEPA.

B. In its search for and consideration of potential alternative locations for the proposed project, BLM appeared to take an overly narrow approach by searching for sufficient land in essentially one contiguous block that could accommodate the size of the project proposed by the applicant. This approach is perplexing because the Stirling dish-engine technology proposed for the Calico project is highly modular, unlike other solar-thermal technologies that rely on large-scale integrated arrays of mirrors, heat transfer devices and powerplants. Thus, the Stirling dish-engine technology is suited for smaller, isolated or fragmented parcels of land rather than large continuous blocks that would be sufficient for the entire project. Furthermore, BLM's purpose and need rationale referred to the needs of the applicant in meeting their obligations under a power purchase agreement with the local utility company, a contractual matter not involving BLM or its management responsibilities under FLPMA.

C. A significant component of the proposed project, the Desert Tortoise Translocation Plan, was not revealed to the public until publication of the FEIS. This translocation plan proposes the capture, manipulation, release and monitoring of well over 100 Desert Tortoises on public lands. Furthermore, the proposed release and monitoring sites are located in the Ord-Rodman and Pisgah Areas of Critical Environmental Concern. Desert Tortoise translocation is considered by the U.S. Fish and Wildlife Service an experimental procedure intended to minimize "take" of this threatened species. However, due to recently documented high rates of mortality due to increased predation of Desert Tortoises

affected by translocation, its value even as a take-minimization strategy is questionable. Translocation, by definition, is not an impact mitigation measure.

At the time the DEIS was published the applicant and regulatory agencies has not developed a Desert Tortoise translocation plan for animals that would need to be moved from the project construction area. A Draft Desert Tortoise Translocation Plan first appeared in the FEIS, although, oddly, the project applicant provided a copy to the parties involved in the California Energy Commission formal hearings on the project on August 5, 2010. The Desert Tortoise translocation plan includes significant new information about how and where Desert Tortoises will be captured and relocated off of the project development area, procedures proposed to provide for humane treatment of captured and released animals, and public lands that will be used as receiving sites for the displaced individuals. Due to the very large number of individuals expected to require capture and release off the project development area, distant public lands within the Ord-Rodman Critical Habitat are proposed to be used as Desert Tortoise release and monitoring sites. The FEIS does not adequately address the issue of mortality to both resident and translocated Desert Tortoises, and the impacts to public land habitat or this species associated with anticipated mortality due to predation by Coyotes and Common Ravens. The issue of increased mortality has been the subject of extended study and debate, especially after unanticipated high mortality was documented at nearby Fort Irwin, also located in the western Mojave Desert. The Fort Irwin desert tortoise translocation project was halted by the Army because they were required to reinitiate Section 7 consultation with the U.S. Fish and Wildlife Service.

Mortality of translocated Desert Tortoises was discussed at length at the California Energy Commission continuation hearing on the proposed Calico Solar Project held on August 25, 2010. At that hearing, Dr. Kristin Berry of the U.S. Geological Survey reported that to date, 49% of the 158 Desert Tortoises involved in the Fort Irwin translocation project have died due to predation largely by Coyotes and Ravens. The FEIS for the proposed project identifies that mortality associated with Desert Tortoise translocation in general is a concern, but does not include any analysis of such mortality from any translocation projects and monitoring reports, including those associated with the Fort Irwin translocation. Dr. Berry, considered among the most qualified scientists involved with Desert Tortoise biology, ecology and translocation, should be a key participant in discussions on Desert Tortoise translocation ecology by the regulatory agencies. Lastly, the Independent Science Advisors to the Desert Renewable Energy Conservation Plan (DRECP) recently issued their draft recommendations for the DRECP in August 2010, and they stated "…the advisors do ***not*** recommend translocation of desert tortoise as effective mitigation or conservation action, in part because translocated tortoises suffer high mortality rates."

Assessment of conditions of the Desert Tortoise translocation sites proposed by the project applicant and contained in the Draft Desert Tortoise Translocation Plan in the FEIS has not been completed to the standards established in BLM Manual 1745 regarding ecological condition, and disease occurrence among the translocation sites "host population" of Desert Tortoises has not been established.

The use of public lands for Desert Tortoise translocation associated with the proposed Calico project is a significant action warranting involvement by the public under the provisions of NEPA, which to date has not occurred. The draft translocation plan should be included in a supplemental DEIS and released to the public for review and comment for a minimum of 45 days, and a supplemental FEIS containing a

proposed translocation plan should be released for an additional 30 days to allow for public review, comment and protest before a decision on the proposed project is made.

D. Over the period of time during which the DEIS and FEIS were being prepared and released for public review, the applicant in conjunction with the BLM, U.S. Fish and Wildlife Service and California Energy Commission, obtained new information about the Desert Tortoise, its connectivity habitat with designated Critical Habitat Units, and potential movement corridors. Project modifications intended to reduce impacts to these resources were developed after the DEIS and were disclosed in the FEIS along with the proposed plan amendment, allowing for only a 30 day public review and protest. The significant new information should have been disclosed in a supplemental DEIS along with additional time for public review and comment prior to BLM announcing a proposed decision on the proposed project in the FEIS. Such disclosure and public review would have stimulated greater attention to on and off-site alternatives that would have provided opportunities for more meaningful and effective impact avoidance and minimization strategies. This shortcoming in the NEPA process was driven by the arbitrary date of December 31, 2010 for a final project decision tied to eligibility for obtaining American Recovery and Reinvestment Act funding through the U.S. Department of Energy.

II. The Proposed CDCA Plan Amendment and FEIS Do Not Comply with FLPMA and the CDCA Plan, as amended

The Proposed CDCA Plan Amendment and FEIS do not comply with FLPMA's clear mandates, including 43 U.S.C. §§ 1701(a)(8), 1732(b), 1781(b), in numerous respects, including the following:

A. The proposed CDCA Plan amendment and project have not been analyzed in the context of the CDCA and the CDCA Plan. Although specific management principles and guidelines are contained in the CDCA Plan, they have not been applied to either the proposed amendment or project. Nor have landscape level issues and management objectives been considered in evaluating these proposals or in selecting meaningful alternatives to them. Specifically, the analysis of proposed plan amendment and project have not been adequately analyzed in the context of FLPMA's mandate for the CDCA: "…to provide for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality. FLPMA Sec. 601(b).

B. BLM failed to conduct an adequate inventory of the resources of the affected lands prior to preparing the DEIS and FEIS as required by 43 U.S.C. § 1711(a), as the result of which it cannot ensure that its decisions will prevent unnecessary and undue degradation of
the public's lands in violation of *id.* §§ 1732(b), 1732(d)(2)(a).

The biological resources that would be affected by the proposed project and their significance weren't appreciated until applicant-supported surveys were conducted and corresponding reports issued. The high-density Desert Tortoise population in the proposed project area and its strategic location at the crossroads of two Desert Tortoise Recovery Areas is particularly relevant to the issue of consistency with FLPMA mandates for the CDCA. An adequate description and analysis of the Desert Tortoise and its habitat on the proposed project site was not fully disclosed until the FEIS was published.

C. The proposed action conflicts with the CDCA Plan Wildlife goals (CDCA Plan at 28): "Develop and implement detailed plans to provide special management for: a) areas which contain rare or unique habitat, b) areas with habitat which is sensitive to conflicting uses, c) areas with habitat which is especially rich in wildlife abundance or diversity, and (d) areas which are good representatives of common habitat types. Many areas falling into these categories contain listed species, which may become the focus of management as indicator species."

Clearly, the habitat that would be affected by the proposed project is sensitive to the proposed action as demonstrated in the DEIS and FEIS. The project site north of the railroad contains high quality habitat for the Desert Tortoise as evidenced by its relatively high density population. Overall, the project site contains habitat that supports BLM Sensitive Species, including the Mojave Fringe-toed Lizard, Burrowing Owl and White-margined Beardtongue.

D. The proposed action conflicts with the CDCA Plan for conservation of the White-margined Beardtongue, a BLM Sensitive Species. The Record of Decision for the West Mojave Plan Amendments to the CDCA Plan, dated March 13, 2006, approved Alternative B which states "This alternative consists of those elements of Alternative A that are applicable to, and that could be implemented on, BLM-administered public lands. It is applicable to public lands only. This ROD approves Alternative B.

The elements of Alternative A pertaining to conservation of the White-margined Beardtongue that are applicable to and that could be implemented on public lands include a 50 acre loss or "take" of occupied and suitable habitat for this species. This provision is in addition to establishment of the Pisgah Area of Critical Environmental Concern located adjacent to the proposed project site. (Final Environmental Impact Report and Statement for the West Mojave Plan, January 2005).

Under Alternative A, authorized "take" of the White-margined Beardtongue include: 1) Maintenance of existing facilities within the BLM utility corridor and on private land within the range of the species, and 2) Limit of 50 acres of occupied and potential habitat. Habitat conserved for this species includes 1) All known occurrences in washes south of the Cady Mountains, and 2) Known occurrences within the proposed Pisgah Crater Area of Critical Environmental Concern. Since the West Mojave Record of Decision stated that elements of Alternative A that were applicable to and could be implemented on public lands, the 50 acre habitat loss threshold applies under Alternative B.

BLM described Alternative B in the Final Environmental Impact Report and Statement for the West Mojave Plan, as follows: "All aspects of this alternative's conservation strategy would be as described for Alternative A, except as specifically noted below (see foldout Map 2-15). These include Alternative A's motorized vehicle access network, livestock grazing and education programs, and all proposed CDCA Plan Amendments. Multiple use class changes proposed by Alternative A would apply to this alternative except for the following: 1) Two parcels of BLM land within the North Edwards Conservation Area would not be removed from the LTA disposal zone and reclassified from U to M and 2) Several scattered parcels of BLM land in the San Gabriel Mountains foothills and within the Los Angeles County SEAs (Table 2-4) would not be removed from the LTA disposal zone and reclassified from U to M." Clearly, the proposed project is inconsistent with BLM conservation commitments for this species.

III. The Proposed CDCA Plan Amendment and FEIS Do Not Comply with BLM Policy contained in Instruction Memorandum No. 2010-156 (7/13/2010) regarding Golden Eagle protection

A. Impacts to the BLM Sensitive Golden Eagle through loss of a foraging habitat is recognized and analyzed in the FEIS, but potential impacts to this species from collision with project facilities and mortality caused by concentrated reflected sunlight between the mirror fields, transmission lines and towers have not been adequately studied. Rather, the FEIS states that monitoring for such impacts would be required and that additional, but unspecified, mitigation may be required through adaptive management provisions contained in the Avian Protection Plan, which would be submitted to the agencies for review, necessary modification and approval within 30 days of project approval. Due to the sheer size of the proposed project, proximity to known Golden Eagle nesting territories in the adjacent Cady Mountains, and known foraging habitat on the proposed project site, it is inappropriate to defer additional impact analysis and mitigation to a future date after construction has commenced.

