Director's Protest Resolution Report

Programmatic Land Use Plan Amendments for Solar Energy Development in Six Southwestern States

October 11, 2012

BLM

Contents

Reader's Guide

How do I read the Report?
The Director's Protest Resolution Report is divided into sections, each with a topic heading, excerpts from individual protest letters, a summary statement (as necessary), and the Bureau of Land Management's (BLM) response to the summary statement.

Report Snapshot

Issue Topics and Responses
NEPA

Issue Number: PP-CA-ESD-08-0020-10
Organization: The Forest Initiative
Protestor: John Smith

Issue Excerpt Text:
Rather than analyze these potential impacts, as required by NEPA, BLM postpones analysis of renewable energy development projects to a future case-by-case analysis.

Summary

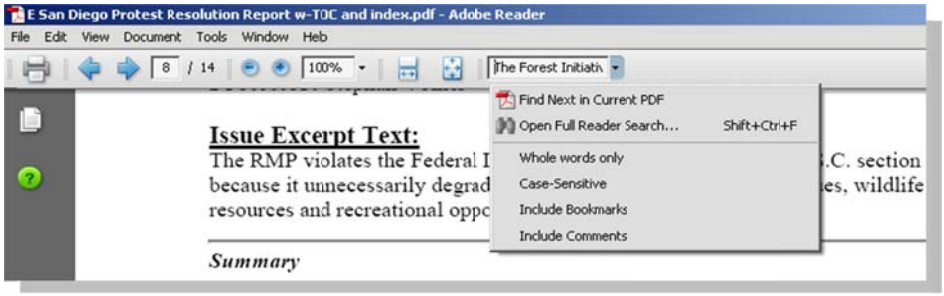
There is inadequate NEPA analysis in the PRMP/FEIS for renewable energy projects.

Response

Specific renewable energy projects are implementation-level decisions rather than RMP-level decisions. Upon receipt of an application for a renewable energy project, the BLM would require a

How do I find my Protest Issues and Responses?

1. Find your submission number on the protesting party index which is organized alphabetically by protestor's last name.
2. In Adobe Reader search the report for your name, organization or submission number (do not include the protest issue number). Key word or topic searches may also be useful.



List of Commonly Used Acronyms

ACEC	Area of Critical Environmental Concern
APD	Application for Permit to Drill
BA	Biological Assessment
BLM	Bureau of Land Management
BMP	Best Management Practice
BO	Biological Opinion
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COA	Condition of Approval
CSU	Controlled Surface Use
CWA	Clean Water Act
DM	Departmental Manual (Department of the Interior)
DOI	Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act of 1976
FO	Field Office (BLM)
FWS	U.S. Fish and Wildlife Service
GIS	Geographic Information Systems
IB	Information Bulletin
IM	Instruction Memorandum
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act of 1966, as amended
NOA	Notice of Availability
NOI	Notice of Intent
NRHP	National Register of Historic Places
NSO	No Surface Occupancy
OHV	Off-Highway Vehicle (has also been referred to as ORV, Off Road Vehicles)
PA	Plan Amendment
RFDS	Reasonably Foreseeable Development Scenario
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-Way
SHPO	State Historic Preservation Officer
SO	State Office
T&E	Threatened and Endangered
USC	United States Code
USGS	U.S. Geological Survey
VRM	Visual Resource Management
WA	Wilderness Area
WSA	Wilderness Study Area
WSR	Wild and Scenic River(s)

Protesting Party Index

Protestor	Organization	Submission Number	Determination
Stein, Kenneth	NextEra Energy Resources, LLC	PP-WO-Solar-12-01	Denied—Issues, Comments
Wintch, Mark J.		PP-WO-Solar-12-02	Dismissed—Comments Only
Gensler, Katherine; Eddy, Shannon	Solar Energy Industries Association; Large-Scale Solar Association [Solar Energy Industries Association]	PP-WO-Solar-12-03	Denied—Issues, Comments
Somerville, Thane D.	Quechan Indian Tribe of the Fort Yuma Indian Reservation	PP-WO-Solar-12-04	Denied—Issues, Comments
Hart, Joshua	Inyo County Planning Department	PP-WO-Solar-12-05	Denied—Issues, Comments
Belenky, Lisa T.	Center for Biological Diversity	PP-WO-Solar-12-06	Denied—Issues, Comments
Vargas, Donald	Imperial Irrigation District	PP-WO-Solar-12-07	Dismissed—Comments Only
Guajardo, Andrea T.	Conejos County Clean Water, Inc.	PP-WO-Solar-12-08	Denied—Issues, Comments
Blaeloch, Janine	Western Lands Project; Basin and Range Watch; Solar Done Right [Western Lands Project]	P P-WO-Solar-12-09	Denied—Issues, Comments
Rowe, George T.	Board of Lincoln County Commissioners	PP-WO-Solar-12-10	Denied—Issues, Comments
Simkins, Connie	N-4 State Grazing Board	PP-WO-Solar-12-11	Denied—Issues, Comments
Connor, Michael D.	Western Watersheds Project	PP-WO-Solar-12-12	Denied—Issues, Comments
Garabedian, Michael	Committee for 245 Million Acres	PP-WO-Solar-12-13	Dismissed—Comments Only
Clark, Jamie Rappaport	Defenders of Wildlife	PP-WO-Solar-12-14	Denied—Issues, Comments
Friedman, Sarah K.	Sierra Club	PP-WO-Solar-12-15	Denied—Issues, Comments
Clark, Sara A.	Colorado River Indian Tribes	PP-WO-Solar-12-16	Denied—Issues, Comments

Issue Topics and Responses

National Environmental Policy Act

Statement of Purpose and Need

Issue Number: PP-WO-Solar-12-05-8
Organization: Planning Department
Protestor: Joshua Hart

Issue Excerpt Text:
Existing and proposed transmission corridors through the County are and will be available to convey renewable solar energy to nearby load centers. By categorically excluding lands from consideration for solar development at a programmatic scale, the proposed decision is inconsistent with the need delineated in the PEIS to provide for utility scale solar energy development on public land, provide flexibility to the solar industry to consider a variety of solar energy projects, optimize existing transmission infrastructure and corridors, and meet projected demand for solar energy development.

Issue Number: PP-WO-Solar-12-09-5
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
BLM Relied on a Faulty Rationale to Unnecessarily Limit the Alternatives It Considered in the PEIS
BLM has cited a section of the Energy Policy Act of 2005 (PL 109-58) to exclude those two alternatives from the PEIS. It reads:

It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on the public lands with a generation capacity of at least 10,000 megawatts of electricity.

BLM's circumscribing of alternatives is wrong on two counts. First, the Bureau has misconstrued the effect of the relevant language in the Energy Policy Act of 2005. Second, BLM wrongly presumed that 10,000 megawatts of solar energy projects could only be developed on relatively intact public lands rather than on previously degraded or damaged public lands.

Issue Number: PP-WO-Solar-12-16-26
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
VII. The Statement of Purpose and Need Relies on an Erroneous Presumption and Therefore Artificially Narrows the FPEIS's Consideration of Alternatives.

BLM's purpose and need statement relies on legal artifices to justify the vast development of federal land. In particular, the purpose and need statement includes two primary points: (1) BLM is responding to high interest in siting utility-scale solar energy development on public land and (2) BLM has a "mandate" from the government that requires it to facilitate utility-scale solar development. FPEIS at ES-2. Neither statement provides a proper basis for BLM's analysis.

Under NEPA, an agency's purpose and need must address to public considerations, rather than simply responding to private concerns. Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt., 606 F.3d 1058, 1072 (9th Cir. 2010). Thus, it is improper for BLM to base its purpose and need on the interests of the private utility industry.

Moreover, BLM's purpose and need statement is based on an erroneous interpretation of applicable federal law. None of the citations provided--E.O. 13212, the Energy Policy Act of 2005, and Secretarial Order 3285A1--require the BLM to develop federal public land to the extent considered in the FPEIS. In particular, the Energy Policy Act of 2005, at most, directs BLM to consider applications for up to 10,000 MW of energy. The SEZs alone could generate up to 46,000 MW. The Solar Energy Development Program will allow solar energy

development across 19 million acres.

Summary

The statement of purpose and need is flawed, and therefore inappropriately narrows the consideration of alternatives. Specifically:

- The statement of purpose and need is based on the incorrect presumption that the BLM has a mandate to facilitate utility-scale solar development.
- The statement of purpose and need is inappropriately based on the interests of the private utility industry.

The proposed decision to exclude land from solar development at a programmatic scale is inconsistent with the purpose and need statement.

Response

The BLM has identified utility-scale solar energy development on public lands as a potentially important component in meeting the nation's energy goals and objectives and applicable Congressional direction. In accordance with the National Environmental Policy Act (NEPA), the BLM has broad discretion to identify the agency's purpose and need for action (40 CFR 1502.13). The BLM's guidance directs, to the extent possible, the BLM to construct its purpose and need statement to conform to existing laws, regulations, decisions, and policies (BLM NEPA Handbook H-1790-1 at 6.2). Section 1.1 of the Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (Solar PA/PEIS) details the Federal orders and mandates which formed the basis for the purpose and need statement (Solar PA/PEIS, p. 1-1 to 1-4).

The Energy Policy Act of 2005 states that "the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on the public lands with a generation capacity of at least 10,000 megawatts (MW) of electricity" (Public Law [P.L.] 109-58), thus setting 10,000 megawatts as a minimum goal, rather than a maximum goal as stated in the protest letter. While the Energy Policy Act provides impetus for policy development and associated planning decisions, it should be noted that 10,000 MWs was not used as either a tool or a target for the purposes of planning or analysis in the Solar PA/PEIS. Rather, the BLM developed a Reasonably Foreseeable Development Scenario (RFDS) by estimating future levels of solar energy generation in the planning area on the basis of state-specific Renewable Portfolio Standards (Draft Solar PA/PEIS, p. 2-21). The RFDS estimated the MWs of solar energy development and the number of acres solar energy developed, on and off BLM-administered lands (Draft Solar PA/PEIS, Table 2.4-1). See the response for Impact Analysis for more information on the RFDS. It is clear that the Congress' intent in P.L. 109-58 was to encourage the use of some portion of the public lands for renewable energy development in an environmentally responsible manner. The Department of the Interior (DOI) Secretarial Order (SO) 3285A1 subsequently set a policy goal of identifying and prioritizing specific locations best suited for large-scale

production of solar energy on public lands.

The Solar PA/PEIS states that the BLM "has identified a need to respond in a more efficient and effective manner to the high interest in siting utility-scale solar energy development on public lands and to ensure consistent application of measures to mitigate the potential adverse impacts of such development" (Solar PA/PEIS, p. 1-8). The need is not based on the interests of the private utility industry, but rather a more efficient and effective protocol to replace existing solar energy policies. This public need echoes the sentiment of SO 3285A1, that "[m]any of our public lands possess substantial renewable resources that will help meet our Nation's future energy needs while also providing significant benefits to our environment and the economy. Increased production of renewable energy will create jobs, provide cleaner, more sustainable alternatives to traditional energy resources, and enhance the energy security of the United States by adding to the domestic energy supply."

In regards to the consistency of exclusion areas with the purpose and need statement, the objectives of the BLM's proposed Solar Energy Program include to "minimize potential negative environmental impacts" and to "minimize social and economic impacts" (Solar PA/PEIS, p. 1-9). The identification of exclusion areas allows the BLM to minimize adverse impacts by identifying lands that are not well-suited for utility-scale solar energy development. Table 2-2.2 highlights the specific criteria used to select exclusion areas (Solar PA/PEIS, p. 2-20 to 2-22).

Range of Alternatives

Issue Number: PP-WO-Solar-12-09-10
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
BLM seemingly understood this instruction from CEQ, as it issued its own Instructional Memorandum No. 2011-05938 acknowledging that in some circumstances the Bureau may choose to evaluate a non-federal land alternative or different technology alternative raised through scoping, "to the extent necessary to support a decision regarding the pending application." The establishment of the Department of the Interior's program for solar energy development in the six southwestern states is such a circumstance. To comply with NEPA, the BLM should supplement the PEIS with an analysis of the DG and degraded lands alternatives.

Issue Number: PP-WO-Solar-12-09-3
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
The FPEIS Failed to Consider Viable Alternatives that are Consistent with the Interior Department's Renewable Energy Policy Objectives

In implementing the National Environmental Policy Act (NEPA) agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14. The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.

Other than the no action alternative, BLM analyzed only alternatives dependent upon industrial scale solar energy development on relatively intact public lands. Solar Done Right and its constituent members, as well as EPA, previously noted that BLM failed to analyze at least two viable alternatives: a distributed generation (DG) alternative, and an alternative in which solar energy production and transmission facilities would be developed on previously degraded or damaged lands (the "degraded lands alternative"). Despite its claims in the Final PEIS, the Bureau is not constrained from analyzing these two alternatives that produce sufficient amounts of renewable energy in an environmentally superior manner.

Issue Number: PP-WO-Solar-12-09-7
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
10,000 MW of solar energy could be generated on projects sited on degraded public lands

Even if the Energy Policy Act of 2005 mandated, rather than merely recommended, that the Secretary approve renewable energy projects capable of generating 10,000 megawatts of electricity by 2015, that quantity of renewable energy could be generated on already degraded public lands closer to urban areas than the relatively intact public lands located in the Solar Energy Zones (SEZs) and on the 19 million acres overall that could be made available. Therefore, BLM should have considered an alternative action suggested by Solar Done Right, EPA, and many others to analyze the costs, benefits and environmental impacts of a Department of the Interior renewable energy program that prioritized the siting of solar energy projects on degraded lands.

Issue Number: PP-WO-Solar-12-09-8
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
The DG and Degraded lands Alternatives Better Comply with Amended Order 3285A1

Yet another reason BLM should have analyzed the DG and degraded lands alternatives is that both better comply with Amended Federal Order 3285A1, issued by Interior Secretary Ken Salazar on February 22, 2010. The Order takes its authority from Section 3 of the Energy Policy Act of 2005 and therefore also constitutes a DOI policy choice. Nevertheless, the Order states that "as the steward of more than one-fifth of our Nation's lands," the department "has a significant role in coordinating and ensuring environmentally responsible renewable energy production...." The Order states that the department will "encourage the timely and responsible development of renewable energy and associated transmission while protecting and enhancing the Nation's water, wildlife, and other natural resources." Given the significant impacts from large-scale concentrating solar that cannot be mitigated, the goal of "protecting and enhancing the Nation's water, wildlife, and other natural resources" while implementing large scale "environmentally responsible" solar development, cannot be met through any of the alternatives being analyzed in the PEIS.

Conversely, by preserving relatively pristine desert public lands, both the DG and degraded lands alternatives would better protect and enhance our natural resources while also encouraging the timely and responsible development of a renewable energy industry in the U.S. Although BLM interprets the Amended Order to proscribe consideration of the DG and degraded lands alternatives in the PEIS, the plain language of the Order calls for inclusion of those two alternatives.

It is important to note that the Amended Order also states that agencies and bureaus within the Department of Interior "will work collaboratively ... with other Federal agencies [and] departments" in encouraging the development of renewable energy while protecting natural resources. The EPA has submitted substantial comments on the iterations of the PEIS to identify deficiencies with the document, asked BLM to analyze DG and degraded lands alternatives, and suggested collaborating with BLM to develop a database of degraded lands suitable for solar energy production. The Final PEIS, by failing to analyze the suggested alternatives and not listing or cataloging available degraded lands, has not conformed to the Amended Order.

Issue Number: PP-WO-Solar-12-12-2
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests that the BLM has failed to analyze a range of reasonable alternatives. The selection and clear presentation of alternatives is the "the heart" of the NEPA process. NEPA requires the agencies to evaluate and compare a range of reasonable alternatives. In our scoping comments and comments on prior drafts of the FEIS we urged the BLM to set out a Purpose and Need that addresses the Secretary's clear mandate to protect and enhance the Nation's water, wildlife, and other natural resources on the nation's public lands, to consider a range of alternatives in the FEIS including alternatives that meet energy needs but require no or minimal use of public lands, and to fully analyze the environmental impacts of current management and any proposed energy zones. We asked the BLM to consider the following five alternatives:

(A) A climate change alternative that would exclude all public lands from solar energy development to provide maximum flexibility and opportunity for species and their habitats to survive climate change

impacts;
(B) An alternative that would use presence of an endangered, threatened or candidate species as an exclusion in the screening criteria so that SEZ are not designated on habitat for endangered, threatened or candidate species;
(C) An alternative that constrains the range of technologies that could be used, to promote technologies that minimize water use and environmental footprints;
(D) An alternative that focuses development on private land; and,
(E) A distributed energy alternative.

The BLM discussed three alternatives in the FEIS: (1) A no action alternative that continues the issuance of right-of-way ("ROW") authorizations for utility-scale solar energy development on BLM administered lands on a project-by-project basis. (2) The proposed action under which approximately 19 million acres of BLM-administered lands would be available for solar energy ROW applications of which approximately 285,000 acres (1,153 km^2) would be in 17 solar energy zones ("SEZ"), where the BLM would prioritize development; and (3) A solar energy zone alternative that restricts applications to the SEZs only.

All three alternatives considered in the FPEIS would result in similar levels of industrial-scale solar power plant development on the Nation's public lands. The "no action" alternative would allow development to continue as it currently proceeds. The preferred alternative purports to restrict development to SEZ but allows for new SEZ to be developed and establishes a variance for proposed projects outside the SEZ. Alternative (3) the modified SEZ alternative purports to restrict solar power plant development to the designated SEZ, but SEZ can be expanded, added, or reduced in the future. NEPA requires agencies to rigorously explore and objectively evaluate all reasonable alternatives. BLM's analysis of a limited number of similar action alternatives makes this a grossly inadequate range of alternatives.

Issue Number: PP-WO-Solar-12-12-3
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests the BLM's failure to consider alternatives proposed by the public and by other agencies such as focusing development on private lands and heavily disturbed lands or emphasizing development of distributed energy. These alternatives would have avoided industrial scale development on and the whole-scale destruction of hundreds of square miles of public lands and would have avoided impacting a multitude of special status species, cultural resources, recreational opportunities, visual resources, and a host of other resources of these multiple-use lands.
Western Watersheds Project protests the BLM's failure to consider and analyze alternatives to the proposed action that would avoid impacts to desert tortoise, rare plants and other scarce and sensitive resources in siting SEZ on public lands. Despite public concerns and BLMs responsibility to work to conserve and recover listed species, the BLM considered no alternative that would avoid habitat for listed species.

Western Watersheds Project protests that none of the alternatives BLM considered in the FEIS completely avoids impacts to designated habitat management areas, critical habitats and ACEC.

Western Watersheds Project protests that none of the BLM's alternatives meets the objective laid down in the purpose and need statement (at FEIS 1-9) of "minimize potential negative environmental impacts". Alternatives that focused development on private lands and heavily disturbed lands or emphasized development of distributed energy would have achieved this objective.

Issue Number: PP-WO-Solar-12-16-27
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
As a result of this narrow statement of purpose and need, BLM rejects alternatives that could reduce the Program's impacts on cultural resources substantially. In particular, the BLM rejects consideration of any alternative that would eliminate or modify the Riverside East SEZ, or an alternative that would avoid impacts to the desert completely, such as distributed generation or energy conservation. This action violates NEPA: an agency must not approve a project "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. Def. Fund, Inc. v. Corps of Engineers of U.S. Army, 492 F.2d 1123, 1135 (5th Cir. 1974).

Summary

The BLM failed to analyze a reasonable range of alternatives. The BLM did not consider:

- A distributed generation alternative;
- An energy conservation alternative;
- A degraded lands alternative;
- A private land alternative;
- A "climate change" alternative excluding all public lands from solar development;
- An alternative that would exclude Area of Critical Environmental Concerns (ACEC), critical habitats, desert tortoise, rare plants, and habitat management areas;
- An alternative constraining the range of technologies that could be used; and
- An alternative that would modify/exclude the Riverside East solar energy zone (SEZ).

Response

The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives, but is not required to analyze in detail every possible alternative or variation. According to the Council of Environmental Quality (CEQ) regulations for implementing NEPA, an agency may eliminate alternatives from detailed study with a brief discussion of the reasons for having been eliminated (40 CFR 1502.14(a)). For example, an alternative may be eliminated from detailed study if it is determined not to meet the proposed action's purpose and need; determined to be unreasonable given the BLM mandates, policies, and programs; it is substantially similar in design to an alternative that is analyzed; its implementation is speculative or remote; or it is technically or economically infeasible (BLM NEPA Handbook, H-1790-1, 6.6.3).

The Solar PA/PEIS considered a range of reasonable alternatives to the proposed action designed to meet the BLM's legal responsibilities and its purpose and need for action. Many alternatives brought up in protest were eliminated from detailed study following the Draft PA/PEIS. Reasons for elimination are described below; many of these were also described in Section 2.5 of the Final PA/PEIS (2-67 to 2-74):

The distributed generation alternative was not considered for several reasons. First, current research indicates that development of both distributed generation and utility-scale solar power will be needed to meet future energy needs in the United States, along with other energy resources and energy efficiency technologies National Renewable Energy Laboratory (NREL) 2010). Second, the Energy Policy Act of 2005 (P.L. 109-58) directs the Secretary of the Interior to seek to approve non-hydropower renewable energy projects on public lands with a generation capacity of at least 10,000 MW of electricity by 2015; this level of renewable energy generation cannot be achieved through distributed generation systems (NREL 2010). Third, SO 3285A1 issued by the Secretary of the Interior requires the BLM and other DOI agencies to undertake multiple actions to facilitate large-scale solar energy production. This PEIS is accordingly focused on the siting and management of utility-scale solar energy development on public lands. Fourth, the BLM has no authority or influence over the installation of distributed generation

systems, other than on its own facilities, which the agency is evaluating at individual sites through other initiatives. Furthermore, as the PEIS explains, the evaluation of distributed-generation systems is being addressed by the Department of Energy (DOE) in other initiatives. (Solar PA/PEIS p. 2-68; v.7, p. 206 to 207).

A conservation of energy alternative was not considered because it is beyond the scope of the BLM's land management responsibilities. Other programs within the DOE Office of Energy Efficiency and Renewable Energy focus on energy conservation (Solar PA/PEIS, p. 2-69 to 2-70; Solar PA/PEIS, v.7, p. 207).

The degraded lands (previously disturbed lands) issue was not incorporated into the PEIS as an independent alternative, but consideration was given to previously disturbed lands in identifying areas best suited to solar energy development. There is no clear and well-established definition of what constitutes previously disturbed public lands, nor are there any clearly defined thresholds for determining when lands cannot be restored to the former, undeveloped state. The benefits associated with the use of areas in, or adjacent to previously disturbed or contaminated lands for solar energy development, however, is highlighted in the variance process, the Identification Protocol for new SEZs, as well as the incentives for SEZs (partnering with suitable non-Federal lands) in the Final Solar PEIS (Solar PA/PEIS p. 2-71; Solar PA/PEIS, v.7, p. 209 to 210).

