



**Brendan Hughes**  
<jesusthedude@hotmail.com>

06/06/2010 03:38 PM

To <asolomon@energy.state.ca.us>,  
<capssolarblythe@blm.gov>

cc

bcc

Subject Comments on Solar Millennium Blythe Solar Power Project

To whom it may concern:

My name is Brendan Hughes and I would like to comment on the Solar Millennium Blythe Solar Power Project proposal. I believe CEC should favor a modified Blythe Mesa alternative to the Solar Millennium proposal. This alternative would have much less environmental and visual resource impact than the applicant's proposal. CEC should not enable the destruction of California's wild heritage by allowing these proposals on intact public land. The Blythe Mesa alternative meets all of the legitimate goals of the original proposal, without its destructive consequences. The fact that CEC has several private land proposals before it, such as the Beacon Solar Energy Project and the Abengoa Harper Dry Lake Project, and two operational projects on private land at Kramer Junction and Harper Lake, demonstrates that this type of development is feasible. CEC should have no sympathy for Chevron (a multi-billion dollar international corporation) and Solar Millennium's protestations that they would have to deal with 20-40 private landowners to consolidate land for the Blythe Mesa Alternative. Additionally, Solar Millennium does not need to create such a large power plant. Most of the projects currently before the CEC are 600 MW or less. A 1,000 MW plant is an enormous, untested endeavor. CEC should think about approving such a large plant when the largest plant currently in operation is less than 200 MW.

The fact that the visual impacts of the proposed project cannot be mitigated, along with the unknown quantities of cultural resources on the site, should give CEC pause. Also, despite what you say, the loss of 8,000 or so acres of intact desert habitat cannot be mitigated.

Thank you for your consideration.

Brendan Hughes  
61093 Prescott Trail  
Joshua Tree, CA 92252

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**Brendan Hughes**  
<jesusthedude@hotmail.com>  
06/06/2010 03:45 PM

To <capssolarblythe@blm.gov>  
cc  
bcc

Subject Comments on Blythe Solar project (Solar Millennium)

I urge BLM to choose the No Action alternative for the Solar Millennium Blythe Solar power project. See my comments below to the California Energy Commission:

To whom it may concern:

My name is Brendan Hughes and I would like to comment on the Solar Millennium Blythe Solar Power Project proposal. I believe CEC should favor a modified Blythe Mesa alternative to the Solar Millennium proposal. This alternative would have much less environmental and visual resource impact than the applicant's proposal. CEC should not enable the destruction of California's wild heritage by allowing these proposals on intact public land. The Blythe Mesa alternative meets all of the legitimate goals of the original proposal, without its destructive consequences. The fact that CEC has several private land proposals before it, such as the Beacon Solar Energy Project and the Abengoa Harper Dry Lake Project, and two operational projects on private land at Kramer Junction and Harper Lake, demonstrates that this type of development is feasible. CEC should have no sympathy for Chevron (a multi-billion dollar international corporation) and Solar Millennium's protestations that they would have to deal with 20-40 private landowners to consolidate land for the Blythe Mesa Alternative. Additionally, Solar Millennium does not need to create such a large power plant. Most of the projects currently before the CEC are 600 MW or less. A 1,000 MW plant is an enormous, untested endeavor. CEC should think about approving such a large plant when the largest plant currently in operation is less than 200 MW.

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Thank you for your consideration.

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# **GREENACTION**

*For Health & Environmental Justice*

June 14, 2010

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

RECEIVED  
BUREAU OF LAND MANAGEMENT  
10 JUN 16 PM 12:28  
PALM SPRINGS-SOUTH COAST  
RESOURCE AREA

## **Comments of Greenaction for Health and Environmental Justice On Draft Environmental Impact Reports for the Genesis Solar Energy Project, Blythe Solar Power Project, and Palen Solar Power Project**

Dear Ms. Shaffer,

Greenaction for Health and Environmental Justice contacts you today out of concern for the cultural, historical, and sacred geoglyphs and the spiritual well-being of the Native peoples in Blythe, California, and surrounding areas. These geoglyphs will be negatively affected by three proposed projects on BLM land: the Genesis Solar Energy Project (CACA 48880), the Blythe Solar Power Project (CACA 48811), and the Palen Solar Power Project (CACA 48810).

Greenaction works with community groups to protect health and promote environmental justice. Greenaction has members and constituents in Blythe and among the Native Nations in the region impacted by this proposed project. Greenaction's interest in the protection of the sites at issue in this proposed project is based on our long history and continued involvement with Native Nations and the interests of our members in the area.

Greenaction asks that the BLM reject these projects at the current proposed locations because of the unacceptable negative affects on the geoglyphs and the Native peoples. We urge you to fully consider the negative impacts these projects will have on the Native peoples of this region, including direct placement of solar panels on the geoglyphs and the construction of fences and other structures that will make the geoglyphs inaccessible. This can only be accomplished by collaborating with the Native peoples of the region, who are the ultimate authority on geoglyphs.

The BLM must consider these impacts and must review the pending reports of John Kalish (BLM Field Manager), George Kline (archaeologist from the BLM Renewable Energy Coordinating Office in Palm Springs, CA), and local indigenous peoples and experts like Alfredo Figueroa before moving forward with these proposed projects. The company, and the BLM, should not be the final arbiter of what qualifies as a cultural, religious, and historical site, especially without adequate information about these sites: this power should reside with the people of the Native peoples and Nations of the region whose expertise far surpasses that of outsiders, as the Staff Assessment recognizes. *Staff Assessment* at C.3-2.

While Greenaction supports the goal of increasing the availability of solar power, Greenaction is opposed to the siting of these projects in a discriminatory manner on lands that have sacred, cultural, spiritual and archaeological significance. Thus, the Genesis Solar Energy Project, Blythe Solar Power Project, and Palen Solar Power Project simply cannot proceed.

Sincerely,

A handwritten signature in cursive script that reads "Bradley Angel". The signature is written in black ink and is positioned above the typed name and title.

Bradley Angel  
Executive Director



**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

**JUNE 15, 2010**

**Via Electronic & U.S. Mail**

Alan Solomon  
Siting, Transmission and Environmental  
Protection Division  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814

Allison Shaffer  
Project Manager  
Palm Springs South Coast Field Office  
Bureau of Land Management  
1201 Bird Center Drive  
Palm Springs, California 92262

To Whom it May Concern:

Notice of Availability of the Draft Environmental  
Impact Statement and Revised Staff Assessment for the Chevron Energy Solutions/Solar  
Millennium, Blythe Solar Power Project and Possible California Desert Conservation  
Area Plan Amendment, CEC Docket No. 09-AFC-6, BLM Docket No. CACA 48811

The Metropolitan Water District of Southern California (Metropolitan) reviewed the Revised Staff Assessment and Draft Environmental Impact Statement (collectively, "DEIS") for the Blythe Solar Power Project and Possible California Desert Conservation Area Plan Amendment (Project). The U.S. Bureau of Land Management (BLM) is the lead agency under the National Environmental Policy Act (NEPA) for the DEIS and the California Energy Commission (CEC) is the lead agency (for licensing thermal power plants 50 megawatts and larger) under the California Environmental Quality Act (CEQA) and has a certified regulatory program under CEQA. Under its certified program, CEC is exempt from having to prepare an environmental impact report. Its certified program, however, requires environmental analysis of the project or a "staff assessment," including an analysis of alternatives and mitigation measures to minimize any significant adverse effect the project may have on the environment.

Metropolitan is pleased to submit comments for consideration by BLM and CEC during the public comment period for the DEIS and staff assessment.<sup>1</sup> In sum, Metropolitan provides these comments to ensure that any potential impacts on its facilities in the vicinity of the Project and on the Colorado River water resources are adequately addressed.

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<sup>1</sup> Comments on the DEIS and Revised Staff Assessment are due June 16, 2010 per the Federal Register notice. 75 Fed. Reg. 13275 (March 19, 2010). This comment deadline applies to the CEC's Revised Staff Assessment issued June 4, 2010 regardless of whether it is finalized separately from BLM's DEIS as the relevant comment periods may not be reduced or altered retroactively.

## **Background**

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies serving more than 19 million people in six counties in Southern California. One of Metropolitan's major water supplies is the Colorado River via Metropolitan's Colorado River Aqueduct (CRA). Metropolitan holds an entitlement to water from the Colorado River. The CRA consists of tunnels, open canals and buried pipelines. CRA-related facilities also include above and below ground reservoirs and aquifers, access and patrol roads, communication facilities, and residential housing sites. The CRA, which can deliver up to 1.2 million acre-feet of water annually, extends 242 miles from the Colorado River, through the Mojave Desert and into Lake Mathews. Metropolitan has five pumping plants located along the CRA, which consume approximately 2,400 gigawatt-hours of energy when the CRA is operating at full capacity.

Concurrent with its construction of the CRA in the mid-1930s, Metropolitan constructed 305 miles of 230 kV transmission lines that run from the Mead Substation in Southern Nevada, head south, then branch east to Parker, California, and then west along Metropolitan's CRA. Metropolitan's CRA transmission line easements lie on federally-owned land, managed by BLM. The transmission lines were built for the sole and exclusive purpose of supplying power from the Hoover and Parker projects to the five pumping plants along the CRA.

Metropolitan's ownership and operation of the CRA and its 230 kV transmission system is vital to its mission to provide Metropolitan's 5,200 square mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

## **Project Understanding**

Pursuant to the Project Description in the DEIS, Solar Millennium, LLC and Chevron Energy Solutions, the joint developers of this project (collectively, "Proponents"), propose to construct, own, and operate the Blythe Solar Power Project. The project is a concentrated solar thermal electric generating facility with four adjacent, independent, and identical solar plants of 250 megawatt (MW) nominal capacity each for a total capacity of 1,000 MW nominal.

The Project will utilize solar parabolic trough technology to generate electricity. With this technology, arrays of parabolic mirrors collect heat energy from the sun and refocus the radiation on a receiver tube located at the focal point of the parabola. A heat transfer fluid (HTF) is heated to high temperature (750°F) as it circulates through the receiver tubes. The heated HTF is then piped through a series of heat exchangers where it releases its stored heat to generate high pressure steam. The steam is then fed to a traditional steam turbine generator where electricity is produced.

The Project water needs would be met by use of groundwater pumped from one of two wells on the plant site. Water for domestic uses by project employees would also be provided by onsite groundwater treated to potable water standards. During construction, the Project proponent anticipates using up to 4,100 acre-feet of water over the course of 60 months. Following

construction and for long-term operations, the average total annual water usage for all four units combined is estimated to be about 600 acre-feet per year (afy).

The Project site is located approximately two miles north of U.S. Interstate-10 (I-10) and eight miles west of the City of Blythe in an unincorporated area of Riverside County, California. The Blythe Airport is about one mile south of the site. The applicants have applied for a right-of-way grant from BLM for about 9,400 acres of flat desert terrain. The total area that will be disturbed by Project construction and operation will be about 7,030 acres. The area inside the project's security fence, within which all Project facilities will be located, will occupy approximately 5,950 acres.

### **Land Use Issues: Potential Impacts on Metropolitan Facilities**

Although Metropolitan has not yet identified any direct impacts, the Project is in the general vicinity of Metropolitan facilities, perhaps as close as 8 miles. As described above, Metropolitan currently has a significant number of facilities, real estate interests, and fee-owned rights-of-way, easements, and other properties (Facilities) located on or near BLM-managed land in southern California that are part of our water distribution system. Metropolitan is concerned with potential direct or indirect impacts that may result from the construction and operation of any proposed solar energy project on or near our Facilities. In order to avoid potential impacts, Metropolitan requests that the final EIS and staff assessment include an assessment of potential impacts to Metropolitan's Facilities with proposed measures to avoid or mitigate significant adverse effects.

Metropolitan is also concerned that locating solar projects near or across its electrical transmission system could have an adverse impact on Metropolitan's electric transmission-related operations and Facilities. From a reliability and safety aspect, Metropolitan is concerned with development of any proposed projects and supporting transmission systems that would cross or come in close proximity with Metropolitan's transmission system. Metropolitan requests that the final EIS and staff assessment analyze and assess any potential impacts to Metropolitan's transmission system.

### **Water Resources: Potential Impacts on Colorado River and Local Water Supplies**

Metropolitan is also concerned about the Project's potential direct and cumulative impacts on water supplies, specifically potential impacts on Colorado River and local groundwater supplies. As noted above, Metropolitan holds an entitlement to imported water supplies from the Colorado River. Water from the Colorado River is allocated pursuant to federal law and is managed by the Department of the Interior, Bureau of Reclamation (USBR). In order to lawfully use Colorado River water, a party must have an entitlement to do so. *See* Boulder Canyon Project Act of 1928, 43 U.S.C. §§ 617, et seq.; *Arizona v. California*, 547 U.S. 150 (2006).

As noted above, the Project proposes to use approximately 4,100 af of water during construction and 600 afy for long-term operations, using groundwater from a groundwater basin that is hydrogeologically connected to the Colorado River, within an area referred to as the "accounting surface." The extent of accounting surface area for the Colorado River was determined by the

Alan Solomon, Allison Shaffer

June 15, 2010

Page 4

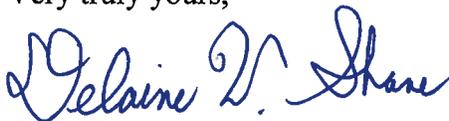
U.S. Geological Survey (USGS) and USBR as part of an on-going rule-making process. *See* Notice of Proposed Rule Regulating the Use of the Lower Colorado River Without an Entitlement, 73 Fed. Reg. 40916 (July 16, 2008); USGS Scientific Investigation Report No. 2008-5113. To the extent the Project uses Colorado River water, it must have a documented right to do so.

Entities in California are using California's full apportionment of Colorado River water, meaning that all water is already contracted and no new water entitlements are available in California. In addition, the California contractors have agreed in the 1931 Seven Party Agreement to prioritize the delivery of California's Colorado River water among themselves. Under this priority agreement, proponents would have to obtain water from the existing junior priority holder, Metropolitan, which has the authority to sell water for power plant use. Metropolitan is willing to discuss the exchange of a portion of its water entitlement subject to any required approvals by Metropolitan's Board of Directors and so long as the Proponents agree to provide a replacement supply through an agreement with Metropolitan. As required by mitigation measures SOIL&WATER-2 and SOIL&WATER-16 in the Revised Staff Assessment, Proponents must fully address the impacts on Colorado River water resources and provide full mitigation for such impacts, including replacement of supply.

Additionally, CEC should assess the potential cumulative impacts of the use of the scarce Colorado River and local groundwater supplies in light of other pending renewable energy projects within the Colorado River Basin and the local groundwater regions. Metropolitan requests that the final EIS and staff assessment address the Proponent's water supply and any potential direct or cumulative impacts from this use.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental and related documentation on this project. If we can be of further assistance, please contact Dr. Debbie Drezner at (213) 217-5687.

Very truly yours,



Delaine W. Shane

Manager, Environmental Planning Team

DSD/dsd

(Public Folders/EPT/Letters/EPT Final Letters PDF/2010/15-JUN-10C.doc)

Enclosures: Map

 BLM Furnished ROW  
 MWD Fee Property

NextEra Genesis -  
Ford Dry Lake

Chevron Energy - Palen

Chevron Energy - Blythe

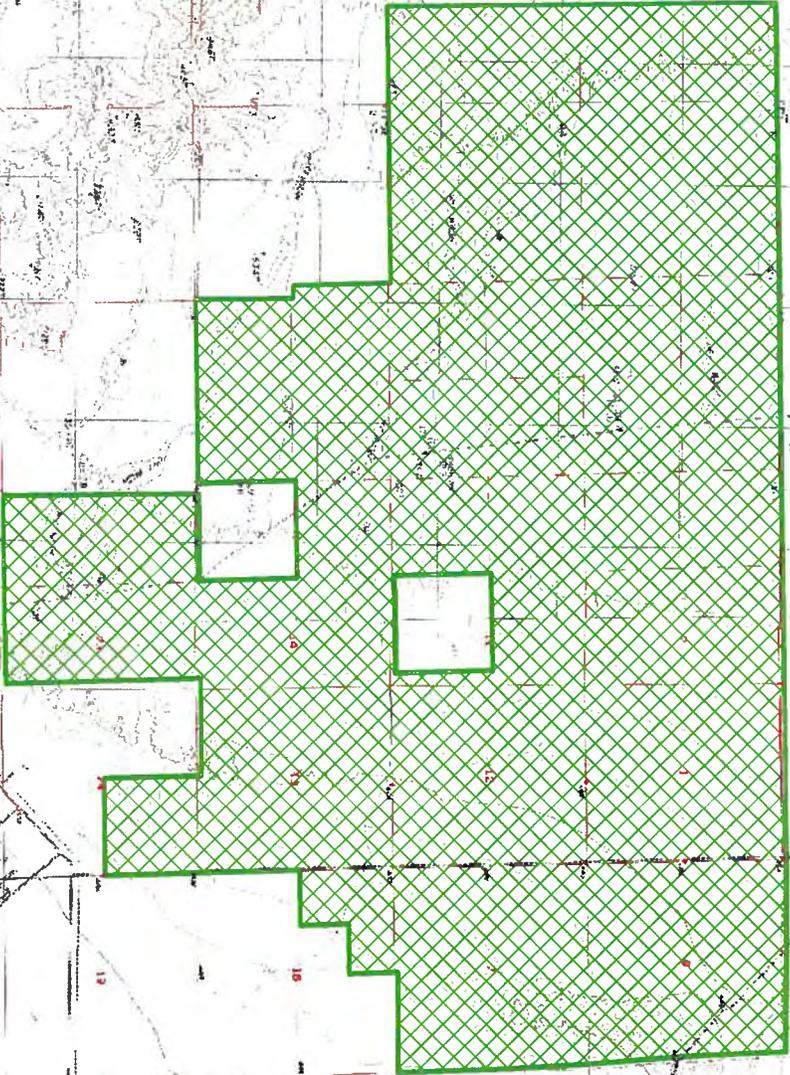
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Renewable Energy Projects  
MWD Right of Way





**BLM Furnished ROW**  
**MWD Fee Property**



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**Renewable Energy Projects**  
Chevron Energy - Blythe





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 10 JUN 16 PM 3:18  
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 RESOURCE AREA

*Please deliver to  
 Allison Shaffer  
 16 pages total*

June 16, 2010

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 Project Manager  
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 California Energy Commission  
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VIA EMAIL, FAX AND MAIL

Re: Staff Assessment and Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment for Blythe Solar Power Project

Dear Ms. Shaffer and Mr. Solomon:

The following comments regarding the Staff Assessment/Draft Environmental Impact Statement ("SA/DEIS") and Draft California Desert Conservation Area ("CDCA") Plan Amendment for the Blythe Solar Power Project ("project") are being submitted on behalf of the Sierra Club by its California/Nevada Desert Committee.

Sierra Club recognizes the need to develop the nation's renewable energy resources and to do so rapidly in order to respond effectively to the challenge of climate change. Unique natural resources here in California are already being affected by climate change,



including, for example, the pikas of Yosemite National Park and the Joshua trees in Joshua Tree National Park. We also recognize that renewables development can help create jobs in communities that are eager for them, because of the nation's economic crisis. For these and other related reasons, our organization is working with regulators and project proponents to move renewable projects forward. That said, renewable development is not appropriate everywhere on the public lands and must be balanced against the equally urgent need to protect unique and sensitive resources of the California Desert Conservation Area (CDCA), especially the need to retain core, landscape-level undisturbed lands for species movement likely to be caused by climate change. California is fortunate to have sufficient renewable resources, including solar resources throughout the State, to do their development in an environmentally and fiscally sensitive way.

We support a reduced Blythe Solar Power Project alternative and/or a conjunctive use alternative that avoids the microphyll and dry wash woodland habitat in the western part of the project, as requested during scoping and outlined below. However, we object to development of the full 10 square mile proposal because of its intrusion into high value habitat in the western portion of the project. Intrusion into this area is not necessary to achieve a legitimate project purpose and need, and it causes serious unmitigated direct, indirect and cumulative impacts. The project SA/DEIS has a number of significant flaws which require revision and recirculation of the document before any action may be taken. Additionally, the Bureau of Land Management ("BLM") is embarking on approval of vast land conversion for renewable energy on a scale that was not in any way contemplated by its underlying planning documents (the CDCA Plan and the Northern and Eastern Colorado Desert Coordinated Management Plan). Therefore soon BLM will be out of compliance with its mandates under the Federal Land Management Policy Act of 1976 ("FLPMA"). Thus, BLM must revise its Management Plan to properly determine what level of acceptable change is sustainable, particularly given the uncertainties regarding the effects of climate change on sensitive species and habitats.

## INTRODUCTION

The project site is located approximately two miles north of U.S. Interstate-10 (I-10) in an unincorporated area of Riverside County, California (Figure 1-1). The Blythe Airport is about one mile south of the site. The Applicants have applied for a right-of-way (ROW) grant from BLM for about 9,400 acres of flat desert terrain. The total area within the ROW that will be disturbed by Project construction and operation will be about 7,030 acres. The area inside the Project's security fence, within which all Project facilities will be located, will occupy approximately 5,950 acres of the ROW. The Proposed Project site is approximately 10 miles west of Blythe on the north side of Interstate (I-) 10, and borders the McCoy Mountains to the west.

We do commend the applicant for choosing a site adjacent to transmission and urbanization. However, the Colorado Desert, where the project would be located, is an extraordinarily sensitive and largely intact ecosystem. The entire project disturbance area of over 10 square miles is intact natural desert land. As stated in the SA/DEIS Executive Summary:

Access to the site will be provided by a new public road. The BSPP site is nearly completely vacant and undisturbed and is almost entirely owned by BLM; two 160-acre private parcels exist within the ROW but neither of these is currently planned for use by the Project. There are no existing structures on the site.

In addition to threatened desert tortoise and Nelson's bighorn sheep, the SA/DEIS notes the diversity of wild predators in section 5.4:

Large mammalian predator activity was documented across the BRSA during spring 2009. Predator digs, in round-tailed ground squirrel burrows, kit fox burrows and desert kangaroo rat complexes were numerous. The majority of predator activity in the BRSA appears to be by American badgers (*Taxidea taxus*) and desert kit foxes (*Vulpes macrotis arsipus*). Both badger dens and many mammal burrows with badger claw marks (where badgers were foraging for mammal prey) were present. Coyote (*Canis latrans*) activity was also noted, but more commonly observed on the eastern portion of the BRSA. Bobcat (*Lynx rufus*) scat was sometimes observed in several of the desert dry wash areas. Mountain lion (*Felis concolor*) likely uses the BRSA but no definitive sign for this species was observed.

Clearly, although the Blythe farming community is nearby, the project area is still a wild, diverse natural area. The project-caused direct, indirect and cumulative damage to desert biota and ecological processes is likely to be irreversible for hundreds of years or permanent, whereas the project's benefits are only temporary (30 years). Nonetheless, the California Energy Commission ("CEC") and United States Bureau of Land Management ("BLM") are rushing through critical environmental reviews and omitting essential information for the sake of the project applicant's arbitrary timetables. An applicant's supposed time constraints are not a recognized exception to the requirements of either the California Environmental Quality Act ("CEQA") or the National Environmental Policy Act ("NEPA") nor Federal Land Policy Management Act ("FLPMA"). It is crucial that a complete and thorough inquiry into the project's impacts be made *before* the CEC and BLM commit themselves to allowing irreversible environmental damage.

The SA/DEIS fails to comply with CEQA and NEPA in several distinct ways. First, it omits essential information and, as a result, fails as an informational document. Second, the SA/DEIS unlawfully defers the formulation of various studies and mitigation measures. Third, the assessment of the project's environmental impacts is inadequate. Significant impacts are deemed insignificant and impacts that can be mitigated are mistakenly found to be unavoidable. Fourth, significant unstudied changes have been made to the project not addressed in the SA/DEIS, and significant new information is planned to be added to the SA/DEIS at a future date, so the SA/DEIS must be re-circulated and an additional public comment period provided. Fifth, the discussion of Alternatives is inadequate insofar as it failed to properly analyze the distributed generation alternative and the use of alternative technology onsite. BLM rejected a private land alternative on the sole basis that it is inconsistent with the *applicant's* purpose and need, and

declined altogether to evaluate conjunctive use of public and private lands as a project alternative. Sixth, the SA/DEIS unlawfully segments the project by failing to consider the impacts of the related gen-tie transmission and natural gas pipeline required for the project. Seventh, the SA/DEIS does not address the fact that the BLM's governing planning documents are inadequate to guide the proposed action.

For these reasons, the SA/DEIS must be revised and re-circulated.

### ***THE SA/DEIS OMITTS CRUCIAL INFORMATION AND FAILS AS AN INFORMATIONAL DOCUMENT***

NEPA requires agencies to take a "hard look" at how the choices before them affect the environment, and then to place their data and conclusions before the public before decisions are made and actions taken. CEQA is similarly intended to inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities. In violation of these fundamental precepts, the SA/DEIS fails to include critical information and a number of important studies whose inclusion is necessary for both the public and CEC/BLM to fully understand the environmental consequences of the project. For example, the specific location of the project-required gen-tie transmission lines and new natural gas lines has not been specified. A "possible transmission line route" is drawn on a few maps, but the SA/DEIS fails to positively define the area or disclose any evidence of surveys, analysis or recommended avoidance or mitigation measures for impacts caused by the needed transmission and pipelines:

Generally speaking, the gen-tie line is expected to proceed directly south from the project site, eventually crossing I-10 and turning westward to SCE's planned Colorado River substation. This route may have a potential impact to the Blythe Airport and will be discussed in the Supplemental Staff Assessment publication in early July 2010.

As discussed more fully below, nearly *every* section of the SA/DEIS mentions an omitted study. Because the SA/DEIS fails to include critical studies and information necessary to fully understand the impacts that the Project will have, it violates both CEQA and NEPA.

Moreover, the SA/DEIS fails to provide adequate information regarding project alternatives and its reasons for rejecting environmentally preferable alternatives. For example, the SA/DEIS discussion on alternative solar technology (PV) simply provides conclusory statements in lieu of facts and analysis. Because the SA/DEIS fails to provide a foundation for its rejection of viable and environmentally preferable alternatives, it again violates both CEQA and NEPA.

### ***THE SA/DEIS IMPROPERLY DEFERS THE FORMULATION OF MITIGATION MEASURES AND STUDIES***

Both NEPA and CEQA are intended to help decision makers make those decisions based upon high quality information. For this reason, both statutes prohibit agencies from relying on studies and documents that may be developed at a future date. Agencies are similarly prohibited from

conditioning the approval of projects upon the adoption of mitigation measures that may be recommended in a future study.

Here, the SA/DEIS unlawfully relies on a number of future studies and conditions project approval upon the adoption of mitigation measures that have not yet been created. For example, the Army Corps of Engineers has not yet determined whether waters of the United States occur onsite. However, mitigation of impacts to such waters are predicated on this finding pursuant to section 404 of the Clean Water Act. As identified in the Executive Summary, several other issue areas remain incomplete as to studies, analysis and/or mitigation:

Where applicable, staff has identified any outstanding issues in the technical sections of the RSA. To resolve these issues, staff requires either additional data, further discussion and analysis, or is awaiting conditions from a permitting agency prescribing mitigation. Staff will work to resolve the outstanding issues and *plans on issuing a Supplemental Staff Assessment publication in early July 2010. In addition to the Cultural Resources, Land Use and Traffic and Transportation sections mentioned above, the Supplemental Staff Assessment will also have information from the following sections: [the following were listed: Air Quality, Biological, Transmission Engineering]*[emphasis added]

A Drainage, Erosion and Sedimentation Control Plan "that ensures protection of water quality and soil resources" is also incomplete, as is the Stormwater Damage Monitoring and Response Plan. Similarly, an examination of the historically significant cultural resources present at the site has not been completed.