B. Requirements for achieving "no net loss" standard of the U.S. Fish and Wildlife Service for the Golden Eagle, including its foraging habitat, would be completed by the applicant within six months after project approval in the form of an Avian Protection Plan that must be approved by the U.S. Fish and Wildlife Service. There is no documentation in the FEIS that the Avian Protection Plan could reasonably achieve the "no net loss standard" established by the U.S. Fish and Wildlife Service for Golden Eagles.

BLM Instruction Memorandum 2010-156 states: "If in correspondence the FWS indicates that an APP is not sufficient to avoid or minimize likely take resulting from the proposed project (i.e., an APP is not an option), the BLM authorized officer will not issue a Record of Decision or Decision Record approving the project. If the applicant wishes to proceed, the applicant must then identify an alternative project design to reduce the likely take to a level that is compatible with the preservation of eagles, and receive FWS concurrence for the revised APP. If, after coordination with the FWS, an APP is deemed appropriate and needed to sufficiently avoid and minimize take by the proposed project, the BLM authorized officer may issue a Record of Decision or Decision Record approving the project; however, the BLM authorized officer will not issue a Notice to Proceed until the FWS letter of concurrence for the APP is received for the project."

There is no indication or documentation in the FEIS that the U.S. Fish and Wildlife Service has confirmed that an APP could potentially fully mitigate the impacts anticipated to occur due to the proposed project, including the loss of several thousand acres of foraging habitat adjacent to known nesting territories.

IV. The Proposed CDCA Plan Amendment and FEIS do not conform with the requirements contained in BLM Manual 1745: Introduction, Transplant, Augmentation and Reestablishment of Fish, Wildlife and Plants

The Proposed CDCA Plan Amendment and FEIS do not conform to BLM Manual 1745: Introduction, Transplant, Augmentation and Reestablishment of Fish, Wildlife and Plants, for the following reasons:

A. All proposed introductions, transplants, reestablishments, or augmentation/restocking shall be in conformance with management direction and decisions in an applicable Resource Management Plan

(RMP) (see BLM Manual Sections 1601 and 1622). A site-specific activity plan must be prepared, using an interdisciplinary planning process, for all proposed introductions, transplants, and reestablishments, unless waived by the State Director.

B. NEPA compliance is required before introductions, transplants and reestablishments can be approved.

C. Quarantine procedures must comply with all Federal and State regulations, restrictions, and requirements governing the release of disease free organisms and the importation of exotic plants and animals into the U.S.

D. Interested and affected State and Federal agencies, private landowners, and other individuals and organizations must be notified through identified processes of possible introductions, transplants, and reestablishments during the planning and NEPA review processes.

E. Public participation is required. Parties potentially affected by introductions transplants, or reestablishments, must be given the opportunity to be involved in the public participation process outlined in BLM Manual Section 1614. Potentially affected parties
include adjacent State, Federal, and private landowners, other interested groups, and individuals.

F. A site-specific activity plan is required prior to the introduction, transplant, and reestablishment of plants or animals on public lands, unless waived by the state Director. The activity plan must include:

1) Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important factors. (See BLM Manual Sections 1619, 6780, and 4120).

2) Planned actions to accomplish the stated objectives.

3) Appropriate monitoring and evaluation.

4 Coordination with other management plans and programs.

The Desert Tortoise Recovery Plan (Fish and Wildlife Service 1994) contains guidelines for the translocation of Desert Tortoises which include the following: 1) Experimental translocations should be done outside experimental management zones. No desert tortoises should be introduced into DWMAs – at least until relocation is much better understood, and 2) Areas into which desert tortoises are to be relocated should be surrounded by a desert tortoise-proof fence or similar barrier. The fence will contain the desert tortoises while they are establishing home ranges and a social structure. If the area is not fenced, past experience suggests that most animals will simply wander away from the introduction site and eventually die.

Meaningful public participation mandated by Manual 1745 policy has not occurred and cannot be fulfilled until a complete and accurate draft Desert Tortoise translocation plan has been prepared and released for public review and comment. A final translocation plan could be developed after the

required public participation has occurred. Such participation must include specific organizations or groups having expertise in Desert Tortoise biology, ecology and the Independent Science Advisors to the DRECP.

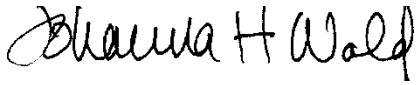
CONCLUSION

For the reasons set out above, the Proposed CDCA Plan Amendment and FEIS for the proposed Calico Solar Project violates NEPA, FLPMA and BLM policies. BLM must therefore prepare a new or amended FEIS that fully addresses and appropriately avoids, minimizes and compensates for the impacts to the species and their habitats noted above.

We hope our comments guide BLM in a manner that ultimately resolves the deficiencies for this proposed project, and in a manner that is fully consistent with the mandates for management of the public lands in the CDCA and in conformance with BLM policies. Please contact us individually or as a group if you have questions about the issues identified in this letter.

Sincerely,

Kim Delfino
California Program Director
Defenders of Wildlife
1303 J Street, Suite 270
Sacramento, CA 95814



Johanna Wald
Senior Attorney
Natural Resources Defense Council
111 Sutter Street
San Francisco, CA 94104

Lisa T. Belenky, Senior Attorney
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA94104

Alice Bond
The Wilderness Society
California/Nevada Office
655 Montgomery Street, Suite 1000
San Francisco, CA 94111

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

SEP 0 7 2010

Roxie Trost, Field Manager
Barstow Field Office, Bureau of Land Management
2601 Barstow Road
Barstow, CA 92311

Subject: Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Plan for the Calico Solar Project, San Bernardino County, California [CEQ #20100303]

Dear Ms. Trost:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the Calico Solar Project. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act (CAA).

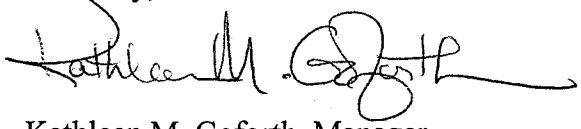
EPA reviewed the Joint Draft Environmental Impact Statement (DEIS) and Staff Assessment and provided comments to the California Energy Commission (CEC) and the Bureau of Land Management (BLM) on July 6, 2010. We rated the DEIS as *Environmental Concerns–Insufficient Information* (EC-2), primarily due to concerns over potential impacts to air quality and biological resources, and requested disclosure of measures to avoid or mitigate impacts. We asked for additional information on cumulative air impacts from future actions, justification for the Project purpose and need, and evaluation of alternatives, including further evaluation of Alternative Site Layout #2. EPA's comments on the DEIS were not included in the Response to Comments. Although some of our concerns were resolved in the FEIS, we request that our comments on the DEIS be considered along with the enclosed comments on the FEIS.

We note that the preferred agency alternative (also the environmentally preferred alternative) identified in the FEIS includes project modifications that have reduced the proposed project's total acreage by approximately 2,000 acres. The northern boundary of the project footprint has been redesigned to avoid 1,770 acres of habitat for desert tortoise, bighorn sheep, and rare plants, as well as cultural resources. We commend the applicant, State, and federal agencies for working together to develop an alternative that reduces land disturbance by 25 percent. Given the large number of renewable energy project applications in the Desert Southwest that are pending approval by BLM, EPA continues to encourage BLM to apply its land management authorities in a manner that will promote a long-term sustainable balance between available energy supplies, energy demand, and protection of ecosystems and human health.

EPA continues to have concerns about impacts to air resources and biological resources, including desert tortoise. In addition, we are concerned about the proposed placement of SunCatchers in drainage channels. Our primary concerns and recommendations are attached. We recommend that BLM address these issues prior to making a final decision on the proposed Project and that additional information be included in the Response to Comments.

We are available to discuss all recommendations provided. Please send one hard copy and one CD ROM copy of the responses to FEIS comments and the Record of Decision to us when they are filed with our Washington D.C. office. If you have any questions, please contact me at 415- 972-3521, or contact Stephanie Skophammer, the lead reviewer for this project. Stephanie can be reached at 415-972-3098 or skophammer.stephanie@epa.gov.

Sincerely,



Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures: EPA Detailed Comments

Cc: Jim Stobaugh, BLM - Reno
Christopher Meyer, California Energy Commission
Ashley Blackford, U.S. Fish and Wildlife Service – Ventura
Jim Abbott, BLM – Sacramento
Michael Picker, California Governor's Office

U.S. EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE CALICO SOLAR PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA, SEPTEMBER 7, 2010

Air Resources

As the FEIS indicates, the portion of the Mojave Desert Air Basin (MDAB) where the project is located is classified as a moderate non-attainment area for the federal and State ozone and PM10 (particulate matter of 10 microns or less) standards. According to the FEIS (pg. 4-21) the proposed project's predicted total maximum annual emissions of nitrogen oxides (NOx) and PM10 appear to approach their respective General Conformity Rule applicability (or *de mimimis)* thresholds for moderate attainment areas. It is important that the emissions estimates be accurate for this analysis. If the construction emissions of any pollutant would exceed an applicable *de minimis* threshold, a conformity determination would be needed. The emissions estimates that are referenced in the FEIS were calculated in the DEIS; however, we understand, based on information provided at the July 22, 2010 Renewable Energy Policy Group meeting, that the Calico Project may now require diesel powered equipment for at least some period of the Project construction, which was not previously analyzed in the DEIS nor FEIS. EPA strongly recommends that this new information and the direct, indirect, and cumulative impacts associated with the use of diesel be fully analyzed and disclosed in responses to comments on the FEIS and in the ROD.

Recommendation:

- The ROD and responses to FEIS comments should thoroughly evaluate the additional use of diesel powered equipment for Project construction and incorporate appropriate mitigation measures to reduce impacts. (Please see our July 6, 2010 DEIS comment letter for additional construction mitigation recommendations for mobile and stationary sources.) The evaluation in the ROD and responses to comments should include consideration of the feasibility and impacts of avoiding the need for diesel power by altering the construction schedule.
- At a minimum, any additional nonroad, diesel-powered engines should comply with federal requirements, as applicable, for 40 CFR Part 89.
- For those engines that will be sited and operated for 12-months or more, federal applicable requirements should be identified for, at a minimum, air quality permitting, hazardous air pollutants (40 CFR Part 63, Subpart ZZZZ), and new source performance standards (40 CFR Part 60, Subpart IIII).
- The ROD and responses to FEIS comments should discuss and address whether the diesel equipment would require a permit from the Mojave Desert Air Quality Management District.
- The Response to Comments should assess whether the diesel powered equipment that will be used for a period of time during construction of the Calico Project will contribute to an exceedence of the General Conformity *de minimis* thresholds.