The private lands alternative was not considered because it does not respond to the purpose and need for agency action in the PEIS and would not meet the objectives established for the BLM by the Energy Policy Act of 2005 and SO 3285A1, both of which direct the BLM to facilitate renewable energy development on public lands. Though the BLM has indicated that it may in the future decide to dispose of some parcels of land to support solar energy development, these decisions will be made on a case-by-case basis. Additionally, the analysis of solar energy development on other Federal or private lands is encompassed in the geographic scope of the Solar PEIS analysis which includes all lands in the six-state study area. The DOE may support solar projects on all types of lands, including BLM-administered lands and other Federal, state, tribal, and private lands (Solar PA/PEIS p. 2-70; Solar PA/PEIS, v.7, p. 208 to 209).

A climate change alternative that excludes all public lands from solar development was not considered because it does not respond to the purpose and need for agency action in the PEIS and would not meet the objectives established for the BLM by the Energy Policy Act of 2005 and SO 3285A1, both of which direct the BLM to facilitate renewable energy development on public lands. Climate change was addressed in several sections of the Draft and Final PA/PEIS - please see the comments and responses for a discussion of where climate change was addressed (Solar PA/PEIS, v.7, p. 58 to 59).

An alternative constraining the range of technologies that could be used: The BLM has determined that decisions on which technologies will be acceptable within designated SEZs will be made at the site-specific, project level, with the exception of the Colorado SEZ and the Gillespie SEZ (Solar PA/PEIS, v.7, p. 99).

An alternative that would modify/exclude the Riverside East SEZ: The proposed Riverside East SEZ was reconfigured following publication of the Draft Solar PA/PEIS to eliminate 43,439

acres in the northwest portion of the SEZ to reduce impacts on Joshua Tree National Park, and 11,547 acres within the SEZ boundaries have been identified as non-development areas. Additional applicable non-development areas within SEZs may be identified during project-specific investigations when additional data have been collected (Solar PA/PEIS, p. 9.4-7 to 9.4-10; v.7, p. 12 to 13).

An alternative that would exclude ACECs, critical habitats, desert tortoise, rare plants and habitat management areas: Many of the areas raised in protest were considered as exclusions in both of the BLM's action alternatives. The specific exclusion criteria in the BLM's preferred alternative are listed in Table 2.2-2 (Solar PA/PEIS, p 2-20 to 2-22). These exclusion criteria were chosen to avoid potential resource conflicts and reserve for other uses lands that are not well suited for utility-scale solar energy development. Exclusion criteria include many different sensitive resources, including all ACECs identified in applicable land use plans; all designated and proposed critical habitat areas for species protected under the Endangered Species Act (ESA) of 1973; designated desert tortoise conservation areas; and all desert tortoise translocation sites identified in applicable land use plans project-level mitigation plans, and Biological Opinions (BO). By excluding ACECs, the BLM has provided protection for the resource values (e.g., biological resources, rare plants, etc.) underlying the designation of an area as an ACEC. The BLM has also developed programmatic design features for ecological resources to avoid and minimize adverse impacts in section A.2.2.11. As such, this alternative is substantially similar to the alternatives analyzed in the Solar PA/PEIS.

Impact Analysis

Issue Number: PP-WO-Solar-12-08-11
Organization: Conejos county Clean Water Inc
Protestor: Andrea T. Guajardo

Issue Excerpt Text:
CCCW raised the concern about air monitoring as a measure to protect human health during construction. CCCW maintains that the air monitoring analysis in the FPEIS is inadequate for the purposes of NEPA. Per the FPEIS, "Impacts PM10 standard has been rescinded the discussion of annual PM 10 impacts in the Draft Solar PEIS is no longer applicable." The Environmental Protection Agency (EPA) recently announced two public hearings on proposed revisions to the National Ambient Air Quality Standards for Particle Pollution, and the proposed rules show no changes to the PM10 standard, and there is no consideration of rescinding the standard in its entirety.

Issue Number: PP-WO-Solar-12-08-5
Organization: Conejos county Clean Water Inc
Protestor: Andrea T. Guajardo

Issue Excerpt Text:
Finally, with regard to air emissions the FPEIS assumed if all the land were developed in the SEZs there would be a corresponding reduction is SO_2, CO_2, and NO_x all known greenhouse gases. The land use planning effort does not know whether it will be replacing fossil fuel production. Calculations presented in the air quality section have nothing to do with the transmission analysis or substation analysis. The calculations are based on the SEZ size. To calculate the greenhouse gas reductions there were SEZ assumptions to bind the potential impacts by the land area developed without known technology or known transmission infrastructure. Without the transmission corridors and associated substations identified, it is unknown what will happen to greenhouse gas emissions due to carbon based fuel production.

Issue Number: PP-WO-Solar-12-09-13
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:

Amargosa Valley SEZ

• The FPEIS states, "The golden eagle is an uncommon to common permanent resident in southern Nevada. This species was not analyzed for the Amargosa Valley SEZ in the Draft Solar PElS ... On the basis of an evaluation of SWReGAP land cover types, potentially suitable nesting (cliffs and rock outcrops) does not 27 occur on the SEZ or area of indirect effects (Table 11.1.12.1-1)." The statement is wrong. According to the Atlas of the Breeding Birds of Nevada, there is one confirmed nesting record of golden eagle and one probable nesting record on ranges along the eastern side of the Amargosa Valley. (Floyd, Ted, Chris Elphick, Graham Chisolm, Kevin Mack, Robert Elston, Elisabeth Ammon, and John Boone. 2007. University of Nevada Press: Reno).

Issue Number: PP-WO-Solar-12-09-19
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
The analysis ignores the desert bighorn sheep, a big game species that has potential to use the site for foraging habitat. In addition to forage, the Amargosa SEZ could also serve as a wildlife linkage or connectivity zone. Alluvial fans near steep rocky terrain can provide crucial foraging habitat for bighorn sheep. For example, ewes at the end of gestation that need nutrients may come down from steep, rocky terrain looking for higher quality forage. They may use areas for only three weeks, but those three weeks are critical.

Issue Number: PP-WO-Solar-12-09-21
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
• The PEIS does not discuss potential public health impacts to Amargosa Valley from cases of Coccidioidomycosis (Valley Fever), a disease spread when spores in soil are transported by blowing dust, such as occurs with large-scale soil disturbance. The community of Pahrump, Nevada, about 45 miles south of the SEZ, reported cases of Coccidioidomycosis in 2004 (http://www.pahrumpnv.org/pahrump-nevada/documents/agendas-minutes/june-22-2004/#minutes). The PEIS should have addressed the potential public health threat to the communities of Amargosa Valley, Beatty, and Pahrump of dust emissions from construction on over 8,000 acres of land.

Issue Number: PP-WO-Solar-12-09-22
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
Millers SEZ
• No analysis was done regarding Basin and Range Watch comments about the importance of the Miller's Rest Stop bird oasis next to the Millers SEZ

Issue Number: PP-WO-Solar-12-12-19
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests the BLM's failure to consider the effects of climate warming around industrial scale solar development on sensitive resources. We repeatedly asked the BLM to consider the effects of the proposed power plants on climate and on carbon sequestration. Large scale alterations of desert habitat such as solar farms alter local albedo, elevate local thermal environments, and thus increase extinction risks for lizards and other species (Sinervo, 2012).

Issue Number: PP-WO-Solar-12-16-16
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
III. The FPEIS Alternatives Analysis Relies on Erroneous Assumptions.

The FPEIS claims that the Solar Energy Development Program alternative-which focuses development in the SEZs but also allows development on over 19 million additional acres via a variance process-and the SEZ-only alternative would have a similar impact on cultural resources, despite the significant difference in land available. Supplement to the Draft PEIS at 2-61; FPEIS Response to Comments at 153. BLM states that this conclusion is based on the assumption that solar demand will be the same under both circumstances. FPEIS Response to Comments at 153. This assumption is erroneous: the number of acres developed, and therefore the number of cultural resources impacted, is necessarily a result of both supply and demand. Approving the Solar Energy Development Program alternative makes it possible

to develop the variance acreage, while the SEZ-only would put that significant acreage off-limits. While the FPEIS claims that variance land is "intended to be the exception rather than the rule" (FPEIS Response to Comments at 79), it is by no means clear that variance land will be protected under the Solar Energy Development Program. Indeed, one of the purposes of the variance alternative is to "provide flexibility to the solar industry to consider a variety of locations for development," and thus accommodate all demand for utility-scale solar on public land. FPEIS Response to Comments at 54. The FPEIS must be revised to make clear that the Solar Energy Development Program will likely result in more adverse impacts to cultural resources than the SEZ-only alternative. An agency acts arbitrarily and capriciously when it fails to "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." (internal quotation marks omitted). Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). BLM has failed to articulate a reasonable justification for assuming that a significant difference in the amount of land available will have no effect on the demand for solar projects.

Issue Number: PP-WO-Solar-12-16-8
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
The information the FPEIS fails to disclose is just as problematic. CRIT participated in BLM land use planning efforts in the 1970s and 1980s as part of the development of the California Desert Conservation Area Plan. One result of this effort was the creation of two maps associated with the Cultural Resources Element and the Native American Element, which indicated "known and predicted areas of sensitivity and significance" and "concentrated, sensitive areas." Now, the FPEIS indicates that almost all of these areas are included within the Riverside East SEZ. As CRIT has stated before, it is, quite frankly, shocking that the BLM would consider encouraging utility-scale solar development within these areas. It is also a clear violation of NEPA that the FPEIS fails to disclose this information in discussing the likely impacts of the Riverside East SEZ.

Issue Number: PP-WO-Solar-12-16-9
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
The FPEIS also errs in failing to disclose accurately the recent discovery of hundreds of buried resources at the Genesis Solar-Energy Project. The FPEIS states only that in the approval for the Genesis Solar Energy Project, 50 new sites were identified. FPEIS at 9.4-111. But since construction has begun, the developer has uncovered scores of additional artifacts in the vicinity of Ford Dry Lake. Not only does the FPEIS fail to mention these discoveries in anything more than an oblique and passing reference, the Riverside East SEZ includes those areas between the Genesis discovery and the Ford Dry Lake bed.

Summary

The Solar PA/PEIS violates NEPA because it fails to adequately analyze the impacts of:

- Designating the Antonito Southeast SEZ on air quality;
- Designating the Amargosa Valley SEZ on golden eagles, desert bighorn sheep, and public health;
- Designating the Millers SEZ on bird habitat;
- Designating the Riverside East SEZ on cultural and Native American resources;
- Designating SEZs on global climate change;
- Local climate warming around industrial scale solar development on sensitive species; and
- The Solar Energy Development Program Alternative and the Solar Energy Zone Program Alternative on cultural resources with regard to reasonably foreseeable solar energy development and the difference in the amount of land available under the two alternatives.

Response

The BLM gathered the necessary data essential to make a reasoned choice among the alternatives analyzed in the RMP/EIS. The BLM analyzed the available data that led to an adequate disclosure of the potential environmental consequences of the preferred alternative and other alternatives. As required by NEPA, the BLM has taken a "hard look" at the environmental consequence of the alternatives to enable the decision maker to make an informed decision.

Antonito Southeast SEZ

The Administrator of the U.S. Environmental Protection Agency revoked the annual particulate matter (PM10) NAAQS (National Ambient Air Quality Standards) standard in 2006 (see 71 FR 61144, Oct 17, 2006). Therefore, the BLM properly revised the discussion presented in Section 10.1.13.2 of the Solar PA/PEIS to reflect that an annual PM10 standard is no longer applicable. This correction does not change air quality impacts from the proposed action: "Since the air quality impacts remain the same as those presented in the Draft Solar PEIS, the discussion and conclusions in the Draft Solar PEIS remain valid" (Solar PA/PEIS, p. 10.1-51).

Amargosa Valley SEZ

The Solar PA/PEIS adequately discusses the presence of golden eagles in the Amargosa Valley SEZ. The Solar PA/PEIS describes the methodology used for analyzing impacts to wildlife: "Because of the uncertainty in species distributions and the inherent challenges involved with tracking special status species in all solar energy study areas, a conservative approach was used to determine the potential for species to occur on or in the vicinity of the proposed SEZs...a landscape-level analysis was used to determine impacts by quantifying the total area of potentially suitable habitat…within the areas of direct and indirect effects relative to the total area of potentially suitable habitat within the SEZ region" (Draft Solar PA/PEIS, p. M-29).

The BLM used SWReGAP (Southwestern Regional Gap Analysis Project) habitat suitability models to determine potentially suitable habitat for golden eagles (Solar PA/PEIS, p. 11.1-55). Based on this evaluation, the BLM determined that potentially suitable foraging habitat may occur on the SEZ and throughout the area of indirect effects, but that potentially suitable nesting habitat does not occur on the SEZ and throughout the area of indirect effects. It is important to note that this methodology determines the potential for encountering species in an area; it is not an inventory of whether or not a species is absent or present at a specific site.

The designation of SEZs is a land use planning-level decision, which are broad in scope and do not require an exhaustive gathering and analysis of site-specific inventory data. The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (Solar PA/PEIS, p. 1-17). The BLM will make separate decisions as to whether or not to authorize individual solar energy projects in conformance with the existing land use plan(s) as amended by the Solar PEIS ROD. In authorizing the construction of utility-scale solar energy generation facilities on BLM-administered lands, the BLM must

comply with NEPA, the ESA, and other applicable statutes and regulations. The BLM would gather and analyze site-specific inventory data regarding golden eagles as appropriate when conducting NEPA analyses for specific solar energy projects. As required by NEPA, the public would have the opportunity to participate in the NEPA process for subsequent implementation actions.

The Solar PA/PEIS discusses impacts to desert bighorn sheep (also known as Nelson's bighorn sheep) from designating the Amargosa Valley SEZ. The Solar PA/PEIS acknowledges the presence of desert bighorn sheep within the affected area of the Amargosa Valley SEZ based on information from the Nevada Natural Heritage Project (Draft Solar PA/PEIS, p. 11.1-150). Potential impacts to desert bighorn sheep from solar energy development in the Amargosa Valley SEZ is analyzed in Table 11.1.12.1-1. The Amargosa Valley SEZ does not contain potentially suitable habitat; the nearest recorded occurrence of a desert bighorn sheep is from the Funeral Mountains, approximately two miles southwest of the SEZ (Draft Solar PA/PEIS, p. 11.1-175). Solar energy development in the Amargosa Valley SEZ could indirectly affect 33,400 acres of potentially suitable habitat outside of the SEZ (Draft Solar PA/PEIS, p. 11.1-175).

The Solar PA/PEIS specifically acknowledges that desert bighorn sheep may use desert lowlands as a corridor for travel between mountain ranges, and that impacts from projects could be reduced by minimizing disturbance to important movement corridors within the area of direct effects (Draft Solar PA/PEIS, p. 11.1-175).

The Solar PA/PEIS discusses the potential of solar energy development projects to cause cases of Coccidioidomycosis ("valley fever"): "A potential hazard, particularly during construction, is the possible increased release of spores of the fungus that causes valley fever" (Solar PA/PEIS, p. 5-26). The spores that cause valley fever are disseminated through the release of fugitive dust, and therefore it is not possible to analyze the specific potential for valley fever in the Amargosa Valley SEZ until a project and plan of development is submitted. The BLM will analyze and address the impacts from valley fever as appropriate for each solar energy project in the Amargosa Valley SEZ: "The best method to prevent exposure to the organism [coccidioides fungus] is to reduce fugitive dust emission using best available practices as required under a facility's Dust Abatement Plan and described in various design features included for the protection of soil, water, and air resources (see Section A.2 of Appendix A)" (Solar PA/PEIS, p. 5-26).

Millers SEZ

The Solar PA/PEIS considered comments submitted by the public regarding the importance of Millers SEZ area for birds: "There was also concern for avian mortality, and commenters recommended that the SEZ should have height restrictions due to rare migratory bird species in the Area" (Solar PA/PEIS, v.7, p. 22). The Solar PA/PEIS acknowledges that solar energy development within the Millers SEZ could affect potentially suitable bird habitats, and that the resultant impact levels for all the representative bird species would be small (Solar PA/PEIS, p. 11.7-34). On the basis of impact analyses conducted for the Draft Solar PEIS and consideration of comments received as applicable, the BLM identified Millers SEZ-specific design features to

reduce impacts to bird species (Solar PA/PEIS, p. 11.7-34).

Riverside East SEZ

When preparing NEPA documents, the BLM is required to use high quality information. Furthermore, CEQ NEPA regulations direct that "environmental impact statements shall be analytic rather than encyclopedic" and that "environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA" (40 CFR 1502.2). The maps associated with the Cultural Resources Element and Native American Elements in the California Desert Conservation Area (CDCA) are over thirty years old and do not reflect current information and data, and thus were not necessary to enable the decision maker to make a reasoned choice among alternatives or comply with other NEPA regulations.

Consistent with NEPA, the BLM used high quality information to adequately describe the affected environment associated with the designation of the Riverside East SEZ for cultural and Native American resources. The Solar PA/PEIS summarizes the results of 109 previous cultural resource surveys that have been conducted in the vicinity of the proposed Riverside East SEZ, and identifies other areas of high cultural value identified through previous land use planning processes, such as ACECs (Draft Solar PA/PEIS, Section 9.4.17.1.5). The Solar PA/PEIS also uses more recent information (many of the academic articles cited are less than ten years old) when describing the landscape of the SEZ area in terms of traditional cultural properties (Draft Solar PA/PEIS, Section 9.4.17.1.4).

Between the draft and final Solar PA/PEIS, information regarding cultural properties was updated further. The final Solar PA/PEIS describes results of additional recent surveys that were conducted in support of solar projects currently under construction, and summarizes a Class I literature review that was completed by SWCA Environmental Consultants in 2011 for the original footprint of the Riverside East SEZ (Solar PA/PEIS, p. 9.4-111).

The Solar PA/PEIS specifically discusses the results of the recent survey conducted for the Genesis Solar Power Project. The Solar PA/PEIS details the number and types of sites found and discloses that additional sites have been identified since construction began (Solar PA/PEIS, p. 9.4-111).

The Draft Solar PA/PEIS discusses Native American resources present in the affected area of the Riverside East SEZ in Section 9.4.18.1. The Draft Solar PA/PEIS identified territorial boundaries, and discussed plant, game, mineral, and water resources as they related to Native American concerns.

Additionally, for future projects in SEZs, the BLM will coordinate with State Historic Preservation Officers (SHPOs) and tribes to define what levels of additional survey would be required as part of submitting a plan of development (POD) consistent with the approved programmatic agreement (PA). The BLM would also discuss with SHPOs and tribes the need for additional ethnographic and archeological data required as part of submitting a POD (Solar PA/PEIS, p. 2-31).

Global Climate Change

The Solar PA/PEIS discusses the impacts of the proposed action to global climate change. It is beyond the scope of existing science to relate a specific incidence of avoidance of greenhouse gas emission with the creation or mitigation of any specific climate-related environmental effect. The Solar PA/PEIS discusses the effects to global climate change in a general manner and recognizes the multitude of factors that would influence any potential outcome: "The reduction or displacement of electricity generation in fossil fuel power plants by electricity from solar energy facilities could reduce overall emissions of combustion-related pollutants. The actual magnitude of emissions displaced would depend on many factors determining the generation and distribution of electricity" (Draft Solar PA/PEIS, p. 5-157). As the protestor points out, the development of transmission infrastructure over time will influence the type and distribution of electricity generating facilities which in turn will have differing contributions of greenhouse gases. The particular relevance of specific transmission corridors and associated substations on climate change impacts will also vary by individual projects, and will be analyzed as appropriate in implementation-level NEPA analyses.

In order to fully disclose the potential effects of solar energy development on global climate change, the BLM used a series of reasonable analytic methods and assumptions, as permitted under NEPA (see 40 CFR 1502.22 and 40 CFR 1502.24), and presented them for comparative purposes: "As discussed in Section 5.11.1.2, composite emission factors were estimated on the basis of total annual power generation and associated GHG emissions for all types of fossil fuel power plants currently in operation in the six-state study area (EPA 2009b). The carbon dioxide (CO_2) emissions represent the majority of these emissions. On the basis of the composite emission factor for CO_2, an estimated 716 kg (1,578 lb) of CO_2 would be displaced annually per megawatt-hour of solar energy produced (Table 5.11-1)" (Draft Solar PA/PEIS, p. 5-157).

Local Climate Warming

Currently, little is known about the effects of climate warming around industrial scale solar developments on sensitive resources, such as lizards and other species. Since the development of utility-scale solar farms is a new phenomenon, scientists are still working to understand the impacts of changes in local albedo around utility-scale solar farms on sensitive resources. For example, the article provided by the protestor (Sinervo, 2012) was presented to the public on July 16, 2012, which was one week before the Solar PA/PEIS was made available to the public.

The BLM has determined that the information presented by the protestor regarding local albedo does not constitute significant (as defined at 40 CFR 1508.27) new information because it would not result in significant effects outside the range of effects already analyzed (BLM NEPA Handbook Section 5.3.1). The SEZ assessments assumed total displacement of species from within the development area and analyzed the population impacts from such displacement. Thus, upper bound impacts from local warming impacts have been evaluated. The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (Solar PA/PEIS, p. 1-17). The BLM would consider as appropriate the impacts of changes to local albedo on wildlife when conducting NEPA analyses for specific solar energy projects. The BLM may also decide to include changes to local albedo as a factor

warranting monitoring as part of individual projects or larger monitoring efforts as described in Section A.2.4 of the Solar PA/PEIS.

Cultural Resources and Reasonably Foreseeable Solar Energy Development

As stated in the Solar PA/PEIS, "a full assessment of the potential impact of solar energy development on the quality of the human and ecological environment over the next 20 years requires that an estimate be made of the amount of development that might occur in the six-state study area over that time frame" (Draft Solar PA/PEIS, p. 2-19). This estimate is called the Reasonably Foreseeable Development Scenario (RFDS).

The BLM developed the RFDS by estimating future levels of solar energy generation in the planning area on the basis of state-specific Renewable Portfolio Standards (RPS) (Draft Solar PA/PEIS, p. 2-21). The RFDS estimated the MWs of solar energy development and the number of acres solar energy developed, on and off BLM-administered lands (Draft Solar PA/PEIS, Table 2.4-1).