Therminol VP1 is the heat transfer fluid (HTF) that will be used in the solar panels to collect solar heat and transfer it in order to generate steam to run the steam turbines. "Therminol is highly flammable and fires have occurred at other solar generating stations that use it. Approximately 1,300,000 gallons of HTF will be stored at the BSPP." (C.4-8) A Safety Management Plan, intended to reduce the likelihood of a hazardous waste spill, is still unformulated [c.4.22], as is a Construction Security Plan [c.4-20], Hazardous Materials Business Plan, a Spill Prevention, Control, and Countermeasure Plan, Process Safety Management Plan and an Operation Security Plan. Nor is a Decommissioning Plan formulated:

The Draft Conceptual Decommissioning Plan (AECOM 2010d) does not provide sufficient information to guide the decommissioning of the channel or restoration of the Project Disturbance Area, nor does it provide any information that could be used to develop an estimate of the funding needed for those activities. Regulations promulgated by BLM at 43 CFR 3809.550 et seq. require a more detailed reclamation plan and an estimate. (C.2-77)

Additionally, the Programmatic Agreement to ensure mitigation of certain cultural impacts is not complete, depriving the public on an opportunity to comment on this aspect of the proposed project. Finally, the Biological Resources Mitigation Implementation and Monitoring Plan also is not developed:

The Project owner shall develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), and shall submit two copies of the proposed BRMIMP to the BLM-Authorized Officer and the CPM for review and approval. (C.2-121)

The sheer volume of omitted information is staggering. The public is prevented from assessing the adequacy of the nearly all of the project's most important mitigation measures because they have not yet been created. Whether or not these unformulated mitigation measures will themselves have environmental impacts is impossible to determine, potentially in violation of CEQA and NEPA. The CEC and BLM must re-circulate the SA/DEIS when all of these omitted studies, analyses and mitigation measures have been completed and included in the SA/DEIS. Without these studies, the SA/DEIS is incomplete as a matter of law.

***THE DISCUSSION OF THE PROJECT'S ENVIRONMENTAL IMPACTS IS INADEQUATE.***

Both NEPA and CEQA require agencies to identify the significant environmental effects of their actions. CEQA also requires that an action agency impose all feasible measures to mitigate these impacts, or make a finding of overriding considerations. All significant impacts *must* be mitigated *unless* mitigation measures to reduce these impacts are infeasible. Here, the SA/DEIS (1) fails to identify certain impacts altogether; (2) mislabels other significant impacts as insignificant; and (3) fails to adopt mitigation measures for those impacts found to be significant.

***Biological Impacts***

The SA/DEIS summarizes project biological impacts as:

The Blythe Solar Power Project (Blythe Project or Project) would have significant impacts to biological resources, eliminating all of the Sonoran creosote bush scrub and other native plant and wildlife communities within the approximately 7,077-acre site. The Blythe Project would also directly and indirectly affect an extensive network of desert washes comprising over 550 acres of state jurisdictional waters. The Blythe Project would significantly alter the hydrology of the area by re-routing these waterways through five engineered channels.

***Desert Wash and Microphyll Woodland***

Clearly, the lead resource issue is avoiding/protecting the microphyll woodlands and associated wash vegetation that occur throughout the western portion of the project. The rarity and sensitivity of this riparian community is the main environmental concern. As identified by the biological consultants, the western

portion of the proposed project includes an unusually rich example of these woodlands and the related fauna dependent on these associations:

In general, several species are likely to use habitat on the disturbance area, especially the ephemeral desert washes and associated wash-dependent vegetation communities... Movement by large mammals such as coyote, kit fox, mule deer, bobcat, American badger, and mountain lion would likely be concentrated in the wash areas because these areas may provide greater foraging opportunities.

Although the SA/DEIS acknowledges impacts to the extensive high value microphyll woodland on and offsite, it fails to adequately evaluate and avoid those impacts. As more fully discussed below, Sierra Club believes the project can and should avoid this habitat, by removing the power blocks in the western half of the proposed footprint, and if more than a 500 MW project is desired, potentially utilizing the private and public lands to the east of the current footprint. Most of these lands have been assessed for biological impacts in the SA/DEIS East Mesa alternative and been found to have substantially lesser value.

#### *Desert Tortoise*

The Mojave Desert Tortoise was listed as a "threatened species" under the Federal Endangered Species Act in 1990 because of the precipitous decline in desert tortoise numbers due to human-caused mortality and the destruction and fragmentation of desert tortoise habitat. Although the east half of the project is low value desert tortoise habitat, the west side has higher value and extensive microphyll woodland habitat constituents favorable to tortoise. Developing the project, especially the west half, on occupied desert tortoise habitat would contribute directly to the continued decline of the Mojave desert tortoise.

The *Desert Tortoise Recovery Plan* states: "Habitat outside DWMA's may provide corridors for genetic exchange and dispersal of desert tortoises among DWMA's" (1994, 60). Valleys are especially valuable for species connectivity as they may provide corridors for genetic exchange and dispersal among tortoise populations. This genetic exchange is essential for the long term survival and recovery of threatened desert tortoise. Therefore, by virtue of destroying habitat and/or a potential corridor connection for desert tortoise as acknowledged in the SA/DEIS will cause a significant impact by contributing to the continued decline of this imperiled species. The SA/DEIS has not adopted mitigation or avoidance to lessen those impacts.

Clearance surveys and translocation are not mitigation; they are a salvage operation to clear a proposed construction site of animals that are occupying the land. Moving desert

tortoises from the site of any proposed solar power project will almost certainly lead to the death a significant percentage of the animals. Timothy Gowan and Kristin Berry (2010) report a mortality rate of 44 percent among a sample of 158 tortoises translocated from Fort Irwin's Southern Expansion Area in the Spring of 2008.

Even though translocating or relocating tortoise is largely ineffective, it is important to stress that it be done prudently, with thorough disease testing. Relocating tortoise without disease testing could imperil the health of both the animals to be moved and the resident populations into which tortoises will be released. Based on the reports of Berry, et al. (2008), Mack, et al. (2008) and Mack and Berry (2009) that disease is not uniformly distributed across geographical areas, it is reasonable to assume that there will be pockets of diseased animals and pockets of healthy animals within the 5 kilometer range of the project site. Not fully testing animals that are to be "relocated" could result in the introduction of diseases into otherwise healthy populations. And not testing the host populations within the 5 kilometer range could result in the introduction of healthy tortoise from the project site into a population that is diseased.<sup>1</sup>

Therefore, any translocation should follow the Desert Tortoise Council *Guidelines for Handling Desert Tortoise During Construction*. Additionally, any tortoises that are moved more than 1000' should be fully tested for disease (including by ELISA) and the host population should be tested to the same extent as well.

### *Nelson's Bighorn Sheep*

Additionally the SA/DEIS fails to fully disclose and avoid or mitigate for potentially significant impacts to Nelson's bighorn sheep, a BLM designated sensitive species whose NECO Plan defined management area is within one half mile of the project footprint. Definite sign of Nelson bighorn was observed on the Project site, but at 5.4 the SA/DEIS acknowledges that:

Nelson's bighorn sheep scat and tracks were observed within the disturbance area during 2009 surveys, indicating that the species uses the site for dispersal and seasonal movement. Nelson's bighorn sheep is known within the region. While the species is generally associated with mountainous areas, desert floor areas are important for dispersal and seasonal movement.

Populations of bighorn sheep within individual mountain ranges are often small, and there is typically considerable movement between mountain ranges; these intermountain movements are particularly important to long-term population viability. Bighorn sheep were documented moving through the disturbance area during 2009 field surveys (Figure 5.3-9).

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<sup>1</sup> Desert Tortoise Council comments on Draft Ridgecrest Solar Power Project Desert Tortoise Clearance and Relocation/Translocation Plan. Attachment DR-B10-54, April 19, 2010

But no focused surveys for the species were conducted or required:

While bighorn sheep sign was observed, focused surveys for this species were not conducted and this sign was noted incidentally during wildlife and botanical surveys. To quantify the use of this site by this species, focused surveys would need to be conducted.

NEPA and CEQA mandate full information and analysis of impacts that would restrict the range of this sensitive species. The SA/DEIS must include focused surveys, full analysis and quantification of impacts, including barriers to dispersal, dispersal requisite to ensure gene flow among neighboring metapopulations, and analysis of noise impacts of the project which are considerable. In the context of cumulative impacts of other solar project applications which fill the entire McCoy Valley, the responsible agencies have an affirmative duty to examine habitat connectivity for Nelson's bighorn and desert tortoise and address it now while greater options exist to ensure gene flow into the future.

#### *American Badger and Other Protected Species*

With regard to American badger, and several of the other sensitive species in the project disturbance area, the SA/DEIS contains no real quantification regarding the Project's impacts, save that they appear to have greater numbers in the western portion of the project site. This is because there were no focused surveys or analysis to gather adequate information, as acknowledged in the SA/DEIS:

*Without focused surveys for badgers it is difficult to determine the population size and dynamics as badger dens and evidence of foraging were observed incidentally during other general wildlife survey and focused surveys for other species. However, based on the distribution of burrows and burrows showing evidence of recent predation by badgers (claw marks) it can be concluded that this species is using the western portion of the disturbance area more heavily than the eastern portion.[emphasis added]*

Thus, the SA/DEIS failed to perform adequate surveys, analysis and avoidance or mitigation for impacts to Nelson bighorn sheep and other sensitive species and habitat connectivity corridors.

#### *No Surveys for Offsite Infrastructure*

Additionally, the BLM and CEC have improperly segmented the environmental review for the project by failing to include the entire project in this SA/DEIS:

Biological Resources Study Area includes the disturbance area acreage plus additional surrounding buffer areas around the site that are covered by the investigation in order to comply with regulatory requirements. The Project transmission line that will interconnect the Project with the regional grid is not included in this AFC because the route has not yet been finalized, as discussed earlier. The facility footprint encompasses the entire area within the fence line of the facility footprint, and also will include the transmission line when the route is finalized.

### *Plant Impacts*

The SA/DEIS also fails to disclose significant impacts to all special-status plant species. For example, the SA/DEIS failed to require Fall surveys for sensitive plant species. In view of the scale of the project disturbance, 10 square miles, there is great potential for narrow endemic plants to occur onsite.

The SA/DEIS omitted to require fall surveys even though the specific issue arose during scoping.<sup>2</sup> The SA/DEIS fails to provide adequate analysis of project impacts to rare plants. Only Spring plant surveys were conducted, from February into April of 2010, and no fall surveys were required by the SA/DEIS. Unless all required plant surveys are completed *before* the mitigation measures are adopted, it is impossible to tell whether the mitigation measures will be effective. Moreover, fall surveys for special-status plant species have not yet been prepared. Because of these informational inadequacies, the SA/DEIS is legally deficient.

### *Cultural Impacts*

The SA/DEIS discussion of impacts to cultural resources is incomplete and inadequate. Assessment of the short and long term adverse impacts to cultural resources is relegated to a programmatic agreement yet to be completed. The SA/DEIS states that:

Mitigation for project impacts to cultural resources will be handled in a Programmatic Agreement (PA) negotiated among all stakeholders- federal, state, and private. Development of the PA by the BLM is underway, but will not be completed until mid-summer.

However, Native American activists assert that the project would have significant cultural impacts and would cause "desecration of the geoglyphs located in the project area."<sup>3</sup>

Not only has the SA/DEIS failed to adequately inform the reviewer as required by law, but also BLM has failed to satisfy its obligations under section 106 of the National Historic Preservation Act ("NHPA"). The NHPA requires agencies to take into account the impact of effects of their actions on historical resources "*prior to the issuance of any license.*" Instead of completing this required process, BLM is opting to use a programmatic agreement to defer evaluation, mitigation, and treatment.

Here again the assessment of impacts and the formulation of mitigation measures is impermissibly deferred. At SA/DEIS 5.4-1, CEC and BLM assert:

With implementation of *planned additional investigations* and appropriate mitigation measures, Project impacts on cultural resources *would be expected* to be less than

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<sup>2</sup> Sierra Club Blythe Solar Power Project scoping comments, December 23, 2009

<sup>3</sup> Declaration of Greenaction for Health and Environmental Justice Against 09-AFC-8, 09-AFC-6, and 09-AFC-7

significant. Based on archival research, systematic field survey, and consultation with interested parties, 200 archaeological sites and one historic architectural resource were inventoried for the Project. At the historic architectural resource, and at 41 of the archaeological sites, the potential exists for significant impacts as defined by CEQA. [emphasis added]

The cultural resource surveys are incomplete and the cultural mitigation is not formulated. The SA/DEIS is incomplete because it omits critical information and mitigation and also fails to identify the potentially significant impacts shown above. Additionally, as noted below, the project transmission gen-tie lines and natural gas lines, key project components, have not yet been identified. Therefore all information, cultural or otherwise, is lacking for those yet-to-be-delineated, surveyed, analyzed or mitigated areas of impact:

The cultural resources pedestrian survey included transmission line alignments which have since been abandoned due to changes in the location of a planned electrical substation. Although the cultural resources found along those transmission lines are presented in the attached Class III survey report, they are not reported here as they are no longer part of the proposed BSPP. When the transmission route is finalized, additional studies will be performed and the information provided to the agencies and other stakeholders. (5.4- 18)

Moreover, Alfredo Figueroa, representative of the Native American community has repeatedly rejected the applicant's studies, calling into question the credibility of the SA/DEIS cultural assessment. Before committing to the permanent destruction of irreplaceable cultural resources, CEC and BLM must, at the very least, determine the nature and extent of the cultural heritage they are obliterating.

#### *Hydrology and Soils Impacts*

The SA/DEIS' assessment of impacts to soil and water resources is likewise deficient. The project is characterized as air-cooled; however there is some significant wet-cooling contemplated in summer months, causing a geometrical increase in groundwater use. The SA/DEIS is unclear on this subject, and needs to acknowledge if this is a hybrid wet cooled power plant, and how the increased groundwater consumption in an arid environment is justified, especially in view of the project's modest power output (2000 MWH a year, about 22% capacity factor. Thus, the project's generation capacity factor is only marginally better than PV, if at all, and at a far greater consumption of scarce groundwater resources.

Also, the project's impacts on waters of the United States are unknown. The project has the potential to cause massive amounts of runoff and erosion. Whether or not these impacts will be significant has yet to be determined because the SA/DEIS fails to include sufficient information.

Jurisdictional waters delineations by Project scientists indicate that there are unlikely to be waters on the site considered jurisdictional by the U.S. Army Corps of Engineers (USACE), but USACE concurrence has not yet been obtained.

The project's consistency with section 404 of the Clean Water Act is uncertain. The SA/DEIS asserts that the project drains into a closed basin. In view of the project's slope to the Colorado River, we find this assertion less than credible, and no explanation of the "closed basin" referred to in the SA/DEIS is provided. This information must also be included in a re-circulated SA/DEIS.

#### *Land Use Impacts*

CEQA and the Warren-Alquist Act require the CEC to discuss any inconsistencies between the proposed project and applicable general plans and regional plans. In conflict with this requirement, the SA/DEIS fails to disclose two such inconsistencies. First, the Project is inconsistent with the Riverside County General Plan land use designation for the area.

Most importantly as stated above and further described below, the project (cumulatively if not individually) conflicts with BLM's own master planning documents, namely the CDCA Plan and the Northern and Eastern Colorado Desert CDCA Plan Amendment.

With regard to land use impacts, the SA/DEIS only acknowledges that "the proposed project may conflict with applicable Riverside County land use LORS regarding the project's impact on Blythe Airport operations. Staff is still investigating this issue and a final determination will be made in the supplement to the Staff Assessment" [C.6-16] However, the discussion of land use impacts is inadequate because (1) the project has unresolved inconsistencies with the Riverside County General Plan: "the project is located on land designated open space and rural desert. The project would convert almost 6,000 acres to industrial solar." [C.6-10]

Then the SA/DEIS proceeds to acknowledge that the :

Open Space Rural" land use designation is applied to remote privately owned open space areas with limited access and a lack of public services and requires that "structures be designed to maintain the environmental character in which they are located...Ensure that development does not adversely impact the open space and rural character of the surrounding area [C.6-6 &7]

But, instead of clearly identifying the project's inconsistency with an existing General Plan, the SA/DEIS cryptically states: "Staff anticipates comments from Riverside County staff on this staff assessment related to the projects compliance with the Palo Verde Valley Area General Plan's Land Use Element." [C.6-11] This does not constitute the requisite analysis and avoidance or mitigation under NEPA and CEQA.

(2) The SA/DEIS fails to acknowledge that BLM's own governing planning documents are inadequate to provide guidance for this scale of land conversion.

The CDCA Plan is intended to provide comprehensive, long-range guidance with goals and specific actions for the management, use, development, and protection of the resources and public lands within the CDCA, based on the concepts of multiple use, sustained yield, and maintenance of environmental quality. The Plan should provide a desert-wide perspective of the planning decisions for each major resource or issue of public concern as well as more specific interpretation of multiple-use class guidelines for a given resource and its associated activities. However, clearly, neither the CDCA Plan nor its successor NECO Plan ever contemplated or addressed land conversion of the scale and intensity proposed by this and other large renewable energy projects throughout the California desert and immediate region.

With regard to the NECO Plan, the SA/DEIS acknowledges:

The planning area encompasses over five million acres. The NECO Plan amended the CDCA plan in 2002 and is currently undergoing evaluation for further amendment. The CDCA Plan/NECO is related to the Draft Solar Energy Programmatic Environmental Impact Statement which is expected to be leased in 2011 and could give guidance as to how and where solar projects can be built on BLM lands. [C.6-6]

The issue of CDCA/NECO Plan inadequacy to provide guidance and limits of acceptable change for land conversion on the scale proposed by this and other solar projects was raised in scoping comments, but apparently disregarded.<sup>4</sup> A re-circulated SA/DEIS must address this threshold issue.

#### *Decommissioning and Other Missing Plans*

As mentioned above, in violation of NEPA and CEQA, the SA/DEIS has no Decommissioning Plan:

The planned operational life of the project is 30 years, but the facility conceivably could operate for a longer or shorter period depending on economic or other circumstances. If the project remains economically viable, it could operate for more than 30 years. However, if the facility were to become economically non-viable before 30 years of operation, permanent closure could occur sooner. In any case, a Decommissioning Plan would be prepared and put into effect when permanent closure occurs.

The procedures provided in the decommissioning plan would be developed to ensure compliance with applicable LORS, and to ensure public health and safety and protection of the environment. The Decommissioning Plan would be

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<sup>4</sup> Sierra Club Blythe Solar Power Project scoping comments, December 23, 2009

submitted to the CEC and BLM for review and approval prior to a planned closure.

Not only is this study not available for public review, but also the mitigations proposed for decommissioning could have impacts of their own. Unfortunately, this, and several other operational plans are completely lacking in the SA/DEIS. It is incumbent upon the responsible agencies to include a full Decommissioning Plan and other requisite plans in a re-circulated SA/DEIS for full public review.

### *Cumulative Impacts*

Both NEPA and CEQA require agencies to consider the cumulative impacts of their actions. The project will have numerous impacts, some of which were not disclosed, and none of which were adequately mitigated.

approximately one million acres of land are proposed for solar and wind energy development in the Southern California desert lands. The conversion of these lands would preclude numerous existing land uses including recreation, wilderness, rangeland, and open space, and therefore, would result in a significant immitigable cumulative impact. C.6-24

First, the Project will have cumulative impacts on the biotic resources of the region, some of which are identified in the SA/DEIS:

For cumulative impacts to biological resources, the BSPP adds incrementally to the overall loss, fragmentation and degradation of native plant communities and wildlife habitat and impairment of wildlife connectivity. The combined effects of all existing and future projects are likely to remain significant even with implementation of project-specific mitigation because of these residual cumulative effects. Such cumulative effects can only be addressed through a regional and coordinated effort aimed at preserving and enhancing large portions of intact wildlife habitat and linkages, including maintaining connections between Desert Wildlife Management Areas and other desert tortoise habitat. (B.2-11)

The BSPP is located in an area that could support local dispersal opportunities and provide habitat connectivity for special-status species, including DT, Nelson's bighorn sheep. DT and Nelson's bighorn sheep may move from the southwest to northeast or vice versa for population dispersal. While DT densities on the valley floor may be lower than in the adjacent mountain ranges, movement between local populations through intermountain valleys is important for long-term population viability. (Helix Biological Assessment)

However, the SA/DEIS fails to identify cumulative impact mitigation for Nelson's bighorn and other sensitive species adversely impacted by the project and other foreseeable projects. Proposed

mitigation for cumulative biological impacts apparently consists of plan amendments to designate some primarily tortoise acquisition areas and one special management area.

That portion of the rest of the Chuckwalla DWMA in the Palm Springs South Coast Field Office would be managed specifically for tortoise critical habitat and targeted acquisitions. It would be managed as a ROW avoidance area subject to a 0.25 percent total surface disturbance. BLM would collaboratively develop an activity plan for off highway vehicle management strategies within this portion of the DWMA to manage OHV use in desert washes in this area. (Biological Resources, Appendix B)

In context with the vast land conversion contemplated with renewable energy development, the concept of setting aside landscape-level conservation areas to mitigate for severe cumulative impacts of the project is laudable, and it is mandated by NEPA and CEQA. However, there are some serious deficiencies in the proposed mitigation. Targeted acquisition areas make sense, but the Chuckwalla DWMA is already serving as a tortoise mitigation area, where the Eagle Mountain landfill and other proposed projects have acquired compensation land in the past and presumably continue to do so today. Designation of a targeted acquisition area is not necessary for this to happen.

Also, Plan amendments can be changed; they are not permanent. The proposed mitigation of only Plan amendments does not provide the necessary permanent, unchangeable mitigation for severe cumulative impacts that will persist at least for hundreds of years beyond the life of the projects. The mitigation does not specify management prescriptions, and it allows undefined activities, "Casual use of the area would remain unaffected." (Biological Resources, Appendix B) Additionally, the proposed mitigation does not address the cumulative impacts to the McCoy Valley and surrounding mountains and designated special management areas. In the context of other projects stacked up north of Blythe Solar, renewable energy development threatens to obliterate all meaningful natural resource values in this large, pristine interconnected landscape.

Second, the Project will have cumulative growth inducing impacts which have not been identified, avoided or mitigated in the project review. The SA/DEIS concludes that no significant growth-inducing impacts will occur because the size of the project's workforce is modest. It then concludes that there will be no cumulative impacts. This conclusion is in direct conflict with CEQA, which directs that "it must not be assumed that growth in any area is necessarily beneficial... or of little significance to the environment." Guidelines § 15126.2(d). The SA/DEIS must attempt to quantify the growth inducing impacts of all other types of projects that are likely to spring up in east Riverside County after Project approval, because these impacts are "reasonably foreseeable."

Considered in the context of other proposed large energy projects in the region, the cumulative impacts of the project are significant in nearly every issue category. On a human time scale, these cumulative impacts will be permanent and pervasive, causing landscape-level biological, cultural and other impacts that will last hundreds of years or more after the expected lifetime of the projects. The SA/DEIS fails to identify all

cumulative impacts and to provide adequate avoidance and/or, permanent mitigation to offset project cumulative impacts.

***THE SA/DEIS MUST BE RECIRCULATED WHEN THE MISSING INFORMATION IS ADDED.***

As discussed above, critical information was omitted from the SA/DEIS and other information was inconsistent throughout the document. Given the importance and sheer volume of omitted information, the public has been deprived of the opportunity to comment on the project in a meaningful way. Under these circumstances, both NEPA and CEQA require recirculation of the environmental document. Because NEPA and CEQA are intended to provide the public with access to high-quality information, it is unlawful to release the DEIS and then attempt to fix its problems out of the public eye. If significant new information is added to the SA/DEIS, or existing information substantially changed, it must be re-circulated.

***BLM UNLAWFULLY REJECTED SITE ALTERNATIVES, ALTERNATIVE TECHNOLOGIES AND DISTRIBUTED GENERATION ON THE BASIS OF INCONSISTENCY WITH THE APPLICANT'S PURPOSE AND NEED.***

*BLM's and CEC's Statements of Purpose and Need Reflects the Applicant's Needs, and Is Too Narrowly Drawn.*

BLM failed to consider the East Mesa and other offsite alternatives under NEPA because none would accomplish the purpose and need for the proposed action:

All site alternatives proposed to be located on lands not under the jurisdiction of the Bureau of Land Management are considered unreasonable by the Bureau of Land Management because none would accomplish the purpose and need for the proposed action, which is to respond to Palo Verde Solar I's application under Title V of FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate, and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other Federal applicable laws.

Similarly, BLM impermissibly rejected the use of alternative solar technologies onsite on the basis of inconsistency with the *applicant's* purpose and need:

Alternative solar technologies are not required to be analyzed by the BLM because they fall outside BLM's purpose and need for the proposed action, which is to respond to Palo Verde Solar I's application under Title V of FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate, and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other Federal applicable laws.

Likewise, the BLM rejected the distributed renewable energy generation alternative on the same basis:

Alternative solar technologies are not required to be analyzed by the BLM because they fall outside BLM's purpose and need for the proposed action.

However, BLM's statement of purpose and need for the SA/DEIS is too narrowly drawn. Courts have held that, although an agency has discretion to define the purpose and need of a project, it cannot use "unreasonably narrow" terms to define a project's objective. The Department of Interior ("DOI") regulation, 40 C.F.R. § 1502.13 merely requires that an EIS briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action. DOI's NEPA handbook explains that the "purpose and need statement for an externally generated action must describe the BLM purpose and need, *not an applicant's or external proponent's purpose and need.*" Department of Interior, Bureau of Land Management, National Environmental Policy Act Handbook 35, (citing 40 C.F.R. § 1502.13) (emphasis added)

Instead, according to the SA/DEIS, the BLM's purpose and need is "to respond to the Palo Verde I's application under Title V of FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate and decommission a solar thermal facility and associated infrastructure in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws." For this reason, BLM has declined to examine any off-site alternatives, alternative technologies or distributed generation, despite its duty to comply with NEPA.

As the Energy Policy Act, and related Secretarial and Executive Orders direct BLM to "encourage the development of environmentally responsible renewable energy" while complying with existing environmental laws – the project purpose and need statement need not be so narrowly drawn as to preclude the consideration of alternative locations and technologies. To do so reflects the needs of the project applicant, not the needs of BLM, in violation of NEPA.

*BLM Unlawfully Rejected Site Alternatives and Failed to Consider Conjunctive use of Public/Private Land.*

BLM also rejected the East Mesa site alternative because the alternative did not fall within the BLM's jurisdiction. In fact, an agency's refusal to consider an alternative that would require some action beyond that of its congressional authorization is counter to NEPA's intent to provide options for agencies. BLM's determination to narrow its purpose and need to preclude the analysis of alternative sites, and to avoid analysis of offsite alternatives because they are outside of its jurisdiction, renders the SA/DEIS deficient.

Additionally, in spite of scoping requests to do so,<sup>5</sup> the responsible agencies failed to consider a project alternative comprised of the east portion of the project in conjunction with degraded private lands to the east and south of the project.