Air Resources- Cumulative Impacts Analysis

EPA is concerned that the scope of the cumulative air impacts analysis has been improperly confined, both temporally and geographically. Because there are no projects under construction or that have received permits from the Mojave Desert Air Quality Management District (MDAQMD) or San Bernardino County within six miles of the proposed project, the FEIS concludes that no stationary sources require a cumulative modeling analysis (pg. 4-25). However, a cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and *reasonably foreseeable future actions* regardless of what agency or person undertakes such other actions (40 CFR Part 1508.7). Cumulative impact analyses are important because they describe the threats to resources as a whole, and understanding cumulative impacts can illuminate opportunities for minimizing those threats. The FEIS includes maps depicting reasonably foreseeable future projects in the vicinity of the Calico Solar Project, including two projects that are either adjacent or within a couple of miles and several located within 40 miles. The FEIS states that these projects would only result in cumulative short-term construction emissions (pg. 4-26) but construction for the Calico Solar Project could last at least 42 months and operations would continue for several decades. Regardless of whether other projects in the cumulative effects study area have received permits to date, they appear to be reasonably foreseeable and should be analyzed in the cumulative impacts analysis.

Furthermore, the scope of the cumulative impact analysis in the Final EIS is geographically limited to focus on 'localized' cumulative impacts. Determination of the affected environment should not be based on a predetermined geographic area, but rather on perception of meaningful impacts for each resource at issue. The Draft EIS (p. C.1-43) indicates that, based on CEC staff's modeling experience, beyond six miles there is no statistically significant concentration overlap for non-reactive pollutant concentrations between two stationary emission sources. EPA disagrees that there is never significant overlap for sources separated by six miles. This would depend on the emissions, size of the source, and release height, among other criteria. For example, in our permitting process, we require modeling of the significant impact area plus 50 kilometers out. Due to the serious nature of the PM_{10} and 8-hour ozone conditions in the Mojave Desert Air Basin, the cumulative effects study area could be the entire air basin because ozone precursors are reactive over hundreds of miles. It is also unclear what "significant" means with respect to concentration overlap. While this may be true in CEC's experience for some source types, the FEIS will need to substantiate this in the specific case of the Calico Solar Project emissions.

Recommendation:

The response to comments on the FEIS should provide the rationale for limiting the scope of the cumulative impacts analysis to the specified local area. If the Project would affect the ability of other foreseeable projects to be permitted, the ROD and responses to comments on the FEIS should discuss this.

Biological Resources

Detailed compensatory mitigation measures are determined on a project-specific basis, and must be contained in each project's environmental analyses and decision documents. The ROD should describe the final biological resources mitigation commitments and how they would be funded and implemented. The FEIS specifies that the applicant shall contribute to the National Fish and Wildlife Foundation (NFWF) Account to compensate for the loss of tortoise habitat (pg. 4-168). For each species requiring compensatory mitigation, the ROD should state whether and how the Project applicant would use the NFWF Account, an in-lieu fee strategy, or an applicant-directed implementation strategy. We note that BLM does not propose mitigation for the Mojave fringe-toed lizard (pg. 154, BIO-13), although the FEIS acknowledges that that species has been observed on the Calico project site and the Proposed Action will contribute to a potentially significant cumulative effect on the lizard (pg. 4-102-103).

We understand that the Biological Opinion had not been issued by the U.S. Fish and Wildlife Service (USFWS) at the time of the publication of the FEIS (pg. 4-48). The draft Desert Tortoise Translocation Plan has been published in the FEIS (appendix I) but has not been finalized. When finalized, these documents should play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

Recommendations:

- Incorporate final information on the compensatory mitigation proposals (including quantification of acreages, estimates of species protected, costs to acquire compensatory lands, etc.) for unavoidable impacts to biological resources including desert tortoise, peninsular bighorn sheep, Mojave fringe-toed lizard, and Special-status plants.
- If the applicant is to acquire compensation lands, the location(s) and management plans for these lands should be fully disclosed in the ROD.
- Include the provisions or mechanism(s) in the ROD that will ensure that habitat selected for compensatory mitigation will be protected in perpetuity.
- All mitigation commitments should be included in the ROD.

Aquatic Resources

Numerous ephemeral washes occur throughout the broad, coalescing alluvial fans that convey storm water runoff from the Cady Mountains. Natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. The FEIS indicates that SunCatchers will be placed within existing drainage channels (pg. 4-370). EPA is concerned about the increased erosion, migration of channels, local scour, and potential destabilization and damage that could result from installing equipment in drainages, and we strongly recommend maximum avoidance of these waters and high risk flood hazard zones.

Sediment basins have been proposed to retard the flow of water and trap sediment through the project site. The DEIS indicated that there would be numerous sediment basins

throughout the site, including 4 separate basins constructed on the northern boundary. These are also depicted in the layout of the Proposed Project in the FEIS (Fig. 1-2). The FEIS states that the Agency Preferred Alternative will result in similar hydrological impacts and that the detention basins in the northern boundary would be designed and constructed to perform in the same manner as in the Proposed Action (pg. 4-371). However, Figure 2-6 shows the layout of the Agency Preferred Alternative and indicates one large detention basin instead of 4 smaller ones. The Response to Comments should discuss the effectiveness and hydrological impacts of the modified detention basin location(s) including whether the sediment basins would substantially change the pattern of sediment delivery in ephemeral waters downstream.

Recommendation:

- The ROD and responses to comments on the FEIS should discuss all measures to avoid washes and placement of SunCatchers in drainages.
- The Response to Comments should demonstrate that downstream flows will not be disrupted due to proposed changes to natural washes nor the accumulation of large amounts of sediment that will be trapped in the sediment basins and not permitted to flow through the site.
- Fully discuss, in responses to FEIS comments, how many SunCatchers will be installed in drainages for the final design. Impacts from such construction to waters of the State should be quantified. All analyses should be updated to include a full evaluation of impacts to waters, sedimentation, scouring, etc. from locating SunCatchers in flood hazard areas.

Reconciliation of BLM and CEC Processes

In light of the decision to separate CEC's and BLM's environmental review processes, the responses to FEIS comments should discuss the resolution procedure that will be employed if BLM's FEIS presents a preferred alternative that differs from what CEC approves through its process.

Recommendation:

Clarify, in responses to FEIS comments, how BLM's and CEC's now separated alternative selection processes will be reconciled.

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

August 11, 2010

Erin Dreyfuss
UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
2800 Cottage Way
Sacramento, CA 95825

Re: SCH#2010074007; NEPA/CEQA Notice of Completion; Final Environmental Impact Statement (EIS) for the **"Calico Solar (formerly Sterling Solar One) Project;"** located in the Mojave Desert east of Barstow near the Pisgah Substation of Southern California Edison (SCE) to which it proposes to connect; San Bernardino County, California.

Dear Erin Dreyfuss:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources. (Also see *Environmental Protection Information Center v. Johnson (1985) 170 Cal App. 3rd 604).* The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amendment effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance. The lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. State law also addresses Native American Religious Expression in Public Resources Code §5097.9.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural Resources **were not identified** within one-half mile of the APE identified for the project. However, Native American cultural resources are in close proximity to the APE. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the culturally affiliated tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental planning processes.

Furthermore the NAHC recommends that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 10.

Consultation with tribes and interested Native American tribes and interested Native American individuals, as consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f)]*et se),* 36 CFR Part 800.3, the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq.*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. The 1992 *Secretary of the Interior's Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including *cultural landscapes.* Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e).

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is 'advisory' rather than mandated, the NAHC does request 'lead agencies' to work with tribes and interested Native American individuals as 'consulting parties,' on the list provided by the NAHC in order that cultural resources will be protected. However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15,

requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

Again, Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Culturally Affiliated Native American Contacts

Cc: State Clearinghouse

Native American Contacts
San Bernardino County
August 11, 2010

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 — Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Ron Wermuth
P.O. Box 168 — Tubatulabal
Kernville , CA 93238 — Kawaiisu
warmoose@earthlink.net — Koso
(760) 376-4240 - Home — Yokuts
(916) 717-1176 - Cell

San Manuel Band of Mission Indians
James Ramos, Chairperson
26569 Community Center Drive — Serrano
Highland , CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax

Tehachapi Indian Tribe
Attn: Charlie Cooke
32835 Santiago Road — Kawaiisu
Acton , CA 93510
(661) 733-1812

Chemehuevi Reservation
Charles Wood, Chairperson
P.O. Box 1976 — Chemehuevi
Chemehuevi Valley CA 92363
chair1cit@yahoo.com
(760) 858-4301
(760) 858-5400 Fax

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Fernandeño
Newhall , CA 91322 — Tataviam
tsen2u@hotmail.com — Serrano
(661) 753-9833 Office — Vanyume
(760) 885-0955 Cell — Kitanemuk
(760) 949-1604 Fax

Fort Mojave Indian Tribe
Tim Williams, Chairperson
500 Merriman Ave — Mojave
Needles , CA 92363
(760) 629-4591
(760) 629-5767 Fax

AhaMaKav Cultural Society, Fort Mojave Indian
Linda Otero, Director
P.O. Box 5990 — Mojave
Mohave Valley AZ 86440
lindaotero@fortmojave,
(928) 768-4475
(928) 768-7996 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and fed eral NAGPRA. And 36 CFR Part 800.3.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2010074007; CEQA Notice of Completion; Final Document for the CALICO SOLAR PROJECT, located new Barstow at the Southern California Edison (SCE) Pisgah Substation; San Bernardino County, California.