The RFDS provides an expected level of development over the 20-year planning horizon which is used as the basis for the impact analysis in the Solar PA/PEIS. The RFDS creates an upper bound on potential impacts analyzed in the Solar PA/PEIS. As stated in the Solar PA/PEIS, "if the overall RFDS of 30,000 MW is exceeded prior to the end of the 20-year study period or if development on BLM-administered lands exceeds 24,000 MW, the BLM and DOE would need to re-evaluate the cumulative impacts of such development through additional NEPA analyses" (Solar PA/PEIS, v. 7, p. 37). The number of BLM acres available for solar energy development will likely change in the future. For example, the BLM may elect to add or remove lands from availability to solar energy development through the land use planning process in response to new resource conflicts or changes in the demand for solar energy. No matter where development ultimately occurs, the BLM's RFDS remains a valid tool for analysis.

The BLM expects the impacts of a solar energy project in a variance area to be similar to the impacts of a solar energy project in a SEZ. The design features and project-specific screening that comprise the variance process will result in avoidance, minimization, and/or mitigation of adverse impacts to sensitive resources (Solar PA/PEIS, 2-43). Solar energy development in variance areas must satisfy numerous conditions as outlined on pages 2-45 to 2-52 of the Solar PA/PEIS. For example, applicants must document that the "proposed project is an area with low or comparatively low resource conflicts and where conflicts can be resolved" and that the "proposed project can meet applicable programmatic design features adopted in the Solar PEIS ROD (see Section A.2.2 of Appendix A)" (Solar PA/PEIS, p. 2-46).

The BLM expects to make planning-level decisions through the Solar PEIS, including land use allocations and design features. The Solar PA/PEIS appropriately evaluates the potential direct, indirect, and cumulative environmental, social, and economic effects of establishing broad Solar Energy Program elements and strategies across the six-state study area. Because the proposed program involves environmental effects over a broad geographic and time horizon, the depth and detail of the impact analysis are fairly general, focusing on major impacts in a qualitative manner (Solar PA/PEIS, p. 1-17). Further, since the number of MW/acres of solar energy estimated to

be developed is the same under both alternatives, "the impacts of solar development itself [including those to cultural resources] are largely similar across the program alternatives. However, because the alternatives represent planning-level decisions (i.e., allocation and exclusion decisions), differences between the alternatives are found in the location, pace, and concentration of solar energy development" (Solar PA/PEIS, p. 6-3).

Cumulative Impacts Analysis

Issue Number: PP-WO-Solar-12-04-15
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
The Solar PEIS cumulative impact assessment for the Imperial East SEZ lists some past, present, and reasonably foreseeable projects on various lands near the project area. However, there is no substantive quantification or detailed analysis of how these projects in conjunction with the Solar PEIS plans are expected to impact the cultural resources of the surrounding area or the broader California Desert Conservation Area. See Solar PEIS, Vol. 2, Pg. 9.1-66-67. For example, there is no discussion of whether the other projects are located in areas of cultural sensitivity or what percentage of known cultural resources will be affected by the cumulative effect of all these projects. The Solar PEIS discussion of cumulative impacts offers nothing more than the kind of obvious, cursory analysis that has been repeatedly rejected by the Ninth Circuit Court of Appeals.

Issue Number: PP-WO-Solar-12-04-16
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
Also, the geographic area selected for the cultural resource cumulative impact analysis for the Imperial East SEZ is unreasonably narrow in scope, in addition to being arbitrary and capricious. See Draft Solar PElS, Pg. 9.1-266. BLM offers no rationale for how it defined the geographic scope of the cultural resource cumulative impact analysis or why it chose such a limited area.

Issue Number: PP-WO-Solar-12-04-19
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
There are tens of thousands of acres of renewable energy projects currently under consideration for approval by BLM. The purpose of a cumulative impacts analysis is not just to recite a list of projects, as BLM has done here, but to provide a "hard look" and "quantified and detailed information" about how the addition of this SEZ will add to the other impacts on protected and sensitive lands. The Solar PEIS is inadequate in this respect.

Issue Number: PP-WO-Solar-12-04-20
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
The cumulative impact assessment for the Solar PEIS as a whole is even more cursory and vague. Rather than analyzing the effects on cultural resources or American Indian concerns of opening up such a large amount of acreage to utility-scale solar development, the Solar PEIS states that "[c]umulative effects on cultural resources from foreseeable development in the six-state region are expected to be small because of the relatively small fraction of total land disturbed." Vol. 1, Pg. 6-71. Simply dividing the number of acres disturbed by the total number of acres in existence completely misses the mark. The appropriate inquiry is to determine whether the specific areas targeted for development have significant cultural resources and to make every effort to avoid such sensitive areas.

Issue Number: PP-WO-Solar-12-16-20
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
V. The Cumulative Impact Analysis is Artificially Narrow.

As part of the cumulative impact analysis for both the Brenda and Riverside East SEZs, the FPEIS lists "reasonably foreseeable future actions." FPEIS at 8.1-75, 9.4-134 to 136. According to BLM, this list must include only solar energy project designated as "priority projects for 2011 and 2012." (i.e. those with firm near-term plans and environmental documentation). FPEIS at 8.1-75, 9.4-136. Other projects are not included, or included in only a general manner. This approach is inconsistent with NEPA's requirements for cumulative impacts analyses, which require the inclusion of all reasonably foreseeable projects, including those that are not fully funded or planned. See W. N. Carolina Alliance v. N. Carolina Dept. of Transp., 312 F. Supp. 2d 765, 772-73 (E.D. N.C. 2003). BLM's approach is also inconsistent with the 20-year lifespan of the Solar Energy Development Program (Draft PEIS at 9.4-373) and the approach taken in the Draft Environmental Impact Statement for the McCoy Solar Energy Project, which is proposed for development within the Riverside East SEZ.
With respect to the Riverside East SEZ, the cumulative impacts analysis is required to, at a minimum, specifically included the following projects: Chuckwalla, McCoy (EnXco), Mule Mountain, Mule Mountain III, Sonoran West/Palo Verde II, Desert Quartzsite, Desert Center and Gypsum. All of these projects were included in the recent cumulative impacts analysis completed for the McCoy Solar Energy Project, illustrating that the FPEIS's reason for excluding these projects-that "little or no information is available"-is clearly erroneous. McCoy Solar Energy Project DEIS Figure 4.1-1.

With respect to the Brenda SEZ, the cumulative impacts analysis is required to, at a minimum, include the following projects: Rio Mesa (currently undergoing CEC review, BLM website, http://www.blm.gov/ca/st/en/fo/cdd.html, says "coming soon"); Palo Verde II (BLM website, http://www.blm.gov/ca/st/en/fo/cdd.html, say "coming soon"). In addition, the cumulative impact analysis should include the following pre-June 30, 2009 applications, which are largely located in variance areas: Bouse, Quartzite (AZA 034554), La Posa Solar Thermal, Wildcat Quartzite, Vicksburg, Ranegras, Eagletail, Little Horn, Black Rock Hill, Windcat Harcuvar South, and Horizon.

Issue Number: PP-WO-Solar-12-16-33
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
X. The Cumulative Impacts Analysis Fails to Discuss Whether Cumulative Impacts to Culturally Important Plants Will Be Significant.

The FPEIS properly discusses the cultural role of plant and animal species in the American Southwest. See, e.g., Draft PEIS at 9.4-330 to 332. As such, the FPEIS notes that "Native American populations have traditionally made use of hundreds of native plants," including creosote and mesquite. Draft PEIS at 9.4-331 to 332. Both of these resources are located in the Riverside East SEZs. Draft PEIS at 9.4-330 to 332. However, the FPEIS fails to disclose whether the cumulative impacts to creosote and mesquite will create a significant impact on the ability of CRIT members to access these plant species for cultural and other purposes. See Draft PEIS at 9.4-403 (cumulative impacts analysis on Native American Concerns). Given the large size of the Riverside East SEZ, the prevalence of additional solar energy projects in the area, and the near-complete destruction of vegetation caused by solar energy projects, the cumulative impacts to plant species of concern to the Tribes must be disclosed.

Summary

The Solar PA/PEIS fails to adequately analyze cumulative impacts, as required by NEPA, because:

- It provides obvious and cursory analysis instead of quantitative and detailed analysis;
- It does not adequately analyze the cumulative effects of selecting the Solar Energy Project Alternative on cultural resources;
- It selects an unreasonably narrow geographic area and does not provide a detailed analysis of the cumulative effects on cultural resources from designating the Imperial East SEZ;

- It does not consider all reasonably foreseeable solar projects with regards to the designation of the Brenda and Riverside East SEZs; and
- It does not disclose whether the cumulative impacts of designating the Riverside East SEZ on creosote and mesquite will have a significant impact on cultural use of these plant species by Native Americans.

Response

Level of Detail

The BLM adequately analyzed the cumulative effects of the land use plan decisions in the Solar PA/PEIS. The cumulative effects analysis in the Final Solar PA/EIS considered the effects of past and present actions, as well as reasonably foreseeable (not highly speculative) Federal and non-Federal actions. The analysis took into account the relationship between the proposed action and these reasonably foreseeable actions.

The land use planning-level decisions in the Solar PA/PEIS (exclusions, variance areas, solar energy zones and design features) are broad in scope and do not require an exhaustive gathering and analysis of site-specific, quantitative inventory data. The Solar PA/PEIS did use quantitative data to the degree that it was available and necessary to fully analyze the cumulative effects of the proposed action. Quantitative data was more readily available for certain resources (e.g., water resources), while less available for other resources (e.g., cultural resources). In addition to the programmatic cumulative impact analysis, the BLM conducted SEZ-specific cumulative impact analyses (see Chapters 8-13 of the Solar PA/PEIS). This analysis was intended to provide documentation from which the BLM could tier future project authorizations in solar energy zones (Solar PA/PEIS, p. 1-18). The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects including consideration of cumulative effects (Solar PA/PEIS, p. 1-17).

Cultural Resources and Solar Energy Program Alternative

Chapter 6 of the Solar PA/PEIS discusses the cumulative effects of the no-action alternative, the Solar Energy Program Alternative, and the SEZ Program Alternative. Rather than provide a detailed analysis of cumulative effects, Chapter 6 "provides summary-level information on the potential impacts to resources and resource uses from solar energy development in the context of how such impacts would vary as a function of the alternatives. The level of detail presented for individual alternatives is commensurate with the programmatic decisions to be made, which are primarily planning-level decisions (i.e., allocation and exclusion decisions)" (Draft Solar PA/PEIS, p. 6-3). In addition to the programmatic cumulative impact analysis, the BLM conducted SEZ-specific cumulative impact analyses (see Chapters 8-13 of the Solar PA/PEIS). This analysis was intended to provide documentation from which the BLM could tier future project authorizations in SEZs (Solar PA/PEIS, p. 1-18). The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects including consideration of cumulative effects (Solar PA/PEIS, p. 1-17). The potential cumulative effects on cultural resources are analyzed on a SEZ-specific basis in Chapters 8-13 of

the Solar PA/PEIS.

The solar energy program that the BLM is proposing through the Solar PA/PEIS is intended to avoid, as a first course of action, areas with sensitive cultural resources. Under the Solar Energy Program Alternative (BLM's Proposed Alternative), "traditional cultural properties and native American sacred sites as identified through consultation with tribes and recognized by BLM" would be excluded from utility-scale solar energy development (Solar PA/PEIS, p. 2-21). All projects authorized in the future in SEZs would be required to comply with the National Historic Preservation Act and tribal consultation requirements (2-30 to 2-32). The BLM has contracted for additional Class II sample surveys in the proposed solar energy zones in Arizona, California and Nevada where development pressure is expected to be the greatest (2-31). The BLM has highlighted consideration of sensitive cultural resources in the variance process by way of coordination with tribes and State Historic Preservation Offices (2-53). The BLM has also developed programmatic design features (i.e., required measures to avoid, minimize and/or mitigate impacts) for cultural resources (A-64) that are applicable to projects on BLM-administered lands no matter if they are located in solar energy zones or in variance areas.

Imperial East SEZ

The Solar PA/PEIS established an appropriate geographic scope to analyze the cumulative effects of designating the Imperial East SEZ. The Solar PA/PEIS determined the geographic scope of cumulative effects analysis for each resource "depending on the nature of the resource being evaluated and the distance at which an impact may occur" (Draft Solar PA/PEIS, p. 9.1-265). Specifically, the Solar PA/PEIS analyzed the cumulative effects on cultural resources from designating the Imperial East SEZ for "areas within and adjacent to the Imperial East SEZ for archaeological sites; [and the] viewshed within a 25-mi (40-km) radius of the SEZ for other properties, such as traditional cultural properties" (Solar PA/PEIS, p. 9.1-266).

As stated in the BLM NEPA Handbook, the geographic scope of cumulative effects must consider how widespread the effect may be, and "will often extend beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the proposed action and alternatives" (BLM NEPA Handbook, p. 58). The geographic scope for the cumulative effects analysis used in the Solar PA/PEIS for cultural resources correlates with the scope of direct and indirect effects on cultural resources. The BLM found that there will be direct impacts to cultural resources within SEZ, but that indirect impacts on cultural resources are unlikely to occur outside of the SEZ (Solar PA/PEIS, p. 9.1-220). The BLM analyzed the cumulative effects to traditional cultural properties at a viewshed scale, because it found that "development that is visible from the trails or sacred areas may be considered intrusive" (Solar PA/PEIS, p. 9.1 -220).

As highlighted in the Solar PA/PEIS, "much of the proposed Imperial East SEZ has not been surveyed for cultural resources." Therefore, it is not possible to provide a quantitative analysis of how the designation of the Imperial East SEZ along with other projects in the area will cumulatively impact cultural resources. However, the Solar PA/PEIS identifies areas adjacent to the SEZ with high cultural sensitivity ("the area along the All-American Canal south of the SEZ has been found to contain a high density of both prehistoric and historic cultural remains"), and

discloses that "the development of utility-scale solar energy projects in the SEZ, when added to other potential projects likely to occur in the area, could contribute cumulatively to cultural resource impacts" (Solar PA/PEIS, p. 9.1-291). As discussed above, the Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects including consideration of cumulative effects (Solar PA/PEIS, p. 1-17).

Reasonably Foreseeable Projects—Brenda and Riverside East SEZs

The BLM NEPA Handbook clarifies that, for the purposes of analyzing cumulative effects, "reasonably foreseeable future actions are those for which there are existing decisions, funding, formal proposals, or which are highly probably, based on known opportunities or trends" (BLM NEPA Handbook, p. 59). Based on this guidance, the BLM used the following approach in the Solar PA/PEIS to define reasonably foreseeable actions- projects that "have already occurred, are going, are funded for future implementation, or are included in firm near-term plans...Projects in the bidding or research phase or that have been put on hold were not included in the cumulative impact analysis" (Draft Solar PA/PEIS, p. 9.4-375). For those projects on BLM-administered lands, these included projects approved in 2010, and proposed "priority projects" whose decisions were expected in 2011 and 2012 (Solar PA/PEIS, p. 8.1-75). The BLM included these proposed projects in its analysis because it concluded that these proposed projects had a reasonably high probability of occurring.

The BLM employed this approach when identifying relevant reasonably foreseeable actions associated with the Brenda and Riverside East SEZs. Specifically, a list of all reasonably foreseeable actions related to energy development and distribution near the Brenda and Riverside East SEZs considered by the BLM is presented in Tables 8.1.22.2-1 and 9.4.22.2-1, respectively. These tables were updated between release of the Draft and Final Solar PA/PEIS to reflect the addition, cancellation, and modification of projects that met the stated definition.

The BLM is not required to speculate about future actions when analyzing the cumulative effects of a proposed action (BLM NEPA Handbook, p. 59). The submission of an application for a solar energy project (as detailed in Appendix B) does not mean that the construction of the project is highly probable. Applications may be denied by the BLM and must go through multi-rigorous environmental and public review process before approval can be granted (Solar PA/PEIS, p. 1-13). Moreover, fluctuations in the financial and energy markets, as well as changes in technology and regulatory environment, has resulted in the cancellation of many solar energy projects before they are approved or built.

It is also important to note that the approach taken to define reasonably foreseeable actions can vary by NEPA document (and often does). In addition, the list of projects that comprise reasonably foreseeable solar energy development for the purposes of a cumulative effects analysis in a particular area will change as projects are proposed, constructed and/or eliminated over time. Site-specific environmental reviews for future utility-scale solar energy development projects will therefore necessarily have to re-consider cumulative effects on a case-by-case basis. Tiering will be employed to the extent practicable; however, to avoid duplication and focus on those issues not already addressed in the Solar PA/PEIS (Solar PA/PEIS, p. 2-28).

Native American Use of Creosote and Mesquite

As highlighted by the protestor, the Solar PA/PEIS discusses the cultural role of creosote and mesquite use for Native Americans with regards to the Riverside East SEZ (Draft Solar PA/PEIS, p. 9.4-330 to 4-331). The Solar PA/PEIS discloses that the designation of the Riverside East SEZ along with projects in the area could cumulatively result in large impacts on creosote and mesquite (Draft Solar PA/PEIS, p. 9.4 -397), and that "solar development within the SEZ could have adverse effects on...Native American concerns even after mitigations are applied" (Draft Solar PA/PEIS, p. 9.4-403). However, the degree to which Native American use of creosote and mesquite are "significantly" impacted would depend on the specific siting of the solar energy development, the actual presence of these two species at the development site, and the mitigation measures applied. The BLM will consider impacts to Native American use of these two species, as appropriate, in future project-specific NEPA analyses.

Response to Comments

Issue Number: PP-WO-Solar-12-16-36
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
•CRIT repeatedly expressed that the disturbance of cultural artifacts, including through such "mitigation" measures a data recovery and excavation, results in significant cultural and spiritual harm to some CRIT members. See CRIT's Comments on the PEIS Supplement (April 3, 2012). The FPEIS fails to include this concern in its summary of comments or address the issue in its responses.

Issue Number: PP-WO-Solar-12-16-38
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
• CRIT expressed its strong preference that the Riverside East SEZ be eliminated based on cultural resources concerns. See CRIT's Comments on the Draft Programmatic Agreement (April 3, 2012). This comment was not included in the FPEIS (see FPEIS at 9.4-114), nor was it included in the Response to Comments section.

Issue Number: PP-WO-Solar-12-16-40
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
• Section 3.15.18.2: This summary indicates that comments suggested that some SEZ areas should be excluded based on cultural resource concerns. The response states that "some SEZs were dropped and are now considered variance areas; others are excluded." However, not all SEZs were modified to address cultural resources concerns-including the Riverside East SEZ, which CRIT commented on-and as such, this statement is non-responsive.

Issue Number: PP-WO-Solar-12-16-43
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
• Section 3.7.18: The summary indicates that comments suggested that Class L lands in the CDCA must be excluded. This summary neglects to summarize the reason for this request: namely that industrial development of Class L lands violates both the CDCA Plan and FLMPA. The response also fails to respond to this comment directly, and instead states only that some Class L lands were eliminated and that this concern will be considered in the variance process. It does not respond to the comments regarding inclusion of Class L lands within SEZs.

Issue Number: PP-WO-Solar-12-16-44
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
• Section 3.5.4: The summary indicates that comments suggested the purpose and need was too narrow and the PElS failed to evaluate distributed energy, nonfederal lands, and conservation. The response fails to address these points.

Summary

The BLM failed to respond to comments on the Draft Solar PA/PEIS. By summarizing comments, the BLM ignored information. Specifically, the BLM failed to respond to:

- Comments that disturbance of cultural artifacts through data recovery and excavation mitigation measures results in harm to tribal members;
- Comments expressing preference for the elimination of or modification to the proposed Riverside East SEZ and other proposed SEZs;
- Comments suggesting that industrial solar energy development should be excluded from Class L lands in the CDCA because such development would be inconsistent with the current CDCA Plan and the Federal Land Policy and Management Act of 1976 (FLPMA); and
- Comments regarding distributed generation, private lands, and conservation alternatives.

Response

The BLM complied with the NEPA regulations at 40 CFR 1503.4 by performing a detailed comment analysis that assessed and considered all substantive comments received on the Draft Solar PA/PEIS. All comment documents received during public comment periods were cataloged and considered in preparing the Solar PA/PEIS. Each comment document was reviewed to identify individual substantive comments. Opinions, judgments, and preferences (such as those regarding the Riverside East SEZ), although read and considered, were determined to be non-substantive comments, and therefore did not warrant a response. As explained in CEQ's "NEPA's Forty Most Asked Questions," agencies may group comments and prepare a single answer if a number of comments are identical or very similar (46 Fed. Reg. 18,026 (1981)). Further, comments may be summarized if they are especially voluminous.

Regarding the comment on cultural resource mitigation measures, the Solar PA/PEIS explained that "[a]voidance is the only preferred mitigation option; all other options are discussed and decided upon in consultation with the SHPO and affected tribes. The language in Chapter 5 is merely illustrative of the types of mitigation that have been typically implemented, and as the commenter stressed, consultation is the key to establishing effective mitigation; some rephrasing of the text was made in the Final Solar PEIS in response to this comment" (v. 7 p. 157).

Regarding Class L Lands in the CDCA, the Solar PA/PEIS explains that under the current CDCA plan, solar energy projects can be sited on Class L, M, or I lands, provided that NEPA requirements are met (1-15). Please refer to the CDCA response for additional information.

Regarding comment section 3.5.4, this section pertains to transmission analysis and not the purpose and need or alternatives. However, the Solar PA/PEIS discuss distributed generation,

private lands, and conservation alternatives in section 2.5 and responds to comments on alternatives in Sections 3.14.7 and 3.14.8 of Volume 7. Please refer to the range of alternatives protest response on range of alternatives for additional information.

Mitigation

Issue Number: PP-WO-Solar-12-09-16
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
• This neglect also extends to any discussion of how the avian solar flux issue would be mitigated in the Amargosa Valley for solar power tower designs, and polarized glare for the large photovoltaic installations in the area. (Avian Mortality at a Solar Energy Power Plant. McCrary, Michael D., Robert L. McKernan, Ralph W. Schreiber, William D. Wagner, and Terry C. Sciarrotta, Journal of Field Ornithology, 57(2): 135-141; http://cochise.az.gov/ uploaded Files/Planning_and_Zoning/Agendas_ and_ Meeting_Minutes/Solar%200ne%20Avian%20Mortality%20Study.pdf).

The Nature Conservancy's Mojave Desert Ecoregional Assessment discusses the impacts of polarized light pollution on birds and insects:
Light and noise pollution associated with electrical power plants can be problematic for wildlife. Polarized light pollution from PV panels can attract aquatic insects and other species that mistake the panels for bodies of water, potentially leading to population decline or even local extinction of some organisms (Horvath et al. 2010). Nighttime lighting for security or other reasons may negatively impact a variety of Mojave Desert species, many of which have developed nocturnal behavior to escape the daytime heat of the desert.
(Mojave Desert Ecoregional Assessment, September 2010, The Nature Conservancy of California).