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<sup>5</sup> Scoping comments, Sierra Club California/Nevada Desert Energy Committee, Dec 23, 2009

Additional requests were made that the private, disturbed lands immediately east of the BSPP be considered in conjunction with portions of the Blythe proposed site. (B.2.7)

*Relocation to an Alternative Site or Conjunctive Public/Would Reduce the Project's Impacts.*

The East Mesa (private land) alternative site "consists mostly of fallow agricultural fields and active orchards. The Burlington Northern and Santa Fe Railway... traverses the northern and eastern portions of the Private Land Alternative site. Surrounding lands to the west are mostly undeveloped BLM land, and to the east are comprised of mostly agriculture but also include a Riverside County dumping site, golf course, and rural residences."<sup>6</sup> With regard to the East Mesa alternative, the Biological Assessment for the project found that:

Few impacts to special status plant and animal species would be expected because the Private Land Alternative site is largely active and inactive agricultural land...wildlife movement across the site is already affected by the disruption in native vegetation communities from agriculture, and by the railway, nearby paved roads to the east, and the I-10 further south.<sup>7</sup>

The Biological Assessment acknowledges the proposed project's virtually undisturbed state and environmentally sensitive resources, especially in the western half of the proposed project which is comprised of riparian threads and associated sensitive vegetation that is important habitat for protected species. The project Biological Assessment estimated 550 acres of jurisdictional waters on the proposed project, 245 acres of waters on the reduced project alternative, and only 54 acres of waters (including "a disturbed wetland that appears to have established from water releases from an irrigation aqueduct vent for an adjacent citrus orchard")<sup>8</sup> on the East Mesa alternative site.

An East Mesa or a conjunctive public/private land use alternative will greatly lessen the project's significant impacts, including destruction of vast amounts of desert wash resources as well as habitat and habitat connectivity for desert tortoise, bighorn sheep and other sensitive, threatened and endangered species. Accordingly, it is impermissible to reject the East Mesa alternative and to fail to analyze an alternative comprised of the east half of the project developed conjunctively with private lands (as requested during scoping.) These environmentally preferable alternatives should be properly analyzed and one of them adopted.

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<sup>6</sup> Helix Biological Reconnaissance Study for the Blythe Solar Power Project, Feb. 1 2010 p. 4

<sup>7</sup> Helix Biological Reconnaissance Study for the Blythe Solar Power Project, Feb. 1 2010 p.16

<sup>8</sup> Ibid, p. 5

***BLM UNLAWFULLY REJECTED DISTRIBUTED GENERATION AND ALTERNATIVE TECHNOLOGY ALTERNATIVES WITHOUT ADEQUATE INFORMATION AND ANALYSIS***

The SA/DEIS rejected the distributed generation and alternative technology alternatives, , asserting the following:

Staff's analysis of renewable energy technology options indicates that contributions from each commercially available renewable technology will be needed to meet SCE's RPS requirements and to achieve the statewide RPS target for 2020 ...the combined contribution of the alternatives of wind, other solar technologies, geothermal, and biomass is needed to complement rather than substitute for the Blythe Solar Power Project solar thermal contribution to meeting SCE and statewide RPS requirements...each of these four alternative technology options when considered individually is insufficient to meet the project objectives related to the RPS.

The above statement begs the question: is the SA/DEIS asserting that it must not consider alternative technologies not proposed by the Blythe Solar Power Project (and by inference every other large centralized solar project) on the basis that its particular technology is essential to meet the statewide RPS requirements? Currently there are 15 centralized solar projects totaling over 7,000 MW being fast-tracked to qualify for stimulus funding in California, and a total of 72 renewable energy projects applied for BLM land alone, totaling over a million acres of public land dedication and tens of thousands of megawatts of renewable energy. According to the SA/DEIS rationale, then each and every one of these projects should be approved as proposed, because alternative renewable technologies may only *complement* rather than substitute for a project.

The numbers demonstrate that there are many times more centralized generation applied for than is actually needed to meet the RPS requirements, and the law mandates that the responsible agencies fully consider environmentally preferable alternatives to a project. Thus, the SA/DEIS's conclusory alternatives analysis fails to comply with State and Federal environmental laws which require consideration of a reasonable range of alternatives which, under CEQA, could substantially reduce or avoid any potentially significant adverse impacts of the proposed project, or under NEPA, would inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.

***Solar Photovoltaic Generation Would Meet Project Objectives and Avoid Most Significant Project Impacts***

For instance, the SA/DEIS fails to properly identify and weigh the use of solar photovoltaic (PV) generation rather than solar thermal for the proposed project or its alternative sites:

In analyzing the use of utility scale solar PV onsite, the SA/DEIS concludes: Would reduce water use but *not substantially reduce impacts* of the Blythe Solar Power Project. Alternative solar technologies are not required to be analyzed by the BLM because they fall outside BLM's purpose and need for the proposed action. (SA/DEIS Alternatives TABLE 1)<sup>9</sup>

What the SA/DEIS fails to acknowledge in its unsubstantiated rejection of using of solar PV instead of solar thermal is that: 1) PV technology has proven to be cost competitive with solar thermal ; 2) use of thin film PV would avoid or greatly lessen many of the project's adverse impacts. Those impacts that solar PV would avoid include: the project's water use and groundwater impacts<sup>10</sup>, fire and hazardous materials disposal problems, greenhouse gas emissions associated with project-required natural gas use, offsite piping for same, glare impacts to the nearby Blythe airport, noise impacts to both sensitive human and wildlife receptors; and 3) that by using less than a third of the acreage, the use of crystalline silicon tracking solar PV would enable the project to leave undisturbed the vast bulk of microphyll woodland and other sensitive habitats, avoiding the most serious habitat impacts.<sup>11</sup>

Equally important, use of PV in lieu of solar thermal generation would allow the project to be economically and compatibly reconfigured onto non-contiguous private land parcels. This is extremely important because non-contiguity of adjacent private lands was determined to be a major stumbling block to the East Mesa alternative. Use of PV would make the East Mesa and other joint use of private and public land alternatives to the immediate south and east of the proposed project viable as compared to the currently proposed solar thermal technology. This is because (unlike solar thermal trough technology) PV is silent, non-glaring, and can be deployed in discrete polygons that have enormous flexibility as to their size, shape and contiguity with adjacent development polygons.

*Distributed generation would fulfill project renewable generation goals while avoiding virtually all project impacts*

As for its rejection of distributed generation as an alternative to the project, the SA/DEIS found, at Alternatives Table 1:

While it will very likely be possible to achieve 1,000 MW of distributed solar energy over the coming years, the limited numbers of existing facilities make it difficult to

<sup>9</sup> Here again, BLM impermissibly rejects a project alternative based solely on its unlawfully narrow purpose and need statement.

<sup>10</sup> First Solar proposes to wash its panels once a year or less (personal communication Wayne Hoffman to environmental representatives)

<sup>11</sup> The land requirement varies from approximately 3 acres per MW of capacity for crystalline silicon to more than 10 acres per MW produced for thin film and tracking technologies (NRDC 2008c). Therefore, a nominal 1,000 MW solar PV power plant would require between 3,000 and 10,000 acres. (SA/DEIS at )

conclude with confidence that this much distributed solar will be available within the timeframe required for the Blythe Solar Power Project.

Alternative solar technologies are not required to be analyzed by the BLM because they fall outside BLM's purpose and need for the proposed action.<sup>12</sup>

And again at B.2-54:

However, achieving 1,000 MW of distributed solar PV or solar thermal would depend on additional policy support, *manufacturing capacity*, and *lower cost* than currently exists to provide the renewable energy required to meet the California Renewable Portfolio Standard requirements so additional technologies, like utility-scale solar thermal generation, are also necessary. [emphasis added]

The SA/DEIS analysis of the distributed generation alternative and its potential to provide to meet the California Renewable Net Short ("RPS") is erroneous, conclusory, and not supported by substantial evidence in the record. Distributed generation is not wholly dependent on policy support. Such potential exists today.

Recently, a presentation by Black & Veatch, the consultants for CEC's own Renewable Energy Transmission Initiative at a December 9, 2009 initial meeting of a new Renewable Distributed Energy Collaborative of the CPUC analyzed current distributed generation potential. Black & Veatch used the Global Information System (GIS) to identify and count sites for both ground-mounted PV near transmission substations as well as for large urban rooftops of about 1/3 acre within three miles of a distribution substation. Estimates were also made for smaller rooftops. Black and Veatch reported a wholesale distributed generation potential of 17,300 MW. This value is conservatively based on using only one-third of the actual potential capacity (52,000 MW), for reasons that are not explained. Data on the PV capacity of existing substations provided to the California Public Utilities Commission by investor-owned utilities indicates that these substations can accept approximately 20,000 MW of distributed PV with no upgrades required to the substations.<sup>13</sup>

The studies cited above show an estimated distributed solar generation capacity by 2020 of between 25,000 and 50,000 MW, which corresponds to an electrical energy potential of 50,000 to 100,000 GWh/yr. These figures indicate that distributed solar generation can provide not only a substantial portion of the 37,897 GWh/yr RPS Net Short, but probably much more than that. Based on these kinds of studies, Black and Veatch has recommended a scenario to meet new renewable electricity generation goals which would

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<sup>12</sup> Here again, BLM impermissibly rejects a project alternative based solely on its unlawfully narrow purpose and need statement.

<sup>13</sup> Black and Veatch, Summary of PV Potential Assessment in RETI and the 33% Implementation Analysis, December, 2009;

“replace central station solar and wind with distributed solar PV”<sup>14</sup> corresponding to about 30,000 GWh/yr of wholesale distributed generation. As we have seen, such a scenario would utilize only a portion of the wholesale distributed generation potential indicated in the studies. The potential for distributed solar generation actually goes beyond the numbers in these studies, which represent the most accessible commercial PV installations. Other, smaller rooftops are available for commercial PV power in urban areas, as are carports, other disturbed land, rail and highway right of ways, and so forth.

Also, we note that the SA/DEIS asserts that distributed PV must achieve lower costs to be competitive. However, RETI ascertained that PV is more cost-effective than solar trough at current thin-film PV pricing of \$3,700/kW a/c<sup>15</sup> and SCE has assured CPUC that its distributed commercial rooftop program in Ontario, CA will cost \$3.50/watt d/c,<sup>16</sup> or less than \$4,000/kW a/c, virtually the same price per kW as Blythe Solar Power Project,<sup>17</sup> but without any transmission penalty added.

Finally, the SA/DEIS rejection of distributed generation asserts it would be infeasible to ramp up 1000 MW of distributed renewable energy within the time frame for the Blythe project, which is 69 months, or just shy of 6 years. However, estimated worldwide thin-film PV production capacity at the end of 2009 was approximately 7,400 MW.<sup>18</sup> First Solar, an Arizona company, manufactured and shipped more than 1,000 MW of thin-film panels in 2009.<sup>19</sup> Estimated worldwide conventional polycrystalline silicon PV production capacity reached 13,300 MW per year in 2008, and it is projected to reach 20,000 MW per year in 2010.<sup>20</sup> As a result, worldwide PV production capacity substantially exceeds current worldwide demand. The current estimated oversupply of PV panel manufacturing capacity for 2010 is 8,000 MW.<sup>21</sup>

As Southern California Edison stated in its March 2008 application to CPUC build a 250 to 500 MW urban PV project, “Because these installations will interconnect at the distribution level, they can be brought on line relatively quickly without the need to plan, permit, and construct the transmission lines.” Typically, transmission lines require a ten-year planning and construction cycle. Added Commissioner John A. Bohn, author of the decision, “This decision is a major step forward in diversifying the mix of renewable resources in California and spurring the development of a new market niche for large

<sup>14</sup> Ibid

<sup>15</sup> RETI Phase 2B Final Report

<sup>16</sup> CPUC Proceedings, SCE Solar Roof Program, June 2009

<sup>17</sup> \$4,000/kW is the cost claimed by Solar Millennium representatives (personal communication Alice Harron to Joan Taylor)

<sup>18</sup> Schreiber, D., EuPD Research, *PV Thin-film Markets, Manufacturers, Margins*, presentation at 1st Thin-Film Summit, San Francisco, December 1-2, 2008, p. 13.

<sup>19</sup> First Solar press release, *First Solar Becomes First PV Company to Produce 1GW in a Single Year*, December 15, 2009.

<sup>20</sup> Schreiber, D., EuPD Research, *PV Thin-film Markets, Manufacturers, Margins*, presentation at 1st Thin-Film Summit, San Francisco, December 1-2, 2008.

<sup>21</sup> B. Murphy, Fulcrum Technologies, Inc., *The Power and Potential of CdTe (thin-film) PV*, presented at 2nd Thin-Film Summit, San Francisco, December 1-2, 2009.

scale rooftop solar applications. Unlike other generation resources, these projects can get built quickly... and without the need for expensive new transmission lines. And since they are built on existing structures, these projects are extremely benign from an environmental standpoint, with neither land use, water, nor air emission impacts.”

In conclusion, distributed PV generation on commercial rooftops and disturbed lands near load centers and substations has vast potential to meet the RPS net short and obviate the need for many land intensive facilities such as the instant project. And since distributed PV is sited in developed areas, it can do so while avoiding virtually all biological impacts to sensitive desert resources. The SA/DEIS must seriously consider this alternative.

***THE SA/DEIS UNLAWFULLY REJECTED THE CONSERVATION AND DEMAND SIDE MANAGEMENT ALTERNATIVE WITHOUT ADEQUATE ANALYSIS***

The SA/DEIS alternative analysis erroneously rejected the alternative of conservation and demand side management without foundation:

Conservation and demand side management programs would likely not meet the state's growing electricity needs that would be served by the Blythe Solar Power Project. In addition, these programs would not provide the renewable energy required to meet the California Renewable Portfolio Standard requirements.

Conservation and demand-management alone are not sufficient to address all of California's energy needs, and would not provide the renewable energy required to meet the California Renewable Portfolio Standard requirements.

Staff's analysis of renewable energy technology options indicates that contributions from each commercially available renewable technology will be needed to meet SCE's RPS requirements and to achieve the statewide RPS target for 2020 (between 45,000 GWhs to almost 75,000 GWhs according to the 2009 IEPR).

The SA/DEIS has summarily dismissed the conservation/demand side management alternative without adequate foundation. First, the SA/DEIS refers to the State's "growing electricity needs" but fails to acknowledge that California's energy usage has entered a downward trend. Considering the State-mandated standard of 100% efficiency, this assertion is even more questionable; such efficiency has been forecast to achieve an enormous reduction in electrical energy use. The SA/DEIS's conclusory analysis also failed to quantify or recognize the significant contribution that energy conservation makes to achieving RPS goals. That is, for every 1000 megawatt hours of electrical energy saved by conservation or efficiency, 333 megawatt hours less of renewable generation are needed for the load-serving entities to meet their RPS goals, because the net short "pie" has been reduced.

As outlined above, distributed commercial-scale PV generation can meet 2/3 of the "net short" of renewable energy to meet 33% renewables by 2020 at a competitive and probably more economical cost than these large utility scale remote transmission dependent solar thermal projects. Additionally, the potential for conservation and efficiency is enormous. Thus, the potential for energy efficiency alone or in combination with distributed generation clearly demonstrates that no individual utility scale solar project, or portion thereof, is indispensable. Indeed, the responsible agencies have an affirmative duty to seriously consider conservation and demand side management as a feasible alternative to avoid significant unmitigable impacts of a project, or even as an alternative to an entire project. The SA/DEIS has unlawfully failed to do so.

***THE SA/DEIS UNLAWFULLY SEGMENTS THIS PROJECT BY IGNORING ITS RELIANCE ON OFFSITE TRANSMISSION AND NATURAL GAS***

CEQA requires agencies to consider the environmental impacts of "the whole of [their] action" so as to ensure "that environmental considerations do not become submerged by chopping a large project into many little ones - each with a minimal potential impact on the environment - which cumulatively may have disastrous consequences." Guidelines § 15378

NEPA also requires that connected actions be considered together in the same EIS. Connected actions are those that (1) automatically trigger other actions potentially requiring EISs; (2) cannot or will not proceed unless other actions are taken previously or simultaneously; or (3) are interdependent parts of a larger action and depend on the larger action for their justification.

Here, the entire project is dependant on construction of the necessary transmission ties to the grid and 10 miles of new gas lines. Until requisite gen-tie lines and gas powerlines are completed, this entire project cannot proceed. Accordingly, "whole ... action" would include both of these "connected" projects; their environmental impacts must be considered in the same document. Guidelines § 15378(a); 40 C.F.R. § 1508.25. Here, however, the SA/DEIS simply defers any specific analysis of these connected projects to a future time: ". ." SA/DEIS Because the SA/DEIS fails to include an assessment of the environmental impacts of the entirety of the project, it violates both CEQA and NEPA.

***BLM APPROVAL OF THE PROJECT, ALONG WITH OTHER MASSIVE PROJECTS, VIOLATES FLPMA AND REQUIRES REVISION OF THE CDCA PLAN AND ITS NECO PLAN AMENDMENT***

The SA/DEIS acknowledges that, although

the site for the proposed project is currently classified within an MUC L area, solar power facilities are generally allowed, the CDCA Plan requires that newly proposed sites associated with power generation or transmission facilities not already identified in the Plan will be required in order to determine the suitability of the proposed site for renewable energy development, and to approve or not approve the site location.

However, the SA/DEIS fails to address the underlying deficiency in its master planning documents for the project area: namely, that neither the CDCA Plan nor its NECO amendment which govern actions in the Plan area, are adequate to review the scale and intensity of land conversion proposed. See above under discussion of Land Use Impacts.

The BLM and Department of Energy (DOE) are preparing a Programmatic Environmental Impact Statement (PEIS) on solar energy development in six states in the western U.S. (Arizona, California, Colorado, New Mexico, Nevada, and Utah) (USDOE 2008). As part of the PEIS, the BLM and DOE identified 24 tracts of BLM-administered land for in-depth study for solar development, some of which may be found appropriate for designation as solar energy zones in the future:

The Draft PEIS should be published in 2010; the appropriateness of siting solar energy plants on various land use designations may be revisited in the PEIS. Executive Order S-14-08 requires the Renewable Energy Action Team to establish a Desert Renewable Energy Conservation Plan (DRECP) for the Mojave and Colorado Desert regions. The Planning Agreement regarding the DRECP is entered into by the Energy Commission, California Department of Fish and Game, BLM, and U.S. Fish and Wildlife Service and is charged with identifying areas suitable for renewable energy project development and areas that will contribute to the conservation of sensitive species and natural communities. A draft report identifying these areas is expected to be published in the first quarter of 2010.

Thus the SA/DEIS acknowledges that there is a lack of guidance for land use decisions on the scale of this and other solar projects, and that planning is underway to provide such guidance, but is far from complete. In the absence of planning level guidance, approval of vast solar development and its inherent irreversible commitment of resources clearly violates FLPMA's mandate to provide sustainable resource protection.

## CONCLUSION

For these reasons, the SA/DEIS violates NEPA, CEQA and potentially FLPMA. Accordingly, it should be revised and re-released. Also, the CDCA and NECO Plans should be revised prior to approval of the substantial public land conversion currently proposed by this and other ARRA projects. With regard to the various project alternatives, a conjunctive public/private land alternative (conjunctive use) should be analyzed. This conjunctive use alternative is potentially a very supportable project and was requested in environmental organizations' scoping comments as well as discussions with the applicant. It would constitute deletion of the west half of the project

and development of the east half of the project in combination with the East Mesa alternative lands.

Additionally, the alternative technology and distributed generation alternatives should be reinstated for full NEPA/CEQA consideration as viable project alternatives, both as stand-alone project alternatives and in concert with a conjunctive public/private land use alternative to enable project use of non-consolidated private lands.

In terms of specific local impacts, we would like to reiterate that we support development of the eastern half of this project, but cannot support the portions that interfere with important habitat in the western portions. We urge that the project be scaled back and appropriate avoidance, minimization and mitigation be applied as discussed in this document.

Thank you for the opportunity to comment on this important project.

Very truly yours,

A handwritten signature in black ink that reads "Joan Taylor". The signature is written in a cursive, flowing style.

Joan Taylor, Chair  
California/Nevada Desert Energy Committee  
Sierra Club



**Jeff Aardahl**  
<[jaardahl@defenders.org](mailto:jaardahl@defenders.org)>  
06/16/2010 05:12 PM

To "CAPSSolarBlythe@blm.gov" <[CAPSSolarBlythe@blm.gov](mailto:CAPSSolarBlythe@blm.gov)>  
cc  
bcc  
Subject

Dear Sir:

Defenders of Wildlife is pleased to submit comments on the proposed Blythe Solar Power Project. Please contact me if you have questions or need additional information.

Thank you.



**Jeff Aardahl**  
California Representative

1303 J Street, Suite 270 Sacramento, CA 95814  
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Blythe Solar project SA\_DEIS Comments\_BLM\_Defenders\_Final...pdf



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June 16, 2010

Allison Shaffer, Project Manager  
Bureau of Land Management  
Palm Springs-South Coast Field Office  
1201 Bird Center Drive  
Palm Springs, CA 92262

*via email to: [CAPSolarBlythe@blm.gov](mailto:CAPSolarBlythe@blm.gov)*

**Re: Comments on the Draft Environmental Impact Statement/Staff Assessment for the Chevron Energy Solutions/Solar Millennium (CESSM) Blythe Solar Power Plant (BSPP) and Possible California Desert Conservation Area Plan Amendment (Federal Register, 4/6/10 Notices, Vol. 75, No. 65: 17431)**

Dear Ms. Schaffer:

Thank you for the opportunity to review and comment on the Staff Assessment/Draft Environmental Impact Statement (SA/DEIS) for the proposed Blythe Solar Power Project. These comments are submitted on behalf of Defenders of Wildlife (Defenders), a non-profit public interest conservation organization with more than 1,000,000 members and supporters nationally, 200,000 of which reside in California.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impact of large scale solar development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations, near existing transmission lines and already disturbed lands.

We strongly support the emission reduction goals found in the Global Warming Solutions Act of 2006, AB 32, including the development of renewable energy in California. However, we urge that in seeking to meet our renewable energy portfolio standard in California, project proponents design their projects in the most sustainable manner possible. This is essential to ensure that project approval moves forward expeditiously and in a manner that does not sacrifice our fragile desert landscape and wildlife in the rush to meet our renewable energy goals.

**National Headquarters**

1130 17th Street, N.W.  
Washington, D.C. 20036-4604  
tel 202.682.9400 | fax 202.682.3311

We strongly support renewable energy production and utilization, but we do not consider the construction of large-scale projects, and especially the very large solar energy projects proposed on undisturbed public lands in the California Desert Conservation Area (CDCA), to be the primary way to meet our renewable energy goals. We believe such large scale solar projects must be located on degraded or disturbed land such as abandoned agricultural fields, industrial sites, and near existing structures before public lands containing natural plant and animal communities are considered.

The proposed project would entail the exclusive use of approximately 9,500 acres of public land managed by the Bureau of Land Management (BLM). The project would entail the construction, operation, and eventual decommissioning of solar-thermal electrical generating facility with a rated power output of approximately 1,000 MW. The proposed project would entail the construction, installation and operation of four independent powerplants of 250 MW each. Defenders submitted scoping comments on the proposed project on December 23, 2009.

Our comments are specifically directed at the Draft Environmental Impact Statement component of the subject document. We have submitted comments on the Staff Assessment portion of the document to Alan Solomon of the California Energy Commission (CEC). Our comments are presented below by subject:

## **I. National Environmental Policy Act (NEPA)**

**Purpose and Need:** In specifying their EIS obligations under the National Environmental Policy Act (NEPA), federal agencies must “specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. § 1502.13. Courts “have interpreted NEPA to preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant’s proposed project).” *Colorado Environmental Coalition v. Dombeck*, 185 F.3d 1162, 1165, 1174 (10th Cir. 1999), at 1174 (citing *Simmons v. United States Corps of Eng’rs*, 120 F.3d 664, 669 (7th Cir. 1997)).

**BLM Purpose and Need:** According to the DEIS, the stated purpose and need for the proposed project is to “...respond to Palo Verde Solar I’s application under Title V of FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate, and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other Federal applicable laws.” (SA/DEIS at A-11). In addition, “the BLM will decide whether to approve, approve with modification, or deny issuance of a ROW grant to Palo Verde Solar 1 for the proposed BSPP. The BLM’s actions will also include consideration of amending the CDCA Plan concurrently.” *Id.*

**BLM Authorities:** In addition to authorities granted to BLM through the Federal Land Policy and Management Act (FLPMA), the DEIS indicates that the Energy Policy Act of 2005 “...requires the Department of the Interior (BLM’s parent agency) to approve at least 10,000 MW of renewable energy on public lands by 2015.” (DEIS at A-12).

*Comment:* Instead of the current purpose and need statement focusing on the BLM responding to a right of way application under Title V of FLPMA, we recommend that the purpose and need statement address the need to generate and greater amounts of electrical energy from renewable energy sources so that dependency on carbon-based fuels is reduced, and to contribute to the requirement to generate certain minimum amounts of renewable energy to comply with State and federal standards. By providing a broader statement of purpose and need, BLM ensures the NEPA documents are legally defensible documents.

*Comment:* By so radically narrowing the scope of the project's purpose, BLM has impermissibly constricted the range of alternatives considered. *See Carmel by the Sea v. U.S. DOT*, 123 F.3d 1142, 1155 (9th Cir. 1995). Further, BLM has misinterpreted the intent of Congress in the Energy Policy Act in stating that the law "requires" BLM to approve at least 10,000 MW of renewable energy from public lands by 2015. (SA/DEIS at A-13). Rather, the Act encourages the Secretary of the Interior to approve a minimum of 10,000 MW of renewable energy from the public lands by the year 2015, which is correctly stated elsewhere in the document (*see* SA/DEIS at B.2-10).

**Project Alternatives:** In addition to properly defining the purpose and need of an agency action, agencies must consider a range of reasonable alternatives to the agency action in the EIS. *See* 42 U.S.C. § 4332(2)(E). The range of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions." *See* 40 C.F.R. §§ 1502.14(a) and 1508.25(c). The purpose of this requirement is "to insist that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means." *Environmental Defense Fund v. Cops of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974); *see also Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), *rev'd on other grounds*, 490 U.S. 332 (1989) (agency must consider alternative sites for a project).

*Comment:* We are pleased that several alternatives are considered under both NEPA and California Environmental Quality Act (CEQA) standards by both BLM and the CEC. However, we are very concerned that a reduced acreage alternative that would allow for development only on the eastern one-half of the right of way application area was not included or considered. Such a reduced acreage alternative was included in our issue scoping letter of December 23, 2009. Our recommended reduced acreage alternative would have significantly reduced habitat loss and impacts to several species of special concern and provided an opportunity for project expansion to degraded private lands located immediately east of the public lands identified in the applicants project proposal. In fact, the CEC identified and analyzed an all-private lands alternative (Blythe Mesa Alternative) and found it to be reasonable.

*Comment:* The issue of site control is raised frequently by applicants, especially with regard to siting projects on private land. This has led to a situation where utility-scale, fast-track renewable energy projects are almost always proposed for public lands, with a few exceptions. Applicant's frequently cite difficulty in obtaining site control on private lands as a justification for limiting consideration of proposed projects to public land under BLM jurisdiction. With

regard to site control, applicants should be required to demonstrate to what extent they have sought to gain site control of private lands, including consolidation of multiple parcels. CEC and BLM staff should refrain from simply accepting the applicant's opinion that site control was deemed uncertain or too costly without independent verification and concurrence by the permitting agencies.

*Comment:* While we understand BLM has no jurisdiction over the use of private lands, by automatically dismissing all such alternatives as “unreasonable” (SA/DEIS at B.2-1), BLM appears to be acting arbitrarily. BLM has a duty to consider all potentially viable alternatives that would avoid or minimize significant impacts to public land resources and values. NEPA regulations require inclusion of reasonable alternatives not within the jurisdiction of the lead agency. *See* 40 C.F.R. § 1502.14(c). Dismissal of a private land alternative, or an alternative comprised of a combination of public and private lands, is unfortunate because it would very likely result in far fewer environmental impacts to significant cultural and biological resources.