Native American Contacts
San Bernardino County
August 11, 2010

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
mcontreras@monongo-
(951) 755-5025
(951)201-1866 - cell
(951) 922-0105 Fax

Kern Valley Indian Council
Robert Robinson, Historic Preservtion Officer
P.O. Box 401 Tubatulabal
Weldon , CA 93283 Kawaiisu
brobinson@iwvisp.com Koso
(760) 378-4575 (Home) Yokuts
(760) 549-2131 (Work)

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Departmen
26569 Community Center. Drive Serrano
Highland , CA 92346
abrierty@sanmanuel-nsn.
(909) 864-8933 EXT-3250
(909) 649-1585 - cell
(909) 862-5152 Fax

Fort Mojave Indian Tribe
Esadora Evanston, Environmental Coordinator
500 Merriman Ave Mojave
Needles , CA 92363
region9epa@ftmojave.com
(760) 326-1112
(760) 629-4591
(760) 629-5767 Fax

Fort Mojave Indian Tribe
Nora McDowell, Cultural Resources Coordinator
500 Merriman Ave Mojave
Needles , CA 92363
g.goforth@fortmojave.com
(760) 629-4591
(760) 629-5767 Fax

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.com
(951) 849-4676

Serrano Nation of Indians
Goldie Walker
6588 Valaria Drive Serrano
Highland , CA 92346
(909) 862-9883

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.3.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2010074007; CEQA Notice of Completion; Final Document for the CALICO SOLAR PROJECT, located new Barstow at the Southern California Edison (SCE) Pisgah Substation; San Bernardino County, California.

SIERRA CLUB
FOUNDED 1892

September 7, 2010

Via Electronic and U.S. Mail

Jim Stobaugh
Project Manager
BLM Nevada State Office
P.O. Box 12000
Reno, NV 89520
cacalicospp@blm.gov

RE: Sierra Club Comments on the Proposed Calico Solar Project Final Environmental Impact Statement

On behalf of the Sierra Club, we are writing to provide you with comments on the *Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Calico Solar (formerly SES Solar One) Project* ("FEIS"), which the Bureau of Land Management ("BLM") noticed and distributed on August 6, 2010.[1] The FEIS addressed the righ-of-way ("ROW") grant application submitted by Calico Solar, LLC (the "Applicant") to construct, operate and decommission the Calico Solar Project (the "Project") on the proposed project site. Sierra Club strongly objects to the FEIS and respectfully requests that BLM either reject the ROW application or withdraw the FEIS and issue a supplemental environmental impact statement ("SEIS") prior to issuing a record of decision.

INTRODUCTION

Sierra Club's single most important priority is to help speed the country's transition from an energy economy dependent on cheap fossil fuels to a robust clean energy economy based on renewables. We believe solar energy is the cleanest, most abundant, renewable energy source available, particularly in the West. At the same time, Sierra Club is a long time protector of our public lands. We believe solar projects can and must be sited in an environmentally responsible way in order to protect important desert ecosystems from poorly realized projects. Thus for any utility-scale solar project

[1] Sierra Club submits these comments by email and mail. Due to file size constraints and in accordance with instructions from the project manager Jim Stobaugh, Sierra Club submits Attachments 1-17 to these comments by mail on a CD-ROM for inclusion in the evidentiary record.

to be acceptable in the Mojave desert, they must be sited and configured on our public lands in a manner that fully considers both the requirements of a given project and the existing desert ecosystem. Unfortunately, as shown below, the Calico project has simply been shown to pose far too many unmitigable impacts to justify its construction and operation at this particular site. Therefore, Sierra Club opposes the Calico Project because of its dramatic and unmitigated impacts on a unique and vital area of the Mojave Desert. The Calico Project, though well intentioned, is simply the wrong Project in the wrong location.

The Project, as currently proposed, would devastate over 6,000 acres of vital and irreplaceable habitat in the Mojave Desert. It would result in the deaths of hundreds of threatened desert tortoises, result in the local extinction of the Mojave fringe-toed lizard, destroy an exceedingly rare desert plant, obstruct bighorn sheep movement, risk the survival of local golden eagles and impact burrowing owls, desert kit fox, and American badger. The mere fact that each of these species is even present on the Calico site is astounding. The fact that the Calico site provides an irreplaceable balance for the overall ecosystem of the desert and the long-term survival of these species is treasured. This is a resource that we simply cannot sacrifice.

There has been a frantic push to complete this proceeding in time for the artificial deadline imposed by the availability of funding from the American Recovery and Reinvestment Act ("ARRA"). Likewise, there is a legitimate public and political pressure to increase the nation's renewable generation capacity. These pressures, however, do not absolve the BLM from its legal duties to comply with the National Environmental Policy Act ("NEPA") or any other federal law. More importantly, these pressures do not justify the reckless and irresponsible sacrifice of an irreplaceable resource. Additional funding sources will appear in the future, and the nation's need for renewable electricity will certainly persist, but the impacts to the desert that would result from the Project are permanent. The desert is an exceedingly fragile habitat that cannot recover from the impacts that this Project would create. It is therefore incumbent upon the BLM to fully identify, assess, and mitigate the significant environmental impacts that the Project would create. The FEIS put forth by the BLM failed to achieve that goal. It is a hastily prepared document that did not identify the full range of environmental impacts that would result from the project, nor did it propose mitigation measures that would effectively reduce those impacts. This fast-tracked review of the Calico Project simply did not meet the requirements of NEPA. As a result, the BLM must withdraw the FEIS and reinstitute environmental review of the proposed Project by drafting a supplement environmental impact statement ("EIS").

BACKGROUND

The Sierra Club is a national, non-profit membership organization with over 700,000 members nationwide, and over 200,000 members in California. Sierra Club is steadfastly committed to preserving the legacy of California's wildlands for future generations, while simultaneously recognizing that climate change has the potential to

make radical changes to our habitats and landscapes. Sierra Club is working aggressively to reduce carbon emissions by supporting large scale renewable projects and by quickly ramping up energy efficiency and rooftop solar.

Many Sierra Club members visit and actively use the public lands that would be affected by this Project for recreational and aesthetic purposes such as hiking, nature study, and the study of historic and cultural effects and would be harmed by the direct, indirect and cumulative impacts of the BLM's proposed decision that would allocate over 6,000 acres of public land to a single use, the Calico Solar Project. Sierra Club submitted comments on this project on July 1, 2010. Sierra Club also intervened and actively participated in the CEC proceedings on the application for certification of the Calico Solar Plant.

The Applicant, which is a wholly owned subsidiary of Tessera Solar, originally proposed the Calico Project as an 850 MW solar thermal facility. In consultation with BLM, the Applicant in 2004 identified the proposed Project site on 8,230 acres in the Mojave Desert that stretches south from the base of the Cady Mountains across pristine and undisturbed desert habitat to Interstate 40 and the BNSF Railway. The Project would use 34,000 individual "SunCatchers", which consist of an array of mirrors mounted on a pedestal that focus solar energy onto a Stirling Engine receptor. To date, this technology has only been applied in commercial operation since March 2010 at a pilot-project facility in Maricopa, Arizona that consists of 60 individual SunCatchers.

Under California law, the Applicant must apply for a siting license from the California Energy Commission ("CEC") to construct the facility.[2] The CEC is also the lead agency under the California Environmental Quality Act ("CEQA"). The CEC proceeding and BLM's review of the ROW application began on simultaneous, and sometimes overlapping, tracks. On March 30, 2010, CEC and BLM jointly released the Staff Assessment/Draft Environmental Impact Statement ("SA/DEIS"), intended to satisfy both CEQA and NEPA requirements. Subsequent to releasing the SA/DEIS, however, the BLM and CEC processes diverged. CEC issued a Supplemental Staff Assessment ("SSA") on July 21, 2010, which the BLM did not support, and CEC subsequently issued several revisions to the SSA and the conditions of certification throughout its ongoing proceeding. In addition, subsequent to the release of the SA/DEIS, the Applicant submitted a revised application that reduced the footprint of the proposed Project to 6,215 acres while maintaining an expected capacity of 850 MW. Despite this substantial change, BLM did not issue a supplemental EIS ("SEIS"), and instead simply incorporated the Applicant's altered design as a new alternative in the FEIS. Several other details of the Calico Project continued to change subsequent to the BLM's release of the FEIS on August 6, 2010, yet the BLM did not issue any supplemental environmental analysis in direct violation of NEPA.

[2] The Warren-Alquist Act requires the CEC to approve all thermal power plants greater than 50 MW. Cal. Pub. Res. Code § 25500 *et seq.*

The CEC conducted evidentiary hearings in Barstow from August 4-6, 2010, as well as hearings in Sacramento on August 18 and 25, 2010. BLM and the U.S. Fish and Wildlife Service participated extensively in those hearings. Throughout both the CEC and the BLM processes, the agencies and the Applicant haphazardly rushed through the legally required environmental review as quickly as possible. As noted above, the impetus for this rushed and sloppy review was solely the product of the Applicant's application for ARRA funding, which may require the initiation of construction activities prior to December 31, 2010 if the applicant chooses not to avail itself of other options in the Act. To date, the Department of Energy has not approved the Applicant's application for ARRA funding, and it is unclear whether the Project will receive such funding.

THE FEIS CONTAINED SUBSTANTIAL CHANGES FROM THE DEIS THAT REQUIRED BLM TO ISSUE A SUPPLEMENTAL EIS

Given the massive number of recent changes in agency analyses for the Project, the FEIS is an entirely new document from that which BLM circulated on March 30, 2010. BLM's issuance of the FEIS therefore violated NEPA's requirement that, "environmental impact statements shall be prepared in two stages and may be supplemented."[3] Thus, rather than issuing an FEIS, NEPA required BLM to prepare a supplemental EIS ("SEIS") to address the substantial changes made in the document.[4] BLM must prepare a supplemental NEPA document and circulate it for public review and comment.

BLM's March 30, 2010 DEIS was jointly prepared with the CEC Staff. This SA/DEIS was, however, a completely different document in both form and substance.[5] For example, the SA/DEIS disclosed the potential for occurrence of Prairie Falcon (*Falco mexicanus*) on the Project site, thus requiring mitigation;[6] however, the FEIS did an about face and omitted any mention whatsoever of the Prairie Falcon and did not provide any explanation of why the species was no longer a concern. Conversely, the FEIS discussed the Mountain Plover (*Charadrius montanus*),[7] which the SA/DEIS did not address. These examples are just two of the many divergences between the FEIS and the SA/DEIS. These differences are not minor. The organization of the FEIS is completely different, the analysis on multiple issues has changed, and the recommended alternative was entirely new. It is impossible for the public or other reviewing agencies to meaningfully compare the two documents because they offer completely different assessments of the proposed Project.

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[3] 40 CFR § 1502.9.

[4] 40 CFR § 1502.9(c)(1)(i).

[5] FEIS at ES-1. BLM asserted that the SA/DEIS was a joint effort that followed the conditions discussed by the CEC and BLM in a Memorandum of Understanding ("MOU") concerning joint review of solar thermal projects. The MOU, however, does not relieve BLM from its obligations under NEPA, and in any case the FEIS was prepared only by BLM and diverges dramatically from the jointly prepared SA/DEIS.

[6] SA/DEIS at C.2-30.

[7] FEIS at 3.39.