Issue Number: PP-WO-Solar-12-09-17
Organization: Western Lands Project
Protestor: Janine Blaeloch

Issue Excerpt Text:
• In regard to desert tortoise "compensatory mitigation," the PEIS does not explain whether lands acquired to compensate for the loss of tortoise habitat would constitute habitat of the same genetic population as the Amargosa Valley, once defined as the Northeastern Recovery Unit for the desert tortoise. This is a critical issue, as habitat may not be interchangeable for distinct genetic populations, rendering mitigation ineffective. The Amargosa Valley area has a genetically distinct population of desert tortoises (Hagerty, B.E. 2008. Ecological genetics of the Mojave Desert tortoise. PhD Thesis, University of Nevada, Reno; Hagerty, B.E., and C. R. Tracy. 2010. Defining population structure for the Mojave desert tortoise. Conservation Genetics. DOI 10.1007/s10592-010-0073-0).

Summary

The Solar PA/PEIS does not adequately discuss mitigation measures for impacts to wildlife such as birds and desert tortoise associated with the Amargosa Valley SEZ.

Response

Potential impacts to wildlife are discussed primarily in Section 5.10.2 of the Draft Solar PA/PEIS and updated in 5.10.2 of the Final Solar PA/PEIS. As noted in the BLM's analysis of impacts to birds in the Amargosa Valley SEZ, the BLM has developed a set of required programmatic design features to address and mitigate impacts on bird species (p. 11.1-41, Solar PA/PEIS). Programmatic design features for ecological resources which are applicable to all utility-scale solar energy development of BLM-administered lands (SEZs and variance areas) are described in

Section A.2.2.11 of Appendix A in the Final Solar PA/PEIS.

Among the programmatic design features that the BLM has incorporated into its decision are requirements that project developers in SEZs must coordinate with appropriate federal and state agencies to develop measures to protect bird and consider restrictions on timing and duration of activities to minimize impacts from project activities on nesting birds (p. A-30, Solar PA/PEIS). The BLM also commits to avoid the siting of solar power facilities "near open water or other areas that are known to attract large number of birds" to the extent possible; to place tall structures, such as solar power towers, to avoid known flight paths of birds and bats; to minimize the potential for raptors and other birds to collide and be electrocuted by proposed transmission facilities; to place mechanisms "to visually warn birds … on transmission lines at regular intervals to prevent birds from colliding with the lines"; and to design transmission line and other structures to discourage use by raptors (pages A-36 to A-37, Solar PA/PEIS). Additional measures may include "turning off all necessary lighting at night to limit attracting wildlife, particularly migratory birds" (p. A-41, Solar PA/PEIS). Methods for reducing solar flux impacts will be given appropriate consideration during the development of protective measures in coordination with federal and state agencies.

As noted on page 11.1-42 of the Solar PA/PEIS, "Some SEZ-specific design features may be identified through the process of preparing parcels for competitive offer and subsequent project-specific analysis." Thus, measures specific to the Amargosa Valley SEZ will also be considered when such projects are under review (p. A-5, Solar PA/PEIS).

As noted by the protesting party, compensatory mitigation is a measure that may be taken to address impacts to desert tortoise habitat in the Amargosa Valley SEZ. The intent of such mitigation would be to "balance the acreage of habitat lost with acquisition of lands that would be improved and protected for desert tortoise populations" (Solar PA/PEIS, p. 11.1-63). The designation of SEZs is a land use planning-level decision, which are broad in scope and do not require an exhaustive discussion and analysis of site-specific mitigation measures. The Solar PA/PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (p. 1-17). Development of actions to reduce impacts to desert tortoise – including compensatory mitigation – will require additional formal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the ESA, with project-level consultation tiered from the completed Solar Programmatic ESA Section 7 consultation (Solar PA/PEIS, p. 11.1-62). The site-specific environmental review conducted once a project is proposed will consider whether lands acquired for compensatory mitigation constitute habitat of the same genetic population, as appropriate.

Federal Land Policy and Management Act

Issue Number: PP-WO-Solar-12-05-6
Organization: Planning Department
Protestor: Joshua Hart

Issue Excerpt Text:
Inyo County has consistently conveyed to the BLM the proposed project's inconsistency with our plans and policies and the County's expectation that BLM staff would meet with County staff to consider the County's concerns and maximize conformance with the County's plans and policies. However, BLM staff has not responded, and when modifying the project,

has increased the inconsistency with County plans and policies. This is contrary to the FLPMA and the obligation to coordinate BLM planning efforts with local jurisdictions, as well as the recently published BLM Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental partners. Inyo County is not just a commenter on the PEIS and the resulting RMP amendments, but an integral partner under FLPMA. The result of the BLM's failure to comply with FLPMA and to engage in meaningful planning with the local jurisdiction directly impacted by its decisions is that the project is inconsistent with County policies supporting development of renewable energy and associated goals. This lack of coordination is itself objectionable, but more importantly has resulted in a faulty decision that is detrimental to the citizens of Inyo County.

Issue Number: PP-WO-Solar-12-10-6
Organization: Board of Lincoln County Commissioners
Protestor: George T. Rowe

Issue Excerpt Text:
The Current goal of the Ely District RMP for renewable energy is to "provide opportunities for development of renewable energy sources such as wind, solar, biomass and other alternative energy sources while minimizing adverse impacts to other resources." The SEZ Program Alternative accomplishes that goal, while the Solar Development Program Alternative does not. It has been well documented by the County and others that there are a host of resource impacts in both the SEZ areas that were analyzed and dropped from further consideration as well as the Variance Areas now proposed within the Ely District.

Issue Number: PP-WO-Solar-12-10-8
Organization: Board of Lincoln County Commissioners
Protestor: George T. Rowe

Issue Excerpt Text:
Amendment of the Ely RMP to include the Variance Process violates the goals of the PEIS itself to "minimize potential negative environmental impacts", to "minimize potential negative social and economic impacts", and to "standardize and streamline the authorization process for utility-scale solar energy development on BLM-administered lands" (Chapter I, Section 2.1, Page 1-9).

Since the SEZ area in Nevada far exceeds the RFDS and provisions are included to add or alter existing SEZs, the BLM's goals to "facilitate near-term utility-scale solar energy development on public lands", and to "meet projected demand for solar energy development" are met without the need for an additional "Variance Area" process. Furthermore the inclusion of the Variance Process does not minimize potential negative environmental impacts and it will increase the potential negative social and economic impacts.

Issue Number: PP-WO-Solar-12-12-10
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests that the BLM's Proposed Decision violates the FLPMA mandate to minimize adverse impacts. FLPMA requires that 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)] FLPMA requires the BLM to "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)] FLPMA states that public lands should be managed, "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values..." [43 U.S.C.1701 § 102] In this case, the proposed action does the exact opposite of the Congressional intent so clearly expressed in FLPMA. The proposed action will result in direct take of unknown numbers of these species, will result significant habitat loss, will fragment habitat and populations, and will result in the loss of connective habitat that may be essential to the continued viability of many of these species. The BLM is simply failing its FLPMA mandate to minimize adverse impacts.

Issue Number: PP-WO-Solar-12-12-8
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
FLPMA § 201 [43 U.S.C. 1711] (a) requires the Secretary to prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving

priority to areas of critical environmental concern. This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values." BLM needs to follow the law, develop an inventory of the public lands that is adequate for the job at hand, and then make a determination as to whether any of those lands have "low resource conflict". Without this comprehensive approach the BLM is simply making an arbitrary decision to sacrifice public .resources for private gain.

Issue Number: PP-WO-Soloar-12-11-3
Organization: N-4 State Grazing board
Protestor: Connie Simkins

Issue Excerpt Text:
The Ely District's Approved Resource Management Plan includes management action LG-l that states "make approximately 11,246,900 acres and 545,267 animal unit months available for livestock grazing on a long-term basis". This Board contends that the Solar Energy Development Program Alternative is not compatible nor consistent with this management action.

Summary

The Solar PA/PEIS violates FLPMA because:

- The Solar PA/FEIS fails to minimize adverse impacts to other resources.
- The BLM failed to develop an inventory of the public lands and determine which lands have low resource conflict.
- The Solar PA/PEIS is inconsistent with the Ely District RMP's management action to make approximately 11,246,900 acres and 545,267 animal unit months available for livestock grazing.
- The BLM has failed to adequately coordinate with Inyo County, resulting in inconsistencies with county plans and policies.

Response

Minimizing Impacts

As stated in the Solar PA/PEIS, the BLM's need for the proposed action is "to respond in a more efficient and effective manner to the high interest in siting utility-scale solar energy development on public lands and to ensure consistent application of measures to avoid, minimize, and mitigate the potential adverse impacts of such development" (Solar PA/PEIS, p. 1-8). The solar energy program plan amendments are designed to meet this need. The BLM has taken a variety of steps to minimize adverse impacts, including identifying exclusion areas, developing a variance process, developing design features, and employing a mitigation hierarchy. In addition, prior to authorizing the construction of utility-scale solar energy generation facilities on BLM administered lands, the BLM must comply with FLPMA, NEPA, the Endangered Species Act (ESA), the National Historic Preservation Act of 1966 (NHPA), and other applicable statutes and regulations (1-11). This provides an opportunity to determine and avoid, minimize, and mitigate adverse impacts for specific applications. The identification of exclusion areas allows the BLM to support the highest and best use of public lands by avoiding potential resource conflicts and reserving for other uses public lands that are not well suited for utility-scale solar energy development (Solar PA/PEIS, p. 2-19). Due to the size and scale of utility-scale solar energy

development, the BLM is proposing to exclude a broader set of categories than would be identified in a land use plan for other types of rights-of-way (ROW).

- The Solar PA/PEIS allows for responsible utility-scale solar development outside of SEZs in variance areas. The BLM will consider applications in these areas on a case-by-case basis based on environmental considerations. The responsibility for demonstrating to BLM that a proposal in a variance area will avoid, minimize, and/or mitigate sensitive resources will rest with the applicant (Solar PA/PEIS, p. 2-43).
- The BLM has established a set of programmatic design features that would be required for all utility-scale solar energy development on BLM-administered lands. Design features are mitigation requirements that have been incorporated into the proposed action or alternatives to avoid or reduce impacts. These design features are discussed in Section A.2.2 of the Solar PA/PEIS.
- The Solar PA/PEIS also employs a mitigation hierarchy to address potential impacts: avoidance, minimization, and offset of unavoidable impacts. This approach is described in Section 2.2.1.2.2 of the Solar PEIS.

As described in the Solar PA/PEIS, the BLM also expects to develop and incorporate into its Solar Energy Program a monitoring and adaptive management strategy to ensure that data and lessons learned about the impacts of solar energy projects will be collected, reviewed, and, as appropriate, incorporated into the BLM's Solar Energy Program and individual projects in the future. This approach is described in section 2.2.1.2.1 of the Solar PEIS.

Inventory/Low Resource Conflict

The BLM has utilized inventory information to determine which areas of the public lands have low resource conflict. The BLM examined existing inventory data and updated it as necessary to inform the Solar PA/PEIS. The Solar PA/PEIS represents the BLM's comprehensive approach to meeting the identified need of responding in a more efficient and effective manner to the high interest in siting utility-scale solar energy development on public lands and ensuring consistent application of measures to avoid, minimize, and mitigate the potential adverse impacts of such development" (p. 1-8). As discussed immediately above, the BLM has taken several steps to minimize impacts and determine which areas of the public lands have low resource conflict, such as through the identification of solar energy zones and by developing a special process for applications in variance areas. Solar energy zones are locations where solar development is economically and technically feasible, where there is good potential for access to transmission, and "where there is generally low resource conflict" (Solar PA/PEIS, p.2-23). The Draft PA/PEIS summarizes the process used to identify SEZs on pages 2-10 and 2-11. In variance areas, the burden is on the applicant to demonstrate that the proposal is in an area with low resource conflict (see Solar PA/PEIS, p. 2-43).

In general, inventory information forms the basis of the affected environment discussion found in Chapter 4 and in each SEZ-specific analysis. For example, the BLM utilized VRI data, inventories of lands with wilderness characteristics, mineral potential reports, water resources inventories, and others. The Solar PEIS will not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (1-17). The

BLM will complete a site-specific environmental review of all solar energy right-of-way applications in accordance with NEPA prior to issuing a ROW authorization. Site-specific analyses for future solar projects proposed in SEZs are expected to tier to the analysis in the Solar PEIS. The extent of this tiering, however, will vary from project to project (1-18). In the case of individual project proposals, the usefulness of existing inventory information will need to be considered on a case-by-case basis and resource inventories will be updated as determined necessary prior to project authorization.

Livestock Grazing

The Solar PA/PEIS is consistent with the Ely District RMP. The acreages and animal unit months identified by the protesting party remain available for livestock grazing. The Solar PA/PEIS designates lands within the Ely District either as SEZs, variance areas, or exclusion areas for solar energy development. It is possible that the BLM will never receive an application within the Ely District; thus, the area remains available for livestock grazing. The Solar PA/PEIS describes the process for notification to livestock grazing operators (p. 2-8).

Coordination

The BLM land use plans must be consistent with the purposes, policies, and programs of FLPMA and other Federal laws and regulations applicable to public lands (see 43 CFR 1610.3-2 (a)). The BLM land use plans and amendments must also be consistent with officially approved or adopted resource-related plans of Indian tribes, other Federal agencies, and State and local governments to the extent that these resource-related plans comport with FLPMA and other Federal laws and regulations.

The BLM's records show that staff from the BLM California State Office and the Bishop Field Office contacted Inyo County to explain why Special Recreation Management Areas were proposed for exclusion under the Solar PA/PEIS. In the case of the Solar PA/PEIS, one of the stated objectives is to "standardize and streamline the authorization process for utility-scale solar energy development on BLM-administered lands" (1-9). This includes developing a standard set of exclusions that would apply to all utility-scale solar energy development (2-19). The BLM did not make unique decisions for individual counties such as Inyo County with respect to exclusions.

There are a few options available to Inyo County beyond the Solar PA/PEIS that may help alleviate the perceived impact to the citizens of Inyo County. Consistent with the Proposed Solar Energy Zone Identification Protocol in the Solar PA/PEIS (A-121 to A-131), the County can petition the BLM for new or expanded solar energy zones in or in proximity to Inyo County (A.2.6.1, A-122). In recognition of expected technological advances, shifting market conditions, evolving state and federal policies and information gained through monitoring efforts, the Proposed Solar Energy Zone Identification Protocol has been designed to reconsider as appropriate many of the factors and criteria that went into the decisions of the Solar PA/PEIS (including exclusions is determined appropriate). Further, the BLM believes that future efforts to identify priority areas for solar energy development will be most appropriately conducted at the state or field office level as an individual land use planning effort or as part of an ongoing land

use plan revision (A-121). Inyo County is also encouraged to participate in the Desert Renewable Energy Conservation Plan effort (DRECP). The DRECP is expected to further refine the land use planning decisions in the Solar PA/PEIS based on more specific regional information and analysis (2-41).

California Desert Conservation Area Plan

Issue Number: PP-WO-Solar-12-04-2
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
The CDCA Plan divides the lands in the California Desert Conservation Area into four categories. The lands within the Imperial East SEZ, proposed for utility-scale solar development in both the Program Alternative and SEZ Alternative, are designated as "Class L." According to the CDCA Plan, the Class L designation "protects sensitive, natural, scenic, ecological, and cultural resource 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 diminished." CDCA Plan, Chapter 2, page 13. The CDCA Plan, page 21, further elaborates that consumptive uses on Class L lands are allowed "only up to the point that sensitive natural and cultural values might be degraded." Giving these lands preferred status for utility-scale solar projects blatantly conflicts with the CDCA.

Issue Number: PP-WO-Solar-12-04-4
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
Solar energy development is not per se prohibited on Class L lands; however, the Solar PEIS deals only with large utility-scale projects that will result in degradation of the natural and cultural values that led to the Class L designation. Utility-scale projects often cover many thousands of acres with solar-related infrastructure. Such development is wholly incompatible with the purposes of the Class L designation and inconsistent with Congress' clear intent to protect the natural and cultural resources of the CDCA.

Issue Number: PP-WO-Solar-12-06-3
Organization: Center for Biological Diversity
Protestor: Lisa T. Belenky

Issue Excerpt Text:
• The preferred alternative's inclusion of extensive variance lands is not consistent with the bioregional planning approach in the CDCA Plan. The overarching principles expressed in the Decision Criteria in the CDCA include minimizing the number of separate rights-of-way and "avoid[ing] sensitive resources wherever possible." CDCA Plan at 93. The preferred alternative which includes extensive variance lands in the CDCA planning area in California does not meet these criteria and, rather, will undermine these critical goals.

Issue Number: PP-WO-Solar-12-16-29
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
BLM's subsequent California Desert Conservation Act Plan ("CDCA Plan") includes four land use classifications (Classes C, L, M, and I) that direct the multiple uses accommodated on BLM land into appropriate areas. The Solar Energy Development Program includes, both with SEZs and variance areas, Class L lands, which are designated as such to "protect[] sensitive natural, scenic, ecological, and cultural resource values." Draft PEIS at 9.4-27. Therefore, lands designated as Class L must be "managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished." Id.

However, it is clear from the FPEIS that the Solar Energy Development Program will cause a significant diminishment of sensitive values, particularly visual and cultural resources. E.g., Draft PEIS at 9.4-230 ("Construction and operation of solar facilities under the PEIS development scenario would result in substantial visual impacts on the SEZ and some surrounding lands within the SEZ viewshed

that could not be completely mitigated"); Draft PEIS at 9.4-324 ("direct impacts on significant cultural resources could occur in the proposed Riverside East SEZ" where "archaeological sites and traditional cultural properties are likely abundant"). As such, an approval of the Program as currently designed will violate both the CDCA Plan and FLPMA.

Summary

The siting of solar development within Multiple-Use Class Limited lands and the identification of CDCA lands as variance areas are inconsistent with the CDCA Plan.

Response

The siting of solar development within lands designated Multiple-Use Class Limited is consistent with the CDCA Plan. The CDCA Plan contemplates industrial uses analogous to solar energy development analyzed, including utility ROW outside of existing corridors, power plants, utility facilities, and transmission (pp. 93 to 95, CDCA Plan) and expressly provides for solar generation facilities within areas designated as Multiple-Use Class Limited (p. 15, CDCA Plan), stating that wind and solar development "may be allowed [on such lands] after NEPA requirements are met."

The CDCA Plan provides guidance concerning the management and use of the BLM lands in the California Desert while protecting resources and balancing other public needs. The CDCA specifically cites energy development and transmission as a "paramount national priority" to consider in balancing use and protection of resources (p. 6, CDCA Plan). The identification of SEZs prioritizes certain well-suited areas in the CDCA for solar use (SEZs) and allows for responsible development of lands (subject to the variance process) outside the SEZs as well. In the Solar PA/PEIS, sensitive resources and values in these areas have been identified and analyzed; the BLM commits that future development in the CDCA (regardless of Multiple Use Class designation) will not significantly diminish sensitive values by way of screening through the proposed variance process, appropriate design features, mitigation, and monitoring. Appendix A (Solar PA/PEIS) provides an extensive list of programmatic design features; additional mitigation measures may be identified and required during individual project development and associated NEPA review (p. A-5, Solar PA/PEIS).

In the 1980 CDCA Plan Record of Decision (ROD), the Assistant Secretary for Land and Water Resources (ASLW) discussed remaining major issues in the final CDCA Plan before he approved the Plan (p. 10, *et seq*, CDCA ROD). One of the remaining major issues was the allowance of wind, solar, and geothermal power plants within designated Class L lands (p. 15, CDCA ROD). The CDCA ROD recognized that "these facilities are different from conventional power plants and must be located where the energy resource conditions are available. An EIS will be prepared for individual projects." The recommended decision, which was ultimately approved, noted: "Keep guidelines as they are to allow these power plants if environmentally acceptable. Appropriate environmental safeguards can be applied to individual project proposals which clearly must be situated where the particular energy resources are favorable."

The allowance of wind, solar, and geothermal power plants on designated MUC-L lands in the

CDCA was approved by the ASLW and concurred by the Secretary of the Interior on December 19, 1980. Consistent with the current CDCA plan, as of September 2012 the BLM has authorized six solar projects on Class L, I, or M, lands within the CDCA. Even so, the Solar PEIS ROD, which updates and amends the CDCA plan, clarifies that once NEPA requirements are met for proposed projects in these areas, there are no additional land use plan restrictions specific to Class L, M, or I designations. The Solar PEIS ROD, however, amends BLM land use plans to appropriately protect cultural and other resource values. Supported by the comprehensive analysis of utility-scale solar development in the Solar PA/PEIS, the Solar PEIS ROD identifies exclusion areas (areas not available for location of ROWs under any circumstances) and variance areas (areas that may be available for a utility-scale solar energy ROW with special stipulations or considerations). The BLM has considered and incorporated these exclusion and variance designations into the CDCA Plan. Moreover, the Solar PEIS ROD does not authorize any solar projects in the CDCA or elsewhere. Before any such projects would be authorized in the future, the BLM would complete additional site-specific environmental review, consistent with NEPA and other applicable laws.

Cultural Resources

Issue Number: PP-WO-Solar-12-16-4
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
While ethnographic studies have been completed for some of the SEZ locations, no ethnographic studies have been prepared in Arizona or California-instead, BLM has simply asked Arizona and California tribes if "they shared concerns similar to those expressed in the ethnographic report." FPEIS Response to Comments at 46. This effort to rely on the opinions of a limited number of Indian tribes to stand for all tribes or tribal members is at best a poor circumvention of BLM's duties under NEPA and the NHPA to identify the specific cultural resource impacts created by the Program.

Issue Number: PP-WO-Solar-12-16-7
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
Second, BLM ignored hard evidence suggesting that the area included in the Riverside East SEZ is particularly ill-suited for industrial-scale solar development. As the FPEIS acknowledges, the Riverside East SEZ includes the southern end of the Salt Song Trail-sacred to CRIT's Chemehuevi members-as well as portions of the Cocomaricopa and Xam Kwatchan trails. FPETS at 9.4-113; see also FPEIS at 9.4-113 (nearly 2,000 known archaeological sites are located in or near the Riverside East SEZ, despite a general lack of complete surveys).

Summary

The BLM failed to prepare ethnographic studies for all SEZ locations and did not appropriately gain input from tribes. The BLM ignored information regarding culturally important sites and trails when identifying the Riverside East SEZ.

Response

Ethnographic Studies

As noted in Appendix K of the Solar PA/PEIS (page K-1), the BLM contacted tribes with cultural and/or historical ties to SEZ and/or variance areas in October 2011 "seeking comments on the Supplement to the Draft Solar PA/PEIS, the revised Solar Programmatic Agreement, and the ethnographic studies that were conducted to support the Draft Solar PEIS." The intent of this request was to further inform the BLM's NEPA review and the Section 106 consultation processes.