*Comment:* BLM should include a reduced acreage alternative that would involve only the environmentally suitable public lands in the eastern portion of the proposed project area. This would enable BLM and the CEC to jointly consider an entirely new alternative that would be comprised of a combination of BLM lands and adjacent, degraded private lands located within Section I of the Blythe Mesa Alternative analyzed by the CEC. Combined, these two areas would likely accommodate a project that would allow for most of the desired power output envisioned by the applicant. BLM should strive to avoid or minimize to the maximum extent possible, loss of wildlife habitat for Sensitive and Special Status Species, and rare Desert Wash Woodlands, by including this recommended alternative in the NEPA process.

**Cumulative Impacts Analysis:** Cumulative impact is defined as the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7.

*Comment:* Although the SA/DEIS identifies a substantial number of existing and proposed land use activities that have and would add to the cumulative loss of significant cultural and biological resources, the depth of the analysis is insufficient to establish a clear condition and trend with regard to various at-risk species and their habitats in the region. The cumulative impact analysis should reveal the condition and trend of these resources and whether or not the current situation is one in which additional impacts due to projects on public land would conform to BLM policy as expressed in Manuals 6500 (Wildlife Habitat Management) and 6840 (Special Status Species Management), as well as legal mandates for public land management established by the FLPMA.

FLPMA mandates that public lands: “...be managed 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;” (Sec.

102(8)) . FLPMA also addresses management of public lands within the CDCA: “the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed. (Sec. 601(a)(2)); and “the California desert environment and its resources, including certain rare and endangered species of wildlife, plants, and fishes, and numerous archeological and historic sites, are seriously threatened by air pollution, inadequate Federal management authority, and pressures of increased use, particularly recreational use, which are certain to intensify because of the rapidly growing population of southern California; (Sec. 601(a)(3)); and lastly, “ It is the purpose of this section 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. (Sec. 601(b)).

*Comment:* The SA/DEIS should evaluate the impact of existing land and reasonably foreseeable land use activities within the planning area, in addition to those of the proposed project, for their effects on the CDCA and its fragile resources. Such an impact analysis must also address the requirements of FLPMA so that BLM can determine whether or not the public land management is being carried out consistent with FLPMA. We are very concerned that the “environmental quality” of the CDCA would not be adequately maintained if utility-scale renewable energy facilities are authorized on public lands that are largely in an undisturbed condition, and that contain intact, functioning biological communities.

*Comment:* We are concerned that the SA/DEIS concludes the project-specific and cumulative impacts to biological resources would be insignificant after application of mitigation measures. Specifically, the DEIS states, “Nonetheless, although project-specific mitigation measures for the Blythe Project and all other foreseeable future projects reduce project impacts to a less than significant level, minor residual impacts remain that contribute to cumulative effects.” (SA/DEIS at C.2-154). We strongly disagree with this finding. Mitigation in the form of “replacement habitat” acquisition (compensation) rarely reduces impacts due to loss of habitat because the opportunities for habitat enhancements that would be needed to fully offset or substantially reduce impacts to less than significant levels are rare to non-existent. Habitat loss and the effects on species that depend on it is the most serious impact, and the proposed mitigation measures can’t reduce the effect of such loss. Ultimately, significant habitat loss and impact to at-risk species would occur from the effects of the proposed project. Simply securing replacement habitat that already exists doesn’t actually reduce or offset the effects. The most effective way of mitigating significant impacts is through avoidance, which would entail consideration and adoption of an alternative such as the one we have advocated for this proposed project.

*Comment:* An in-depth cumulative effects analysis of the impact of the past, present and reasonably foreseeable activities that have and will adversely impact at-risk biological resources should be performed. The effectiveness of the mitigation measures contained in the analysis should be reconsidered and analyzed by a team of knowledgeable experts. The most effective and efficient form of mitigation is impact avoidance, which is most often associated with alternatives such as reduced project scale, alternative locations and other effective measures.

*Comment:* There appears to be a lack of certainty with regard to what type and extent of mitigation would be sufficient to ensure maintenance of ecological processes and biological

resources within the planning area. Population viability for species of special concern and wildlife habitat connectivity are two specific concerns noted in the SA/DEIS. The following statement from the SA/DEIS underscores our concern over the adequacy of mitigation for the proposed and foreseeable projects: “Although project-specific mitigation measures of the Blythe Project and all other foreseeable future projects would reduce project impacts to a level that is not significant, there are still minor residual impacts that contribute to cumulative impacts. These residual cumulative effects can only be addressed through a regional and coordinated planning effort aimed at preserving and enhancing large, intact expanses of wildlife habitat and linkages, including maintaining connections between wildlife management areas and other movement corridors.” (SA/DEIS at C.2-112 to 113).

## II. Biological Resources

**Biological Resources Impacts:** The western one-half of the proposed project clearly contains the greatest diversity and density of biological resources. Defenders staff recently examined the proposed project site and hiked through the western half of the project area to the base of the McCoy Mountains. This entire area contains numerous braided washes of varying size and complexity, most of which support vegetation dependent on intermittent water flow from precipitation events. The Desert Woodland Wash vegetation, comprised largely of Palo Verde, Smoke Tree and Desert Ironwood, is very prominent in many of the washes. Another important vegetation association occurring largely in desert washes is that which contains Galleta Grass, often in combination Brittlebush and other shrubs.

*Comment:* The need to avoid or minimize impacts to these ephemeral desert wash habitats stems from their ecological and habitat values in this harsh desert environment. The diversity and physical structure of the ephemeral wash-dependent vegetation serves as the primary sheltering, feeding, nesting and movement habitat for nearly all wildlife species, both resident and migratory. This is the primary reason for our strong support for the project alternatives identified above. The ideal alternative would avoid all significant impacts, but reasonable alternatives would also include the reduced size and power output option we identified in our scoping comments and in this letter. We strongly believe that a 250 MW or 500 MW alternatives that is located within the eastern one-half of the proposed project must be considered and fully analyzed in the SA/DEIS.

*Comment:* The extensive modification of the natural surface drainage system proposed to protect the developed facilities from the effects of uncontrolled surface water flow following precipitation events would be very detrimental to the biological resources on the site. All naturally occurring braided washes would be leveled and filled and surface waters captured and diverted around the developed site through engineered drainage channels. All biological resources and their values would be lost. We consider alternatives to the proposed project the only viable means of eliminating or reducing this impact to acceptable levels.

**Desert Bighorn Sheep:** The SA/DEIS concludes that the McCoy Mountains contains suitable habitat for Desert Bighorn Sheep but are reported as currently unoccupied by the species. In the

2002 Northern and Eastern Colorado Desert amendments to the CDCA Plan<sup>1</sup>, BLM identified the McCoy Mountains as an area supporting one of the numerous demes or bighorn subpopulations that comprise the larger Southern Mojave Metapopulation. The SA/DEIS assumes there would be no direct impact to Bighorn from the proposed project because the range is considered void of this species, but identifies a future indirect impact of “impairment” of habitat connectivity based on the assumption that conservation policies for this BLM Sensitive Species will eventually result in Bighorn occupation of the McCoy Mountains. (SA/DEIS at C.2-52).

*Comment:* We are unaware of any recent systematic surveys for Bighorn Sheep in the McCoy Mountains. Current status of the Desert Bighorn in the McCoy, Little and Big Maria Mountains and known and potential movement corridors between these ranges should be obtained from subject-matter experts. Defenders recommend that BLM obtain such information from Dr. John Wehausen and Steve Torres of the California Department of Fish and Game. It appears the CEC staff have updated some of the information on Desert Bighorn relative the proposed project and published it in their revised staff assessment dated June 4, 2010. The newly revised staff assessment from the CEC indicates that the current status of Bighorn Sheep in the McCoy Mountains is unknown because adequate inventory has not been performed, and that Desert Bighorn have been documented as occurring in the Little Maria Mountains. The presence of surface water at McCoy Spring located on the western slope of the range should be investigated because it would be a focal point for Bighorn use during the late spring through fall season. The results of such a survey would provide essential information needed to address this potential issue in the SA/DEIS.

*Comment:* We believe it is possible that the McCoy Mountains are occupied by Bighorn, at least seasonally, and that potential winter and spring seasonal foraging habitat for Bighorn Sheep occurs on the lower slopes and washes draining from the McCoy Mountains. This scenario is supported by statements in the SA/DEIS on page C.2-69. Considering that McCoy Spring, located on the western slope of the range, is a potential source of permanent water, it is extremely important that systematic Bighorn Sheep surveys throughout the range and especially in the vicinity of McCoy Spring in the summer and fall seasons be conducted before any conclusions are made with regard to the current status of this species in the range and in relationship to the proposed project.

*Comment:* An analysis of the impact to future habitat connectivity should be performed so that connective habitat can be identified in relationship to the proposed project and other planned solar projects located to the north and northeast. It is our understanding that the California Department of Fish and Game is developing a management plan based, in part, on subpopulations that are interconnected and supported by movements of individual animals between mountain ranges. Such movements and interconnected subpopulations are being identified through various techniques including DNA analysis, radio telemetry, field sightings and sign detection.

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<sup>1</sup> Bureau of Land Management. 2002. Northern and eastern Colorado Desert coordinated management plan: An amendment to the California Desert Conservation Area Plan of 1980. Moreno Valley, CA.

*Comment:* Construction of a rainwater catchment or guzzler as mitigation for possible impact to future bighorn connectivity habitat is speculative and questionable. Staff assumes a guzzler providing a reliable source of water would attract Bighorn and “expand foraging opportunities in the lower elevations of the mountains to replace spring foraging habitat lost to Project facilities.” A guzzler installation as mitigation would seem more appropriate to consider if the habitat feature being impacted was a permanent water source utilized by Bighorn. Such is not the case, and we question whether the proposed guzzler would potentially provide any mitigation for loss of connectivity or seasonal habitat in the lower elevations of the McCoy Mountains.

Staff concludes that the projected loss of seasonal foraging habitat for Desert Bighorn on the eastern slope and bajada draining from the McCoy Mountains is considered significant (SA/DEIS at C.2-96 to 97). Although the McCoy Mountains and the adjacent Little Maria Mountains to the north across the span on McCoy Wash watershed are assumed in the SA/DEIS to be void of Bighorn Sheep but yet suitable habitat, this assumption has not been tested through recent systematic surveys by trained observers. Very little information was presented in the SA/DEIS about bighorn populations and movements on a regional basis, which ranges are currently occupied and where potential movement corridors may be located. Bighorn Sheep management planning on a metapopulation scale is currently underway within the California Department of Fish and Game.

### **III. Water Resources**

The proposed project would require the use of substantial amounts of groundwater to support construction, operation and decommissioning, including site reclamation. Groundwater from the Palo Verde Mesa Groundwater Basin (PVMGB) is proposed as the water supply in support of the project. According to the recently published Revised Staff Assessment for the Blythe Solar Project, CEC concludes the PVMGB is currently in balance, with inflow and outflow of 1200 acre-feet per year being equal. The basin is also considered tributary to the Colorado River by the U.S. Geological Survey. The Boulder Canyon Project Act, 43 U.S.C. § 617 *et seq.*, and the Supreme Court Decree in *Arizona v. California*, 547 U.S. 150 (2006), require anyone who uses Colorado River water to have a contract with the Secretary of the Interior for the use of such water. All Colorado River water apportioned for use in California is already under contract. New users, such as the applicant, could seek a water delivery subcontract with the City of Needles (via the Lower Colorado Water Supply Project), a water transfer or exchange agreement with an existing contractor in California or seek a water supply that is not connected to the Colorado River.

With the lower Colorado River over-appropriated and in the midst of drought conditions, we support the concept in condition Soil&Water-3 of mitigating the effects of additional withdrawals from the Colorado River. We recommend that BLM clarify that the acquisition or creation of offsets to mitigate the withdrawal of 600 afy from the river does not obviate the need for a Colorado River contract or approved agreement with a Colorado River contractor. *See* DEIS at C.9-2 (“To mitigate the project’s contribution to impacts to the Colorado River, the applicant must complete proposed condition of certification “Soil & Water-3”, that would require acquisition of entitlements or offsets to Lower Colorado River water.”). Similarly, BLM should make it clear that the lack of final regulations from the Bureau of Reclamation regarding

the use of Colorado River without an entitlement do not obviate the need for a contract for Colorado River water. Simply put, if wells on the proposed site withdraw Colorado River water, a contract or an approved agreement with an existing contractor is required.

Given that all Colorado River water in California is already under contract and that the Lower Colorado Water Supply Project is not a viable option for the applicant, *see* Letter from Gerald R. Zimmerman, Exec. Dir., Colorado River Board, to Alan H. Solomon, California Energy Commission (March 22, 2010), the applicant will have to enter into an agreement, to be approved by the Bureau of Reclamation, with another contractor, the Metropolitan Water District of Southern California (“MWD”). MWD’s water supply may be vulnerable to shortages due to shortages on the Colorado River, in northern California, or from other sources of supply.

In order to determine the viability of the proposed project, BLM must disclose the likelihood of the applicant obtaining a legal water supply and the reliability of that supply for the life of the proposed project. BLM should then discuss the achievability of the proposed project in light of physical and legal water availability at the proposed site.

#### **IV. Climate Change**

The SA/DEIS notes the need to address the effects of climate change largely through reduction of greenhouse gases and development use of renewable energy sources. The SA/DEIS does not analyze the impacts climate change will have on species, and the effects of climate change on habitats that would be required to sustain viable populations of at-risk species.

*Comment:* This “hard look” requirement of NEPA requires federal agencies to consider climate change in NEPA documents. BLM must consider the effect of the proposed action on climate change, the effect of climate change on the proposed action and the effect of climate change on the affected environment. Climate change considerations are relevant throughout the NEPA process, from the scope of the environmental document and the description of the affected environment to the design of the proposed action, its alternatives and their environmental impacts. *See also* Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources, Secretarial Order 3289 (Feb. 22, 2010) (directing DOI agencies to consider and analyze climate change impacts when making major decisions affecting DOI resources), *available at*

[http://elips.doi.gov/app\\_so/act\\_getfiles.cfm?order\\_number=3289A1](http://elips.doi.gov/app_so/act_getfiles.cfm?order_number=3289A1).

*Comment:* Analysis of the potential impacts of climate change on a proposed action and the environment is necessary to assess and reduce the vulnerabilities of the proposed action to climate change, to integrate climate change adaptation into the proposed action and alternatives and to produce accurate predictions of environmental consequences of the proposed action and alternatives. It will aid BLM in adequately preparing the proposed action or planning area for the inevitability of climate change. *See, e.g.,* Letter from Kathleen M. Goforth, Environmental Review Office, EPA, to Ramiro Villalvazo, Forest Supervisor, Eldorado National Forest (Oct. 26, 2009), *available at*

[http://yosemite.epa.gov/oeca/webeis.nsf/\(PDFView\)/20090313/\\$file/20090313.PDF?OpenElement](http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20090313/$file/20090313.PDF?OpenElement).

*Comment:* BLM should expand the analysis of the effects of the proposed project and each alternative on biological resources and their ability to adapt to climate change, such as occupation and use of habitat on a regional scale that may be essential in sustaining at-risk species. Such an expanded analysis should include cumulative effects and mitigation measures, including those associated with climate change.<sup>2</sup>

*Comment:* Although the SA/DEIS addressed climate change, we encourage a more in-depth analysis of the importance of the Desert Woodland Wash habitats and habitat connectivity in sustaining species diversity and landscape level movements as temperatures in the Southwestern U.S. rise significantly over the next several decades, as predicted in numerous studies. BLM should include observed and projected impacts of climate change in the region – assess whether climate change has affected, is affecting, or will foreseeably affect each resource and incorporate that information into the analysis of each resource. Federal and state agencies have published reports, studies and plans that identify the observed and projected impacts of climate change on specific geographic areas or environmental resources and that are readily available to BLM. BLM must consider the following impacts of climate change on the affected environment:

- Fish and Wildlife: habitat, composition, shifts to higher elevation/latitudes, reduced vegetation food sources, altered migration routes, less available water sources, streamflow change impacts on migratory aquatic species;
- Increases in the frequency, severity, duration and extent of extreme events such as drought, flooding, storms and heat waves;
- Soil: erosion, impacts to soil moisture, fugitive dust concentrations;
- Threatened and Endangered Species: effects of moisture stress on species, changes to migration patterns;
- Vegetation: Preferential CO<sub>2</sub> metabolites, species migration, establishment of invasive species, pathogens, warm/cool season plants, growing season;
- Water: changes to availability, quality, quantity, precipitation patterns, flow regimes, dilution, water temperatures, elevation of snow pack, annual snow pack longevity, groundwater elevations, water rights;
- Wildfire: fire frequency, fuel load quantity and composition, fuel temperatures, relative humidity, water availability (e.g. for suppression), tree mortality due to drought and infestations, increased severe precipitation/soil loss; and
- Invasive species.

(See generally U.S. Global Change Research Program, *Global Climate Change Impacts in the United States* (Thomas R. Karl et al. eds., 2009), available at

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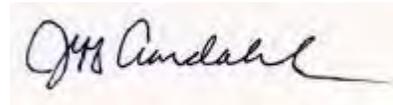
<sup>2</sup> See Secretarial Order 3226, *Evaluating Climate Change Impacts in Management Planning* § 4 (January 16, 2009) (“Each bureau and office of DOI shall, in a manner consistent and compatible with their respective missions: Consider and analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, and/or when making major decisions affecting DOI resources”); Council on Environmental Quality, *Considering Cumulative Effects under the National Environmental Policy Act* 24, 42 (1997) (including documentation and analysis of global warming in the affected environment and effects), available at <http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm> (last visited Apr. 20, 2010).

<http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf>.) Some of these impacts and resources are explained below.

*Comment:* BLM must assess the impacts of proposed land use changes (i.e., construction on thousands of acres of desert soils) on the hydrology of the affected environment that contemplates the impacts of climate change. There is an extensive desert wash network within the proposed project site that would be largely removed, eliminating their hydrological and biological functions (SA/DEIS at C.2-54), and re-route them through a series of engineered channels. (DEIS at C.2-1.) Engineered channel design is based on current conditions and the 100-year flood and is not finalized. (SA/DEIS at C.2-55.) An increase in the frequency or duration of extreme rainfall events may change upstream and downstream surface water characteristics, soil moisture and the frequency and characteristics of the 100-year flood. BLM must evaluate the effects of climate change on surface water hydrology, the reasonableness of the assumptions behind the 100-year flood modeling, the efficacy of the engineered channels, and the ecological and mitigation values of the waterways to be acquired and protected in a climate-changed environment.

Thank you for considering our comments. If you have any questions, please contact me at (916) 313-5800 x110 or via email at [jaardahl@defenders.org](mailto:jaardahl@defenders.org).

Sincerely,

A handwritten signature in black ink on a light-colored background. The signature is cursive and appears to read "Jeff Aardahl".

Jeff Aardahl  
California Representative



Alice Bond  
<alice\_bond@tws.org>  
06/16/2010 04:23 PM

To "CAPSSolarBlythe@blm.gov" <CAPSSolarBlythe@blm.gov>  
cc Alan Solomon <Asolomon@energy.state.ca.us>, "jim\_abbott@ca.blm.gov" <jim\_abbott@ca.blm.gov>  
bcc  
Subject Blythe Solar Power Plant Comments - TWS and NRDC

Please accept and fully consider the following comments on the Draft EIS for the Blythe Solar Power Plant on behalf of The Wilderness Society and the Natural Resources Defense Council.

Thank you,

Alice Bond  
California/Nevada Regional Office  
The Wilderness Society  
655 Montgomery St., Ste 1000  
San Francisco, CA 94111  
Office: 415.398.1111 ext. 103

*To protect wilderness and inspire Americans to care for our wild places*



Blythe DEIS Comments Final.pdf



Alice Bond  
<alice\_bond@tws.org>  
06/16/2010 04:34 PM

To "CAPSSolarBlythe@blm.gov" <CAPSSolarBlythe@blm.gov>  
cc  
bcc

Subject RE: Blythe Solar Power Plant Comments - TWS and NRDC

My apologies – here are the comments with the exhibit.

Alice Bond  
California/Nevada Regional Office  
The Wilderness Society  
655 Montgomery St., Ste 1000  
San Francisco, CA 94111  
Office: 415.398.1111 ext. 103

*To protect wilderness and inspire Americans to care for our wild places*

From: Alice Bond  
Sent: Wednesday, June 16, 2010 4:24 PM  
To: 'CAPSSolarBlythe@blm.gov'  
Cc: 'Alan Solomon'; 'jim\_abbott@ca.blm.gov'  
Subject: Blythe Solar Power Plant Comments - TWS and NRDC

Please accept and fully consider the following comments on the Draft EIS for the Blythe Solar Power Plant on behalf of The Wilderness Society and the Natural Resources Defense Council.

Thank you,

Alice Bond  
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*To protect wilderness and inspire Americans to care for our wild places*



Blythe DEIS Comments Final.pdf



Exhibit 1 - Desert Siting Criteria Memo June 29.pdf

**THE WILDERNESS SOCIETY  
NATURAL RESOURCES DEFENSE COUNCIL**

June 16, 2010

[CAPSSolarBlythe@blm.gov](mailto:CAPSSolarBlythe@blm.gov)

Re: Draft Environmental Impact Statement and California  
Desert Conservation Area Plan Amendment for the  
Proposed Blythe Solar Power Plant

Ms. Allison Shaffer:

This letter constitutes the comments on the above-captioned proposed solar project and draft environmental impact statement (DEIS) of the Natural Resources Defense Council (NRDC) and The Wilderness Society (TWS), national environmental membership organizations with long histories of advocacy on behalf of the lands and resources administered by the Bureau of Land Management (BLM). More recently these organizations have been intensively involved in the Bureau's work to develop a comprehensive solar program as well as its efforts to "fast track" the permitting of individual utility-scale solar projects in California so that they may be eligible for grant funding under the American Recovery and Reinvestment Act of 2009 (ARRA).

Introduction. Our organizations recognize the need to develop the nation's renewable energy resources and to do so rapidly in order to respond effectively to the challenge of climate change. Unique natural resources here in California are already being affected by climate change, including, for example, the pikas of Yosemite National Park and the Joshua trees in Joshua Tree National Park. We also recognize that renewables development can help create jobs in communities that are eager for them, because of the nation's economic crisis. For these and other related reasons, our organizations are working with regulators and project proponents to move renewables projects forward. That said, renewable development is not appropriate everywhere on the public lands and must be balanced against the equally urgent need to protect unique and sensitive resources of the California Desert Conservation Area (CDCA). California is lucky indeed that we have sufficient renewable resources, including solar resources, to do their development in an environmentally and fiscally sensitive way.<sup>1</sup>

As we and our colleagues at sister organizations have repeatedly stated, the best way to develop the solar resources of the CDCA is through comprehensive, pro-active planning by both the federal government and the state to identify the most appropriate areas for such development -- *i.e.*, solar development zones -- and to guide development to those zones. *See, e.g.*, letter dated June 29, 2009 to Interior Secretary Salazar and California's Governor Schwarzenegger and signed by 11 organizations, including our own, attached as Exhibit 1.

We support the BLM's adoption of zone designation for its forthcoming solar programmatic EIS because of the benefits inherent in this approach, including but not limited to clustering development of large-scale projects in appropriate places, rather than permitting them to be

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<sup>1</sup> California's Renewable Energy Transition Initiative found, for example, that the state potentially could access 500 GW of renewable energy, an order of magnitude greater than the state's peak demand and far beyond the ability of our electric grid could handle.

located across the landscape in numerous locations. We also applaud the agency's – and the Interior Department's – commitment to work closely with the State of California in the development of the Desert Renewable Energy Conservation Plan which, as you may already know, will designate not only renewable energy development zones, but also zones for conservation as well as include a comprehensive mitigation strategy. The integration and completion of both of these efforts offers the promise of a balanced plan that will facilitate development of renewable resources in the Desert while protecting desert resources.

Despite our fundamental belief in the critical importance of agency-guided development of renewables, rather than developer-initiated development, we have, as indicated, been investing a great deal of time and effort into the fast track projects. We have done so in response to the emphasis the Department, the BLM and the developers place on meeting ARRA deadlines as well as the potential role these projects could play in meeting the renewable generation and economic goals of the state and federal governments. We have also done so because we wanted to make the projects, and especially the utility-scale solar projects, as environmentally sensitive as they can be and because we wanted to ensure, to the extent possible, that their accompanying environmental documents are as sound as they can be. It is now apparent to us that not even the best of the environmental documents being produced for the fast track projects and/or the best projects should be models or precedents for the future.

The fast track project sites were chosen without the benefit of siting criteria developed either by desert activists, environmental organizations, scientists and others, *see* Renewable Siting Criteria for California Desert Conservation Area, attached to June 29, 2009 letter referred to above, or by the Bureau. The Bureau in fact has yet to develop any siting guidance that would help field staff, developers and others identify appropriate sites – i.e., those with relatively low resource values and fewer resource conflicts. Moreover, the projects themselves were designated by Interior and the BLM as fast track projects without consideration of potential environmental issues. And, equally important, the timetable established for review of these projects did not take into account their scale, the agency's lack of experience with the technologies involved, and the agency's lack of expertise permitting these kinds of projects.

Regardless of the outcome of the environmental review process for this or any other fast track project, we urge the BLM and the Interior Department to acknowledge publicly the deficiencies of the current process and to commit publicly to improving it. More specifically, we urge both entities to affirm that neither the current process, nor any of the project sites, nor any of the environmental documents, establish any legal or procedural precedents for future decision-making, siting or environmental review. We make this urgent recommendation notwithstanding the fact that this particular project appears to be proposed for a site with acceptable areas and the accompanying DEIS represents a slight improvement in several respects over other such documents.

The Blythe Solar Power Plant Project. The proposed project site has some characteristics that are conducive to solar development including a location near to existing infrastructure. The proposed site is 2 miles north of Interstate 10, which is also a designated utility corridor with existing and planned transmission lines. See Blythe Solar Power Plant Project CEC-BLM SA/DEIS at ES-2 and B.2-13. It is also 8 miles from the city of Blythe and there are approximately 1,622 acres of agricultural land, 147 acres of developed land (the Blythe airport) and 16 acres of disturbed land within one mile in the study area to the east and southeast of the proposed project site. *Id.* C.2-13. Another characteristic conducive to solar development is the transmission capacity that exists approximately five miles southwest of the Blythe project site. It appears that a gen-tie line would

be built to connect to the Southern California Edison transmission system south of Interstate 10. Id. B.1-12.

Equally important, the lands in the eastern portion of this ROW application appear to be of comparatively lower natural resource values than some of the other ROW applications currently being considered for ARRA funding. The entire site includes no critical habitat for any listed species, and implicates no Area of Critical Environmental Concern (ACEC) designated by the BLM or other special agency designation. Also, although the site does provide habitat for desert tortoise, few desert tortoise, a federally endangered species, were found on the site, id. C.2-28, unlike other ARRA project sites such as Tessera's Calico project and Solar Millennium's Ridgecrest project which support sizable populations of this endangered species. See Calico Solar Power Project CEC-BLM SA/DEIS at C.2-3 and Ridgecrest Solar Power Project CEC-BLM SA/DEIS 5.3-1). While the above characteristics render some portions of the site more appropriate than some other locations for solar development, we do still have concerns about project impacts and the DEIS document.

Our principal concerns with the impacts of the Blythe Solar project at this time relate to three biological resources: desert washes and dependent desert dry wash habitat located on the western half of the ROW; Peninsular bighorn sheep which are federally endangered; and water resources and the habitat values associated with these resources in a desert environment.