The FEIS also included a far more troubling and problematic change with respect to the proposed alternatives. The FEIS included, for the first time, "Alternative 1a" as the "Agency Preferred Alternative."[8] The SA/DEIS did not include any analysis of Alternative 1a, and it did not even list it as one of the options that were given cursory review.[9] BLM acknowledged that CEQ regulations require an EIS "…to identify the agency's preferred alternative…**in the draft statement** and identify such alternative in the final statement unless another law prohibits the expression of such preference."[10] Despite this clear requirement to identify and analyze the preferred agency alternative at the draft stage, BLM simply crafted a new alternative that it described and analyzed **for the first time** in the FEIS. This was a clear violation of NEPA.

A recent appeals court decision enjoined BLM from finalizing a similarly flawed NEPA analysis of an energy project on New Mexico's Otero Mesa.[11] According to the court, BLM's attempt to craft an entirely new alternative at the FEIS stage, instead of selecting from among the alternatives analyzed in the DEIS, violated NEPA. The court required BLM to issue a supplemental EIS on grounds that, "[i]f a change to an agency's planned action affects environmental concerns in a different manner than previous analyses, the change is surely 'relevant' to those same concerns."[12] The court concluded that BLM's modified alternative was qualitatively different from the previously analyzed alternatives and therefore necessitated a supplemental EIS.[13]

Here, BLM attempted to engage in similarly unlawful actions by proposing Alternative 1a, which did not appear in the DEIS. BLM attempted to shore up its flawed process by asserting that it made a "determination of NEPA adequacy", which it included as a seven-page Appendix C to the FEIS.[14] Appendix C, however, only served to reinforce the conclusion that the modified alternative constituted a substantial change that necessitated a supplemental EIS. For example, Appendix C included a list of "benefits" that the modification to the proposed action would allegedly create. These included: reduction in desert tortoise mortality; retention of habitat connectivity; protection of hydrologic function; protection of several species of rare plant; etc.[15] Rather than establishing NEPA adequacy, however, this list reinforced the notion that the modified alternative resulted in, "a change to an agency's planned action [that] affects environmental concerns in a different manner than previous analyses."[16] Alternative 1a

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[8] Alternative 1a consisted of the Applicant's revised footprint that reduced the area of the Project to 6,215 acres by pulling down the northern border of the project away from the Cady Mountains. FEIS at 2-25.

[9] SA/DEIS at B.2-3:5.

[10] FEIS at 2-25 (citing 40 CFR § 1502.14(e) (emphasis added)).

[11] *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 707 (10th Cir. 2003).

[12] *Id.*

[13] *Id.*

[14] FEIS at 2.25.

[15] FEIS, Appendix C at C-5:6.

[16] *New Mexico ex rel. Richardson*, 565 F.3d at 707.

does not protect hundreds of desert tortoises that will remain onsite, it does not provide an adequate connectivity corridor, and it ignores impacts to sensitive plant species. These and other issues were not the subject of Sierra Club's or other parties' comments to the SA/DEIS because Alternative 1a did not exist at that time. Following *New Mexico ex rel. Richardson*, NEPA requires BLM to issue a supplemental EIS to disclose and analyze the myriad of alleged environmental benefits related to Alternative 1a.[17] Without such a supplement, the public will not have an opportunity to comment on the adequacy of BLM's determination that the benefits were legitimate or that they adequately addressed the overall impacts of the Project.[18]

The changes in the FEIS constituted a "substantial change" in BLM's analysis, which triggered NEPA's requirement to prepare a supplemental EIS and to circulate it for review.[19] BLM did not issue a supplemental EIS and thereby deprived the public and other agencies of a meaningful opportunity to review and comment on its analysis.[20] Prior to issuing a record of decision, BLM must issue a supplemental EIS for public review and comment that reflects all of the Project revisions since issuance of the DEIS.

THE TRANSLOCATION PLAN

As part of its proposed mitigation measures, BLM appended a Draft Desert Tortoise Translocation Plan ("Draft Translocation Plan") to the FEIS (Appendix I). It appears that the Draft Translocation Plan was prepared entirely by the Project Applicant, with little to no agency oversight, and was only recently provided to the wildlife agencies for review. Both BLM and the Applicant touted the Draft Translocation Plan as a keystone mitigation measure that would significantly reduce the impacts to desert tortoise from the construction of the Calico Project. In reality, implementation of the Draft Translocation Plan, as it is currently proposed in the FEIS, would be devastating to the desert tortoise population present at the Calico site and for the species as a whole. The desert tortoise is a state and federally listed species that has experienced continual decline throughout its range. A thriving population of juvenile and adult desert tortoises exists on the Project site and within its footprint at very high densities. CEC Staff's most recent calculations estimated that the site likely contains approximately 189 desert tortoises, and it could contain as many as 281 tortoises.[21] According to CEC Staff estimates, the Calico

[17] *Id.* ("Because location…affects habitat fragmentation, Alternative A-modified was qualitatively different and well outside the spectrum of anything BLM considered in the Draft EIS, and BLM was required to issue a supplement analyzing the impacts of that alternative under 40 CFR § 1502.9(c)(1)(i)").

[18] *Id.* at 708 ("A public comment period is beneficial only to the extent the public has meaningful information on which to comment, and the public did not have meaningful information on the [impacts of the proposed alternative].")

[19] 40 CFR § 1502.9(c).

[20] BLM's provision of a 30-day comment period on the FEIS does not cure its NEPA violations. In *New Mexico ex rel. Richardson*, BLM attempted a similar procedural maneuver whereby it released a 23-page "supplement" to the FEIS and allowed for a 30-day comment period on the supplement. 565 F.3d at 694. The court rejected this approach and found that NEPA required a supplemental EIS that fully evaluated the environmental impacts of the changed project.

[21] CEC Ex. 310, Staff's Second Errata to the SSA, Table 6a, p.5.

Project and the impacts of the proposed Draft Translocation Plan would result in the destruction of over 6,000 acres of high quality desert tortoise habitat, the mortality of up to 282 individual desert tortoises, and the destruction of up to 863 desert tortoise eggs.[22] This proposed travesty directly contradicts the clearly articulated policy of the Endangered Species Act ("ESA"), which requires BLM and all other Federal departments and agencies to use their authorities to conserve, protect and restore the desert tortoise.[23]

1. The Draft Translocation Plan is Inadequate and Will Not Reduce Impacts to Desert Tortoise.

According to the FEIS, "[t]he risks and uncertainties of translocation to desert tortoise are well recognized in the desert tortoise scientific community."[24] Nevertheless, the FEIS omitted any meaningful analysis of those risks. In fact, translocation is a measure that simply does not work. Recent data from the Fort Irwin translocation program is unequivocal that translocating desert tortoises results in substantial and unacceptably high mortality.[25] A study conducted as part of the Fort Irwin translocation project involved the tracking of 158 desert tortoises that had been translocated from Fort Irwin's Southern Expansion Area in the spring of 2008.[26] During CEC evidentiary hearings on August 18, 2010, every wildlife expert agreed that the 2009 Gowan and Berry study provided the most comprehensive and up-to-date analysis of desert tortoise translocation.[27] After only two years, the study found that over half of the translocated tortoises were dead or missing. "Combining the data from 2008 and 2009, from the time of initial translocation of 158 tortoises in March-April of 2008, 70 **(44.3%) tortoises have died** and an additional 20 (12.7%) are missing."[28]

Dr. Berry, the lead scientist and author of the Fort Irwin study, appeared at the CEC evidentiary hearings on August 25, 2010 and confirmed that: "there's very little scientific evidence that translocation is a successful mitigation or minimization measure for Desert Tortoise."[29] Dr. Berry went on to show that the translocation of desert tortoises may actually cause more harm than good because of the impacts to host and

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[22] *Id.* at 14.

[23] 16 U.S.C. § 1532(3) ("The terms 'conserve', 'conserving', and 'conservation' means to use and **the use of all methods and procedures** which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary") (emphasis added).

[24] FEIS at 4-54.

[25] The Fort Irwin translocation program is a component of an ongoing project to assess, identify, and mitigate the potential effects of expanded military training activities on endangered and threatened species at the National Training Center at Fort Irwin.

[26] CEC Ex. 439, App. 3, Gowan and Berry 2009, *Progress Report on the Health Status of Translocated Tortoises in the Southern Expansion Area*.

[27] CEC Reporter's Transcript ("RT"), Aug. 18, 2010, p.368:3-21.

[28] CEC Ex. 439, App. 3, Gowan and Berry 2009 at p.10 (emphasis added).

[29] CEC RT, Aug. 25, 2010 (Berry) p. 19:14-16.

control sites, particularly where, as here, the translocation plan does not adequately evaluate the receptor sites.[30]

According to CEC Staff's findings, the Draft Translocation Plan could result in the mortality of up to 282 tortoises, an estimate that included mortality in the host/receptor population and the control population of tortoises.[31] Despite these acknowledged impacts, the FEIS discussion of the Draft Translocation Plan did not include any analysis of the impacts that the plan would cause to the host/receptor sites or the control sites. It also did not include a quantification of the expected mortality to the translocated tortoises. In fact, the FEIS included only one oblique reference[32] to the tragic experience at Fort Irwin despite abundant recent data from that federal effort. It is incumbent on any federal agency approving the translocation of the listed desert tortoise to carefully study and then remedy to the maximum extent feasible the errors made at Fort Irwin. It would be unconscionable for the BLM to repeat the Fort Irwin mistakes at the Calico site. The importance of this issue alone dictates a supplemental EIS that properly analyzes the translocation of a listed species.[33]

BLM attempted to defend the wholly inadequate Draft Translocation Plan by claiming that it was not necessary for the plan to meet rigorous scientific standards.[34] This is a federal project on federal land. Section 7 of the Endangered Species Act provides: "Each Federal agency shall…insure that any [agency action] is not likely to jeopardize the continued existence of any endangered or threatened species…"[35] The goal of the Translocation Plan, or any mitigation for that matter, should be to protect, conserve and restore the desert tortoise. The Translocation Plan failed to achieve that goal. Ms. Blackford of U.S. Fish and Wildlife acknowledged that the Translocation Plan was deficient on that issue: "I think one of the primary concerns or criticisms is that the plan…is not focused on the recovery and targeted for the recovery of the Desert Tortoise…this project does not focus on that."[36]

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[30] *Id.* at p.83:11-24.

[31] CEC Ex. 310, Staff's Second Errata to the SSA, p.14.

[32] FEIS at 4-53:54 ("recent evidence from the desert tortoise translocation effort conducted in support of the Fort Irwin Land Expansion Project indicates that mortality rates may be closer to 25 percent per year") (citing Gowan and Berry 2010).