As noted by the protesting party, this letter asked whether tribes "shared concerns similar to those expressed in the ethnographic report." The letter also sought input from tribes on "whether there were landscape features, sites, or resources of cultural, historical, or sacred importance that the BLM should consider" in its environmental review process (Solar PA/PEIS, v.7, p. 46) and requested information on published or unpublished ethnographic accounts or studies that would assist the BLM in its review. The request for feedback from tribes regarding the ethnographic studies does not remove the BLM's obligation to comply with NEPA and the NHPA.

As stated in the October 2011 letter, whether tribes choose to share any information at that time, the BLM views its obligations to carry out government-to-government consultation regarding the solar program as an ongoing process. The letter also explains that the BLM will continue to consult with tribes under the NHPA to gather sufficient information to adequately consider the effects of solar development on issues and resources of concern to tribes and that determine whether new ethnographic data is required for a given solar application (Solar PA/PEIS, p. K-61).

The Colorado River Indian Tribes (CRIT) stated that based on tribal concerns expressed within the ethnographic report (prepared by SWCA Environmental and Dr. Richard Stoffle from the University of Arizona), the Amargosa Valley, Delamar Valley, Dry Lake, East Mormon Mountain, Escalante Valley, Gold Point, Milford Flats, Millers, and Wah Wah Valley SEZs should be eliminated from further consideration. The BLM responded to CRIT's concerns, as well as other potential resource conflicts (including cultural resource conflicts), by significantly reducing the geographical extent of the proposed Amargosa Valley and Dry Lake SEZs. The BLM altogether eliminated from consideration the proposed Delamar Valley and East Mormon Mountain SEZs. It is important to note that the vast majority of ethnographically significant places identified through tribal interviews lie outside of proposed SEZs.

Moreover, when the BLM receives and considers any project-specific solar applications in the future, the BLM will engage in additional tribal consultation and will appropriately consider how solar development might affect traditional places (Solar PA/PEIS, p. K-61).

Archaeological Sites and Culturally Important Trails Within the Riverside East SEZ

When analyzing the Riverside East SEZ, the BLM addressed the presence of portions of the Salt Song Trail, portions of the Cocomaricopa and Xam Kwatchan trails, or of known archeological sites in and near the SEZ.

The Draft Solar PA/PEIS addresses the potential impacts to the trails and known sites within the

SEZ in the Cultural Resources section (9.4.17.2) and the Native American Concerns section (9.4.18). The analysis notes the importance of the trails to Native Americans and shows that few direct impacts are anticipated from development of solar facilities, though visual impacts of development that is visible from the trails would present a "visual intrusion" (page 9.4-334). Analysis on pages 9.2-324 and 325 of the Draft Solar PA/PEIS addresses the presence of known archeological sites and the likeliness that some impacts could occur.

The Final Solar PEIS also addresses the potential impacts to the Salt Song, Cocomaricopa, and Xam Kwatchan trails in the Cultural Resources and Native American concerns sections and notes the additional sites found after the Palen, Blythe, Genesis and Desert Sunlight solar projects (page 9.4-113). As stated on page 9.4-113 of the FPEIS, design features identified in Section A.2.2 of Appendix A of the Solar PA/PEIS will reduce impacts to these resources. Additional evaluations, surveys, and SHPO and government-to-government consultations will occur to address potential impacts when future, site-specific applications for solar development are submitted.

Special Status Species

Issue Number: PP-WO-Solar-12-01-2
Organization: NextEra Energy Resources, LLC
Protestor: Kenneth Stein

Issue Excerpt Text:
In the Riverside East SEZ alone, the BLM lists 27 plants as "Special Status" based solely on their designation as CA rank S1 or S2. None of these plants are otherwise federally or state "listed" or designated as "BLM Sensitive." Accordingly, the BLM appears to be significantly expanding the number of species that are determined to be BLM Special Status in the PEIS by effectively requiring that all CA rank S1 and S2 plants be afforded the same level of protection (and be subject to the same mitigation measures) as plants that are listed or officially designated as BLM Sensitive.

Issue Number: PP-WO-Solar-12-01-4
Organization: NextEra Energy Resources, LLC
Protestor: Kenneth Stein

Issue Excerpt Text:
It is our understanding that BLM Manual 6840 "Special Status Species Management" represents BLM's current guidelines for managing special status species (including plants) and it defines BLM "special status species" as:
"(1) species listed or proposed for listing under the Endangered Species Act (ESA), and
(2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated as Bureau sensitive by the State Director(s). All Federal candidate species, proposed species, and delisted species in the 5 years following delisting will be conserved as Bureau sensitive species." (emphasis added) Based on this definition, the numerous CA rank S1 and S2 plants in the PEIS that are not otherwise "listed" (or proposed for listing) or officially designated as "BLM Sensitive" are currently not deemed "Special Status" per BLM Manual 6840. PEIS Appendices J and M present the methodologies and data sources used for designating a particular plant species as "special status" in the PEIS, but neither Appendix (or any other section of the PEIS that we are aware of) provides an adequate justification for BLM's adoption of CA rank S1 and S2 plants as "Special Status Species" based solely on those rankings.

For these reasons, the BLM should not, in the context of the PEIS, deem that mitigation is automatically warranted for all CA rank S1 and S2 plants; doing so is not consistent with current BLM policy governing special status species and is not scientifically supportable.

Issue Number: PP-WO-Solar-12-12-12
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:

Both FLPMA and BLM sensitive species policy require the agency to inventory the populations present. Throughout the FEIS, the BLM discounts impacts to special status species by making unsubstantiated claims that development will lead only to small amount of habitat being lost, but fails to establish the significance of the population on that habitat. For example, for the dark kangaroo mouse -"The overall impact on the dark kangaroo mouse from construction, operation, and decommissioning of utility-scale solar energy facilities within the Escalante Valley SEZ is considered small because the amount of potentially suitable habitat for this species in the area of direct effects represents less than 1% of potentially suitable habitat in the SEZ region." FEIS at 13.1-42. But the BLM makes no attempt to quantify the quality and significance of that habitat, nor provide any estimate of the size of the affected dark kangaroo mouse population.

Issue Number: PP-WO-Solar-12-12-14
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
The SEZ is also situated between the Chemehuevi and Chuckwalla DWMAs. These two DWMAs make up most of the conserved habitat within the Desert Tortoise Colorado Desert Recovery Unit. Connectivity between these DWMA is essential since neither unit is believed large enough to maintaining the target population for the recovery unit of 10,000 adults, as explained to the agency in the January 2012 letter from the USFWS Desert Tortoise Recovery Office (Averill-Murray,2010). Yet, despite recognizing the significance of habitat within the SEZ boundary as importance linkage habitat the BLM has simply failed to look at the impacts to the population and future viability of the Colorado Desert Recovery Unit.

Issue Number: PP-WO-Solar-12-12-9
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests the BLM's failure to minimize avoidable impacts to special status species and other important wildlife and rare plant species. The proposed action will result in direct take of unknown numbers of these species, will result in significant habitat loss, will fragment habitat and populations, and will result in the loss of linkage habitat that may be essential to connectivity and the continued viability of many of these species. For example, the golden eagle (Aquila chrysaetos) is a fully protected species under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). The species is declining. Golden eagles use many of the solar development areas including most of the proposed SEZ as foraging areas. Loss of foraging habitat that results in a decrease in productivity or nest abandonment is considered "take". We asked the BLM to avoid and minimize any take of golden eagles by restricting the areas open to development and by restricting the technologies used to those that do not require structures that may place eagles at risk.

Summary

The BLM incorrectly:

- Deemed that mitigation is automatically warranted for all California-ranked S1 and S2 plant species because their "special status species" classification is not consistent with BLM policy (BLM Manual 6840), is not scientifically supported, and is not justified by the data and methodology established in Appendix J and M of the Solar PA/PEIS.

- Discounted impacts to special status species (such as the dark kangaroo mouse) by failing to quantify the quality and significance of populations present, per regulations set forth in FLPMA and BLM Manual 6840.

- Analyzed the impacts to desert tortoise connectivity between the Chemehuevi and Chuckwalla Desert Wildlife Management Areas (DWMAs); therefore, the BLM is ignoring the future viability of the Colorado Desert Recovery Unit.

- Failed to minimize avoidable impacts to golden eagles, as the proposed amendments would result in a loss of foraging habitat and a decrease in productivity and nest abandonment, thus constituting a "direct take."

Response

California-Ranked S1 and S2 Plant Species

The protestor is correct that California- ranked S1 and S2 plant species do not meet the definition of "special status species" as defined in BLM Manual 6840. The BLM called this out in the footnote section of Appendix A, Section A.2.2.11 Design Features for Ecological Resources of the Solar PA/PEIS, species that have been ranked S1 or S2 by the state will be considered "special status species" for the purposes of the Solar PEIS (A-29). The BLM clearly stated that some of the categories of species included here do not fit the BLM's definition of special status species as defined in BLM Manual 6840. These species are included in the design features to ensure broad consideration of species that may be most vulnerable to impacts. Further, it is important to note that some S1 and S2 ranked species could become BLM-sensitive or special status species over the course of the solar program planning horizon (i.e., 20-years).

The statement that mitigation is automatically warranted for California- ranked S1 and S2 plant species because their "special status species," as the protestor suggests, is a bit far reaching. As described in Appendix A of the Solar PA/PEIS (A-5), application of the proposed design features is intended to result in the avoidance, minimization, and/or mitigation of potential resource conflicts. Due to site-specific circumstances, not all design features as written will apply to all projects (e.g., a resource is not present on a given site). Some design features may require variations from what is described (e.g., a larger or smaller protective area). In some cases, multiple options for addressing a potential resource conflict are provided. Applicants will be required to work with the BLM to address proposed variations in the design features and to discuss selected options for avoidance, minimization, and/or mitigation of potential resource conflicts (if such impacts are determined to be present).

Dark Kangaroo Mouse

BLM Manual 6840 states that the BLM is responsible for "conducting and maintaining current inventories of BLM special status species on BLM-administered lands," and "Monitoring populations of BLM special status species to determine whether management objectives are being met. Records of monitoring activities are to be maintained and used to evaluate progress relative to such objectives." The BLM must consider high quality information and data that are available. In the case of the dark kangaroo mouse, and other special status species, the information provided in the Solar PA/PEIS is appropriate to support the planning level decisions being made and represents high quality information. As discussed in the Solar PA/PEIS, site-specific impact assessment will be necessary when a solar development project is proposed. The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (1-17). The BLM will make separate decisions as to whether or not to authorize individual solar energy projects in conformance with the existing

land use plan(s) as amended by the Solar PEIS ROD. In authorizing the construction of utility-scale solar energy generation facilities on BLM-administered lands, the BLM must comply with NEPA, the ESA, and other applicable statutes and regulations.

Desert Tortoise Connectivity

Further analysis of cumulative effects on desert tortoise and desert tortoise connectivity habitat at the Solar PEIS stage would be speculative, given the high uncertainty in the amount and location of future development especially in the variance areas. Such analysis is more appropriately conducted at the project level as part of the NEPA analysis and required consultation under Section 7(a)(2) of the ESA. Impacts on habitat connectivity and blockage of dispersal corridors are discussed qualitatively under wildlife in Section 9.4.12.2.1, where desert tortoise is specifically mentioned.

In response to comments on impacts related to desert tortoise from the Draft Solar PA/PEIS, various SEZs were modified and eliminated in part due to concerns about effects on desert tortoise. The existence of connectivity corridors were a significant consideration in the revision or elimination of some SEZs, including the areas between the Chemehuevi and Chuckwalla SWMAs.

A number of additional steps have been taken and are outlined in the Solar PA/PEIS to address possible impacts to desert tortoise connectivity. As described in the Solar PA/PEIS "the BLM and the USFWS have continued consultation regarding desert tortoise connectivity areas throughout preparation of the Final Solar PEIS. Through this consultation process, an additional 515,000 acres (2,084 km^2) of lands that coincide with priority desert tortoise connectivity habitat have been excluded from the variance lands, and the additional data collection and evaluation measures for desert tortoise and priority connectivity habitat that will be required for applications in the remaining variance lands have been outlined" (see Section 2.2.2.3.1 on the Variance Process in the Final Solar PEIS). Developers that propose utility-scale solar energy projects in variance areas that overlap priority desert tortoise connectivity habitat identified on USFWS maps will be required to meet with the BLM and USFWS early in the process as part of the previously mentioned preliminary meetings to receive instructions on the appropriate desert tortoise survey protocols and the criteria the BLM and USFWS will use to evaluate results of those surveys. The USFWS will also make additional information regarding the evaluation of impacts on desert tortoise and priority desert tortoise connectivity habitat available on a public web page.

Golden Eagles

The proposed land use plan amendments will not result in a "direct take" or a violation of the Bald and Golden Eagle Protection Act. The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (1-17). The BLM will make separate decisions whether or not to authorize individual solar energy projects in conformance with the existing land use plan(s) as amended by the Solar PEIS ROD. In authorizing the construction of utility-scale solar energy generation facilities on BLM-administered lands, the BLM must comply with NEPA, the ESA, and other applicable statutes

and regulations.

The Solar PA/PEIS established several programmatic design features which were specifically developed to minimize the impacts to golden eagles and avoid "direct take," through active collaboration with the USFWS. These design features include:

- Developing in coordination with the BLM and USFWS strategies for complying with regulatory requirements of the Bald and Golden Eagle Act. Considering recommendations contained in Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocol and Other Recommendations in Support of Golden Eagle Management and Permit Issuance.
- Adhering to Instruction Memorandum 2010-156, the Bald and Golden Eagle Protection Act – Golden Eagle National Environmental Policy Act and Avian Protection Plan Guidance for Renewable Energy until programmatic permits from the USFWS are available. The analysis of potential impacts on and mitigation for, golden eagles shall be made in coordination with the USFWS.
- Avoiding take of golden eagles and other raptors. Mitigation regarding the golden eagle shall be developed in consultation with the USFWS and appropriate state natural resource agencies. A permit may be required under the Bald and Golden Eagle Protection Act.

Livestock Grazing

Issue Number: PP-WO-Solar-12-12-21
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests the BLM's failure to consider modifying RMPs to allow for grazing allotment buyout and voluntary relinquishment to provide opportunities for impacts to special status species and their habitats. In our various comments, we proposed that BLM modify the affected RMPs to specifically allow the voluntary retirement of grazing allotments as compensatory mitigation for impacts to special status species and their habitat. Senator Feinstein recently authored legislation authorizing a similar process throughout the California Desert Conservation Area. The Solar PEIS should be modified to include language for all alternatives that will programmatically modify all subject RMPs to allow for buyout and voluntary relinquishment of grazing allotments for conservation purposes. This would both reduce cumulative effects on sensitive resources by removing livestock and would provide opportunities for meaningful mitigation to offset impacts from energy projects.

Summary

The Solar PEIS should be modified to include language for all alternatives that will programmatically modify all subject Resource Management Plans (RMP) to allow for buyout and voluntary relinquishment of grazing allotments for conservation purposes.

Response

The purpose and need of any NEPA document dictates the range of alternatives that will be

analyzed. Any suggested action alternative that does not respond to the purpose and need are not "reasonable" and are typically not carried forward for detailed analysis. In the case of the Solar PA/PEIS, the BLM's purpose and need is to "respond in a more efficient and effective manner to the high interest in siting utility-scale solar energy development on public lands and to ensure consistent application of measures to mitigate the potential adverse impacts of such development" (Solar PA/PEIS, p. ES-2). Analyzing the voluntary relinquishment of grazing allotments for conservation purposes would not meet the purpose and need for this programmatic LUP amendment.

According to the BLM's existing policy on relinquishing livestock grazing permits or leases (WO IM 2007-067), "the BLM has the authority to continue livestock grazing activity even if a relinquishment is accepted." Even if a livestock grazing permittee/lessee were to voluntarily relinquish a permit or lease, the BLM would need to amend the associated land use plan to close the allotment to livestock grazing. Addressing the closure of allotments to livestock grazing is more appropriately made in individual land use planning decisions rather than programmatically, in the Solar PEIS ROD, due to the site-specific nature of the planning decision to be made regarding livestock grazing.

As a result of the SEZ allocations within the Solar PA/PEIS, there would already be significant reductions in permitted grazing. The impacts from this determination are analyzed in Section 5.4.1 of the Solar PA/PEIS. Buyouts can only be authorized through an act of Congress or executive order. An example would be legislation that designates a national monument and which provides for a permanent end to grazing upon receipt of a relinquishment of grazing permits or leases inside the designated monument.

Solar Energy Development

Issue Number: PP-WO-Solar-12-04-7
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
The Program Alternative must be rejected. This alternative fails to achieve the policy goal of prospectively identifying specific lands that are the most appropriate for utility-scale solar energy development. DOI Secretarial Order 3285A I (March 11, 2009). Broadly opening over 19 million acres of public lands in the six-state area to utility-scale solar development through the variance process, which will be determined on a case-by-case basis, does not constitute environmentally responsible development. See id. BLM's current analysis is that approximately 214,000 acres of BLM-land in the study area would likely be developed over the next 20-year period. There is no reasonable need to open a land area of over 19 million acres.

Issue Number: PP-WO-Solar-12-06-13
Organization: Center for Biological Diversity
Protestor: Lisa T. Belenky

Issue Excerpt Text:
However, the Center protests the inclusion extensive exceptions that allow the continued siting of solar projects on public lands outside of SEZ both by adopting the broad "variance" exceptions and by adopting an overly-inclusive list of "pending applications". Together these exceptions to siting within the SEZs will overshadow the benefits of the planning process and designation of the SEZs and lead to unnecessary and undue degradation of our public lands.

Issue Number: PP-WO-Solar-12-06-5
Organization: Center for Biological Diversity
Protestor: Lisa T. Belenky

Issue Excerpt Text:
• The preferred alternative is not consistent with

FLPMA which requires BLM to prevent unnecessary or undue degradation of public lands. 43 U.S.C § 1732(b). The BLM has failed to show that it is necessary to include extensive variance lands in the program from the outset or that reliance on the process to develop additional SEZ would not be adequate to achieve any needed flexibility or expansion of SEZ.

Issue Number: PP-WO-Solar-12-08-2
Organization: Conejos county Clean Water Inc
Protestor: Andrea T. Guajardo

Issue Excerpt Text:
CCCW raised the concern about adequate transmission in existing transmission corridors as a reasonable foreseeable agency action. CCCW maintains that transmission analysis in the FPEIS is inadequate for the purposes of the National Environmental Policy Act of 1969 (NEPA). Per the FPEIS, "Xcel Energy (Public Service Company of Colorado) has submitted a transmission planning report to the Colorado Public Utility Commission stating that it intends to end its involvement in the proposed San Luis Valley-Calumet-Comanche Transmission Project."

The transmission schemes described in the FPEIS were based on internal planning documents to BLM, 1991 San Luis Valley Resource Management Plan (SLV RMP). The SLV RMP highlights linear transmission corridors, which are designated planning concepts. The FPEIS maintains this is not real transmission from the decision makers over transmission; the Public Utilities Commission (PUC) nor from Western Area Planning Administration (WAPA). The FPEIS admits the analysis performed was to support the planning decisions.

Furthermore, the SLV RMP is 21-years old, a blueprint explaining how the BLM will manage areas of public land over a period of time. RMP's are to be updated generally within 10-15 years. BLM Field Offices or District Offices prepare RMP's for the lands within their boundaries. RMPs contain decisions that guide future management actions and subsequent site-specific implementation decisions. RMPs establish goals and objectives for resource management (desired outcomes) and the measures needed to achieve these goals and objectives (management actions and allowable uses).

Issue Number: PP-WO-Solar-12-10-5
Organization: Board of Lincoln County Commissioners
Protestor: George T. Rowe

Issue Excerpt Text:
The following statements explain Lincoln County's reasoning behind protesting the above three points, and show how these decisions, and potential amendments to the Ely District RMP are inconsistent with various BLM and DOI directives:

Amending the Ely District RMP per the BLM's preferred alternative to include identification 3,344,963 acres of public land as Variance Areas when only 15,309 acres are required to meet BLM's Reasonably Foreseeable Development Scenario for the entire state of Nevada is not consistent with Secretarial Order 3285 which, among other directives, seeks to:

I) Identify and prioritize specific locations in the United States best suited for large-scale production of solar and other renewable energy sources;
2) Work with local governments to identify appropriate areas for generation of solar energy;
3) Ensure the most environmentally responsible development and delivery of renewable energy; and,
4) Establish a clear policy direction for authorizing the development of solar energy on public lands.

Summary

Opening land outside of SEZs to solar development through the variance process is inconsistent with SO 3285A1, FLPMA, and the stated goals of the PEIS.

The BLM did not work with local governments to identify appropriate areas for generation of solar energy in the Ely District, as was required by SO 3285A1. Adopting a list of "pending applications" is not consistent with FLPMA because it will lead to unnecessary and undue degradation of public lands.

Transmission analysis in the San Luis Valley is inadequate for NEPA because the transmission schemes described in the Solar PA/PEIS were based on the 1991 San Luis Valley Resource Management Plan which is 21 years old.

Response

The BLM agrees that there are many advantages to development in SEZs, and has therefore prioritized development within SEZs under its proposed Solar Energy Program. However, development in variance areas may be needed in the near term, because the lands identified as SEZs might be insufficient to accommodate demand for utility-scale solar development or may not have access to adequate transmission capacity to facilitate such development. In addition, there might be market, technological, or site-specific factors that make a project appropriate in a non-SEZ area. The Solar PA/PEIS does not amend any land use plan to open areas for utility-scale solar energy development that existing land use plans have identified as exclusion or avoidance areas.

Utilization of the variance process, however, is intended to be the exception rather than the rule. The BLM will consider ROW applications for utility-scale solar energy development in variance areas on a case-by-case basis based on environmental considerations; coordination with appropriate Federal, state, and local agencies and tribes; and public outreach. Applicants will be required to demonstrate to the BLM and other coordinating parties that a proposal in a variance area will avoid, minimize, and/or mitigate, as necessary, sensitive resources. Based on a thorough evaluation of the information provided by an applicant, and the input of Federal, state, and local government agencies, tribes, and the public, the BLM will determine whether it is appropriate to continue to process, or to deny, a ROW application submitted through the variance process. The BLM will consider the availability of lands in an SEZ that could meet the applicant's needs, including adequate access to available transmission, in evaluating this decision. All ROW applications in variance areas that the BLM determines to be appropriate for continued processing will be processed in compliance with NEPA and all other applicable laws, regulations, and policies.

The BLM has determined that, in appropriate circumstances, it can rely on the broad discretion it has under FLPMA to deny ROW applications without completing the NEPA process. Such decisions must be made with regard for the public interest and be supported by reasoned analysis and an adequate administrative record. Decisions to deny pending applications must be assessed on a case-by-case basis. (Solar PA/PEIS, es-15, 2-44 to 2-45, 2-55; Solar PA/PEIS, v.7, p.79). The policy associated with the variance process is described in detail in the Solar PA/PEIS on pages 2-45 to 2-56.