Biological Resources: The western portion of the proposed project site clearly contains the greatest diversity and density of biological resources. The western half of the site contains numerous braided washes of varying size and complexity, most of which support vegetation dependent on intermittent water flow from precipitation events. The Desert Woodland Wash vegetation ("a sensitive vegetation community by the California Natural Diversity Data Base (CNDDB), BLM, and is also designated as state waters by CDFG," see Blythe SA/DEIS at C.2-17), comprised largely of Palo Verde, Smoke Tree and Desert Ironwood, is very prominent in many of the washes. Id. C.2-17. Another important vegetation community associated with these braided washes is the Brittlebush – Galleta Grass complex, which is "relatively uncommon" in the California deserts. Id. In addition, the greatest abundance and diversity of plant and animal species, including those with special status, are also concentrated in the western portion of the proposed project site. Staff considers impacts to the 551 acres of state jurisdictional waters, including 175.4 acres of desert dry wash woodland, and indirect impacts to as many as 133 acres to be significant. Id. C.2-54 and C.2-55. In addition, filling and diverting the water from these washes could "significantly alter the hydrology and wash-dependent vegetation of any features that may occur downstream." Id. C.2-54. Ephemeral wash-dependent vegetation serves as the primary sheltering, feeding, nesting and movement habitat for nearly all wildlife species, both resident and migratory. Impacts to these washes in the western portion of the proposed project site should be avoided or minimized in order to protect the important ecological and habitat values they provide.

A second area of concern is potential impacts of the proposed project to federally endangered bighorn sheep. The McCoy Mountains to the west of the proposed project site are believed to be unoccupied by bighorn sheep. Id. C.2-36. However, the McCoy Mountains have been identified as an important area for bighorn sheep recovery and sheep occur in mountain ranges adjacent to the McCoy Mountains. The Revised Staff Assessment provides new information that confirms bighorn sheep occurrence in the ranges near the McCoy Mountains and states that bighorn sheep do have the ability to recolonize the McCoy Mountains in the future. See Blythe Solar Power Plant Revised Staff Assessment C.2-38. The BLM needs to incorporate this information into its review of this proposed project and assess all project impacts – direct, indirect and cumulative – to this species. In particular, an analysis of impacts to future habitat connectivity should be performed so

that the proposed project and future projects do not prevent bighorn sheep recovery efforts and recolonization of the McCoy Mountains and other suitable habitat. In addition, bighorn sheep are difficult to detect in ranges like the McCoy Mountains where there may be a very low number of individuals. Id. C.2-37. Bighorn sheep surveys throughout the McCoy Mountains and especially in the vicinity of McCoy Spring in the summer and fall seasons should be conducted before any conclusions are made with regard to the current status of this species in the range and in relationship to the proposed project.

The third area of concern related to biological resources is impacts to water resources with regard to the project's on-site water use -- an important factor to analyze in the review of all solar projects proposed for desert environments. The DEIS indicates that groundwater from the Palo Verde Mesa Groundwater Basin (PVMGB) will be used to maintain and run the Blythe solar project. Id. ES-4 and C.9-2. Although the DEIS considers impacts to the PVMGB to be insignificant, it concludes that the project would place the basin into an overdraft condition and could have significant impacts to the Colorado River by inducing flow from the Colorado River into the Palo Verde Mesa. Id. C.9-2. Given this, we support the condition in Soil&Water-3 of offsetting the project's impacts to the lower Colorado River water. Id.

Cultural Resources: Analysis of the proposed project's impacts to cultural resources is still ongoing. Id. ES-16. The agencies are currently undertaking a negotiated stakeholder Programmatic Agreement (PA) that they expect to complete midsummer. This document will address mitigation for project impacts to cultural resources. In addition, cultural resources data compilation for the reconfigured alternative is ongoing and the analysis of impacts to cultural resources will be included in the Supplemental Staff Assessment that the CEC has already committed to prepare. Id. ES-16. Pending additional information and analysis on cultural resources, we reiterate our recommendation from our scoping comments that the BLM develop strategies to minimize and mitigate impacts on the area's outstanding cultural resources and engage in consultation with local Native American tribes.

DEIS Elements: Our concerns with the draft environmental review document itself relate to three key elements: the purpose and need statement, the alternatives considered, and the cumulative impact analysis, all of which were problems with the Bureau's first solar DEIS, the Ivanpah DEIS, and are showing incremental improvement with subsequent DEIS documents including the Blythe Solar Power Plant DEIS. We are also concerned about how the BLM will ensure that the new proposal(s) and new information that have come to light or will come to light after publication of the DEIS will be fully analyzed and made available to the public. To maximize the legal defensibility of the Blythe environmental review process, the BLM should seriously consider issuing a supplemental DEIS.

The purpose and need statement for this project is slightly broader than the one in the Ivanpah draft, but it remains too narrow. Ivanpah's original purpose and need was explicitly limited to a stark dichotomy: "approve" or "deny" the company's application for a solar project and, as the result, the first draft document addressed only the "no action" option and the "proposed project." A supplemental draft with a revised purpose and need and additional alternatives was issued in an attempt to remedy this egregious approach to "the heart" of the process established by the National Environmental Policy Act (NEPA).

The Blythe EIS draft states that the BLM's purpose and need is "to respond to" the company's ROW application. Id. A-11. The BLM should avoid both this mindset as well as too narrow a statement of purpose and need in order to help ensure that its EISs are legally defensible

documents. In place of the statement that was used here, our organizations urge the adoption of the following to achieve these goals:

The purpose of the proposed action is to “facilitate environmentally responsible commercial development of solar energy projects”<sup>2</sup> consistent with the statutory authorities and policies applicable to the Bureau of Land Management, including those providing for contributions towards achieving the renewable energy and economic stimulus and renewable energy development objectives under the Energy Policy Act of 2005 (EPAAct), the American Recovery and Re-Investment Act, and Presidential and Secretarial orders.

The need for this action is to implement Federal policies, orders and laws that mandate or encourage the development of renewable energy sources, including the Energy Policy Act of 2005, which requires the Department of the Interior to seek to approve at least 10,000 MW of non-hydropower renewable energy on public lands by 2015, and the Federal policy goal of producing 10% of the nation's electricity from renewable resources by 2010 and 25% by 2025; to enable effective implementation of the economic incentives for qualifying projects intended by the American Recovery and Reinvestment Act; and to support the State of California's renewable energy and climate change objectives, consistent with BLM's mandates and responsibilities.

This kind of purpose and need statement would clearly satisfy applicable legal requirements, see, e.g., National Parks Conservation Assn v. BLM, 586 F.3<sup>rd</sup> 735 (9<sup>th</sup> Cir. 2009), and thus help ensure that environmentally acceptable projects – which this project may end up being –will not only be permitted but will also be built without unnecessary delays.

Alternatives: The DEIS for the Blythe Solar project shows some minor improvement over the Ivanpah DEIS in its treatment of alternatives – in addition to the proposed project, two build alternatives are presented for NEPA analysis and three no project approval alternatives.<sup>3</sup> See Blythe DEIS at B.2-13.

We recommended in previous comments on this proposed project that the BLM avoid impacts to the western portions of the site where the desert dry wash woodland communities are located. The BLM has included two alternatives that reduce impacts to this portion of the project site: the reduced acreage alternative eliminates the power block in the southwest corner of the proposed project and reduces the project to 750 MW, id. B.2-3; and the reconfigured alternative moves the power block in the southwest corner approximately 0.8 miles south of its proposed location to avoid impacts to an unnamed major wash, id. B.2-13. It appears that the 750 MW smaller project alternative would substantially reduce the impacts to desert washes and desert dry wash woodland communities of the construction and operation of the proposed project, id. C.2-4, and the reconfigured project would reduce impacts to desert washes but increase impacts to desert dry wash woodland communities, id. C.2-4.

However, we are concerned that a true “range” of alternatives has not been considered and that the alternatives evaluated in the DEIS do not go far enough in avoiding impacts to the

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<sup>2</sup> This quotation is from Secretary Salazar himself.

<sup>3</sup> One CEQA-only alternative is analyzed. See Blythe DEIS at B.2-17.

significantly higher biological resources on the western portions of the project site including significant and abundant desert wash woodland habitats comprised of various species including Palo Verde, Smoke Tree and Ironwood, and appreciable amounts of native perennial shrubs and grasses. The greatest abundance and diversity of plant and animal species occurs in the western portion of the proposed project site as well.

The range of alternatives is “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14. NEPA requires BLM to “rigorously explore and objectively evaluate” a range of alternatives to proposed federal actions. See 40 C.F.R. §§ 1502.14(a), 1508.25(c). “An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action.” Nw. Env'tl. Defense Center v. Bonneville Power Admin., 117 F.3d 1520, 1538 (9th Cir. 1997). An agency violates NEPA by failing to “rigorously explore and objectively evaluate all reasonable alternatives” to the proposed action. City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990) (quoting 40 C.F.R. § 1502.14). This evaluation extends to considering more environmentally protective alternatives and mitigation measures. See, e.g., Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1122–23 (9th Cir. 2002) (and cases cited therein). For this project and EIS, the consideration of more environmentally protective alternatives is also consistent with the Federal Land Policy and Management Act’s (FLPMA) requirement that BLM “minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved.” 43 U.S.C. §1732(d)(2)(a).

NEPA requires that an actual “range” of alternatives is considered, such that the Act will “preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant’s proposed project).” Col. Env'tl. Coal. v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999), citing Simmons v. U.S. Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997). This requirement prevents the environmental impact statement (EIS) from becoming “a foreordained formality.” City of New York v. Dep’t of Transp., 715 F.2d 732, 743 (2nd Cir. 1983). See also Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002).

In order to ensure that the agencies are establishing a real range as well as to providing readers a fuller understanding of the tradeoffs inherent in the other “action” alternatives, we request that a 500 MW alternative on the more environmentally suitable public lands in the eastern portion of the proposed project area be considered.

In addition, we recommend that strong consideration be given to an alternative proposed by Defenders of Wildlife (comment letter on Staff Assessment/Draft EIS dated May 13, 2010) that would combine the disturbed private lands comprising Section 1 of the Blythe Mesa alternative and the public lands in the eastern portion of the proposed project site. Section 1 of the Blythe Mesa alternative and the eastern portion of the proposed project share a common boundary: “Section 1 is located on private land, immediately east of the proposed site, approximately 1 mile from the Blythe Airport.” See Blythe DEIS at B.2-21. Section 1 is 2,780 acres in size and comprised of approximately 56 parcels with 10 landowners. Id. B.2-21. No residences are located within Section 1, and it has appropriate insolation and minimal slope, and has been previously graded for agriculture. Access to the site is via 1-10 at the W Hobson Way exit. There are no structures on this land, which is immediately north of the Blythe Energy Project Substation. Section 1 is sufficiently large for two 250 MW projects. Id. B.2-21. The eastern portion of the proposed project located on public land is sufficient in acreage to support the production of 500 MW (two 250 MW blocks). Combined, these lands appear to be sufficient in acreage to support a 1,000 MW project, the same size as proposed by the applicant.

The BLM's approach to the analysis of alternatives for the proposed project has unnecessarily limited the range of alternatives. The BLM states that it considers alternatives proposed to be located on lands outside of its jurisdiction to be "unreasonable." Id. B.2-1. In defining what is a "reasonable" range of alternatives, NEPA requires consideration of alternatives "that are practical or feasible" and not just "whether the proponent or applicant likes or is itself capable of carrying out a particular alternative"; in fact, "[a]n alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable." Council on Environmental Quality, *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Questions 2A and 2B*, available at <http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm>; 40 C.F.R. §§ 1502.14, 1506.2(d). The California Energy Commission (CEC) considers alternatives that include private lands provided site control can be obtained in a reasonable timeframe and with some certainty. In the case of the Blythe Mesa private land alternative, the CEC found this alternative to be potentially feasible given the small number of private land owners. See Blythe Revised SA at B.2-1.

Cumulative Impacts: In order to properly site renewable energy projects, it is essential that a cumulative impacts analysis be conducted to fully evaluate the implications of this type of development on public lands. There are multiple solar and transmission projects proposed in the vicinity of the Blythe Solar power plant that will contribute to overall cumulative impacts to sensitive resources in this area. A list of existing and future foreseeable projects along the 1-10 corridor in Eastern Riverside County is included in the DEIS. See Blythe DEIS at B.3-8 to B.3-13.

In addition to the proposed solar and transmission projects, the DEIS identifies residential development projects, a 500-mile race track, the Eagle Mountain Pumped Storage Project, and several other projects that will also contribute to cumulative impacts. Id. B.3-9 to B.3-13. While these projects are not being permitted by the Bureau, all reasonable efforts must be made to obtain information regarding their potential impacts and construction timing so that a full picture of cumulative impacts can be presented in the final EIS.

The DEIS utilizes qualitative information about these existing and foreseeable projects to develop estimates and model impacts to key topics such as air quality and biological resources. More quantitative information is highly desirable, to supplement this qualitative material. In addition, the cumulative impact analysis should evaluate at-risk species and their habitats in the region to identify the condition and trend for these species and whether additional impacts from current and foreseeable future projects would conform to BLM policy on special status species management (Manual 6840) and wildlife habitat management (Manual 6500).

New Information: Lastly, we are concerned, as indicated above, about the new information, including information on the proposed project's impacts to cultural resources in the reconfigured alternative, id. C.3-1, and the complete survey results including data from special status plant and golden eagle surveys conducted this year, id. C.2-4 that has been developed since the DEIS was printed. In addition, the California Energy Commission has released a new document, the Blythe Revised Staff Assessment, with relevant information to this project and information that was not available in the Blythe DEIS. If BLM issues a supplemental DEIS, new information in the Blythe Revised Staff Assessment should be incorporated into that document.

BLM should make every effort to ensure that all this new information is made available to the public (and other agencies) along with assessments and analyses of the information as well as that the public is given an opportunity to comment thereon. Public input on agency proposals is one of the hallmarks of NEPA review and it is to prevent the undermining of that critical aspect that

limits have been imposed on agency efforts to “load up” final EISs with excessive amounts of new information.

Conclusion. In conclusion, some areas within the site proposed for this project appear to have fewer resource conflicts than some of the other sites currently being reviewed for fast-track projects, but nonetheless the impacts to the resources identified in these comments and to other desert resources must be fully analyzed, avoided, and mitigated through the BLM process. As we have previously noted, renewable development is not appropriate everywhere on the public lands and must be balanced against the equally urgent need to protect unique and sensitive resources of the CDCA. California is lucky indeed that we have sufficient renewable resources, including solar resources, to do their development in an environmentally responsible manner.

Thank you in advance for considering our comments. If you have any questions about them, please do not hesitate to contact us.

Sincerely,

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cc: Jim Abbott, Acting California State Director, BLM  
cc: Alan Solomon, Project Manager, California Energy Commission

**Audubon California**  
**California Native Plant Society \* California Wilderness Coalition**  
**Center for Biological Diversity \* Defenders of Wildlife**  
**Desert Protective Council \* Mojave Desert Land Trust**  
**National Parks Conservation Association**  
**Natural Resources Defense Council \* Sierra Club \* The Nature Conservancy**  
**The Wilderness Society \* The Wildlands Conservancy**

## **Renewable Siting Criteria for California Desert Conservation Area**

Environmental stakeholders have been asked by land management agencies, elected officials, other decision-makers, and renewable energy proponents to provide criteria for use in identifying potential renewable energy sites in the California Desert Conservation Area (CDCA). Large parts of the California desert ecosystem have survived despite pressures from mining, grazing, ORV, real estate development and military uses over the last century. Now, utility scale renewable energy development presents the challenge of new land consumptive activities on a potentially unprecedented scale. Without careful planning, the surviving desert ecosystems may be further fragmented, degraded and lost.

The criteria below primarily address the siting of solar energy projects and would need to be further refined to address factors that are specific to the siting of wind and geothermal facilities. While the criteria listed below are not ranked, they are intended to inform planning processes and were designed to provide ecosystem level protection to the CDCA (including public, private and military lands) by giving preference to disturbed lands, steering development away from lands with high environmental values, and avoiding the deserts' undeveloped cores. They were developed with input from field scientists, land managers, and conservation professionals and fall into two categories: 1) areas to prioritize for siting and 2) high conflict areas. The criteria are intended to guide solar development to areas with comparatively low potential for conflict and controversy in an effort to help California meet its ambitious renewable energy goals in a timely manner.

### **Areas to Prioritize for Siting**

- Lands that have been mechanically disturbed, i.e., locations that are degraded and disturbed by mechanical disturbance:
  - Lands that have been “type-converted” from native vegetation through plowing, bulldozing or other mechanical impact often in support of agriculture or other land cover change activities (mining, clearance for development, heavy off-road vehicle use).<sup>1</sup>
- Public lands of comparatively low resource value located adjacent to degraded and impacted private lands on the fringes of the CDCA:<sup>2</sup>
  - Allow for the expansion of renewable energy development onto private lands.
  - Private lands development offers tax benefits to local government.
- Brownfields:
  - Revitalize idle or underutilized industrialized sites.
  - Existing transmission capacity and infrastructure are typically in place.

- Locations adjacent to urbanized areas:<sup>3</sup>
  - Provide jobs for local residents often in underserved communities;
  - Minimize growth-inducing impacts;
  - Provide homes and services for the workforce that will be required at new energy facilities;
  - Minimize workforce commute and associated greenhouse gas emissions.
- Locations that minimize the need to build new roads.
- Locations that could be served by existing substations.
- Areas proximate to sources of municipal wastewater for use in cleaning.
- Locations proximate to load centers.
- Locations adjacent to federally designated corridors with existing major transmission lines.<sup>4</sup>

### **High Conflict Areas**

In an effort to flag areas that will generate significant controversy the environmental community has developed the following list of criteria for areas to avoid in siting renewable projects. These criteria are fairly broad. They are intended to minimize resource conflicts and thereby help California meet its ambitious renewable goals. The criteria are not intended to serve as a substitute for project specific review. They do not include the categories of lands within the California desert that are off limits to all development by statute or policy.<sup>5</sup>

- Locations that support sensitive biological resources, including: federally designated and proposed critical habitat; significant<sup>6</sup> populations of federal or state threatened and endangered species,<sup>7</sup> significant populations of sensitive, rare and special status species,<sup>8</sup> and rare or unique plant communities.<sup>9</sup>
- Areas of Critical Environmental Concern, Wildlife Habitat Management Areas, proposed HCP and NCCP Conservation Reserves.<sup>10</sup>
- Lands purchased for conservation including those conveyed to the BLM.<sup>11</sup>
- Landscape-level biological linkage areas required for the continued functioning of biological and ecological processes.<sup>12</sup>
- Proposed Wilderness Areas, proposed National Monuments, and Citizens' Wilderness Inventory Areas.<sup>13</sup>
- Wetlands and riparian areas, including the upland habitat and groundwater resources required to protect the integrity of seeps, springs, streams or wetlands.<sup>14</sup>
- National Historic Register eligible sites and other known cultural resources.
- Locations directly adjacent to National or State Park units.<sup>15</sup>

## **EXPLANATIONS**

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<sup>1</sup> Some of these lands may be currently abandoned from those prior activities, allowing some natural vegetation to be sparsely re-established. However, because the desert is slow to heal, these lands do not support the high level of ecological functioning that undisturbed natural lands do.

<sup>2</sup> Based on currently available data.

<sup>3</sup> Urbanized areas include desert communities that welcome local industrial development but do not include communities that are dependent on tourism for their economic survival.

<sup>4</sup> The term "federally designated corridors" does not include contingent corridors.

<sup>5</sup> Lands where development is prohibited by statute or policy include but are not limited to:

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National Park Service units; designated Wilderness Areas; Wilderness Study Areas; BLM National Conservation Areas; National Recreation Areas; National Monuments; private preserves and reserves; Inventoried Roadless Areas on USFS lands; National Historic and National Scenic Trails; National Wild, Scenic and Recreational Rivers; HCP and NCCP lands precluded from development; conservation mitigation banks under conservation easements approved by the state Department of Fish and Game, U.S. Fish and Wildlife Service or Army Corps of Engineers a; California State Wetlands; California State Parks; Department of Fish and Game Wildlife Areas and Ecological Reserves; National Historic Register sites.

<sup>6</sup> Determining “significance” requires consideration of factors that include population size and characteristics, linkage, and feasibility of mitigation.

<sup>7</sup> Some listed species have no designated critical habitat or occupy habitat outside of designated critical habitat. Locations with significant occurrences of federal or state threatened and endangered species should be avoided even if these locations are outside of designated critical habitat or conservation areas in order to minimize take and provide connectivity between critical habitat units.

<sup>8</sup> Significant populations/occurrences of sensitive, rare and special status species including CNPS list 1B and list 2 plants, and federal or state agency species of concern.

<sup>9</sup> Rare plant communities/assemblages include those defined by the California Native Plant Society’s Rare Plant Communities Initiative and by federal, state and county agencies.

<sup>10</sup> ACECs include Desert Tortoise Desert Wildlife Management Areas (DWMAs). The CDCA Plan has designated specific Wildlife Habitat Management Areas (HMAs) to conserve habitat for species such as the Mohave ground squirrel and bighorn sheep. Some of these designated areas are subject to development caps which apply to renewable energy projects (as well as other activities).

<sup>11</sup> These lands include compensation lands purchased for mitigation by other parties and transferred to the BLM and compensation lands purchased directly by the BLM.

<sup>12</sup> Landscape-level linkages provide connectivity between species populations, wildlife movement corridors, ecological process corridors (e.g., sand movement corridors), and climate change adaptation corridors. They also provide connections between protected ecological reserves such as National Park units and Wilderness Areas. The long-term viability of existing populations within such reserves may be dependent upon habitat, populations or processes that extend outside of their boundaries. While it is possible to describe current wildlife movement corridors, the problem of forecasting the future locations of such corridors is confounded by the lack of certainty inherent in global climate change. Hence the need to maintain broad, landscape-level connections. To maintain ecological functions and natural history values inherent in parks, wilderness and other biological reserves, trans-boundary ecological processes must be identified and protected. Specific and cumulative impacts that may threaten vital corridors and trans-boundary processes should be avoided.

<sup>13</sup> Proposed Wilderness Areas: lands proposed by a member of Congress to be set aside to preserve wilderness values. The proposal must be: 1) introduced as legislation, or 2) announced by a member of Congress with publicly available maps. Proposed National Monuments: areas proposed by the President or a member of Congress to protect objects of historic or scientific interest. The proposal must be: 1) introduced as legislation or 2) announced by a member of Congress with publicly available maps. Citizens' Wilderness Inventory Areas: lands that have been inventoried by citizens groups, conservationists, and agencies and found to have defined “wilderness characteristics.” The proposal has been publicly announced.

<sup>14</sup> The extent of upland habitat that needs to be protected is sensitive to site-specific resources. For example: the NECO Amendment to the CDCA Plan protects streams within a 5-mile radius of Townsend big-eared bat maternity roosts; aquatic and riparian species may be highly sensitive to changes in groundwater levels.

<sup>15</sup> Adjacent: lying contiguous, adjoining or within 2 miles of park or state boundaries. (Note: lands more than 2 miles from a park boundary should be evaluated for importance from a landscape-level linkage perspective, as further defined in footnote 12).



CENTER for BIOLOGICAL DIVERSITY

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June 16, 2010

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Re: Comments on the Draft Environmental Impact Statement/Staff Assessment for the Chevron Energy Solutions/Solar Millennium (CESSM) Blythe Solar Power Plant (BSPP) and Possible California Desert Conservation Area Plan Amendment

Dear Project Manager Shaffer:

These comments are submitted on behalf of the Center for Biological Diversity's 255,000 staff, members and on-line activists in California and throughout the western states, regarding the Draft Environmental Impact Statement/Staff Assessment (the "DEIS") for the proposed Chevron Energy Solutions/Solar Millennium (CESSM) Blythe Solar Power Plant (BSPP) and Possible California Desert Conservation Area Plan Amendment ("proposed project"), issued by the Bureau of Land Management ("BLM").<sup>1</sup>

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions set by AB 32 and Executive Orders S-03-05 and S-21-09. The Center for Biological Diversity (the "Center") strongly supports the development of renewable energy production, and the generation of electricity from solar power, in particular. However, like any project, proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy projects should avoid impacts to sensitive species and habitats, 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.

As proposed, the proposed project right of way includes over 9,000 acres and the proposed solar facility would cover approximately 7,030 acres (over 10 square miles) in the

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<sup>1</sup> The document released by the agencies is entitled "Staff Assessment and Draft Environmental Impact Statement BLYTHE SOLAR POWER PROJECT Application For Certification (09-AFC-6)".

Arizona • California • Nevada • New Mexico • Alaska • Oregon • Montana • Illinois • Minnesota • Vermont • Washington, DC

Colorado desert. The proposed project also includes new a new gas line, a gen-tie line, and a new substation. The DEIS for the proposed plan amendment and right-of-way application: fails to provide adequate identification and analysis of all of the significant impacts of the proposed project on the desert tortoise, the Mojave fringe-toed lizard, rare plants including Colorado desert microphyll woodlands, and other biological resources; fails to adequately address the significant cumulative impacts of the project; and lacks consideration of a reasonable range of alternatives. Of particular concern is the BLM's failure to include adequate information regarding the impacts to resources from the construction and operation of the proposed Colorado River substation and the gen-tie line in the DEIS. The substation is proposed to be constructed in occupied Mojave fringe-toed lizard habitat and no alternative sites for the substation are evaluated.<sup>2</sup> In addition, BLM has failed to fully examine the impact of the proposed plan amendment to the California Desert Conservation Act Plan ("CDCA Plan") along with other similar proposed plan amendments and as a result the current piecemeal process may lead to the approval of industrial sites sprawling across the California Desert within habitat that should be protected to achieve the goals of the bioregional plan as a whole. The DEIS also fails to consider potential alternative plan amendments that would protect the most sensitive lands from future development.<sup>3</sup>

Notably, the area of the proposed project is currently part of the evaluation being undertaken by the BLM for the solar PEIS for solar energy zones. Nonetheless, alternative siting alternatives and alternative technologies including distributed PV should have been fully considered in the DEIS, because they could significantly reduce the impacts to many species,

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<sup>2</sup> The DEIS/SA provides some information on the impacts of the substation scattered throughout the document. *See, e.g.*, DEIS at C.2-63 fn. 7 ("Construction impacts are presented here but Southern California Edison would construct the 33-acre substation and would undertake mitigation for the biological resource impacts.") This information is clearly insufficient as noted in the Revised Staff Assessment ("Revised SA") for the Blythe Project CEC-700-2010-004 REV1, DOCKET NUMBER 09-AFC-6 dated June 4, 2010, which includes the following statement:

Transmission System Engineering – The California Public Utilities Commission staff have asked the Energy Commission to include a permitting-level analysis of the proposed Colorado River substation expansion that is under their permitting authority. *Consultants are currently preparing this report and it will be included as part of the Supplemental Staff Assessment.*

pp. 12-13 (Executive Summary; emphasis added); *see also* pp. A-14 ("Transmission System Engineering – The California Public Utilities Commission staff have asked the energy commission staff to include a permitting-level analysis of the proposed Colorado River substation that is under their permitting authority. Consultants are currently preparing this report, and it will be included as part of the Supplemental Staff Assessment.").

<sup>3</sup> Notably, the Revised SA (which is not a federal document) includes additional information regarding potential plan amendments as part of a mitigation strategy. *See* Revised SA, Biological Resources Appendix B: Northern and Eastern Colorado Desert Coordinated Management Plan NECO Land Use Plan Amendments. The Revised SA states: "Biological Resources Appendix B: Appendix B, the NECO Land Use Plan Amendments, was inadvertently omitted from the SA/DEIS and is now included at the end of this section." Revised SA at C.2-6. Because this information was not included in the DEIS, it has not yet been properly noticed or circulated for public comment by the BLM.

soils, and water resources in the Colorado desert. In addition, alternative plan amendments should have been discussed in the DEIS. The Center urges the BLM to revise the DEIS to adequately address these and other issues detailed below and re-circulate the DEIS or a supplemental DEIS for public comment.