[33] *Seattle Audubon Soc. v. Espy*, 998 F.2d 699, 704 (9th Cir. 1993) ("The EIS did not address in any meaningful way the various uncertainties surrounding the scientific evidence upon which the [plan] rested").

[34] CEC RT, Aug. 25, 2010 (Otahal/Miles) p.137:14-18:

> MS. MILES: …I think I just heard you say [the Translocation Plan] is not designed as a research program and so it shouldn't be held to the standards of a research program; is that correct?
>
> MR. OTAHAL: That is correct.

[35] 16 U.S.C. § 1536(a)(2).

[36] CEC RT, Aug. 25, 2010 (Blackford) p. 119:24-120:5.

There is no dispute that the desert tortoise continues to decline throughout its habitat. Dr. Berry, the preeminent expert on desert tortoise with over 35 years of experience and a federal employee for USGS, summarized the status of the desert tortoise: "With the continuing declines in the population [of desert tortoise] in California and our inability to stabilize any populations, I would say that populations such as the one in the Calico area become more and more important."[37] Dr. Berry concluded that the Draft Translocation Plan would likely result in additional negative impacts to the desert tortoise population.[38] BLM did not adequately address the cumulative impacts to the species in either the FEIS or the Draft Translocation Plan. To the contrary, the Draft Translocation Plan was underdeveloped and poorly planned, and it ignored the overall impacts to desert tortoise that threatens to result in substantial mortality to both the translocated tortoises and tortoises at the receptor and control sites. BLM's support of the Draft Translocation Plan violates the ESA's requirement to conserve and restore the desert tortoise and insure the BLM's actions do not jeopardize the continued existence of the species.

2. BLM Failed to Properly Notice and Analyze the Draft Translocation Plan.

In addition to wreaking havoc on the desert tortoise population, the impacts that would result from the proposed Draft Translocation Plan require BLM to engage in a full NEPA review of its environmental impacts. As a reasonably foreseeable consequence of the proposed Project, and in fact a necessary component of the proposed mitigation, NEPA requires BLM to assess the cumulative impacts to the desert tortoise that would result from the Translocation plan, which the FEIS did not do. NEPA requires an agency to assess at the earliest practicable point all of the "reasonably foreseeable" impacts that a project will create.[39] The Draft Translocation Plan constitutes a reasonably foreseeable consequence of the Calico Project because it is, in BLM's opinion, a key mitigation measure required by both the FEIS and the proposed CEC conditions of certification.[40] The FEIS, however, contains only a cursory discussion of the Draft Translocation Plan. Instead of analyzing the impacts that would result from the Draft Translocation Plan, the BLM simply attached the company's plan as an appendix.[41] This treatment does not meet the standards of review required by NEPA.

The Applicant intends to commence Project construction and begin moving tortoises under the Draft Translocation Plan in October 2010.[42] The Applicant and BLM

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[37] CEC RT, Aug. 25, 2010 (Berry) p. 87:13-18.

[38] CEC RT, Aug. 25, 2010 (Berry) p. 90:3-5 ("I don't think as written the plan is likely to be a sound, productive plan [or] that it's likely to have great success for the tortoises").

[39] *New Mexico ex rel. Richardson*, 565 F.3d at 718.

[40] FEIS at 4-53 ("In order to prevent the direct impact of tortoises from the construction of the Proposed Project, a Desert Tortoise Translocation Plan is being developed…").

[41] FEIS, Appendix I.

[42] CEC RT, Aug. 25, 2010 (Huntley/Ritchie) p.201:13-23:

are in no way ready to approve the translocation of desert tortoises given the skeletal nature of the Draft Translocation Plan. In fact, during CEC evidentiary hearings, BLM staff reiterated that the Draft Translocation Plan was incomplete and required further review: "Again, this is a draft that we have put out. And we are soliciting public comments. We do have a 30-day review period where any of the intervenors or anyone else from the public…will be providing comments."[43] Mr. Otahal was apparently referring to the current 30-day comment period that BLM solicited for the FEIS, but there is absolutely no mention of the Draft Translocation Plan or a corresponding comment period in the Federal Register notice that initiated the FEIS comment period.[44] As such, it is unclear which process BLM is relying on for the public to comment on the company's Draft Translocation Plan or what deadline defines the 30-day comment period. The Draft Translocation Plan is clearly not the subject of an independent DEIS, although it should be, and BLM did not officially notice an EIS that fully assesses the plan.

BLM's treatment of the Draft Translocation Plan is wholly inadequate under NEPA. BLM should have included a full description and analysis of the Draft Translocation Plan in the DEIS and FEIS for the Calico Project. "In evaluating whether an agency's EIS complies with NEPA's requirements, we must determine whether it contains a reasonably thorough discussion of the significant aspects of the probable environmental consequences."[45] In *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 812 (9th Cir. 1999), the court reviewed two planned land exchanges contemplated by the U.S. Forest Service. The court rejected the adequacy of the EIS on the first exchange (Huckleberry Exchange) because it failed to consider the cumulative impacts that would result from the second exchange (Plum Creek Exchange). "Given the virtual certainty of the transaction and its scope, the Forest Service was required under NEPA to evaluate the cumulative impacts of the Plum Creek transaction."[46] The court concluded that the U.S. Forest Service violated NEPA because it failed to take a "hard look" at the cumulative environmental impacts that would result from the two transactions.[47]

> MR. RITCHIE: And do you believe that [additional criteria] would be required to be implemented before the translocation plan began moving tortoises?
>
> MR. HUNTLEY: Yes, we need to incorporate many of these factors and clarify many of these factors in the translocation plan.
>
> MR. RITCHIE: And so that clarification and then implementation of the factors based on that clarification would have to happen before October of this year in order to be able to move tortoises?
>
> MR. HUNTLEY: Ideally.

[43] CEC RT, Aug. 25, 2010 (Otahal) p. 141:7-11.

[44] Fed. Reg. Vol. 75, N. 151, Friday, August 6, 2010.

[45] *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809 (9th Cir. 1999).

[46] *Id.* at 812..

[47] *Id.*

The Calico Project and its accompanying Draft Translocation Plan present a similar scenario as the land exchanges addressed in *Muckleshoot Indian Tribe.* In the present case, it is a "virtual certainty" that the Draft Translocation Plan would be implemented as a necessary component of the Calico Project. As such, NEPA required BLM to include a thorough discussion of the cumulative impacts that would result from both the Calico Project and the Draft Translocation Plan in the DEIS and the FEIS. This did not occur, and in fact it could not occur because BLM failed to gather the required information to fully analyze the impacts of the Draft Translocation Plan.[48] This omission violated NEPA's requirement to take a hard look at the impacts of the proposed plan.[49]

The CEC Staff, U.S. Fish and Wildlife Service and California Department of Fish and Game all agreed that the proposed Draft Translocation Plan, as presented in the FEIS, is incomplete and inadequate to fully evaluate the impacts that would result.[50] In fact, the Applicant admitted that approximately 6,000 of the proposed 9,000 acres of long distance translocation sites have not even been surveyed yet.[51] Neither the Applicant nor BLM have any idea whether the receptor sites are sufficient for the Draft Translocation Plan, and as a result they could not make any informed conclusions regarding the impacts that the Draft Translocation Plan would have on the translocated tortoises or the receptor sites.

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[48] *See, e.g.,* CEC RT, Aug. 18, 2010 (Otahal/Ritchie) p.339:14-20:

> MR. RITCHIE: So you did not consider growth rates [for the receptor sites]?
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> MR. OTAHAL: No.
>
> MR. RITCHIE: -- because you did not have the data?
>
> MR. OTAHAL: Well, we don't have those data yet, so we can't look at that.

See, also, CEC RT, Aug. 25, 2010 (Otahal/Ritchie) p.145:4-12:

> MR. RITCHIE: But of those 9,000 acres [identified in the Ord Rodman recipient areas], the surveys have only been conducted on a portion of that, correct?
>
> MR. OTAHAL: The –yes…I believe about half of those…have been actually surveyed for tortoise. The rest will be done in the fall.

[49] *National Audubon Soc. v. Dep't. of the Navy*, 422 F.3d 174, 188 (4th Cir. 2005) (finding that the Navy's incomplete site visits did not meet NEPA's requirement to take a hard look at the potential impacts because the Navy did not adequately examine the relevant data); *see, also, New Mexico ex rel. Richardson,* 565 F.3d at 715 ("we are wholly unable to say with any confidence that BLM examined the relevant data") (internal quotations omitted).

[50] CEC RT, Aug. 25, 2010 (Huntley) p.108:20-22 ("As the translocation plan stands now, [CEC] staff does not consider it adequate"); CEC RT, Aug. 18, 2010 (Moore) p.270:17-22 ("from what we have at the translocation sites…it appears to [California Department of Fish and Game] that we don't have enough translocation areas [and] we cannot anticipate and/or analyze what will happen to the recipient/host…population with the information that we have"); *Id.* (Blackford) p.290:6-12 ("currently the [U.S. Fish and Wildlife Service] is proceeding with the project as it was originally proposed, and any expansion of the translocation areas would result in a change in the project, and that would trigger a reinitiation for that expansion").

[51] CEC RT, Aug. 25, 2010 (Otahal/Ritchie) p.145:4-12 ("The total is 9,833 acres [of identified receptor sites] in the DWMA. And we surveyed 3,644 acres, and there's 6 [thousand acres] left to survey in the fall").

As a result of this lack of data, BLM cannot make an informed and reasoned assessment of the impacts that the Draft Translocation Plan would have. "NEPA does not permit an agency to remain oblivious to differing environmental impacts, or hide these from the public…"[52] Therefore, it is a violation of NEPA for BLM to approve the Calico Project and the Draft Translocation Plan without having first identified and analyzed the environmental impacts in the EIS.[53] "[A]ssessment of all reasonably foreseeable impacts must occur at the earliest practicable point, and must take place before an irreversible commitment of resources is made."[54] The FEIS contemplated the start of construction activities in October of this year. That construction would also necessitate initiation of the incomplete Draft Translocation Plan. BLM's grant of the ROW to the Applicant would constitute an irreversible commitment of resources because it would result in immediate impacts to desert tortoise and their habitat. NEPA prohibits BLM from committing these resources without first assessing the impacts that the Draft Translocation Plan would have. BLM must therefore withhold its record of decision until it gathers sufficient information on the Draft Translocation Plan and distributes a supplemental EIS for public review and comment.