For more information regarding the RFDS, please refer to the Impact Analysis protest issue response. Please refer to the FLPMA protest issue response for more information regarding the BLM's obligation to minimize adverse impacts and to prevent unnecessary and undue degradation.

In regard to the statement that the BLM did not work with local governments, the BLM has

identified many opportunities for local governments to participate in the Solar Energy Program and has provided opportunities for coordination among local stakeholders. As outlined in its planning criteria, the BLM will coordinate with Federal, state, and local agencies and tribal governments in the PEIS and plan amendment process to strive for consistency with existing plans and policies, to the extent practicable. The SEZ Identification Protocol allows new SEZs to be identified and analyzed through state or local land use planning efforts, and the BLM will encourage local land use planning efforts to consider the need for, and identify as appropriate, new SEZs as part of regular land use plan revisions.

In addition to the land use planning and NEPA processes, the BLM will utilize local Resource Advisory Councils (RACs) as a venue for sharing information and engaging in a meaningful dialogue with interested stakeholders. The BLM will require prospective applicants in variance areas to schedule and participate in two preliminary meetings with the BLM before filing a ROW application in a variance area; the aim of the second preliminary meeting is to initiate and ensure early coordination with Federal (e.g., National Park Service (NPS) and USFWS), state, and local government agencies and tribes.

Additionally, the BLM's proposed programmatic design features include many opportunities for local government involvement and consultation including the following:

1. Make early contact with local officials, regulators, and inspectors to explore all applicable regulations and address concerns unique to solar power generation projects;
2. Emphasize early identification of, and communication and coordination with, stakeholders, including, but not limited to, Federal, state, and local agencies; special interest groups; Native American tribes and organizations; elected officials; and concerned citizens;
3. Consult with local agencies regarding potential impacts of development within, adjacent, or close to state or local special use areas such as parks;
4. Avoid lands identified as incompatible for renewable energy development by local governments;
5. Compare preliminary site grading, drainage, erosion, and sediment control plans with applicable local jurisdiction requirements;
6. Consult Federal, state, and local "waterwise" guidelines, as applicable, for project development in the arid Southwest;
7. Site facilities to maximize local, regional, and statewide economic benefits and utilize coordination with local and state entities such as state and county commissions, planning departments, and so on; and
8. Site projects to minimize adverse effects on area housing markets and local infrastructure (e.g., schools and other public services) and to ensure adequate housing vacancy rates and local infrastructure support for workers and their families (Solar PA/PEIS, v.7, p.48).

In regard to pending applications, the BLM defines "pending" applications as any applications (regardless of place in line) filed within proposed variance and/or exclusion areas before the publication of the Supplement to the Draft Solar PEIS (October 28, 2011), and any applications filed within proposed SEZs before June 30, 2009 (see Section 1.3.3.2 of this Final Solar PEIS). Pending applications will continue to be processed in accordance with due diligence and siting

requirements under the BLM's existing policies and regulations, including full NEPA review, or amended policies and regulations, if applicable (Solar PA/PEIS p. 1-14; Solar PA/PEIS, v.7, p.75). Please refer to the Pending Applications protest issue response for additional information.

In regard to the transmission analysis, the scope of the SEZ-specific transmission analyses conducted for the Solar PEIS to support environmental impacts analysis consistent with the requirements of NEPA includes:

1. A lower-bound analysis that assumes a minimal amount of new transmission infrastructure development; that is, the existing transmission grid can be upgraded to accommodate new solar electricity generation; and
2. An upper-bound, dedicated-line transmission analysis that assumes new solar electricity generation will require all-new transmission infrastructure; that is, the existing transmission grid cannot accommodate any new solar electricity generation).

It is expected that actual environmental impacts of connecting transmission to SEZs will fall somewhere between the lower and upper bounds described for each SEZ. New transmission lines and/or upgrades will require site-specific NEPA analysis prior to construction (Solar PA/PEIS, v. 6, p. G-2 to G-4).

Adequacy of NEPA analysis is very different from actually planning and constructing transmission lines to SEZs. The BLM recognizes that the Solar PEIS itself can only go so far to address the real needs for transmission, but is committed to facilitating transmission to SEZs as an essential part of its ongoing program (G-21). The BLM is committed to developing a set of guiding principles and corresponding process steps that will help ensure that current and future SEZs have the transmission infrastructure necessary to support full-scale project development. These steps will be a component of the established Solar Energy Program. Facilitating transmission to SEZs will require the BLM to more actively engage in regional transmission planning efforts coordinated through organizations including Western Electricity Coordinating Council and the California Independent System Operator. Such efforts are the appropriate processes in which specific transmission needs for locations such as the San Luis Valley should be evaluated.

Solar Insolation Exclusion

Issue Number: PP-WO-Solar-12-03-2
Organization: Solar Energy Industries Association
Protestor: Katherine Gensler

Issue Excerpt Text:
Instead, BLM has arbitrarily and capriciously determined that all public lands with insolation levels below 6.5 kWh/m^2/day are to be excluded from solar development, even though the facts starkly indicate that solar projects are economically viable in many areas with insolation below this level. Indeed, the vast majority of installed and proposed solar projects in the United States are located in areas with lower insolation.

BLM's decision to use an inaccurate economic/ technical criterion in place of environmental factors when determining exclusion areas is inappropriate and inconsistent with the purpose of the National Environmental Policy Act ("NEPA"). In addition, the specific criterion of 6.5 kWh/m^2/day is not supported by the record.

Issue Number: PP-WO-Solar-12-03-4
Organization: Solar Energy Industries Association
Protestor: Katherine Gensler

Issue Excerpt Text:
Conversely, the adverse impacts of the exclusion of lands with solar insolation levels of less than 6.5 kWh/m^2/day from development are so severe that SEIA and LSA are compelled to file this narrowly crafted protest. As recognized in the Draft PEIS, BLM imposed this threshold based on assumptions about where utility-scale development is most economically viable. As explained below, these assumptions are not supported by the facts regarding what level of insolation is necessary for a project to be economically viable. In other words, the facts regarding insolation and project viability have changed, but BLM's position has not.

BLM provides no basis for its decision to use an insolation technical criterion to determine exclusion areas in the Final PEIS. Establishing an exclusion for lands with solar insolation less than 6.5 kWh/m^2/day is arbitrary and capricious. The level of insolation has no bearing on the environmental impacts of the development of a solar project on a particular plot of land being considered for solar development. The level of insolation also has no direct correlation with any of the objectives of the Solar PEIS; lands with lower insolation may, in fact, be more desirable for solar development and less likely to pose conflicts in some circumstances than some lands with higher insolation. BLM is exceeding its authority in applying this insolation as an exclusion criterion. Solar development on lands with insolation less than 6.5 kWh/m^2/day is not inherently more or less harmful to the environment than on lands that meet such a criteria. While we appreciate BLM's concern that utility-scale solar development occur where it is most economically viable, it is solar market conditions and the evolution of solar technology that determine what level of solar insolation is needed to make a solar project economically viable. It is an abuse of discretion to exclude otherwise-appropriate lands in this indirect way.

In addition, BLM's willingness to establish future Solar Energy Zones in areas with insolation of less than 6.5 kWh/m^2/day but refusal to entertain individual project proposals on similarly-situated lands merely underscores the extent to which this criterion is inappropriate, and being applied in an arbitrary and capricious manner.

Direct Normal Irradiation ("DNI") measurements (represented as kWh/m^2/day) only assess the amount of solar radiation delivered to a particular area directly from the sun. For technologies that use mirrors or lenses for reflection/refraction (concentrating solar power, or "CSP"), DNI is the appropriate measure of the solar resource. These technologies require direct sunlight for efficient operation. In contrast, conventional PV technologies use direct, diffuse, and even ground-reflected solar radiation (collectively, Global Horizontal Irradiation or "GHI"). DNI measurements consequently provide an inaccurate and incomplete assessment of the solar resource in a particular area being considered for PV development. Additionally, some CSP developers have determined that they can economically develop projects in areas with insolation levels as low as 5.5 kWh/m^2/day (e.g., in the San Joaquin Valley). Hybrid CSP applications may utilize lower insolation levels and PV developers are successfully completing utility-scale projects around the country at insolation levels below 6.5 kWh/m^2/day.

Issue Number: PP-WO-Solar-12-03-5
Organization: Solar Energy Industries Association
Protestor: Katherine Gensler

Issue Excerpt Text:
In addition, although the Final PElS includes maps intended to depict the extent of the areas excluded based on insolation levels, the measurements for a given plot of land cannot be known without a site-specific study. The National Renewable Energy Laboratory ("NREL") solar resource estimates relied upon to plot potentially appropriate development are regularly off by as much as 30%. Therefore, these estimates cannot be relied upon by BLM because they are so imprecise. Unlike previously designated Areas of Critical Environmental Concern, Desert Wildlife Management Areas, National Landmarks, etc., BLM cannot plot insolation on a map with certainty. Its usefulness as a screening tool on a programmatic level is consequently very limited and it clearly should not be used as an exclusion criteria.

Summary

The use of a technical insolation exclusion criterion is inappropriate because:

- The Solar PA/PEIS fails to provide a basis for its decision to use an insolation criterion to exclude lands from solar energy development.
- The criterion is arbitrary because future SEZs may be established in areas with lower insolation.
- Direct Normal Irradiation measurements do not provide a complete, accurate assessment of the solar resource.
- The BLM cannot plot insolation on a map with certainty.

Response

The Solar PA/PEIS proposes to exclude "lands with solar insolation levels less than 6.5 kWh/m^2/day determined through National Renewable Energy Laboratory solar radiation Geographic Information System (GIS) data (http://www.nrel.gov/rredc/solar_data.html)" (p.2-20).

In the Solar PA/PEIS, the BLM has proposed a broader set of exclusion categories than would be identified in a land use plan for other types of ROW. This is due to the size of utility-scale solar energy development and because each project site typically restricts public lands to a single use (Solar PA/PEIS, 2-19). The BLM believes that restricting the available lands for utility-scale solar energy development based on the quality of the solar radiation will help maximize the efficient use of BLM-administered lands and meet the multiple use intent of FLPMA by reserving for other uses lands that are not ideal for solar energy development (Solar PA/PEIS, p. 2-19).

For the purposes of the analysis in the Solar PA/PEIS, the BLM used Direct Normal Insolation (DNI) as the measure of the quality of the solar radiation. The project files shows that while there was some consideration early on in project development of using both DNI and global tilt, it was decided that only DNI would be used (March 2008). This was based on an assumption that DNI was a fairly good surrogate for global tilt, and that DNI was most applicable for utility-scale solar energy development (which at that time was primarily concentrating solar power technologies). The use of DNI was also supported by the fact that it was being used by the Western Governors' Association's (WGA) Western Renewable Energy Zones (WREZ) study (a joint initiative with the DOE), of which the BLM was trying to maintain consistency.

By restricting development to lands with DNI levels greater than or equal to 6.5 kWh/m^2/day, the BLM would be making available those lands where utility-scale development is assumed to be most efficient (Solar PA/PEIS, p. 6-9). Higher solar insolation generally results in greater efficiency for solar generation facilities. For instance, a reduction of 1 kWh/m^2/day in insolation is equivalent to approximately a ten percent reduction in efficiency and, in turn, a proportional increase in costs and the land use footprint (because of the need for additional solar collection equipment to provide the same quantity of energy) (Solar PA/PEIS, v.7, p. 33). This fact was highlighted in comments submitted by the Solar Energy Industries Association and the Large-scale Solar Association (January 27, 2012) regarding the quality of the solar radiation in the West Mojave (ten percent higher than the Eastern Mojave and therefore the amount of land

needed to generate the same amount of electricity is ten percent less). In general, the increased footprint and surface disturbance of a less efficient solar energy facility would result in additional environmental impacts.

The threshold of 6.5 kWh/m^2/day has been part of the Solar PEIS since the Draft Solar PEIS was published on December 17, 2010. The initial selection of the threshold 6.5 kWh/m^2/day was based in part on input from DOE's NREL regarding the location of expected utility-scale solar energy development over the 20-year planning horizon for the Solar PEIS. At insolation levels below 6.5 kWh/m^2/day, NREL concluded that utility-scale development would be less economically viable given current technologies and therefore less likely to occur (Draft Solar PA/PEIS 2-7). This value was also used by the WGA WREZ study as shown in this excerpt from their Phase I report:

> Criteria for Primary Resources Solar: Solar power will be a substantial component of renewable resources in the Western Interconnection. To identify the most promising locations for large-scale transmission projects that would serve utility-scale solar across the region, ZITA [Zone Identification and Technical Analysis] eliminated any location that received less than 6.5 kilowatt hours per square meter per day of direct normal insolation (DNI) and had a terrain slope of greater than five percent. This slope minimum was further refined to two percent when the Qualified Resource Areas were created. These were accepted as the minimum conditions that must be met for an area to have a developable and cost-effective utility scale solar thermal resource based on currently understood solar technology. These areas were also considered viable for solar photovoltaics (PV) generation.

(See http://www.westgov.org/index.php?option=com_content&view=article&id=219&Itemid=81).

The BLM received comments on the Draft Solar PA/PEIS in support of the 6.5 kWh/m^2/day criteria. Input from the California Desert and Renewable Energy Working Group (May 2, 2011), stated that "solar developers generally prefer areas with insolation greater than 6.0 kWh/m^2/day." Comments on the Draft Solar PEIS from the Large-scale Solar Association, the Center for Energy Efficiency and Renewable Technologies, and the Solar Energy Industries Association (May 2, 2011) supported this threshold, stating that 6.5 kWh/m^2/day was an "suitable initial threshold, but that the lands they exclude may become more attractive over the 20-year life of the PEIS. The BLM should allow for the designation of SEZs that include lands that do not meet these thresholds."

In recognition of expected advances in solar energy technology, changes in market conditions, and changes in other state and Federal policies, the BLM will consider the designation of new SEZs in areas with lower insolation (Solar PA/PEIS, p.6-9). This was described in both the Supplement to the Draft Solar PEIS and the Final Solar PEIS as part of the proposed SEZ Identification Protocol and was based primarily on the input from solar industry representatives. In recognition that different types of insolation are most relevant to the different large-scale solar generating technologies, the BLM has also indicated that as part of the process to identify new or

expanded SEZs, consideration should be given to the appropriate measure of solar radiation depending on the technologies being contemplated (Final A-123).

Further, consistent with existing planning regulations and described in the Final Solar PEIS (2-19), applicants may request that the BLM amend a land use plan to allow for an otherwise non-conforming proposal (BLM Land Use Planning Handbook H-1601-1, Section VII(B) [BLM 2005]). As described in the example provided in the Final Solar PEIS, an applicant may request a land use plan amendment for utility-scale solar development in areas with lower insolation than previously identified in the Solar PEIS in order to avoid a potential resource conflict or maximize the use of existing transmission.

The exclusions proposed through the Solar PEIS include (1) explicit exclusions that will be delineated in the Solar PEIS ROD by a land base that would not change except by future land use plan amendment; and (2) implicit exclusions that will be defined in the Solar PEIS ROD by the presence or absence of a specific resource or condition where the land base may change over time (Final 2-19). Solar insolation will be treated as an implicit exclusion. Solar insolation will be based on National Renewable Energy Laboratory solar radiation GIS data (http://www.nrel.gov/rredc/solar_data.html), and verified by site-specific information as necessary.

Wildlife Exclusion

Issue Number: PP-WO-Solar-12-06-9
Organization: Center for Biological Diversity
Protestor: Lisa T. Belenky

Issue Excerpt Text:
• The Center also protests the inclusion of designated Wildlife Habitat Management Areas (WHMA) in the solar energy zones given that BLM has already determined that these areas should be protected to meet long-term conservation goals.

Issue Number: PP-WO-Solar-12-12-4
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Western Watersheds Project protests the BLM's failure to follow its own exclusion criteria in designating SEZ and areas available for solar development. According to the FEIS at ES-8, certain sensitive species habitats are excluded from solar development:

All areas where the BLM has made a commitment to state agency partners and other entities to manage sensitive species habitat, including but not limited to sage grouse core areas, nesting habitat, and winter habitat; Mohave ground squirrel habitat; flat-tailed horned lizard habitat; and fringe-toed lizard habitat. However, some of the SEZ include such habitat. The BLM's Northern and Eastern Colorado ("NECO") Plan amendment identified both Multispecies Wildlife Habitat Management Areas and Bighorn Sheep WHMAs within the proposed Riverside East SEZ. NECO Plan Maps 2-19 and 2-21. According to the 2002 NECO Plan, "To aid cooperative implementation of the plan for such tasks as habitat management actions and monitoring for all special status species and natural communities, this plan will also be developed as a Sikes Act Plan. This will be done in cooperation with CDFG under the authorities of the Federal Land Policy and Management Act of 1976 (P.L. 94-579) and the Sikes Act, Title II (P.L. 93-452 and P.L. 95-420) and the Master Memorandum of Understanding (MOU) between BLM and CDFG to cooperatively prepare comprehensive wildlife habitat management plans." NECO Plan at 1-2. Clearly then the proposed Riverside East SEZ includes lands that are supposed to be excluded under the BLM's exclusion criteria. This is also true for Imperial East SEZ which is located entirely within the East Mesa flat-tailed horned lizard habitat management area identified on Map 3 and Table 2 page 34 of the 1980 California Desert Conservation Area ("CDCA") Plan.

Issue Number: PP-WO-Solar-12-12-5
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
The Exclusion Criteria also include "Greater sage-grouse habitat (currently occupied, brooding, and winter habitat) as identified by the BLM in California, Nevada, and Utah, and Gunnison's sage-grouse habitat (currently occupied, brooding, and winter habitat) as identified by the BLM in Utah." and, "All areas where the BLM has made a commitment to state agency partners and other entities to manage sensitive species habitat, including but not limited to sage-grouse core areas, nesting habitat, and winter habitat; Mohave ground squirrel habitat; flat-tailed horned lizard habitat; and fringe-toed lizard habitat." FEIS at ES-8. The FEIS fails to include any maps showing these sage-grouse habitats in Utah. The SEZ identified in southwest Utah all occur within the Southwest Desert Adaptive Resource Management area. Local agency management is guided by the "Southwest Desert Greater Sage-Grouse (Centrocercus urophasianus) Local Conservation Plan" dated February 7, 2007. The intent of the Plan is to maintain and where possible, increase sage-grouse populations and improve habitat conditions in the Southwest Desert. The proposed Milford Flat SEZ overlaps habitat described as Priority 2 by the Natural Resources Conservation Service (NRCS).

Issue Number: PP-WO-Solar-12-14-1
Organization: Defenders of Wildlife
Protestor: Jamie Clark

Issue Excerpt Text:
The FEIS dos not comply with BLM Manual 6840: Special Status Species Management and BLM Manual 6500: Wildlife and Fisheries Management, for the following reasons:

The proposed action is inconsistent with the BLM's obligation to conserve and/or recover listed species and the ecosystems on which they depend so that ESA protections are no longer needed as well as its obligation to "restore, maintain, and improve wildlife habitat conditions." In order to be consistent with agency policy, the Solar Energy Program should exclude connectivity habitat to both facilitate species recovery and maintain wildlife habitat conditions necessary for recovery. In our comments on the Supplement, Defenders recommended that BLM exclude from development all lands identified as Priority 1 and Priority 2 (P1 and P2) as determined by the FWS. FWS had identified a total of 1,648,314 acres of P1 and P2 lands in the Supplement (not including overlaps of these designations). Unfortunately, the Final PEIS excluded only 431,625 acres of Desert tortoise priority habitat, leaving 1,216,689 acres --nearly 75% --of P1 or P2 lands potentially available for development.

The decision to leave lands identified as priority habitat by the FWS in the final program is inconsistent with the agency's own guidance to "conserve" listed species and maintain wildlife habitat conditions.

Issue Number: PP-WO-Solar-12-14-2
Organization: Defenders of Wildlife
Protestor: Jamie Clark

Issue Excerpt Text:
II. The FEIS Does Not Comply with the Endangered Species Act Section 7(a)(1)

Under section 7(a)(1) of the ESA, BLM is explicitly obligated to use its existing authorities to affirmatively conserve ESA listed species. Section 7(a)(1) is designed to ensure that federal agencies "conserve" listed species. Given that impacts of renewable energy development on Desert tortoises and their habitat could include" ...habitat fragmentation, isolation of desert tortoise conservation areas, and the subsequent possibility of restricted gene flow between these areas" (Revised Recovery Plan, Preamble, p. iii), the Bureau has a responsibility to take actions consistent with the conservation of the species when it plans for renewable energy development and otherwise. BLM's failure to exclude P1 and P2 lands from variance lands is inconsistent with the Revised Recovery Plan for the Mojave Population of the Desert Tortoise, which calls for:

1) Recovery Action 2.9, Secure lands/habitat for conservation - conserving sensitive areas that would connect functional habitat or improve management capability of surrounding areas, such as inholdings within tortoise conservation areas that may be open to renewable energy development; and
2) Recovery Action 2.11, Connect functional habitat - connecting blocks of desert tortoise habitat, such as tortoise conservation areas, in order to maintain gene flow between populations.

BLM's failure to exclude from development all Desert tortoise connectivity or linkage habitats identified by the USFWS is a violation of the Sec.

7(a)(1) mandate to affirmatively conserve the species.

Issue Number: PP-WO-Solar-12-14-4
Organization: Defenders of Wildlife
Protestor: Jamie Clark

Issue Excerpt Text:
III. The FEIS Does Not Exclude Public Lands Designated for Sensitive Species Habitat Conservation in Cooperation with the California Department of Fish and Game under Sikes Act Authority

Although BLM stated in the FEIS that certain public lands intended to be managed for sensitive species conservation in cooperation with the State wildlife agencies were excluded from development (i.e., Exclusion #7, Table 2.2-2), in some cases these lands are in fact included in developable areas in the maps and data layers published with the FEIS.

As raised in our comments on both the DEIS and the Supplement to the DEIS, the California Desert Conservation Area Plan of 1980 (CDCA Plan) and the Northern and Eastern Colorado Plan amendments of 2002 (NECO Amendments) established certain Wildlife Habitat Management Areas (WHMAs) for sensitive species habitat management in cooperation with the California Department of Fish and Game under authority of the Sikes Act.

1. NECO Amendments. NECO Amendments designated Multi-species WHMAs and Bighorn sheep WHMAs (See NECO Amendments, Map 2-21, Map 2-18). Lands proposed for solar energy development in the Riverside East SEZ include these designated WHMAs, which is contrary to the solar development exclusion areas in the FEIS.
2. CDCA Plan. The CDCA Plan established numerous WHMAs for management of sensitive species which were identified for cooperative management with the California Department of Fish and Game under provisions of the Sikes Act.