In the sections that follow, the Center provides detailed comments on the ways in which the DEIS fails to adequately identify and analyze many of the impacts that could result from the proposed project, including but not limited to: impacts to biological resources, impacts to water resources, impacts to soils, direct and indirect impacts from the gen-tie line and substation, and cumulative impacts.

Because the project approval process includes a quasi-judicial process in the California Energy Commission, the Center hereby incorporates by reference all of the materials before the California Energy Commission regarding the approval of this project. BLM is a party to the CEC process, which is being conducted in concert with the BLM approval process, and BLM has access to all of the documents (which are also readily accessible on the internet), therefore, BLM should incorporate all of the documents and materials from that process into the administrative record for the BLM decision as well.

**I. The BLM's Analysis of the Proposed Plan Amendment and Proposed Project Fail to Comply with FLPMA.**

As part of FLPMA, Congress designated 25 million acres of southern California as the California Desert Conservation Area ("CDCA"). 43 U.S.C. § 1781(c). Congress declared in FLPMA that the CDCA is a rich and unique environment teeming with "historical, scenic, archaeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources." 43 U.S.C. § 1781(a)(2). Congress found that this desert and its resources are "extremely fragile, easily scarred, and slowly healed." *Id.* For the CDCA and other public lands, Congress mandated that the BLM "shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C § 1732(b).

The sum total of the plan amendment to the CDCA plan is one sentence: "Permission granted to construct solar energy facility (proposed BSPP Project)." DEIS at A-6. The DEIS then lists the criteria for consideration of the plan amendment and right of way application and BLM's responses to each issue. DEIS at A-6 to A-9. While the Center appreciates BLM's effort in this regard (which were absent in other recent environmental documents prepared for large-scale solar projects), given the impact of the proposed project on other multiple uses of these public lands at the proposed site as well as other aspects of the bioregional planning, it appears that BLM may also need to amend other parts of the plan as well and should have looked at additional and/or different amendments as part of the alternatives analysis. Indeed it appears that BLM recognized the need for this additional information, the Revised SA (which is not a federal document) includes additional information regarding potential plan amendments as part of a mitigation strategy. *See* Revised SA, Biological Resources Appendix B: Northern and Eastern Colorado Desert Coordinated Management Plan NECO Land Use Plan Amendments. The Revised SA states: "Biological Resources Appendix B: Appendix B, the NECO Land Use Plan Amendments, *was inadvertently omitted from the SA/DEIS* and is now included at the end

of this section.” Revised SA at C.2-6 (emphasis added). Unfortunately, it appears that this information was available but was not properly provided to the public for review and comment. The Revised SA discusses plan amendments that would increase protection for the desert tortoise by designation of a Tortoise Linkage Habitat Acquisition Area (TLHAA) and a Chuckwalla Bench Acquisition Area (CBA) where uses would be limited to protect key habitat values. The Revised SA also proposes to increase protections within the Chuckwalla DWMA by reducing the disturbance cap and developing an “activity plan” for OHV use in desert washes. While it appears that such an “activity plan” would be focused on increasing protections for desert tortoise and habitat, there is no explanation or analysis of why or how the current land use designations and route designations are not providing the needed protection.

The Center has repeatedly sought stronger protections for desert tortoise and tortoise critical habitat in the DWMA within the CDCA as a whole and particularly within the NECO planning area. Despite the fact that desert tortoise populations in the NECO DWMA continue to decline, the BLM’s NECO plan amendment adopted ORV “open wash zones” on 218,711 acres (25%) in the Chemehuevi DWMA and 352,633 acres (43%) in the Chuckwalla DWMA, and in an additional 1,042 square miles (666,880 acres) of desert tortoise habitat outside of both the DWMA and critical habitat. As a result the NECO plan currently allows virtually unlimited ORV use in large parts of the DWMA and allows significant damage to desert tortoises and their critical habitat to occur. The Center strongly supports greater protections for the desert tortoise and its habitat and the first step should be removing all “open wash zones” from both all critical habitat and DWMA in the planning area. The BLM should also provide ongoing monitoring of the DWMA and reporting to ensure that all route closures in the DWMA are implemented so that any new protective measures have the intended effect. In contrast, a plan amendment such as that suggested in Revised SA that would simply require the BLM to prepare a new “activity plan” appears to be more form than substance.

Unfortunately, none of the plan amendment proposals to provide additional protections for species on public lands were included in the DEIS and, moreover, the DEIS confusingly appears to actually defer consideration of any specific proposed plan amendments until the FEIS. See DEIS at 2 (“The Supplemental Staff Assessment (SSA)/FEIS will include for BLM a Proposed Land Use Plan Amendment (Proposed PA). The NOA will initiate a 30-day period in which to protest the Proposed PA to the Director of the BLM.”). It is possible that BLM intended this statement to encompass the potential for additional plan amendments to protect resources as part of the mitigation measures for this project. However, BLM cannot properly defer the identification of the proposed plan amendments and analysis of the impacts of the proposed plan amendment until the Final EIS stage.

Overall BLM has still failed to take a comprehensive look at the proposed plan amendment for the ROW to determine: 1) whether industrial scale projects are appropriate for any of the public lands in this area; 2) if so, how much of the public lands are suitable for such industrial uses given the need to balance other management goals including preservation of habitat and water resources; and 3) the location of the public lands suitable for such uses. The BLM has also failed to explain how this proposed project would interface with the Solar PEIS process that is already under way and was intended to consider these questions. The Center remains concerned that the result of the current process is a piecemeal approach to project review

with site-specific approvals made before planning is completed which threatens to undermine the “bioregional” approach in the CDCA Plan as a whole as well as violate the fundamental planning principles of FLPMA.

**A. The DEIS Fails to Adequately Address the Plan Amendment in the Context of the CDCA Plan.**

Unfortunately, the DEIS fails to adequately consider the impacts of the proposed project and plan amendment and reasonable alternatives in the context of FLPMA and the CDCA Plan. FLPMA requires that in developing and revising land use plans, the BLM consider many factors and “use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences . . . consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values.” 43 U.S.C. § 1712(c). As stated clearly in the CDCA Plan:

The goal of the Plan is to provide for the use of the public lands, and resources of the California Desert Conservation Area, including economic, educational, scientific, and recreational uses, in a manner which enhances wherever possible—and which does not diminish, on balance—the environmental, cultural, and aesthetic values of the Desert and its productivity.

CDCA Plan at 5-6. The CDCA Plan also provides several overarching management principles:

**MANAGEMENT PRINCIPLES**

The management principles contained in the law (FLPMA)—*multiple use, sustained yield, and the maintenance of environmental quality*—are not simple guides. Resolution of conflicts in the California Desert Plan requires innovative management approaches for everything from wilderness and wildlife to grazing and mineral development. These approaches include:

—Seeking simplicity for management direction and public understanding, avoiding complication and confusing in detail which would make the Plan in comprehensive and unworkable.

—Development of decision-making processes using appropriate guidelines and criteria which provide for public review and understanding. These processes are designed to help in allowing for the use of desert lands and resources while preventing their undue degradation or impairment.

—*Responding 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.*

—Recognizing that the natural patterns of the California Desert, its geological and biological systems, are the basis for planning, and that human use patterns, from freeways to fence lines, define its boundaries. Only in this way can the public resources can be understood and protected by the Plan that can be publicly comprehended, accepted, and followed.

CDCA Plan 1980 at 6 (first emphasis in original, second emphasis added).

The CDCA Plan anticipated that there would be multiple plan amendments over the life of the plan and provides specific requirements for analysis of Plan amendments. Those requirements include determining “if alternative locations within the CDCA are available which would meet the applicant’s needs without requiring a change in the Plan’s classification, or an amendment to any Plan element” and evaluating “the effect of the proposed amendment on BLM management’s desert-wide obligation to achieve and maintain a balance between resource use and resource protection.” CDCA Plan at 121. Thus, BLM was required to analyze in the DEIS whether alternative locations were available that would not require a plan amendment, and how the proposed amendment would affect desert-wide resource protection—BLM mentions the former issue but fails to address the latter issue.

The CDCA Plan includes the Energy Production and Utility Corridors Element which is focused primarily on utility corridors with brief discussion of powerplant siting. Even in 1980 the CDCA Plan contemplated that alternative energy projects would likely be developed in the future but did not expressly provide planning direction for solar energy production. Nonetheless, the overarching principles expressed in the Decision Criteria are also applicable to the proposed project here including minimizing the number of separate rights-of-way, providing alternatives for consideration during the processing of applications, and “avoid[ing] sensitive resources wherever possible.” CDCA Plan at 93. Nothing in the DEIS shows that BLM considered the landscape level issues and management objectives or alternatives to the proposed plan amendment *in the DEIS*.

In addition, BLM should have considered the impacts to existing land use plans for these public lands across several scales including, for example: in the western Imperial Valley; in the Imperial Valley as a whole; in the Salton Trough; and in the CDCA as a whole.

**B. The DEIS Fails to Adequately Address Impacts to Multiple Use Class L Lands and Loss of Multiple Use in Favor of a Single Use for Industrial Purposes.**

As FLPMA declares, public lands are to be managed for multiple uses “in a manner that will protect the quality of the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.” 43 U.S.C. § 1701(a)(7) & (8). The CDCA Plan as amended provides for four distinct multiple use classes based on the sensitivity of resources in each area. The proposed project site is in MUC class L lands. DEIS at C.13-4. Under the CDCA Plan, Multiple-use Class L (Limited Use) “protects sensitive, natural, scenic, ecological, and cultural resources values. Public lands designated as Class L are managed to provide for generally *lower-intensity, carefully controlled multiple use of resources, while*

*ensuring that sensitive values are not significantly diminished.*" CDCA Plan at 13 (emphasis added). The proposed project is a high-intensity, single use of resources that will displace all other uses and that will significantly diminish (indeed, completely destroy) of over 7,000 acres of habitat including nearly 3 miles of rare Colorado desert microphyll woodlands. The DEIS does consider alternative configurations that would avoid impacts to some resources but still fails to consider how the loss of this rare habitat type along with the loss of a large area of habitat will affect the biological resources of this area. Moreover, BLM does not address how the loss of multiple uses in such a large area might affect other nearby public lands in the CDCA such as creating greater pressures on those land for the remaining multiple uses.

For example, to the extent that the proposal would require changes in the route network resulting in several routes which would need to be moved—those changes to the route network are simply not addressed in the DEIS (nor are the likely direct, indirect and cumulative impacts of changing those route designations adequately identified or analyzed, as discussed in detail below). Any changes to routes would require BLM to amend the route designations in the area because these routes are part of a network that was adopted through a plan amendment. When BLM does consider these issues, as it must, in a revised or supplemental DEIS, a range of alternatives must be considered in addition to the fact that such changes will undoubtedly change use of the previously existing nearby routes, most likely causing increased use on other nearby routes. Even if BLM attempts to simply reroute along the fenceline for the proposed project a plan amendment would be required and BLM must then consider that new unauthorized routes to provide connections to the other routes, and/or entirely new unauthorized routes may be created by off-road vehicle users *to avoid the industrial site entirely*. There is no evidence that recreational off-road vehicle users will be content to drive for miles along a fence adjoining an industrial site rather than striking off cross-country to connect with more scenic routes. Past experience shows that the latter is quite understandably a much more likely outcome and BLM should recognize this in analyzing the impacts of this project on the existing route network and any proposal to amend that network.

### **C. Fails to Adequately Address Other Ongoing Planning Efforts**

The DEIS fails to adequately address the proposed project in the context of other connected projects (including multiple renewable energy projects, substations and additional transmission lines) and the ongoing PEIS planning process for solar development in six western states undertaken by BLM and DOE which does not identify this area as a proposed solar energy study area<sup>4</sup>. Direct, indirect and cumulative impacts of the proposed project in conjunction with others may lead to sprawl development in the area and undermine the *planning* for renewable energy industrial zones that BLM has undertaken.

Of particular concern is the failure of the DEIS to analyze the impacts of the gen-tie and the Colorado River substation in Mojave fringe-toed lizard habitat and the BLM's failure to explore alternatives that would minimize impacts. The BLM cannot lawfully piecemeal this project approval. Moreover, the BLM has failed to explain how this site specific approval would interface with, or alternatively undermine, the solar programmatic planning by federal agencies for the western states. This critical issue regarding planning on public lands is not adequately

<sup>4</sup> [http://solareis.anl.gov/documents/maps/studyareas/Solar\\_Study\\_Area\\_CA\\_Lit\\_7-09.pdf](http://solareis.anl.gov/documents/maps/studyareas/Solar_Study_Area_CA_Lit_7-09.pdf)

addressed in the DEIS which only mentions the PEIS process briefly (DEIS at B.2-19), and then includes the PEIS as a foreseeable future project with no explanation (DEIS at B.3-13). The BLM does not analyze how the PEIS could be affected by the approval of this and other projects in the area and does not address how the piecemeal analysis of the substation and gen-tie line may undermine the planning for a solar zone in this area. Such analysis *after the fact* is not consistent with the planning requirements of FLPMA or, indeed, any rational land use planning principles.

**D. BLM Failed to Inventory the Resources of these Public Lands Before Making a Decision to Allow Destruction of those Resources**

FLPMA states that “[t]he Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values,” and this “[t]his inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values.” 43 U.S.C. § 1711(a). FLPMA also requires that this inventory form the basis of the land use planning process. 43 U.S.C. § 1701(a)(2). See *Center for Biological Diversity v. Bureau of Land Management*, 422 F.Supp.2d 1115, 1166-67 (N.D. Cal. 2006) (discussing need for BLM to take into account known resources in making management decisions); *ONDA v. Rasmussen*, 451 F.Supp. 2d 1202, 1212-13 (D. Or. 2006) (finding that BLM did not take a hard look under NEPA by relying on outdated inventories and such reliance was inconsistent with BLM’s statutory obligations to engage in a continuing inventory under FLPMA). It is clear that BLM should not approve a management plan amendment based on outdated and inadequate inventories of affected resources on public lands.

As detailed below in the NEPA sections, here BLM has failed to compile an adequate inventory of the resources of the public lands that could be affected by the proposed project *before* preparing the DEIS (including, e.g., rare plant surveys including late-summer/early-fall flowering plants, Mojave fringe-toed lizard, and other biological resources) which is necessary in order to adequately assess the impacts to resources of these public lands in light of the proposed plan amendment and BLM has also failed to adequately analyze impacts on known resources. Indeed, the DEIS states that surveys are ongoing after the DEIS was issued See DEIS at C.2-2 (“Follow-up spring and fall 2010 special-status plant surveys will be performed for 15 plant species within the Project Disturbance Area and along the proposed transmission line alignment.) Similarly, the DEIS states that the agencies were still waiting for a Army Corps of Engineers jurisdictional determination in order to analyze compliance with the Clean Water Act. See DEIS at C.9-2. Therefore, it appears that a revised DEIS or supplemental DEIS must be prepared to include the new information including new survey data about the resources of the site and potential impacts of the project on resources of our public land and water, and that document must be circulated for public review and comment.

**E. The DEIS Fails to Provide Adequate Information to Ensure that the BLM will Prevent Unnecessary and Undue Degradation of Public lands**

FLPMA requires BLM to “take any action necessary to prevent unnecessary or undue degradation of the lands” and “minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the

public lands involved.” 43 U.S.C. §§ 1732(b), 1732(d)(2)(a). Without adequate information and analysis of the current status of the resources of these public lands, BLM cannot fulfill its duty to prevent unnecessary or undue degradation of the public lands and resources. Thus, the failure to provide an adequate current inventory of resources and environmental review undermines BLM’s ability to protect and manage these lands in accordance with the statutory directive.

BLM has failed to properly identify and analyze impacts to the resources including the impacts from all of the project components. As detailed below, the BLM’s failure in this regard violates the most basic requirements of NEPA and in addition undermines the BLM’s ability to ensure that the proposal does not cause unnecessary and undue degradation of public lands. See *Island Mountain Protectors*, 144 IBLA 168, 202 (1998) (holding that “[t]o the extent BLM failed to meet its obligations under NEPA, it also failed to protect public lands from unnecessary or undue degradation.”); *National Wildlife Federation*, 140 IBLA 85, 101 (1997) (holding that “BLM violated FLPMA, because it failed to engage in any reasoned or informed decisionmaking process” or show that it had “balanced competing resource values”).

## II. The DEIS Fails to Comply with NEPA.

NEPA is the “basic charter for protection of the environment.” 40 C.F.R. § 1500.1(a). In NEPA, Congress declared a national policy of “creat[ing] and maintain[ing] conditions under which man and nature can exist in productive harmony.” *Or. Natural Desert Ass’n v. Bureau of Land Mgmt.*, 531 F.3d 1114, 1120 (9th Cir. 2008) (quoting 42 U.S.C. § 4331(a)). NEPA is intended to “ensure that [federal agencies] ... will have detailed information concerning significant environmental impacts” and “guarantee[] that the relevant information will be made available to the larger [public] audience.” *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998).

Under NEPA, before a federal agency takes a “‘major [f]ederal action[] significantly affecting the quality’ of the environment,” the agency must prepare an environmental impact statement (EIS). *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1067 (9th Cir. 2002) (quoting 43 U.S.C. § 4332(2)(C)). “An EIS is a thorough analysis of the potential environmental impact that ‘provide[s] full and fair discussion of significant environmental impacts and ... inform[s] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.’” *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004) (citing 40 C.F.R. § 1502.1). An EIS is NEPA’s “chief tool” and is “designed as an ‘action-forcing device to [e]nsure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government.’” *Or. Natural Desert Ass’n*, 531 F.3d at 1121 (quoting 40 C.F.R. § 1502.1).

An EIS must identify and analyze the direct, indirect, and cumulative effects of the proposed action. This requires more than “general statements about possible effects and some risk” or simply conclusory statements regarding the impacts of a project. *Klamath Siskiyou Wildlands Center v. BLM*, 387 F.3d 989, 995 (9th Cir. 2004) (citation omitted); *Oregon Natural Resources Council v. BLM*, 470 F.3d 818, 822-23 (9th Cir. 2006). Conclusory statements alone “do not equip a decisionmaker to make an informed decision about alternative courses of action

or a court to review the Secretary's reasoning." *NRDC v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988).

NEPA also requires BLM to ensure the scientific integrity and accuracy of the information used in its decision-making. 40 CFR § 1502.24. The regulations specify that the agency "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." 40 C.F.R. § 1500.1(b). Where complete data is unavailable, the EIS also must contain an analysis of the worst-case scenario resulting from the proposed project. *Friends of Endangered Species v. Jantzen*, 760 F.3d 976, 988 (9th Cir. 1985) (NEPA requires a worst case analysis when information relevant to impacts is essential and not known and the costs of obtaining the information are exorbitant or the means of obtaining it are not known) *citing Save our Ecosystems v. Clark*, 747 F.2d 1240, 1243 (9th Cir. 1984); 40 C.F.R. § 1502.22.

#### **A. Purpose And Need and Project Description are Too Narrowly Construed and Unlawfully Segment the Analysis**

##### *1. Purpose and Need:*

Agencies cannot narrow the purpose and need statement to fit only the proposed project and then shape their findings to approve that project without a "hard look" at the environmental consequences. To do so would allow an agency to circumvent environmental laws by simply "going-through-the-motions." It is well established that NEPA review cannot be "used to rationalize or justify decisions already made." 40 C.F.R. § 1502.5; *Metcalf v. Daley*, 214 F.3d 1135, 1141-42 (9th Cir. 2000) ("the comprehensive 'hard look' mandated by Congress and required by the statute must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.") As Ninth Circuit noted an "agency cannot define its objectives in unreasonably narrow terms." *City of Carmel-by-the-Sea v. U.S. Dept. of Transportation*, 123 F.3d 1142, 1155 (9th Cir. 1997); *Muckleshot Indian Tribe v. U.S. Forest Service*, 177 F. 3d 900, 812 (9th Cir. 1999). The statement of purpose and alternatives are closely linked since "the stated goal of a project necessarily dictates the range of 'reasonable' alternatives." *City of Carmel*, 123 F.3d at 1155. The Ninth Circuit recently reaffirmed this point in *National Parks Conservation Assn v. BLM*, 586 F.3d 735, 746-48 (9th Cir. 2009) (holding that "[a]s a result of [an] unreasonably narrow purpose and need statement, the BLM necessarily considered an unreasonably narrow range of alternatives" in violation of NEPA).

The purpose behind the requirement that the purpose and need statement not be unreasonably narrow, and NEPA in general is, in large part, to "guarantee[ ] that the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The agency cannot camouflage its analysis or avoid robust public input, because "the very purpose of a draft and the ensuing comment period is to elicit suggestions and criticisms to enhance the proposed project." *City of Carmel-by-the-Sea*,

123 F.3d at 1156. The agency cannot circumvent relevant public input by narrowing the purpose and need so that no alternatives can be meaningfully explored or by failing to review a reasonable range of alternatives.

The BLM's purpose and need for the Blythe project is "to respond to Palo Verde Solar I's application under Title V of FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate, and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other Federal applicable laws", and also states that the "BLM authorities include:

- Executive order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the "production and transmission of energy in a safe and environmentally sound manner."
- The EPAct, which requires the Department of the Interior (BLM's parent agency) to approve at least 10,000 MW of renewable energy on public lands by 2015.
- Secretarial Order 3285, dated March 11, 2009, which "establishes the development of renewable energy as a priority for the Department of the Interior."

DEIS at A-12. The DEIS notes that an amendment to the CDCA Plan is needed in order to approve the project but does not clearly identify the plan amendment as a part of the project being evaluated. Rather, the DEIS states: "The BLM will decide whether to approve, approve with modification, or deny issuance of a ROW . . . The BLM's actions will also include consideration of amending the CDCA Plan concurrently." DEIS at A-11. BLM's purpose and need is very narrowly construed to the proposed project itself and an amendment to the Plan *for the project only*. The purpose and need provided in the DEIS is impermissibly narrow under NEPA for several reasons, most importantly because it foreclosed meaningful alternatives review in the DEIS. Because the purpose and need and the alternatives analysis are at the "heart" of NEPA review and affect nearly all other aspects of the EIS, on this basis and others, BLM must revise and re-circulate the DEIS.

The DOE purpose and need statement provides:

The Applicant has applied to the Department of Energy (DOE) for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAct 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the —Recovery Act). DOE is a cooperating agency on this EIS pursuant to an MOU between DOE and BLM signed in January 2010. The purpose and need for action by DOE is to comply with its mandate under EPAct by selecting eligible projects that meet the goals of the Act.

DEIS at A-12.

In discussing the cumulative scenario, the DOE loan guarantee program is also described as one of the incentive programs for funding renewable energy projects:

Example[s] of incentives for developers to propose renewable energy projects on private and public lands in California, Nevada and Arizona, include the following:

- U.S. Treasury Department's Payments for Specified Energy Property in Lieu of Tax Credits under §1603 of the American Recovery and Reinvestment Act of 2009 (Public Law 1115) - Offers a grant (in lieu of investment tax credit) to receive funding for 30% of their total capital cost at such time as a project achieves commercial operation (currently applies to projects that begin construction by December 31, 2010 and begin commercial operation before January 1, 2017).
- U.S. Department of Energy (DOE) Loan Guarantee Program pursuant to §1703 of Title XVII of the Energy Policy Act of 2005 - Offers a loan guarantee that is also a low interest loan to finance up to 80% of the capital cost at an interest rate much lower than conventional financing. The lower interest rate can reduce the cost of financing and the gross project cost on the order of several hundred million dollars over the life of the project, depending on the capital cost of the project.

DEIS at B.3-2.

The Center is well aware that deadlines for funding, particularly for the American Recovery and Reinvestment Act ("ARRA") funds, have driven the pace of the environmental review for this project and others and, while such funding mechanisms are important, deadlines cannot be used as an excuse for rushed and inadequate NEPA review. The BLM and DOE must be concerned with the adequate NEPA review and even if the agencies can properly have an objective of *timely* approval of projects they cannot properly have as purpose and need of the project a *rushed* inadequate environmental impact review.

Moreover, in its discussion of the need for renewable energy production the DEIS fails to address risks associated with global climate change in context of including both the need for climate change mitigation strategies (e.g., reducing greenhouse gas emissions) and the need for climate change adaptation strategies (e.g., conserving intact wild lands and the corridors that connect them). All climate change adaptation strategies underline the importance of protecting intact wild lands and associated wildlife corridors as a priority adaptation strategy measure.

The habitat fragmentation, loss of connectivity for terrestrial wildlife, and introduction of predators and invasive weed species associated with the proposed project in the proposed location may run contrary to an effective climate change adaptation strategy. Siting the proposed project in the proposed location impacting major washes and fragile desert resources could undermine a meaningful climate change adaptation strategy with a poorly executed climate change mitigation strategy. Moreover, the project itself will emit greenhouse gases and the DEIS contains no discussion of ways to avoid, minimize or off set these emissions although such mitigation is clearly feasible and other technologies have far less or no GHG emissions during operations are also likely to have fewer emissions when calculated on a lifecycle basis. The way to maintain healthy, vibrant ecosystems is not to fragment them and reduce their biodiversity.

## **B. The DEIS Does Not Adequately Describe Environmental Baseline**

BLM is required to “describe the environment of the areas to be affected or created by the alternatives under consideration.” 40 CFR § 1502.15. The establishment of the baseline conditions of the affected environment is a practical requirement of the NEPA process. In *Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that “without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” Similarly, without a clear understanding of the current status of these public lands BLM cannot make a rational decision regarding proposed project. See *Center for Biological Diversity v. U.S. Bureau of Land Management, et al.*, 422 F. Supp. 2d 1115, 1166-68 (N.D. Cal. 2006) (holding that it was arbitrary and capricious for BLM to approve a project based on outdated and inaccurate information regarding biological resources found on public lands).

The DEIS fails to provide adequate baseline information and description of the environmental setting in many areas including in particular the status of rare plants, animals and communities.

The baseline descriptions in the DEIS are inadequate particularly for the areas where surveys are ongoing. As discussed below, because of the deficiencies of the baseline data for the proposed project area, the DEIS fails to adequately describe the environmental baseline. Many of the rare and common but essential species and habitats have incomplete and/or vague on-site descriptions that make determining the proposed project’s impacts difficult at best. Some of the rare species/habitats baseline conditions are totally absent, therefore no impact assessment is provided either. A supplemental document is required to fully identify the baseline conditions of the site, and that baseline needs to be used to evaluate the impacts of the proposed project.

## **C. Failure to Identify and Analyze Direct and Indirect Impacts to Biological Resources**

The EIS fails to adequately analyze the direct, indirect, and cumulative impacts of the proposed project on the environment. The Ninth Circuit has made clear that NEPA requires agencies to take a “hard look” at the effects of proposed actions; a cursory review of environmental impacts will not stand. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150-52, 1154 (9<sup>th</sup> Cir. 1998). Where the BLM has incomplete or insufficient information, NEPA requires the agency to do the necessary work to obtain it where possible. 40 C.F.R. §1502.22; see *National Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) (“lack of knowledge does not excuse the preparation of an EIS; rather it requires [the agency] to do the necessary work to obtain it.”)

Moreover, BLM must look at reasonable mitigation measures to avoid impacts in the DEIS but failed to do so here. Even in those cases where the extent of impacts may be somewhat

uncertain due to the complexity of the issues, BLM is not relieved of its responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset. Even if the discussion may of necessity be tentative or contingent, NEPA requires that the BLM provide some information regarding whether significant impacts could be avoided. *South Fork Band Council of Western Shoshone v. DOI*, 588 F.3d 718, 727 (9th Cir. 2009).