BLM's assertion that it did not have sufficient data to evaluate the impacts of the Draft Translocation Plan does not relieve it of its obligations under NEPA.[55] The CEQ regulations provide: "If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and **the overall cost of obtaining it are not exorbitant**, the agency **shall include** the information in the environmental impact statement."[56] BLM did not assert that exorbitant costs had anything to do with the lack of information on the receptor sites for the Draft Translocation Plan. Rather, the constraints that BLM and others have acknowledged on this project relate to the artificial and external time deadline for ARRA funding.[57] Ms. Blackford of U.S. Fish and Wildlife summarized the constraints as follows: "I would agree that if we had started two years ago and we didn't have ARRA pushing us, that [additional] information would be – we would be looking to achieve that information."[58]

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[52] *New Mexico ex rel. Richardson*, 565 F.3d at 707.

[53] *Id.* at 708 ("NEPA required an analysis of the site-specific impacts of the … lease **prior to its issuance**") (emphasis added); *National Audubon Soc. v. Dep't. of the Navy*, 422 F.3d at 188 (finding that the Navy's incomplete site visits did not meet NEPA's requirement to take a hard look at the potential impacts because the Navy did not adequately examine the relevant data).

[54] *New Mexico ex rel. Richardson*, 565 F.3d at 718.

[55] CEC RT, Aug. 18, 2010 (Otahal) p.340:17-19 ("And if [BLM] can obtain those data in a timely manner, we would be more than happy to refine our criteria").

[56] 40 CFR § 1502.22(a) (emphasis added).

[57] *See, e.g.,* CEC RT, Aug. 4, 2010 (Gallagher) p. 51; *Id.* Aug. 5, 2010 (Kramer) p.52; *Id.* (Bellows) p.87.

[58] CEC RT, Aug. 25, 2010 (Blackford) p.128P:12-15.

NEPA does not allow for the exclusion or deferral of relevant information due to the Applicant's funding deadline.[59]

The fact that BLM did not conduct surveys on the receptor sites and that the Draft Translocation Plan in general lacks fundamentally important information clearly violated NEPA's requirement to take a hard look at the impacts of the Project.[60] Moreover, there is nothing in ARRA that exempts BLM or any federal agency from complying with existing environmental protections. If Congress had intended to include such an exemption, it could have done so. It did not. Therefore, the ARRA funding deadline does not provide BLM with an adequate excuse for its failure to properly gather the relevant information necessary to assess the impacts of the Draft Translocation Plan.

THE FEIS ANALYSIS OF ENVIRONMENTAL IMPACTS WAS INADEQUATE

The FEIS omitted disclosure of the full range of potentially significant impacts associated with the Project. Sierra Club addressed several of these deficiencies that were apparent in the SA/DEIS through comments that it submitted on July 1, 2010. The FEIS failed to cure these deficiencies, and Sierra Club therefore reiterates and incorporates by reference those comments here. Sierra Club also actively participated in the parallel process for the Calico Project before the CEC. Many of the deficiencies of the Calico Project that relate to both the CEC process and the FEIS were addressed by parties in that proceeding through the submission of written testimony, evidentiary hearings and briefing. Two federal agencies, BLM and U.S. Fish and Wildlife Service, also actively participated in the CEC proceeding and are therefore aware of the arguments and controversies raised about the Calico Project. Sierra Club attaches hereto Attachments 1 - 17, which consist of written testimony and attachments, hearing transcripts, and briefing documents from the CEC proceeding, and Sierra Club incorporates by reference those documents in its comments here. As participants in the CEC proceeding, BLM and U.S. Fish and Wildlife had full access to these documents, and the agencies responded to the issues raised by Sierra Club and other parties.

In addition to the issues addressed in Sierra Club's previous comments and the CEC proceeding, the FEIS revealed additional deficiencies in BLM's analysis that constituted violations of NEPA's requirement to provide a full and fair discussion of significant environmental impacts in a supplemental analysis.[61]

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[59] *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998) ("NEPA requires consideration of the potential impact of an action before the action takes place") (emphasis in original) (citing *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9th cir. 1990)).

[60] *National Audubon Soc. v. Dep't. of the Navy*, 422 F.3d at 188 (finding that the Navy's incomplete site visits did not meet NEPA's requirement to take a hard look at the potential impacts because the Navy did not adequately examine the relevant data); *see, also, New Mexico ex rel. Richardson*, 565 F.3d at 715 ("we are wholly unable to say with any confidence that BLM examined the relevant data") (internal quotations omitted).

[61] 40 CFR § 1502.1.

1. BLM's Proposed Mitigation Measures Were Unclear and Inadequate.

BLM failed to provide adequate mitigation measures to reduce the the Project's environmental impacts. NEPA requires BLM to, "[i]nclude appropriate mitigation measures not already included in the proposed action or alternative."[62] Under NEPA, BLM must discuss these mitigation measures in sufficient detail to ensure that environmental consequences have been fairly evaluated.[63]

The FEIS simply cut and pasted the proposed conditions of certification drafted by CEC Staff and proposed in the SA/DEIS.[64] However, many of these conditions were preliminary and have long since changed as a result of additional agency discussions and Project refinement. As noted in Sierra Club's earlier comments, these proposed mitigation measures fail to adequately reduce the impacts to biological resources that the Project would cause. Notwithstanding its inclusion of the flawed CEC conditions of certification, the FEIS indicated that BLM might ultimately reject some or all of the conditions from its record of decision. "When developing the Record of Decision for the proposed Calico Solar Project…the BLM **may consider** the SA/DEIS Conditions of Certification, additional Conditions of Certification from the Supplemental SA, and other mitigation measures developed by the BLM and other regulatory agencies."[65] In other words, the FEIS stated that BLM has not finalized **any** of the proposed mitigation measures related to the Calico Project, and all of those mitigation measures are subject to change depending on BLM's whim. The FEIS's ambiguous assertions regarding the proposed mitigation measures make it impossible for the public or any agency to determine what the actual impacts from the Project would be. This is a clear violation of NEPA.[66]

The FEIS's analysis of impacts to the Mojave fringe-toed lizard provides an example of BLM's failure to discuss adequate mitigation measures. The FEIS concluded that the Project would result in the disruption of an estimated 164.7 acres of Mojave fringe-toed lizard habitat.[67] "Impacts on the Mojave fringe-toed lizard would be unavoidable, **but would be minimized and mitigated** through the implementation of project-specific mitigation measures."[68] The FEIS provided no additional discussion or analysis of which mitigation measures would reduce those impacts or what the likely outcome of the mitigation would be. The only subsequent mention of mitigation for the

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[62] 40 CFR § 1502.14(f).

[63] *Neighbors of Cuddy Mountain*, 137 F.3d at 1380 ("The Forest Service's perfunctory description of mitigation measures is inconsistent with the 'hard look' it is required to render under NEPA").

[64] FEIS at 4-113:197.

[65] FEIS at 4-202 (emphasis added).

[66] *Neighbors of Cuddy Mountain,* 137 F.3d at 1380 (finding a violation of NEPA where, "[i]t is also not clear whether any mitigating measures would in fact be adopted. Nor has the Forest Service provided an estimate of how effective the mitigation measures would be if adopted…").

[67] FEIS at 4-59.

[68] *Id.* (emphasis added).

impacts to the Mojave fringe-toed lizard occurred in the mitigation section of the FEIS under BIO-13. That measure, which addressed CEC's compensatory mitigation condition, is the **only** specific mitigation measure for the Mojave fringe-toed lizard. However, the FEIS stated that, "this [BIO-13] is not a mitigation measure that is proposed by the BLM."[69] The FEIS indicated that BLM would modify BIO-13 if the CEC in its own review modified the measure. It is impossible for BLM to conclude, therefore, that the impacts to the Mojave fringe-toed lizard would be "minimized and mitigated" because BLM has not independently proposed any mitigation measures. BLM relied solely on the CEC's condition, which condition the CEC could water-down or eliminate altogether. As a result, the FEIS did not contain any indication or assurance that BLM will require mitigation for the recognized impacts to the Mojave fringe-toed lizard.

To further complicate the issue, several of the CEC's proposed conditions of certification remain a moving target. The Supplemental Staff Assessment ("SSA"), which BLM did not sponsor, contained numerous substantial changes to the proposed conditions of certification. Those conditions of certification continued to change as the CEC conducted evidentiary hearings on biological resources and other issues. In fact, at the close of evidentiary hearings on August 25, 2010, CEC Staff was still engaged in modifying the proposed conditions of certification.[70] The final draft of the CEC Staff's proposed conditions was not distributed to the parties until shortly before 5:00 pm on Friday, August 27, 2010, after the close of the evidentiary record.[71] As of this writing, it remained unclear which proposed conditions of certification the CEC may ultimately adopt. It was premature, therefore, for the FEIS to conclude that, "Mitigation measures described here address environmental impacts …to reduce intensity or eliminate the impacts."[72] BLM could not possibly make this determination prior to knowing what the final mitigation measures will be. Furthermore, if BLM adopts the CEC's final conditions of certification in the Record of Decision, it will have violated NEPA's requirement to discuss the mitigation measures, "in sufficient detail to ensure that environmental consequences have been fairly evaluated."[73]

2. The FEIS Did Not Include Sufficient Information to Analyze the Effectiveness of Impacts from Compensatory Mitigation.

The FEIS relied on several proposed CEC conditions of certification that would require the Applicant to pay compensatory mitigation.[74] These measures would require

[69] FEID at 4-155.

[70] CEC RT, August 25, 2010 (White) p.262:25 – 263:1 ("[Staff] still want to work on [the conditions of certification] a little bit longer").

[71] As a reference, BLM released the FEIS three weeks earlier on August 6, 2010.

[72] FEIS at 4-113; *see* 40 CFR § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens **before** decision are made…") (emphasis added).

[73] *Neighbors of Cuddy Mountain*, 137 F.3d at 1380.