According to the wildlife element of the CDCA Plan, WHMAs and their associated site-specific plans are one of two primary management tools designed to achieve the objective of the CDCA to protect wildlife habitat important to a suite of species. The Imperial East SEZ overlaps with the designated East Mesa WHMA for the Flat-tailed horned lizard, a BLM sensitive species, and is proposed for solar energy development in the FEIS. The CDCA Plan indicates the East Mesa WHMA is to be managed cooperatively with the California Department of Fish and Game under provisions of the Sikes Act. This is contrary to the solar energy exclusion areas in the FEIS. See CDCA Plan, Wildlife Element, Table 2 and Map No.3 (WHMA #70 East Mesa Flat-tailed Horned Lizard Habitat)

Issue Number: PP-WO-Solar-12-14-6
Organization: Defenders of Wildlife
Protestor: Jamie Clark

Issue Excerpt Text:
In addition, certain variance lands also overlap with WHMAs designated in the CDCA Plan and NECO Amendments. Inclusion of variance lands available for solar development with these conflicts is contrary to the exclusions described in the FEIS; the CDCA Plan WHMAs were established for cooperative management with the California Department of Fish and Game under Sikes Act authorities.

Failure to exclude WHMAs from solar energy development is a violation of the Federal Land Policy and Management Act (FLPMA) with regard to management of public lands and resources in the California Desert Conservation Area. Specifically, failure to exclude these areas is a violation of Section 601 of the FLPMA because the CDCA Plan was prepared by BLM "to establish guidance for the management of the public lands of the California Desert ...in clear accordance with the intent of the Congress and the people of the United States, as expressed in the law." (CDCA Plan, as amended, Concepts of the Plan, page 5).

Issue Number: PP-WO-Solar-12-15-3
Organization: Sierra Club
Protestor: Sarah K. Friedman

Issue Excerpt Text:
II. SEZs and Variance Lands.

Our previous Arizona, Nevada and California comments to the Draft PEIS and Supplement identified certain lands as inappropriate for solar development due to high value to threatened and endangered species. These lands include those designated as Wildlife Habitat Management Areas and other areas identified by wildlife and land management agencies as having a high value to threatened and endangered species including, but not limited to: desert tortoise, Mojave fringe-toed lizard, desert big horned-sheep or golden eagle. A number of these locations remain open to solar development as either SEZS or were subsequently included in the

Supplement as 'variance lands'. We protest the inclusion of these areas as SEZs or Variance Lands and believe that by allowing such locations to be developable the BLM has violated FLMPA with regard to management of public lands. Specifically, we believe such actions violate BLM's mandate under FLPMA "to prevent unnecessary or undue degradation of public lands." 43 U.S.C § 1732(b).

Summary

When establishing exclusion areas for solar energy development, the BLM failed to comply with its own exclusion criteria, the Sikes Act, FLPMA, BLM Manual 6840 and 6500, and the ESA by omitting portions of:

- Wildlife Habitat Management Areas;
- Desert tortoise, flat-tailed horned lizard, Greater sage-grouse (including the Southwest Desert Greater Sage-Grouse), Mohave ground squirrel habitat, Mohave fringe-toed lizard, desert big horned-sheep, and golden eagle habitats;
- Habitat described as Priority 2 by the NRCS;
- Connectivity or linkage habitats identified by the USFWS; and
- Priority 1 and Priority 2 (P1 and P2) as determined by the USFWS.

Response

The BLM worked extensively with members of the public, stakeholders, cooperating agencies, and tribes to develop specific categories of lands that would be excluded from utility-scale solar energy development. The categories of lands to be excluded from utility-scale solar energy development were modified in the Supplement to the Draft Solar PA/PEIS and further refined in the Final Solar PA/PEIS based on comments received and now totals approximately 79 million acres (see Table 2.2-2). Exclusions include many categories specific to sensitive wildlife resources such as designated and proposed critical habitat for special status species, DWMAs, sage-grouse habitat, fringe-toed lizard habitat, Mojave ground squirrel habitat, and so on. In addition, 515,000 acres (2,084 km^2) that overlap with priority desert tortoise connectivity habitat have been excluded from the variance area in the Final Solar PA/PEIS. The Solar PEIS does not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects (Solar PA/PEIS, p. 1-17). The BLM will make separate decisions as to whether or not to authorize individual solar energy projects in conformance with the existing land use plan(s) as amended by the Solar PEIS ROD.

It is not possible to exclude all areas that may provide potentially suitable habitat for sensitive species at a programmatic level. For this reason, the Solar PA/PEIS requires the use of programmatic design features to avoid, minimize, and/or mitigate impacts on sensitive species during site-specific impact assessments. Pre-disturbance surveys would be required to determine the presence of sensitive species or their habitats in the vicinity of a proposed solar energy project. Necessary avoidance, minimization or mitigation measures will be determined in consultation with the appropriate state and Federal agencies before the BLM will make separate decisions as to whether or not to authorize individual solar energy projects in conformance with the existing land use plan(s) as amended by the Solar PEIS ROD. The BLM has also included a number of specific factors and coordination procedures in the variance process that are specific

to sensitive wildlife species, and habitats, including connectivity habitat (2-45 to 2-55). Further, in authorizing the construction of any utility-scale solar energy generation facilities on BLM-administered lands, the BLM must comply with NEPA, FLPMA, the ESA, and other applicable statutes and regulations such as the Sikes Act and BLM Manual 6840.

The BLM, in consultation with the USFWS, completed a conservation review pursuant to Section 7(a)(1) of the ESA on the overall Solar Energy Program, including the amendment of 89 land use plans. The conservation review considered the BLM's exercise of its authority to contribute to conservation of listed species and avoid potential adverse effects to these species. The USFWS found that the selection of SEZs, exclusion of certain areas from eligibility for solar development, application of design features to all solar development that will occur and the review process applicable to development in variance areas outside of SEZs are likely to contribute to the conservation of listed species. The elements of the solar Energy Program dealing with endangered and threatened species can be considered to constitute a program for their conservation as described by Section 7(a)(1) of the ESA.

The BLM, in consultation with the USFWS, also completed a programmatic consultation with the USFWS on the identification of SEZs under Section 7(a)(2) of the ESA which was initiated through the submission of a programmatic Biological Assessment (BA). This BA described potential effects on listed (endangered and/or threatened) species and designated critical habitat from expected solar development in SEZs and any appropriate mitigation, minimization, and avoidance measures. Further Section 7(a)(2) consultation will occur, as necessary, at the level of individual solar energy projects and will benefit from the preceding programmatic consultation and resulting programmatic Biological Opinion for SEZs.

Protestors also bring up the point that the Solar PA/PEIS failed to include maps specifically identifying sensitive species habitat. The maps within the Solar PA/PEIS consolidated the individual exclusions into a single exclusion footprint which is depicted in the figures within the Solar PA/PEIS. The BLM has made many specific data layers available on the Solar PE/PEIS web page (http://solareis.anl.gov) and is committed to making additional data and maps available to assist BLM staff, solar developers and other interested stakeholders in the implementation of the new Solar Energy Program. Note that in some cases, the description of exclusions must be withheld from the public to ensure protection of the resource.

Wildlife Habitat Management Areas in Solar Energy Zones

The Northern and Eastern Colorado Desert Coordinated Management Plan (NECO CMP, 2002) established the Southern Mojave and Sonoran Wildlife Habitat Management Areas (WHMAs) for bighorn sheep and 13 multi-species WHMAs for other special status species. The protesting parties are correct that there are WHMAs present in the Riverside East SEZ and in variance areas. However, there are no WHMAs present in the Imperial East SEZ.

Exclusion criterion 7 of the Solar PA/PEIS states: "All areas where the BLM has made a commitment to state agency partners and other entities to manage sensitive species habitat, including but not limited to sage-grouse core areas, nesting habitat, and winter habitat; Mohave ground squirrel habitat; flat-tailed horned lizard habitat; and fringe-toed lizard habitat" (p. 2-20).

The BLM did not intend for WHMAs to fall within this criterion. For example, the Solar PA/PEIS acknowledges that WHMAs are present within the Riverside SEZ ("WHMAs within the SEZ may provide important connectivity for desert tortoise movements between the DWMAs" (Draft Solar PA/PEIS, p. 9.4-180)). The BLM will clarify its intent in the ROD by revising exclusion criterion 7 to read: Sage-grouse core areas, nesting habitat, and winter habitat; Mohave ground squirrel habitat; flat-tailed horned lizard habitat; fringe-toed lizard habitat; and all other areas where the BLM has agreements with state agency partners and other entities to manage sensitive species habitat in a manner that would preclude solar energy development.

As clarified in the ROD, development restrictions and mitigation requirements adopted in the NECO CMP and other relevant plans remain in effect and would apply to any applications for solar energy development within a WHMA. Such requirements include limiting barriers to bighorn sheep movement within and between demes to the extent possible in bighorn sheep WHMAs (NECO CMP, p. 2-44) and a 3:1 mitigation ratio for disturbance of Desert Dry Wash Woodland and Desert Chenopod Scrub communities in multi-species WHMAs (NECO CMP, p. 2-57. Further, any projects proposed in WHMAs shall not compromise the management goals of those WHMAs, and the required site-specific NEPA analysis would need to analyze the impacts of the project on the WHMAs and its management prescriptions.

The BLM will consider the presence of WHMAs for solar energy ROW applications within variance areas, including documentation from the applicant that the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors (Solar PA/PEIS, p. 2-47).

Special Recreation Management Area Exclusion

Issue Number: PP-WO-Solar-12-05-3
Organization: Planning Department
Protestor: Joshua Hart

Issue Excerpt Text:
Despite the County's comments, and County staffs repeated attempts to coordinate these issues with BLM staff, the County has not been provided a coherent explanation why most of these lands have been excluded from economic use. Many are classified by BLM as Special Recreation Management Areas (SMRA); information provided by Solar PEIS representatives indicates that this is the criterion utilized to exclude vast areas of Inyo County from productive use. After repeated inquiries BLM staff has not been able to explain why this designation is an appropriate criterion to exclude such lands, how these lands were chosen for SMRA status, or what SMRA status actually indicates. BLM staff has been not provided any other explanation for why these lands are proposed to be excluded.

Response

The Preferred Alternative proposes to exclude from solar development: "Developed recreational facilities, special-use permit recreation sites (e.g., ski resorts and camps), and all Special Recreation Management Areas (SRMAs) identified in applicable land use plans, except for those in the State of Nevada and a portion of the Yuma East SRMA in Arizona" (Solar PA/PEIS, p. 2-20). An SRMA is an administrative unit where the existing or proposed recreation opportunities

and recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness, especially as compared to other areas used for recreation (BLM Manual 8320, Planning for Recreation and Visitor Services, Section .06C3a). The BLM designates SRMAs through the land use planning process. Within an SRMA, recreation management is recognized as the predominant land use planning focus, where specific recreation opportunities and recreation setting characteristics are managed and protected on a long-term basis. The Solar PA/PEIS proposes to exclude SRMAs from solar development to limit impacts on recreation (p. 6-61).

Pending Applications Exclusion

Issue Number: PP-WO-Solar-12-06-27
Organization: Center for Biological Diversity
Protestor: Lisa T. Belenky

Issue Excerpt Text:
The BLM has provided inadequate rationale for expanding the list of so-called "pending applications" to applications filed long after the PEIS scoping was published and even after the initial maps and/or the Draft PEIS was available which provided notice of the proposed plan changes.

Issue Number: PP-WO-Solar-12-06-7
Organization: Center for Biological Diversity
Protestor: Lisa T. Belenky

Issue Excerpt Text:
• The proposed decision also appears to assume that BLM will extend the "pending applications" exception to new projects on sites where other projects were permitted but never built and are now re-proposed by a different applicant years after this PEIS planning process was begun. Taken as a whole, the BLM proposal fails to support the findings that underlay the planning process itself - that planned development will avoid many significant impacts to public lands resources. The BLM proposal to include "exiting applications" sprawling across the landscape simply does not avoid many significant impacts.

Issue Number: PP-WO-Solar-12-15-5
Organization: Sierra Club
Protestor: Sarah K. Friedman

Issue Excerpt Text:
BLM's decision to process 'pending applications' under existing land use policies or procedures, rather than subject to the new program elements adopted by the Solar PEIS, indicates a failure to take actions consistent with the conservation of endangered species when planning for energy development, and BLM's duty to affirmatively conserve such species, and as such is a violation of Section 7(a)(1). Such actions also violate that section of the Federal Lands Management Policy Act (FLPMA) that requires BLM "to prevent unnecessary or undue degradation of public lands". 43 U.S.C § 1732(b). Processing these pending applications outside of the Solar PEIS and RMP Amendments disincentives developers from relocating high-conflict projects to other locations of lower resource conflict. Additionally, exempting pending applications from the Final Solar PEIS fails to properly value the relatively scarce and unique features of those locations necessary for species conservation when compared with the relatively abundant and varied range of areas potentially available for solar development on both private and public land; hence violating BLM's requirement to "(6) 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 § 1732 (c)(6).

Additionally we protest BLM's decision that, if, as a result of environmental concerns or otherwise, a developer relinquishes its right-of-way application, a subsequently filed application which meets certain requirements will be considered a "Pending Application."

Summary

The BLM inappropriately makes pending applications not subject to the plan amendment decisions of the Solar PEIS and extends pending applications to include those not first-in-

line. This violates the BLM's duty to conserve endangered species and violates FLPMA's mandate to prevent unnecessary and undue degradation of public lands.

Response

The Solar PA/PEIS defines "pending" applications as any applications (regardless of place in line) filed within proposed variance and/or exclusion areas before the publication of the Supplement to the Draft Solar PEIS (October 28,2011), and any applications filed within proposed SEZs before June 30, 2009. The Solar PA/PEIS defines "new" applications as any applications filed within proposed SEZs after June 30, 2009, and any applications filed within proposed variance and/or exclusion areas after the publication of the Supplement to the Draft Solar PEIS (October 28, 2011).

The BLM distinguished between pending and new applications to clarify that pending applications would be processed in accordance with the requirements and policies in the land use plans in place when the applications were submitted. In its June 30, 2009 *Federal Register* Notice, the BLM announced that applications for solar energy ROW received after June 30, 2009 for lands inside a proposed Solar Energy Zone would not be processed until the signing of the Solar PEIS ROD and would be subject to the decisions in the ROD. In the Supplement to the Draft Solar PEIS, the BLM stated that all solar energy ROW applications for lands outside of proposed Solar Energy Zones received after publication of the Supplement (October 28, 2011), would be subject to the decisions in the ROD.

The BLM is committed to processing appropriately sited pending applications submitted by qualified, diligent applicants. Pending applications will not be subject to any new program elements adopted by the Solar PEIS ROD. The BLM will process pending solar applications consistent with existing land use plans and current policies and procedures (e.g., IM 2011-060 [BLM 2011a] and IM 2011-061 [BLM 2011b]), including current interagency coordination practices with DOI agencies, such as the USFWS and NPS, or future policies and procedures that the BLM might adopt. These applications will be treated as project-specific undertakings under Section 106 of the NHPA and the BLM's National Programmatic Agreement (PA).
The BLM is committed to processing all applications that meet the definition of "pending." The commitment to continue to process pending applications, however, does not imply that the BLM will authorize these proposed projects. The BLM has determined that, in appropriate circumstances, it can rely on the broad discretion it has under FLPMA to deny ROW applications prior to completing the NEPA process if such applications do not meet due diligence requirements and/or environmental criteria. Such decisions must be made with regard for the public interest and be supported by reasoned analysis and an adequate administrative record. Decisions to deny applications must be assessed on a case-by-case basis. Although pending applications will not be subject to any new program elements adopted by the Solar PEIS ROD, the BLM still may decide to deny pending solar applications if there is a supportable, rational basis on other grounds. The BLM's denial of an application is subject to administrative appeal to the Interior Board of Land Appeals.

All pending applications remain subject to the requirements of NEPA, the ESA, the NHPA, and other applicable statutes and regulations (Final 1-11). Adherence to such laws and regulations

will result in the conservation of endangered species and prevention of unnecessary and undue degradation of public lands.

Environmental Justice

Issue Number: PP-WO-Solar-12-08-7
Organization: Conejos county Clean Water Inc
Protestor: Andrea T. Guajardo

Issue Excerpt Text:
CCCW raised the concern about Environmental Justice and qualified how Conejos County is an Environmental Justice community. CCCW maintains that Conejos County is an Environmental Justice community and the analysis in the FPEIS is inconsistent with the goals of NEPA. CCCW is concerned that Environmental Justice has been eliminated as an issue to discuss during future site-specific NEPA analysis. Per the FPEIS, "...there are no environmental justice populations" Also, please see the discussion on Environmental Justice in the comment submitted by the EPA, where it states, "Because potential EJ communities have been identified in the Region of Influence for many SEZs, EPA recommends that SEZ-specific design features be added for EJ, where appropriate. For example, this includes all four SEZs in Colorado and all three SEZs in Utah."

"Each Federal agency should analyze the environmental effects, including human health, economic, and social effects of Federal actions, including effects on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA."

The FPEIS used Census 2000 data and reported, "While there are minority populations in the Colorado or New Mexico portions of the 50-mi radius of the SEZ taken as a whole, there are no low-income populations in this area (as a whole)." Despite the Environmental Justice goal within NEPA to not hold to strict quantitative analysis, which was performed in the FPEIS, there are inconsistencies in quantitative results reported in the FPEIS. "Agencies should recognize that the question of whether the agency action raises environmental justice issues is highly sensitive to the history or circumstances of a particular community or population, the particular type of environmental or human health impact, and the nature of the proposed action itself. There is not a standard formula for how environmental justice issues should be identified or addressed."

Issue Number: PP-WO-Solar-12-16-18
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
In addition to taking a narrow view on environmental justice, the FPEIS contains some flatly erroneous statements. In particular, while the Draft PEIS explains that both minority and low-income communities are within a fifty-mile radius of the Brenda SEZ (Draft PEIS at 8.1-268 to 269), the FPEIS concludes that "there are no minority or low-income populations in the Arizona portion of the 50-mi radius of the SEZ" and only a minority population in the California portion. FPEIS at 8.1-72. Similarly, while the FPEIS graphics indicate that there are multiple low-income populations within 50 miles of the Riverside East SEZ (FPEIS at 9.4-129), the analysis erroneous concludes that "[t]here are no low-income populations within the 50-mi radius." FPEIS at 9.4-130. These errors must be corrected and the true environmental justice impacts disclosed.

Summary

The Solar PA/PEIS contains erroneous statements in its environmental justice analysis for the Antonito Southeast, Brenda, and Riverside East SEZs.

Response

The methodology used to perform the environmental justice assessment is outlined in CEQ

Guidelines, is commonly used in NEPA assessments undertaken for various federal agencies, and includes analysis of human health, economic, and social effects of potential solar developments. The assessment of environmental justice issues associated with the development of solar facilities considered information on minority and low-income populations for each SEZ and an associated 50-mile radius around the boundary of the SEZ based on demographic data from the 2000 Census (Solar PA/PEIS, p. 4-40). The PEIS assesses the extent to which (1) minority or low-income populations of the affected area exceed state averages by 20 percentage points or more or (2) where 50 percent or more of block group populations within the 50-mile radius are minority or low-income. While there may be low-income and/or minority populations at the individual census block group level, it is possible the identified thresholds are not met when all block groups within the 50-mile radius are taken together.

Future site-specific NEPA review for individual solar projects will include environmental justice analysis and will include design features that specifically address the impacts on individual minority and low-income populations (Solar PA/PEIS, p. A-73). There will be additional opportunities for public participation and for analyses of environmental justice impacts for individual solar developments. Environmental justice has not been eliminated as an issue to discuss during future site-specific NEPA analysis.

Antonito Southeast SEZ

As described in Section 10.1.20 of the PEIS, there are minority populations in numerous census block groups, and in both the Colorado and New Mexico portion of the 50-mile area as a whole. In contrast, there are low-income populations at the census block group level, but identified thresholds are not met for the 50-mile area as a whole.

Brenda and Riverside East SEZs

As is the case with the analysis presented for the Antonito Southeast SEZ, while there are individual census block groups in the 50-mile area around the Brenda and Riverside East SEZs that have low-income and/or minority populations defined according to CEQ Guidelines, when all census block groups for the 50-mile area are taken together, the identified thresholds are not met. As described in sections 8.1.20 and 9.4.20 of the PEIS, there are no low-income or minority populations in the Arizona portion of the 50-mi (80-km) radius of the Brenda SEZ and Riverside East SEZ, while there is a minority population in the California portion of the 50-mi (80-km) radius of both SEZs.

Tribal Interests

Issue Number: PP-WO-Solar-12-04-12
Organization: Quechan Indian Tribe of the Fort Yuma Indian Reservation
Protestor: Thane D. Somerville

Issue Excerpt Text:
Here, BLM has failed to consult with the Tribe even though the Tribe requested government-to-government consultation prior to any issuance of a Record of Decision on the Solar PEIS. Solar PEIS, Table K-2. The Tribe fully expects consultation prior to approval of any utility-scale solar projects, but the lack of consultation thus far violates Section 106 of the NHPA. The Court in Quechan Tribe noted that "the number of letters, reports, meetings, etc., and the size of the various documents doesn't in itself show that NHPA-required consultation occurred.... Documentation that might support a finding that true

government-to-government consultation occurred is painfully thin."

As in the Imperial Valley Solar proceeding, BLM has failed to comply with its duties to consult with the Quechan Tribe at each stage of the Section 106 process, including determinations of eligibility and resolution of adverse effects. The Tribe has also been deprived of access to the actual decision-maker in this proceeding -thus precluding true government-to-government consultation. These procedural flaws render any substantive decision to approve the Solar PEIS invalid.

Issue Number: PP-WO-Solar-12-16-13
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
BLM Has Failed, and Will Continue to Fail, to Meet Its Consultation Obligations.
The FPEIS states that BLM has undertaken consultation activities with Indian tribes throughout development of the draft PEIS, the Supplement to the PEIS, and the FPEIS, even issuing an Instruction Memorandum ("IM 2012-032") to ensure Section 106 compliance for the Solar Energy Development Program. FPEIS at 14-2 to 3. 1M 2012-032 states that consultation has been "underway since 2008" and that Field Offices will take additional steps at this time to "assure that tribes understand how their input is being taken into account in the finalization of the Solar PEIS."

BLM, as well as its partners the Argonne National Laboratory and the Department of Energy, have failed to implement these assurances. As documented in the PEIS, CRIT received only form letters regarding preparation of the FPEIS. The first, sent June 24,2008, invites CRIT to participate as a "cooperating agency." Draft PEIS at K-52 to 54. While the letter mentions that "government-to-government consultation will continue" (id. at K-53), the letter does not offer any explanation for how consultation would even begin, let alone continue. The second letter, sent July 1, 2009, offers only a brief invitation: "Please contact us if you would like to enter into government-to-government consultation." Draft PEIS at K-58. The BLM characterized these actions as "address[ing] the agency's affirmative consultation obligations, including those that pertain to Section 106 of the NHPA." Question and Answer Fact Sheet BLM-Tribal Consultation Procedures Regarding Solar Energy Development on Public Lands in Six Southwest States. ("Q&A") at 1. But invitations to consult via a form letter are not the same as government-to-government consultation. See Quechan Tribe of Fort Yuma Indian Reservation v. U.S. Department of Interior, 755 F. Supp. 2d 1104, 1118 (S.D. Cal. 2010).