The lack of comprehensive surveys is particularly problematic. Failure to conduct sufficient surveys prior to construction of the project also effectively eliminates the most important function of surveys - using the information from the surveys to minimize harm caused by the project and reduce the need for mitigation. Often efforts to mitigate harm are far less effective than preventing the harm in the first place. In addition, without understanding the scope of harm before it occurs, it is difficult to quantify an appropriate amount and type of mitigation.

The DEIS recognizes (at pg. ES-15) that based on the information provided in the biological resources analysis it is undetermined if the project proposal and mitigations complies with all of the laws, ordinances, regulations, and standards (LORS). Additionally it is undetermined if impacts could be mitigated. For this reason alone, a supplemental or revised DEIS needs to be provided that determines if LORS are complied with and the status of mitigation.

### 1. *Desert Tortoise*

The desert tortoise has lived in the western deserts for tens of thousands of years. In the 1970's their populations were noted to decline. Subsequently, the species was listed as threatened by the State of California in 1989 and by the U.S. Fish and Wildlife Service in 1990, which then issued a Recovery Plan for the tortoise in 1994. The U.S. Fish and Wildlife Service is in the process of updating the Recovery Plan, and a Draft Updated Recovery Plan was issued in 2008, however it has not been finalized. Current data indicate a continued decline across the range of the listed species<sup>5</sup> despite its protected status and recovery actions.

The original and draft Updated Recovery Plans both recognize uniqueness in desert tortoise populations in California. This particular subpopulation of tortoise at the proposed project site are part of the Eastern Colorado Recovery unit<sup>6</sup>. Recent population genetics studies<sup>7</sup> have further confirmed 1994 Recovery Plan conclusions the Eastern Colorado Recovery unit was one of the most genetically unique recovery units. While the proposed project site may have low desert tortoise densities, this particular recovery unit has also been documented to have the second highest declines in population over the last two years – 37% decline<sup>8</sup>. The DEIS fails to identify and consider the localized impact to this recovery unit that is already in steep decline.

While Bio-10 requires a Desert Tortoise Relocation/Translocation Plan (DEIS at pg. C.2-130), no desert tortoise relocation/translocation plan was included in the DEIS. Recent desert tortoise translocations have resulted in significant short-term mortality up to 45%<sup>9</sup> and unknown

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<sup>5</sup> USFWS 2009

<sup>6</sup> USFWS 1994

<sup>7</sup> Murphy et al. 2007

<sup>8</sup> USFWS 2009.

<sup>9</sup> Gowan and Berry 2010.

long-term survivorship. It is imperative to have this important plan available in the revised DEIS.

Mechanisms need to be included to assure that any and all mitigation acquisitions will be conserved in perpetuity for the conservation of the desert tortoise. If those acquisitions are within existing Desert Wildlife Management Areas (DWMAs), higher levels of protection than are currently in place for DWMAs need to be put in place. NEPA mandates consideration of the relevant environmental factors and environmental review of “[b]oth *short- and long-term effects*” in order to determine the significance of the project’s impacts. 40 C.F.R. § 1508.27(a) (emphasis added). BLM has clearly failed to do so in this instance with respect to the impact to the desert tortoise. If tortoises are relocated, then the relocation areas need to be secured for tortoise conservation, to preclude moving the animals subsequently if additional projects are on the relocation site.

## *2. Desert Bighorn Sheep*

Comprehensive surveys for desert bighorn in the McCoy mountains has not been completed and therefore impacts assessment from of the proposed project can not be done. Without this basic information about the status of the bighorn population in the adjacent areas and their potential use of the alluvial fan for seasonal browsing where the proposed project site is located, it is impossible to assess the extent of the impacts to the bighorn population in this area from the proposed project. Without site-specific data on the details of habitat use patterns of the bighorn in the area, the DEIS cannot properly assess the importance of the alluvial fan and wash habitat to the bighorn population or the impact of its loss on the population. Additional field study needs to be conducted by a knowledgeable researcher in the Mc Coy Mountains and on the proposed solar site. Absent any real information in the field, any suggested mitigation or perceived impacts are pure conjecture.

## *3. Rare and Special Status Plants*

While five different species of rare plants are noted to occur on the project site (DEIS at C.2-2), only two of the species (Las Animas colubrine and Harwood’s milkvetch) were analyzed for impacts. As noted in the DEIS ( at C.2-2), additional surveys for rare plants are being done in 2010, although the results of those surveys are not available. Absent the basic data on on-site resources, impact analysis is impossible, as is appropriate avoidance, minimization and mitigation strategies. Clearly a supplemental DEIS is required to present these missing data.

## *4. Migratory and Other Birds and Burrowing Owls*

### *Birds*

The proposed project area is rich in bird resources. The Palo Verde Valley, which is

directly adjacent to the site, is noted as an Important Bird Area<sup>10</sup>. Birds migrate up and down the Colorado River Valley, undoubtedly using the projects site and the microphyll woodland on site. The DEIS fails to evaluate the impact to this migratory pathway from the proposed project.

The DEIS fails to address the fatalities that have been documented to occur from birds running into mirrors<sup>11</sup>. Adjacent to the proposed project site are agricultural fields, which also attract birds. The DEIS does not quantify the number of birds (rare, migratory or otherwise) that use/traverse the project site from the avian point count surveys, nor does it evaluate the impact to birds. McCrary<sup>12</sup> estimated 1.7 birds deaths per week on a 32 ha site with mirrors and a power tower configuration. The proposed project site is approximately 2845 ha (over 90 times larger). While it is a solar trough technology, other researchers have evaluated impacts to avian species from reflective surfaces and powerlines<sup>13</sup> and has a different kind of mirror and power plant configuration. The revised DEIS needs to analyze likely impacts to birds from the proposed project mirror configuration. The failure to provide the baseline data from which to make any impact assessment violates NEPA. This failure to analyze impacts is not only a NEPA violation, but for migratory birds, may also lead to a violation of the Migratory Bird Treaty Act, 16 U.S.C. §§ 703 -711, because migratory birds may be “taken” if the proposed project is constructed. Bio-15 requires an Avian Protection Plan which is proposed to “provide the information needed to determine if operation of the Project posed a collision risk for birds, and would provide adaptive management measures to mitigate those impacts to less than significant levels” (DEIS at pg. C.2-77). However, the Avian Protection Plan is not available to provide an assessment of impacts to migratory birds.

Additionally, while evaporation ponds noted as being part of the project in the DEIS and “are discussed in the Soil and Water Resources section of this document” (DEIS at pg. C.13-17) actually we could not locate additional discussion of them in the DEIS. Open water of any kind in the desert is an attractant to wildlife, and this very important issue needs to be addressed in the supplemental DEIS particularly with regards to the number and size of the basins, attraction to animals including birds (including ravens), and strategies to keep them from attracting animals.

### *Burrowing Owls*

The DEIS notes that “One burrowing owl was observed within the Project Disturbance Area at an active burrow during Phase II burrowing owl surveys in March 2009. In total, 92 burrows with burrowing owl sign were observed during 2009 Phase II and III surveys. An additional burrow with sign was observed near the transmission line Disturbance Area during fall 2009 surveys (Solar Millennium 2009b, Western Burrowing Owl Technical Report)” (DEIS at C.2-32). Preliminary results from the 2006-7 statewide census identified that the Sonoran desert harbors Western burrowing owls.<sup>14</sup> However, the DEIS fails to evaluate the potential impact of the proposed project on this regional distribution of owls.

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<sup>10</sup> Audubon IBA [http://ca.audubon.org/maps/pdf/Lower\\_Colorado\\_River\\_Valley.pdf](http://ca.audubon.org/maps/pdf/Lower_Colorado_River_Valley.pdf)

<sup>11</sup> McCrary 1986

<sup>12</sup> Ibid

<sup>13</sup> Klem 1990, Erickson et al. 2005

<sup>14</sup> IBP 2008

While “passive relocation” does minimize immediate direct take of burrowing owls, ultimately the burrowing owls’ available habitat is reduced, and “relocated” birds are forced to compete for resources with other resident burrowing owls and may move into less suitable habitat, ultimately resulting in “take”. While Bio-18 requires a Burrowing Owl mitigation plan, that plan is not provided. Additionally, the requirements of the plan do not explicitly include long-term monitoring of passively relocated birds in order to evaluate survivorship of passively relocated birds.

### *Golden Eagle*

While no golden eagles were documented to use proposed project site as a foraging results of the surveys in the McCoy Mountains were not available to the EIS. The proposed mitigation measure BIO-12 proposes to reduce impacts to the species to less than significant levels, however the DEIS fails to present exactly how it will mitigate the loss of a substantial amount of foraging habitat for the golden eagle. The fact still remains that significant amounts of foraging habitat will decrease carrying capacity of the landscape and could result in a potential loss of habitat needed to support a nesting pair, which would impact reproductive capacity.

Scientific literature on this subject is clear - the presence of humans detected by a raptor in its nesting or hunting habitat can be a significant habitat-altering disturbance even if the human is far from an active nest<sup>15</sup>. Regardless of distance, a straight-line view of disturbance affects raptors, and an effective approach to mitigate impacts of disturbance for golden eagles involves calculation of viewsheds using a three-dimensional GIS tool and development of buffers based on the modeling<sup>16</sup>. Golden eagles have also been documented to avoid industrialized areas that are developed in their territory.<sup>17</sup> Additionally, the DEIS does not actually clearly analyze the impacts to and mitigations for the golden eagle under the Bald Eagle and Golden Eagle Protection Act, which prohibits, except under certain specified conditions, the take, possession, and commerce of such birds.

### *5. Badger and Desert Kit Foxes*

Badgers and desert kit foxes were identified to occur throughout the project area (DEIS C.2-152). Literature on the highly territorial badger indicates that badger home territories range from 340 to 1,230 hectares<sup>18</sup>. Therefore, the proposed project could displace *at least* one badger territory. While surveys prior to construction are clearly essential, even passive relocation of badgers into suitable habitat may result “take”. Excluding badger from the site is likely to cause badgers to move into existing badger’s territory. The same scenario of passive relocation for kit fox may also result in “take”. Studies need to be provided on both on- and off-site badger and kit fox territories if animals are to be passively relocated in order to increase chances of persistence. At a minimum, the revised or supplemental DEIS should identify suitable habitat nearby if the project is relying on passive relocation as a mitigation strategy.

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<sup>15</sup> Richardson and Miller 1997

<sup>16</sup> Camp et al. 1997; Richardson and Miller 1997

<sup>17</sup> Walker et al. 2005

<sup>18</sup> Long 1973, Goodrich and Buskirk 1998

## 6. *Cryptobiotic soil crusts and Desert Pavement*

The proposed project is located in the Mojave Desert Air Quality Management District area, which is already in non-attainment for PM-10 particulate matter<sup>19</sup>. The construction of the proposed project further increase emissions of these types of particles because of the disruption and elimination of potentially thousands of acres of cryptobiotic soil crusts. Cryptobiotic soil crusts are an essential ecological component in arid lands. They are the “glue” that holds surface soil particles together precluding erosion, provide “safe sites” for seed germination, trap and slowly release soil moisture, and provide CO<sub>2</sub> uptake through photosynthesis<sup>20</sup>.

The FEIS does not describe the on-site cryptobiotic soil crusts. The proposed project will disturb an unidentified portion of these soil crusts and cause them to lose their capacity to stabilize soils and trap soil moisture. The DEIS fails to provide a map of the soil crusts over the project site, and to present any avoidance or minimization measures. It is unclear how many acres of cryptobiotics soils will be affected by the project. The DEIS must identify the extent of the cryptobiotic soils on site and analyze the potential impacts to these diminutive, but essential desert ecosystem components as a result of this project.

While desert pavements are mentioned as occurring on the proposed project site (DEIS at D.2-7), quantitative acreage of pavement are not identified. The DEIS recognizes that “desert pavement is resistant to further wind erosion. If this protective layer is disturbed, the underlying layer of Aeolian material is subject to high levels of wind erosion, comparable to the Aco Series. The Aco Series on the eastern third of the site has the highest erosion rates for undisturbed, disturbed, and operational conditions and may be considered a potentially significant impact from the Project.” (at C.9-41 [Soil and Water Resources Section]). However, the impact to air quality from disturbance of this highly erodible soil type is not analyzed.

## 7. *Insects*

The DEIS fails to address insects on the proposed project site. In fact no surveys or evaluation of rare or common insects are included in the DEIS. Dune habitats are notorious for supporting endemic insects, typically narrow habitat specialists<sup>21</sup>.

## 8. *Decommissioning and Reclamation Plan*

Desert lands are notoriously hard to revegetate or rehabilitate<sup>22</sup> and revegetation never supports the same diversity that originally occurred in the plant community prior to disturbance<sup>23</sup>. The task of revegetating almost eleven square miles will be a Herculean effort that will require significant financial resources. In order to assure that the ambitious goals of the revegetation effort is met post project closure, it will be necessary to bond the project, so that all revegetation obligations will met and assured. The bond needs to be structured so that it is tied to meeting the specific revegetation criteria.

<sup>19</sup> <http://www.mdaqmd.ca.gov/index.aspx?page=214>

<sup>20</sup> Belnap 2003, Belnap et al 2003, Belnap 2006, Belnap et al. 2007

<sup>21</sup> Dunn 2005.

<sup>22</sup> Lovich and Bainbridge 1999

<sup>23</sup> Longcore 1997

The project will cause permanent impacts to the on-site plant communities and habitat for wildlife despite “revegetation”, because the agency’s regulations based on the Northern and Eastern Colorado Plan’s rehabilitation strategies<sup>24</sup> only requires 40% of the original density of the “dominant” perennials, only 30% of the original cover. Dominant perennials are further defined as “any combination of perennial plants that originally accounted cumulatively for at least 80 percent of relative density”.<sup>25</sup> These requirements fail to truly “revegetate” the plant communities to their former diversity and cover even over the long term. While Bio-23 requires the development of a Decommissioning and Reclamation Plan, that plan is not available for public review. While BLM’s own regulations 43 CFR 3809.550 et seq. require a detailed reclamation plan and a cost estimate, they need to be included in the revised EIS.

### 9. Fire Plan

Fire in desert ecosystems is well documented to cause catastrophic landscape scale changes<sup>26</sup> and impacts to the local species<sup>27</sup>. The DEIS mentions the impacts of fire via the proliferation of nonnative weeds (DEIS at C.2-32), it fails to analyze the impacts of fire on adjacent natural desert habitat. The DEIS fails to adequately analyze the impact that an escaped on-site-started fire could have on the natural lands adjacent to the project site if it escaped from the site. The likelihood of fire is of particular concern for this proposal which includes large amounts of flammable hydrogen manufactured and stored on site and piped throughout the site. The DEIS also fails to address the mitigation of this potential impact. Instead it defers it to the Worker Environmental Awareness Program (WEAP) and only requires “a discussion of fire prevention measures to be implemented by workers during project activities” (DEIS at C.2-77). A fire prevention and protection plan needs to be developed and required to prevent the escape of fire onto the adjacent landscape (avoidance), lay out clear guidelines for protocols if the fire does spread to adjacent wildlands (minimization) and a revegetation plan if fire does occur on adjacent lands originating from the project site (mitigation) or caused by any activities associated with construction or operation of the site even if the fire originates off of the project site.

### 10. Failure to Identify Appropriate Mitigation

Because the DEIS fails to provide adequate identification and analysis of impacts, inevitably, it also fails to identify adequate mitigation measures for the project’s environmental impacts. “Implicit in NEPA’s demand that an agency prepare a detailed statement on ‘any adverse environmental effects which cannot be avoided should the proposal be implemented,’ 42 U.S.C. § 4332(C)(ii), is an understanding that an EIS will discuss the extent to which adverse effects can be avoided.” *Methow Valley*, 490 U.S. at 351-52. Because the DEIS does not adequately assess the project’s direct, indirect, and cumulative impacts, its analysis of mitigation measures for those impacts is necessarily flawed. The DEIS must discuss mitigation in sufficient

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<sup>24</sup> <http://www.blm.gov/ca/st/en/fo/cdd/neco.html>

<sup>25</sup> Ibid

<sup>26</sup> Brown and Minnich 1986, Lovich and Bainbridge 1999, Brooks 2000, Brooks and Draper 2006, Brooks and Minnich 2007

<sup>27</sup> Ducher 2009

detail to ensure that environmental consequences have been fairly evaluated.” *Methow Valley*, 490 U.S. at 352; *see also Idaho Sporting Congress*, 137 F.3d at 1151 (“[w]ithout analytical detail to support the proposed mitigation measures, we are not persuaded that they amount to anything more than a ‘mere listing’ of good management practices”). As the Supreme Court clarified in *Robertson*, 490 U.S. at 352, the “requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of [NEPA] and, more expressly, from CEQ’s implementing regulations” and the “omission of a reasonably complete discussion of possible mitigation measures would undermine the ‘action forcing’ function of NEPA.”

Although NEPA does not require that the harms identified actually be mitigated, NEPA does require that an EIS discuss mitigation measures, with “sufficient detail to ensure that environmental consequences have been fairly evaluated” and the purpose of the mitigation discussion is to evaluate whether anticipated environmental impacts *can be avoided*. *Methow Valley*, 490 U.S. at 351-52. As the Ninth Circuit recently noted: “[a] mitigation discussion without at least *some* evaluation of effectiveness is useless in making that determination.” *South Fork Band Council of Western Shoshone v. DOI*, 588 F.3d 718, 727 (9th Cir. 2009) (emphasis in original).

Here, the DEIS does not provide a full analysis of possible mitigation measures to avoid or lessen the impacts of the proposed project and therefore the BLM cannot properly assess the likelihood that such measures would actually avoid the impacts of the proposed project.

#### **E. Key Plans are Not Included**

The DEIS fails to include key plans for public review. Plans relied upon for adequate mitigation but which are unavailable include:

- Weed Management Plan (DEIS at C.2-72 and 137)
- Biological Resources Mitigation Implementation and Monitoring Plan (DEIS at C.2-56)
- Raven Management and Monitoring Plan (DEIS at C.2-1 and 136)
- detailed revegetation plan for temporary disturbance (DEIS at C.2-110 and 126)
- Decommissioning and Reclamation Plan (for permanent closure) (DEIS at C.2-4) [Closure, Conceptual Restoration Plan (DEIS at C.2-121)]
- Burrowing Owl Mitigation and Monitoring Plan (DEIS at C.2-65)
- Burrowing Owl Relocation/Translocation Plan (DEIS at C.2-65)
- Avian Protection Plan (DEIS at C.2-3 and 137)
- Plan for restoring sheet flow to the terrain downslope of the Project boundaries (DEIS at C.2-55)
- Desert Tortoise Relocation/Translocation Plan (DEIS at C.2-58 and 130)
- Desert Tortoise Management Plan for Mitigation Lands (DEIS at C.2-60) [also possibly called the Desert Tortoise Compensatory Mitigation Plan (DEIS at C.2-87) [also including management plan of site-specific enhancement of drainages (DEIS C.2-146)
- Special-status Plant Impact Avoidance and Mitigation Plan (DEIS at C.2-72 and 142)
- Reclamation Plan as required by BLM at 43 CFR 3809.550 et seq. including cost estimates 43 CFR 3715 (DEIS at C.2-77-78)
- Channel Decommissioning and Reclamation Plan (DEIS at C.2-78 and 149)

- Project Hazardous Materials Plan (DEIS at C.2-125)
- Management Plan for Sand Dune/Fringe-toed Lizard (DEIS at C.2-144)

While the Management Plan for Acquired Lands (DEIS at C.2-50 and 146) is a key document that is missing and needs to have public review to ascertain if, in fact, acquired lands actually do mitigate for the impacts, the DEIS fails to identify the acquisition lands, or if acquisition lands are actually even available. Clearly, if the proposed project was to move forward, acquired lands are a key component of a mitigation strategy. The supplemental EIS must provide a better evaluation if lands are available, and where those lands are, and how they will fulfill the mitigation scenario.

The Special Status Plant Survey and Protection Plan (DEIS at C.2-72 and 142) is also missing. While this plan is proposed as a mitigation requirement, that position is unsupported because the special status plant surveys need to be done to provide the baseline data from which evaluation for potential project impacts can be analyzed. Surveys are not a mitigation strategy.

#### **E. Impacts to Water Resources—Groundwater and Surface Water Impacts**

As with the biological resources, the DEIS recognizes (at pg. ES-15) that based on the information provided in the soils and water analysis it is undetermined if the project proposal and mitigations complies with all of the LORS. Additionally it is undetermined if impacts could be mitigated. For this reason alone, a supplemental or revised DEIS needs to be provided that determines if LORS are complied with and the status of mitigation for the soils and water.

#### **F. The DEIS Fails to Adequately Identify, Analyze and Off-set Impacts to Air Quality and GHG Emissions.**

Federal courts have squarely held that NEPA requires federal agencies to analyze climate change impacts. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508 (9th Cir. 2007). As most relevant here, NEPA requires consideration of greenhouse gas emissions (“GHG emissions”) associated with all projects and, in order to fulfill this requirement the agencies should look at all aspects of the project which may create greenhouse gas emissions including operations, construction, and life-cycle emissions from materials. Where a proposed project will have significant GHG emissions, the agency should identify alternatives and/or mitigation measures that will lessen such effects.

As part of the NEPA analysis federal agencies must assess and, wherever possible, quantify or estimate GHG emissions by type and source by analyzing the direct operational impacts of proposed actions. Assessment of direct emissions of GHG from on-site combustion sources is relatively straightforward. For many projects, as with the proposed project, energy consumption will be the major source of GHGs. The indirect effects of a project may be more far-reaching and will require careful analysis. Within this category, for example, the BLM should evaluate, GHG and GHG-precursor emissions associated with construction, electricity use, fossil fuel use, water consumption, waste disposal, transportation, the manufacture of building materials (lifecycle analysis), and land conversion. Moreover, because many project may undermine or destroy the value of carbon sinks, including desert soils, projects may have

additional indirect effects from reduction in carbon sequestration, therefore both the direct and quantifiable GHG emissions as well as the GHG effects of destruction of carbon sinks should be analyzed.

The discussion of greenhouse gas emissions (“GHG”) in the DEIS notes that the solar project will produce GHGs primarily from the gas boilers and Heat Transfer Fluid (“HTF”) heaters. The GHG emissions from the boilers during project operations is estimated to be 12,102 metric tons CO<sub>2</sub> equivalent and from the HTF heaters an additional 3,724 metric tons CO<sub>2</sub> equivalent annually for total operations emissions (including all sources) of 17,679 metric tons CO<sub>2</sub> equivalent annually. DEIS at C.1-70 (Greenhouse gas table 3). The boilers and heaters are stated to be for start up or freeze control but the DEIS assumes that they may be allowed to be used for very long periods of time – up to 15 hours per day for the boilers up to 5,000 hours per year and up to 10 hours per day for the HTF heaters up to 500 hours per year. See DEIS at C.1-16 to 17; C.1-52 (HTF heater limits); C.1-50 (condition of maximum natural gas use for gas boilers). No explanation is provided for these long hours of supplemental natural gas use for this solar power plant and no additional limits are discussed or analyzed in violation of NEPA. The DEIS also fails to adequately explore whether an alternative solar technology (such as PV) would reduce greenhouse gas emissions both during operations and over the life-cycle of the components of the proposed project. There is no discussion of reducing these sources by using alternative fuels or highly efficient vehicles and equipment and no discussion of providing off sets for these GHG emissions.

Another GHG emission source for this proposed project is SF<sub>6</sub> from electrical equipment leakage. DEIS at C.1-70. However, the DEIS does not mention additional sources of SF<sub>6</sub> from transmission lines associated with the project. Moreover, leakage of SF<sub>6</sub> is of particular concern as it is many times more potent greenhouse gas than CO<sub>2</sub>—indeed, its potential as a GHG has been estimated at 23,900 times that of CO<sub>2</sub> (for a 100 year time horizon) and it can persist in the atmosphere far longer than CO<sub>2</sub> as well—up to 3,200 years.<sup>28</sup> The DEIS fails to state the actual amount of SF<sub>6</sub> that is estimated to leak from equipment and provides only that 24 MTCO<sub>2</sub>E is expected in emissions each year. No information is provided on the calculation. Moreover, the DEIS does not analyze any alternatives to avoid or minimize the long-term emissions of this powerful GHG from operations and no mitigation measures are provided.

The GHG emissions from the construction phase of the project are stated to be over 130,000 metric tons CO<sub>2</sub> equivalent (Greenhouse gas table 2, DEIS C.1-70). Again, there is no discussion of reducing these emissions by using more efficient equipment or vehicles.

The DEIS also fails to adequately address other air quality issues including PM<sub>10</sub> both during construction and operation which is of particular concern in this area which is a nonattainment area for PM<sub>10</sub> and ozone. It is clear that extensive on-site grading will result in significant amounts of bare soils and increased PM<sub>10</sub> may be introduced into the air by wind and

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<sup>28</sup> P. Forster et al., *Changes in Atmospheric Constituents and in Radiative Forcing*, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS. CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Solomon, S., et al. eds., Cambridge University Press 2007) at p. 212, Table 2.14.

that the use of the area during construction and operations will lead to additional PM10 emissions from the site.

BLM fails to identify any significant GHG emissions and therefore does not provide for avoidance, minimization, or mitigation. BLM has also failed to include the loss of carbon sequestration from soils in its calculations or to provide a lifecycle analysis of GHG emissions that include manufacturing and disposal. Moreover, it is undisputed that in the near-term GHG emissions will increase emissions during construction, and in the manufacturing and transportation of the components. BLM fails to consider any alternatives to the project that would minimize such emissions or to require that these near-term emissions be off set in any way.

Although the proposed project may reduce GHG's overall it will also emit GHGs during both construction and operations that are not accounted for or off-set, BLM completely fails to explore this aspect of the impacts of the project in the DEIS in violation of NEPA.

#### **G. The Analysis of Cumulative Impacts in the DEIS Is Inadequate**

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 (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. The Ninth Circuit requires federal agencies to "catalogue" and provide useful analysis of past, present, and future projects. *City of Carmel-By-The-Sea v. U.S. Dept. of Transp.*, 123 F.3d 1142, 1160 (9<sup>th</sup> Cir. 1997); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809-810 (9<sup>th</sup> Cir. 1999).

"In determining whether a proposed action will significantly impact the human environment, the agency must consider '[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.' 40 C.F.R. § 1508.27(b)(7)." *Oregon Natural Resources Council v. BLM*, 470 F.3d 818, 822-823 (9<sup>th</sup> Cir. 2006). NEPA requires that cumulative impacts analysis provide "some quantified or detailed information," because "[w]ithout such information, neither courts nor the public . . . can be assured that the Forest Service provided the hard look that it is required to provide." *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1379 (9<sup>th</sup> Cir. 1998); *see also id.* ("very general" cumulative impacts information was not hard look required by NEPA). The discussion of future foreseeable actions requires more than a list of the number of acres affected, which is a necessary but not sufficient component of a NEPA analysis; the agency must also consider the actual environmental effects that can be expected from the projects on those acres. *See Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 995-96 (9<sup>th</sup> Cir. 2004) (finding that the environmental review documents "do not sufficiently identify or discuss the incremental impact that can be expected from each [project], or how those individual impacts might combine or synergistically interact with each other to affect the [] environment. As a result, they do not satisfy the requirements of the NEPA.") Finally, cumulative analysis must be done as early in the environmental review process as possible, it is not appropriate to "defer consideration of

cumulative impacts to a future date. ‘NEPA requires consideration of the potential impacts of an action *before* the action takes place.’” *Neighbors*, 137 F.3d at 1380 quoting *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9<sup>th</sup> Cir. 1990) (emphasis in original).