[74] Mitigation measures BIO-12, BIO-13, BIO-17, BIO-21, and BIO-26 involved compensatory mitigation. FEIS at 4-134 to 4-197.

the Applicant either to acquire and protect alternative habitat lands or to pay an in-lieu fee for an agency or third party to acquire such lands. However, the public and other agencies cannot evaluate or consider the potential impacts of this proposed mitigation because neither BLM nor the Applicant identified which lands would serve as compensatory habitat. The Applicant admitted that it had not determined whether such land is even available for acquisition,[75] and Ms. Fesnock of BLM further explained the strain on mitigation land inventory in the California desert that will result from the current rush of proposed solar projects:

> [W]e have 75,000 acres of projects proposed in the desert that haven't been proposed before. If you look historically at the number of acres that BLM has been trying to mitigate on an annual basis, we're not even close to that…there's going to be a huge demand for the remaining supply that exists.[76]

The compensatory mitigation proposals completely fail as a mitigation strategy under NEPA because they did not adequately identify or analyze the lands that the Applicant would acquire to purportedly reduce the impacts of the Project. "NEPA requires consideration of the potential impact of an action **before** the action takes place."[77] The public cannot meaningfully comment on the proposed mitigation without knowing the specific location of the compensatory lands. "A public comment period is beneficial only to the extent the public has meaningful information on which to comment, and the public did not have meaningful information…"[78] Moreover, the BLM once again relied on the CEC conditions of certification to determine the adequacy of mitigation measures, and those conditions remained uncertain regarding the extent and cost of compensatory mitigation at the close of the CEC evidentiary record. Therefore, it was impossible for BLM even to know how much compensatory mitigation would be required, let alone whether it would be sufficient to reduce the impacts of the Calico Project.

3. The FEIS Failed to Analyze Impacts to Golden Eagle.

Golden eagles are known to nest within a few miles of the Project site.[79] The golden eagle is a federally protected species. Based on U.S. Fish and Wildlife Service's analysis of golden eagle populations across the nation, there is no safely allowable take level for golden eagles.[80] In other words, the status of the golden eagle is so dire that the

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[75] CEC RT, August 5, 2010 (Brizee/Bellows) p.95.

[76] CEC RT, August 5, 2010 (Fesnock) p.147

[77] *Neighbors of Cuddy Mountain*, 137 F.3d at 1380 (emphasis in original) (citing *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9th cir. 1990)).

[78] *New Mexico ex rel. Richardson,* 565 F.3d at 708.

[79] FEIS at 3-38.

[80] CEC RT, August 5, 2010 (Blackford) p.269.

U.S. Fish and Wildlife Service completely prohibits the taking of a golden eagle. A "take" means to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb."[81] Further, "disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."[82] Therefore, it is completely prohibited to create a disturbance that will substantially interfere with the breeding, feeding or sheltering behavior of a golden eagle.

The Project would affect 6,215 acres of golden eagle foraging habitat. The FEIS did not and cannot analyze the full impacts that the Project would have on the golden eagle because there was insufficient information on the existing population near the Project. In addition, CEC Staff acknowledged that the potential impacts to golden eagles colliding with SunCatchers while foraging remained unclear: "We don't know what effects the SunCatchers will have on bird collisions. We know from other studies in other projects in the region that birds do collide with these kinds of structures."[83] The U.S. Fish and Wildlife Service witness stated that the Applicant should conduct golden eagle surveys during the breeding season in order to determine the impact that the Project would have on golden eagle foraging and other behavior and to determine whether an Avian Bat Protection Plan should be developed, and the FEIS required the Applicant to develop such a plan as a mitigation measure.[84]

The FEIS acknowledged the risk of bird strikes and other risks, including golden eagle impacts, yet it did nothing to analyze or address those impacts.[85] This omission violated NEPA's hard look requirement.[86] In *National Audubon Society v. Department of the Navy*, 422 F.3d 174, 188 (4th Cir. 2005), the court rejected the Navy's EIS because it failed to collect sufficient information on the risks to local bird populations that would result from the construction of an aircraft landing field.[87] The court found that NEPA's requirement to take a "hard look" at the impacts to nearby bird populations is particularly relevant where Congress has specifically identified protection for those birds. "NEPA's national policy …to promote efforts which will prevent or eliminate damage to the environment is surely implicated when the environment that may be damaged is one that Congress has specially designated for federal protection."[88] In the context of the Calico

[81] 50 CFR § 22.3.

[82] *Id.*

[83] CEC RT, August 5, 2010 (Huntley) p.281.

[84] CEC RT, August 5, 2010 (Blackford) p.270; FEIS at 4-187.

[85] FEIS at 4-63.

[86] *National Audubon Soc. v. Dep't. of the Navy*, 422 F.3d at 188 (finding Navy did not take a hard look because evidence in the record indicated that impacts on waterfowl were a possibility, and no evidence pointed to the opposite conclusion).

[87] *Id.*

[88] *National Audubon Soc. v. Dep't. of the Navy*, 422 F.3d at 187 (internal citations and quotations omitted).

Project, the FEIS did not gather sufficient data or address the known risks to the golden eagle and other birds from potential collisions with the solar facilities. This omission was particularly concerning given the sensitive status of golden eagles and Congress' clear intention, articulated through the Eagle Act, to protect that species. Following, *National Audubon Society v. Department of the Navy*, BLM's failure to analyze the risks to golden eagles prior to issuing the DEIS or the FEIS constituted a violation of NEPA.

4. The FEIS Failed to Analyze Impacts to White-margined Beardtongue

The Project would result in substantial direct impacts to white-margined beardtongue, which is a CNPS 1B special status species.[89] The FEIS failed to provide sufficient information or quantitative data to fully evaluate or mitigate the impacts that the Project would have on white-margined beardtongue and other sensitive plant species. BLM's conclusion that the mitigation measure BIO-12 would mitigate the impacts to white-margined beardtongue is unsupported by the record. The white-margined beardtongue, like many desert plants, does not germinate every year.[90] However, the FEIS based its evaluation and proposed mitigation of the white-margined beardtongue on the 2010 spring surveys prepared by the Applicant. Given the nature of the white-margined beardtongue, a single survey in spring is not adequate to determine the presence of the plant on the site. Mr. Andre explained in his written testimony that, "a large percentage of the seed bank will not germinate and many living plants remain dormant underground."[91] The FEIS's evaluation of the 2010 botany surveys would therefore only provide information on the bare minimum of existing plants on the site. It is extremely likely that several additional unidentified plants are located on the project site. BLM's failure to obtain sufficient information on the presence of this species prior to conducting its analysis violated NEPA's requirement that BLM take a hard look at the information on potential impacts prior to issuing a decision.[92]

The FEIS also failed to explain how the proposed mitigation measure to create a 250-foot buffer around existing white-margined beardtongue within the Project site would prevent direct impacts to the population. The white-margined beardtongue exhibits population fluctuation within its habitat. Therefore, although the 250-foot buffer may protect an individual plant during one season, the shifting nature of the species over time would likely result in the extirpation of the on-site population.[93] There is no evidence showing that this population could survive in the 250-foot buffers that would be

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[89] FEIS at 3-32.

[90] CEC Ex. 601, Andre Rebuttal Testimony, July 29, 2010, p.3.

[91] *Id.*

[92] *National Audubon Soc. v. Dep't. of the Navy*, 422 F.3d at 188 (finding that the Navy's incomplete site visits did not meet NEPA's requirement to take a hard look at the potential impacts because the Navy did not adequately examine the relevant data); *see, also, New Mexico ex rel. Richardson*, 565 F.3d at 715 ("we are wholly unable to say with any confidence that BLM examined the relevant data") (internal quotations omitted).

[93] CEC RT, August 5, 2010 (Andre) p.399.

surrounded by the wholly altered landscape among the SunCatchers.[94] Under NEPA, a proposed mitigation measure is inappropriate where there is no evidence in the record showing that the proposed measure would be effective.[95] Therefore, BLM's adoption of the ineffectual measure for the white-margined beardtongue would violate NEPA.

5. BLM Impermissibly Omitted Analysis of the Private Lands Alternative.

The FEIS did not evaluate the private lands alternative, which would involve the Applicant's acquisition of private parcels for development of the solar plant. The SA/DEIS included a private lands alternative, but the FEIS dropped the issue and did not consider or analyze it as an alternative. Instead, BLM asserted that it was not required to review this alternative: "The BLM considers the Private Lands Alternative as essentially equivalent to the No Action Alternative for the purposes of this NEPA analysis."[96] BLM went on to argue that the private lands alternative was not appropriate to consider because BLM did not have discretionary approval authority over the use of private lands.[97] This argument completely disregarded NEPA's requirement to, "[r]igorously explore and objectively evaluate all reasonable alternatives…"[98] NEPA regulations expressly require agencies to look at reasonable alternative, **even if they are not within the jurisdiction of the lead agency**.[99] The private lands alternative clearly falls within the range of reasonable alternatives because it would potentially allow the Applicant to develop a solar facility on previously disturbed desert lands, which could dramatically reduce the impacts from the Project. The private lands alternative was therefore **not** equivalent to the no action alternative because it could still result in the development of a solar thermal plant with the capacity to generate renewable energy, which the no action alternative would not achieve. BLM's failure to even consider the private lands alternative was therefore unjustified and constituted a violation of NEPA.[100]

CONCLUSION

As discussed above, BLM did not follow well established NEPA requirements for issuing draft, supplemental and final environmental analysis. In addition, to date the

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[94] The Project would also result in the loss of more than 50 acres of suitable habitat for the white-margined beardtongue. This loss of habitat would violate the 50 acre limit imposed by the BLM's West Mojave Plan.

[95] *Neighbors of Cuddy Mountain,* 137 F.3d at 1380 (finding a violation of NEPA where, "[i]t is also not clear whether any mitigating measures would in fact be adopted. Nor has the Forest Service provided an estimate of how effective the mitigation measures would be if adopted…").

[96] FEIS at 2-47.

[97] *Id.*

[98] 40 CFR § 1502.14(a).

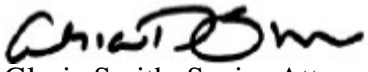
[99] 40 CFR § 1502.14(c).

[100] *Muckleshoot Indian Tribe*, 177 F.3d at 814 (holding that the U.S. Forest Service's failure to consider an alternative that clearly falls within the range of reasonable alternatives violated NEPA).

NEPA documents have omitted critical information regarding the full range of potentially significant environmental impacts that would result from the Calico Project and the accompanying Draft Translocation Plan. NEPA requires BLM to withdraw the FEIS and produce a SEIS for public review and comment. The SEIS must address and remedy both the deficiencies in BLM's impacts analysis as well as the significant and cumulative environmental impacts that would result from the Translocation Plan. Therefore, Sierra Club respectfully requests that BLM draft and circulate a SEIS consistent with these comments, or in the alternative reject the ROW application.

Dated: September 7, 2010

Respectfully submitted,



Gloria Smith, Senior Attorney
Sierra Club
85 Second Street, Second floor
San Francisco, CA 94105
(415) 977-5532 Voice
(415) 977-5739 Facsimile
gloria.smith@sierraclub.org

Travis Ritchie, Associate Attorney
Sierra Club
85 Second Street, Second floor
San Francisco, CA 94105
(415) 977-5727ce
(415) 977-5739 Facsimile
travis.ritchie@sierraclub.org