BLM's most recent efforts have similarly failed. As outlined in the FPEIS, CRIT again received two form letters regarding the Draft PEIS, the Supplement to the PEIS and the Programmatic Agreement. FPEIS at K-I. Though BLM officials also attempted to contact CRIT via telephone, field officers requested comments on Nevada SEZs, though CRIT has repeatedly indicated its primary concerns relate to California and Arizona development efforts. FPEIS at K-3.

CRIT also notes that other area tribes have raised the same complaint with BLM, but little has been done to remedy the situation. E.g., FPEIS Response to Comments at 12, 25-26, 44-46, 74, 157-59, 165-67. The paltry consultation efforts render the FPEIS--particularly its cultural resource analysis--fatally incomplete.

Summary

The BLM has not met its government-to-government consultation responsibilities associated with Section 106 of the National Historic Preservation Act (NHPA).

Response

The BLM has satisfied the requirements of Section 106 of the NHPA for the proposed undertaking, including government-to-government consultation. Elements of the proposed undertaking include programmatic land use plan amendments to identify SEZs, exclusion areas,

and variance areas on tens of millions of acres in six states (Solar PA/PEIS, p. 2-1). As required by 36 CFR 800.4(b) and commensurate with the magnitude and nature of the proposed undertaking, the BLM sought information from the six affected State Historic Preservation Officers (SHPOs), the tribes, other consulting parties, and the public in an effort to identify historic properties potentially within the area of potential effects. In light of the proposed undertaking and in consultation with the six affected SHPOs, the BLM determined that the use of a programmatic agreement was necessary to satisfy the requirements of Section 106 of the NHPA, particularly the ability of the BLM to resolve potential adverse effects potentially associated with the proposed undertaking. In accordance with 36 CFR 800.14(b)(3), the BLM engaged all consulting parties, including the tribes, to develop the programmatic agreement. Appropriate and responsible BLM officials conducted consultation in accordance with 36 CFR 800.2(a) and applicable BLM guidance (Manual 8120 – Tribal Consultation Under Cultural Resources).

The BLM's efforts to initiate government-to-government consultation with the tribes began with initiation letters sent to the tribes on June 9, 2008, soon after the BLM published the May 29, 2008, Notice of Intent to prepare the Solar PEIS. Since then, the BLM has continued to seek, discuss, and consider the views of Indian tribes regarding the proposed national solar energy program through written correspondence, emails, telephone conversations, face-to-face meetings, and exchanges of maps, documents, and data. Throughout the planning process, the BLM has made a good faith effort to consult with tribes, respond to their concerns, and carefully consider the information and comments they shared. The BLM has incorporated this information into the decision-making process concerning historic properties and adverse effects to them, as well as the analysis of cultural resources for NEPA purposes. The BLM has responded to tribal concerns by modifying the Program Alternative in the Solar PA/PEIS. For example, (1) the BLM added an additional one million acres of proposed exclusion areas to the Program Alternative between the Supplement and the Final Solar PEIS based in part on continued consultation with tribes to protect sensitive visual and cultural resources; and (2) in response to tribal concerns relating to cultural resources, the BLM eliminated the proposed Delamar Valley and East Mormon Mountain SEZs in Nevada and the proposed Iron Mountain and Pisgah SEZs in California, and dramatically reduced the acreage for the proposed Amargosa, Dry Lake, and Dry Lake Valley North SEZs in Nevada. The BLM considers consultation with tribes to be ongoing and open-ended and will continue to consider tribal views as the national solar energy program is implemented.

The sections below discuss in greater detail how the BLM has corresponded with tribes, held face-to-face meetings with tribes, engaged with tribes to develop the programmatic agreement under Section 106 of the NHPA; and how the BLM expects to continue to consult with tribes when the BLM receives site-specific applications for solar energy development.

Correspondence with Tribes

BLM State Directors initiated consultation with Indian Tribes on June 9, 2008, by sending letters to the elected leadership of 253 federally recognized Tribes, Chapters, and Bands, notifying them of the forthcoming Solar PEIS, inviting them to be cooperating parties (in accordance with 40 CFR 1501.6(a)(1) and 43 CFR 46.225) and requesting government-to-government consultation.

In July 2009, the California Desert District Manager mailed letters on behalf of the agency to all tribes with ties to the six southwestern states, providing maps of proposed Solar Energy Zones (SEZ), and again inviting tribes to consult. Responsible BLM line officers followed up with phone calls, emails, and face-to-face visits to make sure that tribal cultural resources staff were aware of these notification efforts. In the fall and winter 2010/2011, all tribes with ties to the SEZs or other developable areas who had not responded were contacted to make sure the tribes had received the maps. Maps and information packets were re-sent where needed.

At public scoping meetings held in 2008 and 2011, the BLM took public testimony from tribes and tribal members, including the Colorado River Indian Tribes.

In October 2011, the BLM wrote to tribes to continue the consultation efforts. The BLM provided information concerning additional public meetings scheduled in Arizona, California, and Nevada in the fall of 2011. A detailed Question and Answer Fact Sheet included with the letter explained current efforts to engage with tribes. The BLM outlined the purpose and content of a Supplement to the Draft Solar PA/PEIS and provided a copy of the document. The BLM requested review and feedback on the planning document. The BLM also attached and requested feedback on a revised draft of the Solar PA/PEIS Programmatic Agreement for the programmatic planning effort. The BLM presented a summary of current BLM efforts to obtain ethnographic information for the SEZs within the Great Basin and requested that the tribes provide feedback on similar sites and issues. Copies of the tribally approved ethnographic reports were included in the Supplement.

In March and April 2012, the BLM wrote to those tribes who had provided comments on the Draft Solar PA/PEIS and/or its Supplement, acknowledging the issues of concern they identified and committing to address them as the PA/PEIS is finalized. In May 2012, utilizing both email and formal letters, the BLM provided then-current versions of the Solar Programmatic Agreement to tribes, invited the tribes to review and comment on the draft document, and asked the tribes if they would like to sign the agreement as a concurring party.

The BLM has continued and strengthened its communication with 65 tribes with the closest historical and cultural ties to the lands affected by the solar program via letters, emails, and phone calls. (The August 3, 2012 letter from the BLM California State Director to the Quechan Tribe of the Fort Yuma Indian Reservation and the August 1, 2012 letter from BLM Arizona State Director to the Colorado River Indian Tribes also detail the BLM's past, present, and future consultation efforts regarding the Solar PA/PEIS.) As noted above, such consultation continues.

Face-to-Face Meetings with Tribes

BLM field offices in the six southwestern states meet with tribes regularly to consult about resource issues and the management of public lands, including impacts of solar development. These face-to-face BLM-tribal meetings began early in the planning process and are ongoing. For example, workshops held in Arizona in 2009 and one-on-one meetings with tribes in New Mexico provided information on the program and documented tribal issues and concerns. More recently, on May 23, 2012, the Arizona State Director met with a number of tribes, including the

Fort Yuma Quechan Tribe and the Colorado River Indian Tribes. Views were exchanged on communications, data needs, and consultation procedures for renewable energy projects.

In California, the BLM initiated a Tribal Federal Leadership Conference, Renewable Energy and Desert Planning Meeting in August 2011 in Palm Springs, California. Four such conferences have now been held to facilitate government-to-government consultations on renewable energy and to solicit tribal input about natural and cultural resources issues in the California desert area. Both CRIT and the Fort Yuma Quechan Tribe were invited to and participated in these meetings. Tiered meetings between individual tribes and BLM management are now occurring and are helping to identify specific tribal concerns. Numerous technical and individual meetings have been held with 40 area tribes. BLM managers held government-to-government consultations on renewable energy, including solar, with individual tribes involved in the Conference.

The BLM attempted to meet with as many tribes as possible in each of the six southwestern states affected by the solar energy program, some multiple times, to provide information and solicit input to shape the planning effort. In addition to the Tribal-Federal Leadership Conference meetings, as of June 2012, the BLM met face-to-face with 19 tribes. The BLM found the face-to-face meetings with the Quechan Tribe (in January, February, and March 2012) to be extremely valuable for the solar planning effort; the meetings highlighted areas of concern to the Tribe and helped shape the BLM's planning decisions.

Current Status of the Programmatic Agreement

Regarding Section 106 consultation under the NHPA, as mentioned earlier, the BLM mailed the original Draft Solar Programmatic Agreement to tribes, State Historic Preservation Officers (SHPO), the Advisory Council on Historic Preservation, and interested parties in February 2011. In response to feedback provided, the BLM prepared a Revised Draft Programmatic Agreement and sent it to tribes for comment in October 2011. The BLM again sent an updated version of the Programmatic Agreement to tribes in May 2012 for input with an invitation for tribes to sign as concurring parties. The Programmatic Agreement commits the agency to specified protocols for the identification, evaluation, and treatment of historic properties affected by this undertaking, and allows state-specific procedures to address these key decisions in accordance with negotiations between BLM state offices, individual SHPOs, and particular tribes. The Programmatic Agreement specifies the timing and nature of required agency consultation with tribes at every stage in the Section 106 process.

The Colorado River Indian Tribes provided valuable input to the BLM on the Programmatic Agreement in April 2012, which was incorporated into the final agreement. The definition of terms, avoidance policy, the process of tribal consultation, inadvertent discovery procedures, and clarification of uses of tiered Programmatic Agreements, among other changes, were all improved as a result of the Tribe's feedback.

Future Implementation of the Solar Energy Development Program

The BLM expects that government-to-government consultation will become more focused when future site-specific applications for solar development are submitted. The BLM acknowledges

that the large-scale and hypothetical nature of some of the issues under consideration in the Solar PA/PEIS made it difficult for tribes to come forward and identify specific locales, sites, and resources of concern. When future site-specific applications for solar development are submitted to a BLM field office, the responsible line officer will determine which tribes are most likely to have historical and/or cultural ties to the project's area of potential effect. Responsible BLM line officers will make rigorous and reasonable attempts to meet with the affected tribe(s) so that the proposed development can be discussed in detail. Initial contacts with the tribes will be by letter and phone calls. Arrangements for any face-to-face meetings may be made either by the tribal or BLM cultural staff and the meetings themselves will be attended by line officers (the District Manager, Field Office Manager, or other BLM decision-maker). The BLM will request that at least one such meeting be attended by elected officials, ideally the tribal Chairman or President, in order to address government-to-government concerns. The purpose of the meetings will be to describe the proposed project and to discuss any tribal concerns. Any agency decision to authorize or modify the proposed solar project will take tribal recommendations into account.

Responsible BLM line officers will require that solar company officials meet with them prior to the submission of a formal Plan of Development (POD). BLM policy (Instruction Memorandum (IM) No. 2011-061) requires at least two pre-application meetings with the applicant. One purpose of these meetings is to identify needed cultural resource studies. Tribes will be asked to participate. Screening criteria in this IM encourage responsible BLM line officers to give preference to applications in areas with the lowest potential for conflicts, including cultural resources.

Based on a company's initial POD, the field office cultural resources staff will determine the Area of Potential Effect (APE) for the proposed undertaking. New cultural resource inventories (Class III) will normally be required for the entire APE, except where reliable Class III inventory data already exist or where geomorphological or human-caused land disturbances would preclude the existence of historic properties. Complete survey results facilitate development of mitigation plans and tribal consultation.

Government-to-government and project-specific consultations with tribal staff usually provide adequate opportunities for tribes to identify traditional cultural properties or sacred sites. However, there may be times when responsible line officers need new ethnographic research to adequately consider the effects of solar development on issues and resources of concern to tribes. BLM field office cultural staff (including specialists assigned to Renewable Energy Coordination Offices where present, in consultation with their Deputy Preservation Officer) will determine whether a solar application requires new ethnographic data. If new data is necessary, the BLM will consult with tribal officials on the appropriate scope of the study and provisions for safeguarding data confidentiality.

The BLM's consultations with Tribes regarding the national solar energy program has strengthened and improved the environmental review process. As noted above, such consultations will continue when project-specific solar applications are received. The tribal consultation activities with the Quechan Tribe of the Fort Yuma Indian Reservation and the Colorado River Indian Tribes are described in Table K-1 (Status of Tribal Consultation) in Appendix K of the Draft Solar PA/PEIS and is updated in Table K-2 (Update to Summary of

BLM Consultation with Federally Recognized Native American Tribes), Appendix K of the Final Solar PA/PEIS.

Visual Resource Management

Issue Number: PP-WO-Solar-12-16-21
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
VI. The FPEIS Visual Resources Analysis Fails to Take Into Account the Cultural Importance of the Landscape.

The visual resources analysis for both the Brenda and Riverside East SEZs contain the assumption that much of the landscape has low to moderate visual sensitivity. FPEIS at 8.1-47, 9.4-97 to 98. These assumptions, however, fail to include any analysis of the cultural significance of the landscape. FPEIS at 8.1-50, 9.4-97 to 98 (no cultural resources are included in the list of "scenic resources included in the viewshed analyses"), Draft PEIS at 9.4-334 (noting that BLM has yet to complete consultation or analysis to determine if the Program will have visual impacts on sacred places). Similarly, there is no analysis of the visual impacts on the Colorado River Indian Reservation, though it is clear from the preliminary viewshed analysis that development within the Riverside East SEZ will be highly visible from a significant portion of the Reservation. FPEIS at 9.4-98. Without this information, the FPEIS prejudicially understates the visual resource impacts of the Program. Robertson v. Methow Valley, 490 U.S. at 349; see also Draft PEIS at 9.4-223 (noting that development of the Riverside East SEZ is consistent with only VRM Class IV designations, reserved for lands with the least visual resource value).

Issue Number: PP-WO-Solar-12-16-5
Organization: Colorado River Indian Tribes
Protestor: Sara A. Clark

Issue Excerpt Text:
Similarly, the FPEIS's visual resource analysis is based on incomplete information. BLM completed a "preliminary viewshed analysis," but this effort omits any consideration of cultural sensitivity to visual changes in a landscape. As the FPEIS notes, "accurate assessment of visual impacts requires knowledge of the potential types and numbers of viewers for a given development and their characteristics and expectations," but BLM proceeds to designate areas "well-suited" for solar development without such information. Draft PEIS at 9.4-227.

Summary

The Solar PA/PEIS visual resources analysis fails to take into account the cultural importance of the landscape.

Response

The analysis of the potential impacts of solar development on visual resources within the Brenda and Riverside East SEZs includes a thorough description of the SEZs' visual resources and how the four solar technologies would impact those resources within and surrounding the SEZs (for Brenda SEZ, see Sections 8.1.14 of the Draft and Final Solar PA/PEIS; for Riverside East SEZ, see Sections 9.4.14 of the Draft and Final Solar PA/PEIS). The analyses provide descriptions of the affected environment and a discussion of impacts on the visual resources of lands within and surrounding the SEZs. The analysis also includes a viewshed analysis and discussion of impacts on selected Federal-, state-, and BLM-designated sensitive resource areas (i.e., areas formally designated; page 8.1-50 of the Final Solar PA/PEIS for the Brenda SEZ and pages 9.4-97 and

9.4-99 of the Final Solar PA/PEIS for the Riverside East SEZ).

The determination that the Brenda SEZ landscape has low to moderate visual sensitivity was made in a previous land use planning effort by the BLM (Lake Havasu Resource Management Plan/EIS 2007). The BLM's review of the Riverside East SEZ's visual resources actually shows that the SEZ holds high, moderate and low relative visual values (p. 9.4-94 to 96 of the Solar PA/PEIS). These determinations were made in accordance with the BLM's visual resource inventory and management policy (BLM Manual M-8400, Visual Resource Management, and handbooks H-8410, Visual Resource Inventory, and H-8431, Visual Resource Contrast Rating) and form the basis for the BLM's description of the affected environment.

The BLM acknowledges that the landscapes within the Brenda and Riverside East SEZ are culturally important to the Quechan tribe and that the visual effects from solar development on these areas are of concern to the tribe. These landscapes are described as "Traditional Cultural Properties (Landscapes)" in the Cultural Resources sections of the Draft Solar PA/PEIS (Brenda SEZ, Draft Solar PA/PEIS Section 8.1.17.1.4; Riverside East SEZ, Draft Solar PA/PEIS section 9.4.17.1.4). The discussion of the cultural importance of the landscapes is found in the Native American Concerns sections of the PEIS (for Brenda SEZ, see Sections 8.1.18 of the Draft and Final Solar PA/PEIS; for Riverside East SEZ, see Sections 9.4.18 of the Draft and Final Solar PA/PEIS).

The BLM has included an analysis of visual impacts to the Colorado River Indian Reservation from potential solar development in the Riverside East SEZ in the Solar PA/PEIS. Reservation lands are identified in the description of the surrounding lands potentially affected by development in the SEZ: the lands are displayed in Figure 9.4.14.1-1 of the Draft and Final Solar PA/PEIS (page 9.4-216 and 9.4-95, respectively), showing that portions of the Colorado River Reservation fall within 15 and 25 miles of the Riverside East SEZ, with closer portions of the Reservation just east of the Big Maria Mountains and just northeast of Blythe.

The BLM's analysis of potential visual impacts to lands surrounding the Riverside East SEZ, including the Reservation, is provided in Sections 9.4.14.2.2 of the Draft and Final Solar PA/PEIS. The BLM's impact analysis is based on the four viewshed analyses noted by the protestor as well as analyses using visualization software and tools. As stated in the Solar PA/PEIS (p. 9.4-96), the analyses identified "lands surrounding the proposed SEZ that could have views of solar facilities in at least some portion of the SEZ." The four viewshed analyses (depicted in Figure 9.4.14.2-1 and figures in Appendix N.3.1) show that portions of the Reservation lands will be potentially impacted by development within the SEZ.

This level of analysis is appropriate for analyzing the identification of the SEZ (a land use planning decision); as previously noted, site-specific impact assessment will be necessary when a solar development project is proposed. As stated on pages 9.4-221 and 222, the BLM's analysis is based on the likely nature and general location of a future facility and thus, a generalized assessment of potential impacts of expected visual changes and associated visual contrasts can be made. Additionally, general analysis has been provided to identify the resources that may be at risk if a project is sited in the SEZ. The BLM provides information about the methodology employed for the visual impact assessment for this PEIS, including a description of assumptions

and a disclosure of limitations, in Appendix M.

Lands with Wilderness Characteristics

Issue Number: PP-WO-Solar-12-12-18
Organization: Western Watersheds Project
Protestor: Michael D. Connor

Issue Excerpt Text:
Although the BLM is legally obligated to ensure that its actions do not impair wilderness values and qualities, allowing the development in SEZ and variance areas near wilderness directly and indirectly impacts all of the above listed characteristics. Even worse, the BLM admits that wilderness quality lands exist within some SEZ, even though it claims these SEZ are "low resource conflict areas". For example, the Riverside East SEZ includes a 12,000 acres area showing wilderness characteristics:

A recent inventory of wilderness characteristics has identified an area of about 20,000 acres (81 km^2) that possesses wilderness characteristics located on the valley floor adjacent to the foot of the eastern side of the McCoy Mountains. This area contains numerous channels that are tributary to McCoy Wash and is part of the area identified as desert tortoise connectivity habitat. Portions of the area likely would be classified as microphyll woodland because of the density of ironwood present. Approximately 11,925 acres (48.3 km^2) of this area is located within the boundary of the proposed SEZ (Figure 9.4.3.1-1).

PEIS Vol 2. 9.4-8. The figures of 20,000 acres for the entire area with wilderness characteristics and the 11,925 acres with wilderness characteristics within the proposed SEZ are well above the five thousand acre minimum size for wilderness as defined in the Wilderness Act of 1964. 16 U.S. C. 1131-1136 2(c)(3)

Response

The BLM's management obligations differ for Congressionally designated Wilderness Areas, which under the Wilderness Act and FLPMA must be managed to preserve the wilderness character of the lands, as compared to lands with wilderness characteristics (lands inventoried by the agency, but not designated by Congress as Wilderness). Regarding Wilderness Areas, the BLM does not generally prohibit uses outside a Wilderness Area on public lands solely to protect the wilderness character of the designated lands (BLM Manual 6340, Management of Designated Wilderness Areas, p. 1-64). When activities on adjacent public lands are proposed, the BLM must analyze in the applicable NEPA documents the potential impacts of those activities upon the wilderness resource. If allowed by law and regulation, the BLM may require actions to mitigate potential impacts to the wilderness resource.

Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in Section 2(c) of the Wilderness Act (BLM IM 2011-154, Attachment 1). An inventory determination of lands with wilderness characteristics does not, of itself, change or prevent change of the management or use of public lands. The BLM uses the land use planning process to determine whether to manage for the protection of land with wilderness characteristics (BLM IM 2011-154, Attachment 2). In accordance with NEPA, the BLM must analyze the potential effects for land use plan decisions on lands with wilderness characteristics when they are present.

The BLM's identification of variance areas and SEZs near designated Wilderness Areas is consistent with the BLM wilderness policy. Likewise, the BLM's identification of these areas on or near inventoried lands with wilderness characteristics is consistent with BLM IM 2011-154 and other applicable policies. The Solar PA/PEIS proposes to exclude solar energy development on all units of the BLM National Landscape Conservation System and all areas for which an applicable land use plan establishes protection for lands with wilderness characteristics (p. 2-20 to 2-21). The Solar PA/PEIS analyzed the impacts of solar energy development on wilderness and lands with wilderness characteristics (see, e.g., Sections 5.3, 8.1.3, and 8.3.3). The Solar PA/PEIS also identifies design features to avoid, minimize, and/or mitigate potential impacts on these areas (see Section A.2.2.2).

The Solar PA/PEIS explains the rationale underlying the management decision for these inventoried lands with wilderness characteristics:

"The BLM is proposing that the 11,925 acres (48.3 km2) of lands possessing wilderness characteristics within the SEZ east of the McCoy Mountains not be managed to protect those wilderness characteristics. The BLM has determined that the Riverside East SEZ has generally low resource conflict and high potential for solar energy development including access to transmission. The BLM has identified utility-scale solar energy development on public lands as a potentially important component in meeting the nation's energy goals and objectives in applicable orders and mandates (see Sections 1 and 1.1 of this Final Solar PEIS). The build out of the Riverside East SEZ for utility-scale solar energy development and the associated infrastructure would likely create impacts that would limit the BLM's effectiveness in managing to protect the subject lands with wilderness characteristics" (Solar PA/PEIS, p. 9.4-8 to 9.4-10).