The DEIS identifies many of the cumulative projects but does not meaningfully analyze the cumulative impacts to resources in the California desert from the many proposed projects (including renewable energy projects and others). Moreover, because the initial identification and analysis of impacts unfinished, the cumulative impacts analysis cannot be complete. For example, the identification of plant communities on site is unfinished and incomplete as is the evaluation of the impacts of the gen-tie line and the Colorado River substation, the cumulative impacts are also therefore inadequate.

The DEIS also fails to consider all reasonably foreseeable impacts in the context of the cumulative impacts analysis. See *Native Ecosystems Council v. Dombek, et al*, 304 F.3d 886 (9<sup>th</sup> Cir. 2002) (finding future timber sales and related forest road restriction amendments were “reasonably foreseeable cumulative impacts”). The DEIS also fails to provide the needed analysis of how the impacts might combine or synergistically interact to affect the environment in this valley or region. See *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 995-96 (9<sup>th</sup> Cir. 2004).

The NEPA regulations also require that indirect effects including changes to land use patterns and induced growth be analyzed. “Indirect effects,” include those that “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include *growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.*” 40 C.F.R. s.1508.8(b) (emphasis added). See *TOMAC v. Norton*, 240 F. Supp.2d 45, 50-52 (D.D.C. 2003) (finding NEPA review lacking where the agency failed to address secondary growth as it pertained to impacts to groundwater, prime farmland, floodplains and stormwater run-off, wetlands and wildlife and vegetation); *Friends of the Earth v. United States Army Corps of Eng’rs*, 109 F. Supp.2d 30, 43 (D.D.C. 2000) (finding NEPA required analysis of inevitable secondary development that would result from casinos, and the agency failed to adequately consider the cumulative impact of casino construction in the area); see also *Mullin v. Skinner*, 756 F. Supp. 904, 925 (E.D.N.C. 1990) (Agency enjoined from proceeding with bridge project which induced growth in island community until it prepared an adequate EIS identifying and discussing in detail the direct, indirect, and cumulative impacts of and alternatives to the proposed Project); *City of Davis v. Coleman*, 521 F.2d 661 (9<sup>th</sup> Cir. 1975) (requiring agency to prepare an EIS on effects of proposed freeway interchange on a major interstate highway in an agricultural area and to include a full analysis of both the environmental effects of the exchange itself and of the development potential that it would create).

The cumulative impacts to the resources of the California deserts has not been fully identified or analyzed, and mitigation measures have not been fully analyzed as well.

#### **H. The EIS’ Alternatives Analysis is Inadequate**

NEPA requires that an EIS contain a discussion of the “alternatives to the proposed action.” 42 U.S.C. §§ 4332(C)(iii),(E). The discussion of alternatives is at “the heart” of the NEPA process, and is intended to provide a “clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. §1502.14; *Idaho Sporting Congress*, 222 F.3d at 567 (compliance with NEPA’s procedures “is not an end in itself . . . [but] it is through NEPA’s action forcing procedures that the sweeping policy goals announced in § 101 of NEPA are realized.”) (internal citations omitted). NEPA’s regulations and Ninth Circuit case law require the agency to “rigorously explore” and objectively evaluate “all reasonable alternatives.” 40 C.F.R. § 1502.14(a) (emphasis added); *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 234 Fed. Appx. 440, 442 (9th Cir. 2007). “The purpose of NEPA’s alternatives requirement is to ensure agencies do not undertake projects “without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means.” *Envtl. Defense Fund, Inc. v. U.S. Army Corps of Engrs.*, 492 F.2d 1123, 1135 (5th Cir. 1974). An agency will be found in compliance with NEPA only when “all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated.” *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1246 (9th Cir. 2005); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228-1229 (9th Cir. 1988). The courts, in the Ninth Circuit as elsewhere, have consistently held that an agency’s failure to consider a reasonable alternative is fatal to an agency’s NEPA analysis. See, e.g., *Idaho Conserv. League v. Mumma*, 956 F.2d 1508, 1519-20 (9th Cir. 1992) (“The existence of a viable, but unexamined alternative renders an environmental impact statement inadequate.”).

If BLM rejects an alternative from consideration, it must explain why a particular option is not feasible and was therefore eliminated from further consideration. 40 C.F.R. § 1502.14(a). The courts will scrutinize this explanation to ensure that the reasons given are adequately supported by the record. See *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813-15 (9th Cir. 1999); *Idaho Conserv. League*, 956 F.2d at 1522 (while agencies can use criteria to determine which options to fully evaluate, those criteria are subject to judicial review); *Citizens for a Better Henderson*, 768 F.2d at 1057.

Here, BLM too narrowly construed the project purpose and need such that the DEIS did not consider an adequate range of alternatives to the proposed project.

The alternatives analysis is inadequate even with the inclusion of the alternative site configuration and a reduced acreage alternative. Additional feasible alternatives should be considered which would avoid all Colorado desert microphyll woodlands as well as alternatives that would have looked at alternative sites for the substation to avoid impacts to the Mojave fringe-toed lizard. In addition a phased alternative should have been included which would allow the portions of the project that have the fewest impacts to move forward (in this case the eastern segments of the proposed project) while also affording the project proponent time to find and acquire permits for more appropriate sites for one or more additional phases of the project on previously degraded disturbed lands in this area (for example those adjacent to the proposed site discussed in the Blythe Mesa alternative) and also to explore other off-site alternatives.

The document also includes other alternatives that were stated as being “Site Alternatives Evaluated only under CEQA” which includes the proposed site and one off-site alternative – the

Blythe Mesa alternative. The document eliminated from consideration a distributed renewable energy alternative. The BLM (as well as the CEC) should have also looked alternative siting on previously degraded lands such as nearby farmlands, distributed solar alternatives, and other alternatives that could avoid impacts of the proposed project as well as impacts of the associated transmission lines and substations. In addition, as discussed above, the BLM should have looked at alternatives for construction and operations that would reduce GHG emissions by using alternative technology and/or on site conservation measures and offsets.

The BLM failed to consider any off-site alternative that would significantly reduce the impacts to biological resources including desert wash habitat/microphyll woodlands. Because such alternatives are feasible, on this basis and other the range of alternatives is inadequate. The Center urges the BLM to revise the DEIS to adequately address a range of feasible alternatives and other issues detailed above and then to re-circulate a revised or supplemental DEIS for public comment.

In addition, in order to meet the DOE's purpose and need states that: "The two principal goals of the loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits. The purpose and need for action by DOE is to comply with their mandate under EPAct by selecting eligible projects that meet the goals of the Act." DEIS at B.2-11. Assuming for the sake of argument alone that these are proper project objectives, the DEIS should have considered alternatives that would provide funding to other types of projects. Such alternatives could include, for example, conservation and efficiency measures that both avoid and reduce energy use within high-energy use load-centers including the Los Angeles area.

Alternative measures could include funding community projects for training and implementation of conservation measures such as increased insulation, sealing and caulking, and new windows for older buildings and new or improved technologies for accomplishing these important goals. For example, air conditioning creates the largest demand for energy during peak times and there already exist methods to reduce the energy use from air conditioning but implementation has lagged well behind technology. Conservation and efficiency measures are an excellent and quick way of reducing demand in both the short- and long-term and reduce the need for additional power sources. In addition, many of the existing conservation and efficiency measures can provide immediate jobs and training in high population areas with significant unemployment (particularly among low skilled workers and youth).

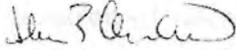
The existence of these and other feasible but unexplored alternatives shows that the BLM's analysis of alternatives in the DEIS is inadequate.

#### **IV. Conclusion**

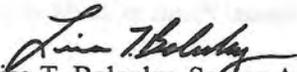
Thank you for your consideration of these comments. In light of the many omissions in the environmental review to date, we urge the BLM to revise and re-circulate the DEIS or prepare a supplemental DEIS before making any decision regarding the proposed plan amendment and right-of-way application. In the event BLM chooses not to revise the DEIS and provide adequate analysis, the BLM should reject the right-of-way application and the plan

amendment. Please feel free to contact us if you have any questions about these comments or the documents provided.

Sincerely,



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cc: (via email)

Alan Solomon, Project Manager,  
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Brian Croft, USFWS, [brian\\_croft@fws.gov](mailto:brian_croft@fws.gov)  
Kevin Hunting, CDFG, [khunting@dfg.ca.gov](mailto:khunting@dfg.ca.gov),

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"Jenna Jadin"  
<Jenna@wildlife.org>  
06/18/2010 08:07 AM

To <CAPSSolarBlythe@blm.gov>  
cc  
bcc  
Subject: BSPP project comments

Dear Ms. Shaffer:

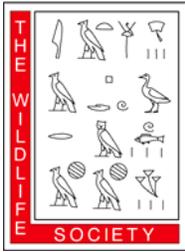
Please accept the attached comments from The Wildlife Society regarding the Blythe Solar Power Plant development project.

Thank you,  
Jenna Jadin

**Jenna Jadin, Ph.D.**  
Assistant Director of Government Affairs  
The Wildlife Society  
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## THE WILDLIFE SOCIETY

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18 June 2010

Allison Shaffer  
Project Manager  
Palm Springs South Coast Field Office  
Bureau of Land Management  
1201 Bird Center Drive  
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Email: [CAPSSolarBlythe@blm.gov](mailto:CAPSSolarBlythe@blm.gov)

Dear Ms. Shaffer:

The Wildlife Society (TWS) appreciates the opportunity to submit comments concerning the draft Environmental Impact Statement (DEIS) for Chevron Energy Solutions/Solar Millennium Blythe Solar Power Plant (BSPP).

The Wildlife Society was founded in 1937 and is a non-profit scientific and educational association of over 9,100 professional wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to represent and serve wildlife professionals—the scientists, technicians, and practitioners actively working to study, manage, and conserve native and desired non-native wildlife and their habitats worldwide.

TWS believes that solar energy will be an important component of a clean-energy solution to climate change. However, we are concerned about the effects that solar projects may have on wildlife and wildlife habitat. Every form of energy development can have lasting effects on wildlife and habitat if not developed responsibly. Solar power development must take into account the potential loss of wildlife habitat in sensitive areas, particularly that contain vulnerable or threatened or endangered species. As solar power arrays are developed in the Southwest, desert ecosystems are some of these sensitive areas that are increasingly under threat.

In desert ecosystems, recovery from disturbances can be especially slow. Ecosystem damages that accompany energy development, such as hard-packing of the soil and destruction of plant cover, are obstacles to recovery. Compacted soil and the absence of plants' roots will prevent the soil from absorbing and holding water, further reducing water availability in an already arid environment and potentially increasing erosion. Disturbed habitat is also vulnerable to invasion by non-native species, which gain a competitive edge when native species are destroyed.<sup>1</sup> Maintenance and activity around the project site will continue to impede recovery even after construction is finished.

Roadways, an inherent feature of energy production, increase direct animal mortalities from vehicle strikes, provide access to remote areas for illegal collection of plants and animals, act as an inroad for invasive species that thrive in disturbed areas, cause habitat fragmentation, restrict gene flow among native populations, and increase erosion.<sup>2</sup>

In respect to the BSPP project, the potential effects on the native – and threatened -- desert tortoise (*Gopherus agassizii*) are of particular concern. Native to the deserts of the American southwest, the species is recognized as having distinct populations in the Sonoran and Mojave deserts, respectively. The Sonoran population is listed as a species of concern by the Arizona Game and Fish Department, while the Mojave population was listed as threatened by the US Fish and Wildlife Service in 1990.<sup>3</sup> The Mojave listing came after habitat loss and off-road vehicle use, along with an outbreak of upper respiratory disease, led to a decline in the tortoise population.<sup>4</sup> Energy development may place similar pressure on the Sonoran population. For example, roads can cause significantly greater death rates, with one study finding lesser population densities up to 400 meters from the road, likely because of car strikes.<sup>5</sup> For a threatened animal like the desert tortoise, substantial increases in mortality can have devastating effects on local populations and the ultimate survival of the species.

Studies have shown that genetic diversity in the desert tortoise is likely supported by long-distance immigrations of individuals between populations. Man-made obstacles, like highways and residential developments, are known to decrease migration rates in animals. Keeping corridors open for exchange between populations will be critical to maintaining a healthy and genetically diverse population, and in the event that roads must be built, fencing or barriers alongside roads can be used to guide tortoises to culverts for safe crossing.

The BSPP project would occupy 9,400 acres of federal land and destroy 7,040 acres of tortoise habitat. One proposal would relocate tortoises to unaffected habitat. However, a review of translocation attempts showed high mortality rates in many species,<sup>6</sup> as initial capture, temporary captivity, and introduction to a new environment can all cause physiological and behavioral harm. Environmental disturbances like noise, vibration, and increased human density can also cause behavioral stress, adversely affecting important biological functions like reproduction, foraging, and predator avoidance.<sup>7</sup> and perhaps also making the animals more vulnerable to disease. A small, isolated population of tortoises with little ability to rapidly reproduce and maintain genetic diversity through immigration will be unable to recover from the large loss of adults that could result from translocation efforts.<sup>8</sup> There are means by which the stress of relocation can be lessened, including using a “soft” release technique, where animals are kept in pens in the new habitat to acclimate before they are ultimately freed.

Because desert tortoises spend a large amount of time in underground burrows, it has been difficult to estimate the population density by direct survey.<sup>9</sup> This lack of accuracy will complicate efforts to monitor tortoises’ response to development. Often, large relocations undertaken for commercial projects do not release data on the outcome of the affected populations: in the case of solar development this information will be critical to assess ongoing conservation needs of the desert tortoise. Radiotelemetry will be an important tool to measure survival and determine causes of mortality as accurately as possible after release.<sup>10</sup>

The Desert tortoise is not the only native species at risk when desert regions are developed. The EIS for the Blythe Solar project lists the burrowing owl, desert bighorn sheep, American badger, Loggerhead shrike, Swainson's hawk, ferruginous hawk, yellow warbler, and Mojave fringe-toed lizard as species of concern for the project. It also notes that habitat fragmentation may impede immigration of the mountain lion, kit fox, and badger.

The Loggerhead shrike (*Lanius ludovicianus*), a songbird, is declining in the Sonoran Desert at a rate of 4.3% every year, faster than the background rate of decline for the species across North America.<sup>11</sup> Loggerhead shrikes need undeveloped open spaces to breed successfully, and could decline further if these habitats are lost.<sup>12</sup> The creosote bush scrub vegetative plant association of the Sonoran desert provides foraging habitat for the golden eagle, and is an important source of food and cover for many other species. Destruction of this critical habitat could mean reduced food availability for golden eagles that use the area as wintering grounds. The EIS fails to address the impacts of development on this group of golden eagles; further studies are needed to determine the full extent of threats posed to eagles and other species that depend on creosote bush scrub.

In addition to the background information that we have provided above, we would like to offer several more specific comments on the EIS:

1. Because the Biological Resources section's laws, ordinances, regulations, and standards (LORS) compliance and impacts mitigation conclusions are undetermined, it is difficult to provide meaningful public comments, as the potential effects of the project are not fully disclosed in the draft EIS. If it is determined that the effects to Biological Resources cannot be fully mitigated, please consider issuing a Revised EIS so the public has the opportunity to comment on the evaluation of consequences.
2. Page B.1-5 details water requirements for operation of the project, and page B.1-11 details construction water requirements. However, nowhere in the DEIS are the potential effects of such usage on the water table addressed. High and sustained use of the local water supply may have deleterious effects on wildlife, such as a lowering of the water table that may affect downstream springs or other surface water supplies. The final EIS should disclose all measures that will be used to monitor the local water table and mitigate any resulting negative consequences on wildlife and other natural resources.
3. The potential negative impacts of nighttime lighting are discussed on pages C.2-73-75. It is noted that nighttime lighting can play a large role in the mortality of bats, nocturnal birds, and migrating birds and mitigation measures that will be taken are outlined. These include minimizing lighting to as few areas as possible, use of flashing, rather than steady-burning lights, and use of hoods on all lights. While all of these measures may provide some degree of mitigation, the full extent of lighting disturbance on this desert ecosystem is unknown. We recommend adopting a Condition of Certification similar to BIO-15 for collisions that will provide information needed to determine if lighting adversely affects wildlife and provides adaptive management measures to mitigate those impacts to less than significant levels.
4. The addition of 600-1000 workers over a 69-month construction phase may have substantial indirect effects on fragile desert resources. The final EIS should describe any

actions that are being taken to prevent additional environmental degradation on and off-site as a result of an increased human presence.

5. The Final EIS or the Record of Decision should fully disclose if any Conservation Recommendations from the Biological Assessment are adopted, given the fragile nature of the desert ecosystem and the admitted potential for long lasting environmental effects that could last longer than the project facilities' lifespan.

Climate change will imperil species across the United States and around the world. Alternative energy sources are an essential part of mitigating that change to protect our environment, but siting and development must be done carefully to ensure that the losses to wildlife and wild lands do not outweigh the benefits of clean energy. The Wildlife Society asks that you take into account injurious effects on wildlife and accept our recommendations as you prepare the EIS for the Blythe Solar Power Plant.

Thank you for considering the views of wildlife professionals. Please feel free to contact Jenna Jadin, Assistant Director of Government Affairs, at [jenna@wildlife.org](mailto:jenna@wildlife.org) or at (301) 897-9770 x 309 if you need further information or have any questions.

Sincerely,



Bruce D. Leopold, Ph.D.  
President

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<sup>1</sup> Lovich, J.E., & D. Bainbridge. 1999. Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration. *Environmental Management* 24(3): 309–326. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/10486042> Accessed 4/22/10.

<sup>2</sup> Lovich, J.E., & D. Bainbridge. 1999. Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration. *Environmental Management* 24(3): 309–326. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/10486042> Accessed 4/22/10.

<sup>3</sup> Edwards, T., C.R. Schwalbe, D.E. Swann & C.S. Goldberg. 2004. Implications of anthropogenic landscape change on inter-population movements of the desert tortoise (*Gopherus agassizii*). *Conservation Genetics* 5: 485–499.

<sup>4</sup> Cohn, J.P. 1996. The Sonoran Desert. *BioScience*, 46(2): 84-87. Available from: <http://www.jstor.org/stable/1312810>. Accessed: 13/05/2010

<sup>5</sup> Boarman, W.I., M. Sazaki. 2006. A highway's road-effect zone for desert tortoises (*Gopherus agassizii*). *Journal of Arid Environments* 65: 94–101.

<sup>6</sup> Teixeira, C.P., C.S. De Azevedo, M. Mendl, C.F. Cipreste & R.J. Young. 2007. Revisiting translocation and reintroduction programmes: the importance of considering stress. *Animal Behaviour* 73: 1-13. Available from: sciencedirect.com. Accessed 4/28/2010.

<sup>7</sup> Teixeira, C.P., C.S. De Azevedo, M. Mendl, C.F. Cipreste & R.J. Young. 2007. Revisiting translocation and reintroduction programmes: the importance of considering stress. *Animal Behaviour* 73: 1-13. Available from: sciencedirect.com. Accessed 4/28/2010.

<sup>8</sup> Edwards, T., C.R. Schwalbe, D.E. Swann & C.S. Goldberg. 2004. Implications of anthropogenic landscape change on inter-population movements of the desert tortoise (*Gopherus agassizii*). *Conservation Genetics* 5: 485–499.

<sup>9</sup> Nussear, K.E., C.R. Tracy. 2007. Can modeling improve estimation of desert tortoise population density? *Ecological Applications* 17(2): 579–586. Available from: <http://www.jstor.org/pss/40061879> Accessed 4/28/2010.

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<sup>10</sup> Teixeira, C.P., C.S. De Azevedo, M. Mendl, C.F. Cipreste & R.J. Young. 2007. Revisiting translocation and reintroduction programmes: the importance of considering stress. *Animal Behaviour* 73: 1-13. Available from: sciencedirect.com. Accessed 4/28/2010.

<sup>11</sup> Sauer, J.R., J.E. Hines, I. Thomas, and J. Fallon. 2001. The North American breeding bird survey, results, and analysis 1966-2000, version 2001.2. United States Geological Survey, Patuxent Wild-life Research Center, Laurel, Maryland.

<sup>12</sup>Boal, C.W., T.S. Estabrook, A.E. Duerr 2003. Productivity and Breeding Habitat of Loggerhead Shrikes in a Southwestern Urban Environment. *The Southwestern Naturalist* 48 (4):557-562. Available from: <http://www.jstor.org/stable/3672768> Accessed 13/05/2010.



June 23, 2010

Allison Shaffer  
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**Subject:           Comments on Draft EIS/SA for the Solar Millennium Blythe Solar Power Plant  
                          (the “Solar Millennium Project”)**

Dear Ms. Shaffer:

In order to minimize the environmental impacts associated with solar project development, NextEra Energy Resources, LLC (“NextEra”) and SolarReserve, LLC (“SolarReserve”) request that the Bureau of Land Management (“BLM”) and the California Energy Commission (“CEC”), give consideration to establishing a North-South utility corridor through the Solar Millennium Project site (the “Utility Corridor”) to accommodate an additional double circuit 230kV line which would run in parallel to the Solar Millennium’s planned double circuit 230kV gen-tie to the SCE Colorado River Substation (reference attached conceptual drawings, Exhibits 1 & 2).

This Utility Corridor and additional double circuit 230kV line would allow projects to the north of the Solar Millennium Project to access Colorado River Substation with less environmental and land use impacts than alternatives which would involve creating additional, separate transmission line corridors around Solar Millennium’s Project either to the west or to the east. NextEra would also provide a similar transmission right-of-way access along the eastern boundary of McCoy as shown in Exhibit 1, attached. By establishing the Utility Corridor, linear facilities from projects to the north would be combined and minimized, consistent with BLM and CEC best practices guidance for desert renewable energy projects.

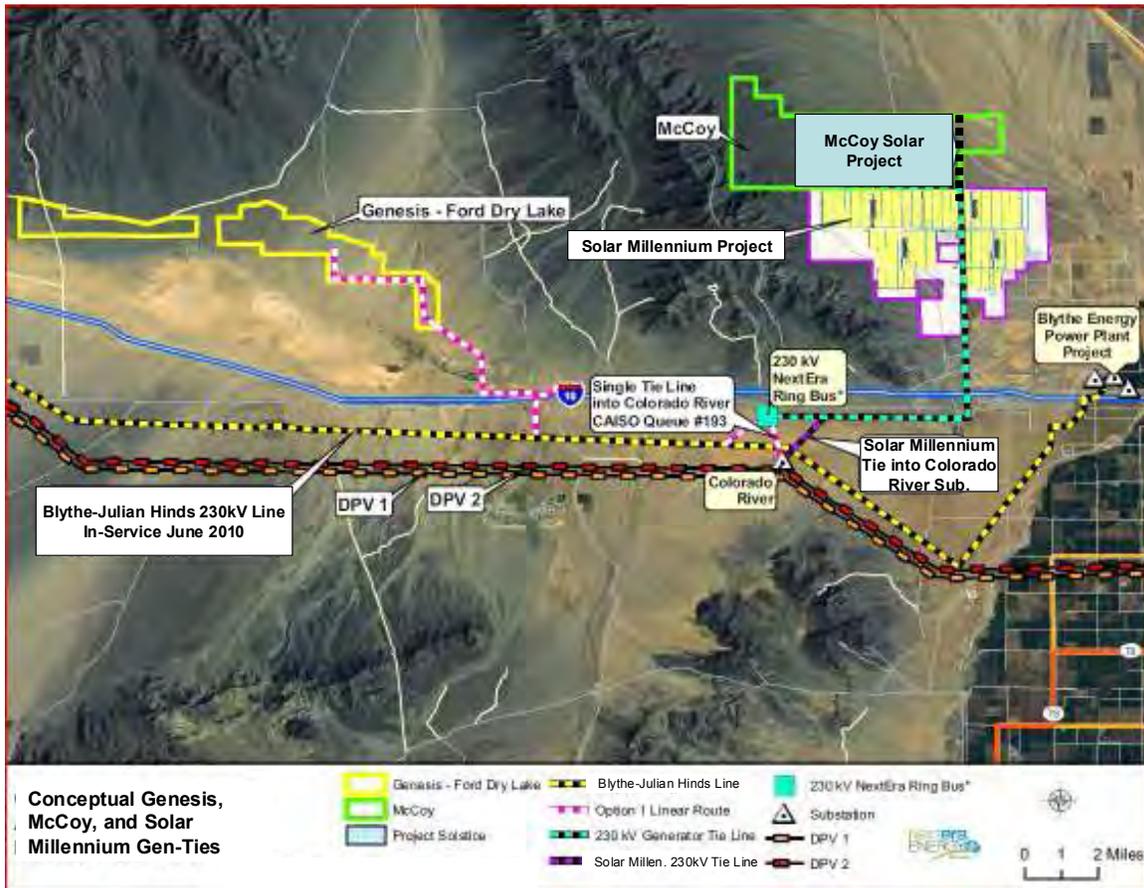
Sincerely,

A handwritten signature in black ink, appearing to read "Matt Handel", enclosed in a thin black rectangular border.

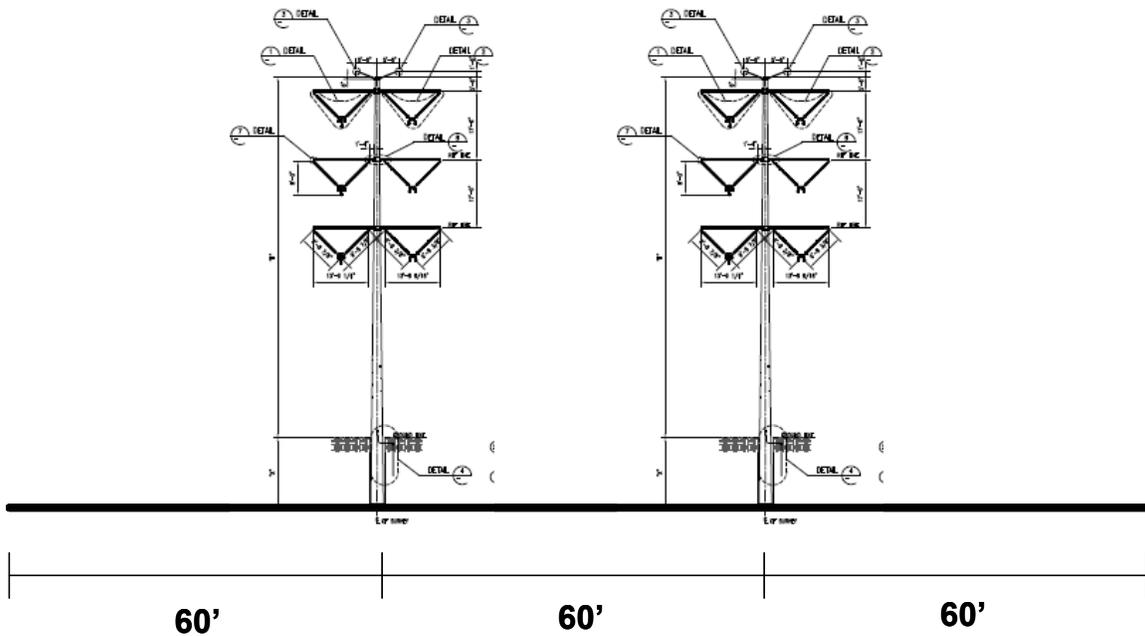
Matt Handel  
Vice President Solar Development  
NextEra Energy Resources

A handwritten signature in blue ink, appearing to read "Tom Georgis", enclosed in a thin black rectangular border.

Tom Georgis  
Vice President Development  
SolarReserve



**Exhibit 1: Conceptual Gen-tie Diagram**



**Exhibit 2: Conceptual Transmission ROW Configuration**