

Director's Protest Resolution Report

**Desert Sunlight Solar Farm
Project Plan Amendment
California Desert Conservation Area Plan**

August 2, 2011



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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 (BMA's) response to the summary statement.

Report Snapshot

Issue Topics and Responses

NEPA — Topic heading

Submission number

Protest issue number

Issue Number: PP-CA-ESD-08-0020-10

Organization: The Forest Initiative — Protesting organization

Protester: John Smith — Protester's name

Issue Excerpt Text: — Direct quote taken from the submission

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 — General statement summarizing the issue excerpts (optional).

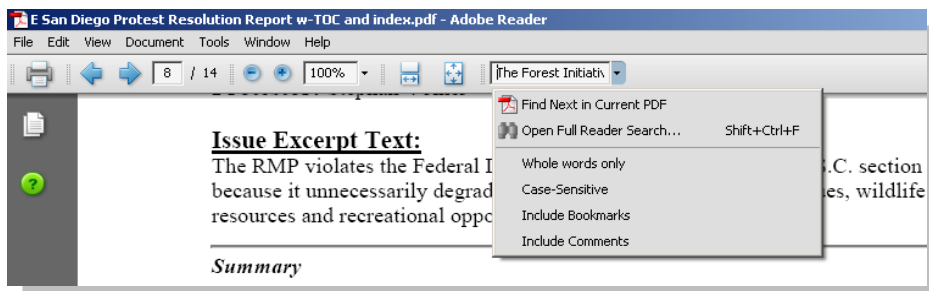
There is inadequate NEPA analysis in the PRMP/FEIS for renewable energy projects.

Response — BLM's response to the summary statement or issue excerpt if there is no summary.

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 site-specific NEPA analysis of the proposal before actions could be approved (FEIS Section 1.2.3, p. 1-123).

How do I find my Protest Issues and Responses?

1. Find your submission number on the protesting party index which is organized alphabetically by protester'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

BLM	Bureau of Land Management	MW	Megawatt
CDCA	California Desert Conservation Area	NAAQS	National Ambient Air Quality Standards
CDFG	California Department of Fish and Game	NECO	Northern and Eastern Colorado Desert Coordinated Management Plan
CFR	Code of Federal Regulations	NEPA	National Environmental Policy Act of 1969
CRIT	Colorado River Indian Tribes	NHPA	National Historic Preservation Act of 1966, as amended
DEIS	Draft Environmental Impact Statement	PM	Particulate Matter
DOI	Department of the Interior	PSD	Prevention of Significant Deterioration
DSSF	Desert Sunlight Solar Farm	ROD	Record of Decision
DWMA	Desert Wildlife Management Area	ROW	Right-of-Way
FEIS	Final Environmental Impact Statement	USFWS	U.S. Fish and Wildlife Service
JTNP	Joshua Tree National Park	USGS	U.S. Geological Survey
KOP	Key Observation Point	VRM	Visual Resource Management
MOA	Memorandum of Agreement		
MUC	Multiple Use Class		

Protesting Party Index

Protester	Organization	Submission Number	Determination
Donna and Larry Charpied	Citizens for the Chuckwalla Valley	PP-CA-Desertsun-11-01	[Protest withdrawn]
Johanna Wald, Kim Delfino, and Barbara Boyle	Natural Resources Defense Council, Defenders of Wildlife, Sierra Club	PP-CA-Desertsun-11-02	[Protest withdrawn]
Michael Connor	Western Watersheds Project	PP-CA-Desertsun-11-03	[Protest withdrawn]
Lisa Belenky	Center for Biological Diversity	PP-CA-Desertsun-11-04	[Protest withdrawn]
Renee Castor	Desert Center Area Chamber of Commerce	PP-CA-Desertsun-11-05	Dismissed— Comments only
Christopher Krupp	Western Lands Project	PP-CA-Desertsun-11-06	Denied—Issues, Comments
Winter King	Colorado River Indian Tribes	PP-CA-Desertsun-11-07	Denied—Issues, Comments

Impact Analysis

Issue Number: PP-CA-Desertsun-11-06-31

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Despite the concerns raised months ago by Chaney Davis and Berry, the DSSF FEIS only cursorily considered the possible negative impacts of invasive plant species. Without additional analysis, BLM cannot rationally determine that the impacts of invasive plants are insignificant enough as to make the project area suitable for solar energy development.

Issue Number: P-CA-Desertsun-11-06-47

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS states that the visual resources that would be impacted in [Joshua Tree National Park] JTNP would not be significant because these would be in areas in the Park that receive little visitation. This is a presumptuous statement based on limited visitor information. It may not even be true. The statement also ignores potential future visitation trends.

Summary

The FEIS does not adequately analyze the impacts of the Proposed Plan Amendment because:

- The visual resources analysis is based on limited visitor information that ignores potential future visitation trends; and
- It only provides cursory analysis of the impacts of invasive plants.

Response

The BLM analyzed the available data that led to an adequate consideration and disclosure of the potential environmental consequences of the proposed plan amendment and its alternatives. As a result, the BLM has complied with the NEPA by taking a hard look at the environmental consequences of the proposed plan amendment and its alternatives, enabling the decision-maker to make an informed decision.

Regarding the points raised by protesters:

Visual Resources

As noted in the response to comments (page N-15), potentially affected viewers would include wilderness users and visitors in high-elevation areas of Joshua Tree National Park. Visitor use in wilderness areas in the Park is unknown by NPS and BLM and likely to be low due to lack of developed access and steep terrain. The FEIS notes that these users are likely to be highly sensitive to visual changes in the adjacent landscapes that are visible from the wilderness areas. (FEIS p. 3.16-9) The FEIS discusses the visual impacts of the proposed plan amendment from

adjacent wilderness areas, noting that the visual impact on viewers in Joshua Tree National Park would be substantial. (FEIS p. 4.16-18 and -19). Also, see the response below relating to the BLM's management of visual resources in the Plan Amendment area.

Invasive Plants

The FEIS states that indirect impacts include introduction of invasive species that compete with native species and can result in habitat degradation (FEIS p. 4.3-2) and that the impacts on adjacent vegetation communities from the potential introduction of invasive species into adjacent areas would be significant (FEIS p. 4.3-33). The FEIS also explains that the introduction of nonnative plant species has also contributed to habitat degradation, population declines, and range contractions for many special status plant species, and that the proposed project authorized with the plan amendment would contribute to this cumulative impact (FEIS p. 4.3-91). The FEIS further notes that the spread of invasive species would have indirect effects on habitat for wildlife, including the desert tortoise. (FEIS p. 4.4-9) These impacts will be reduced through required mitigation, including preparation of an Integrated Weed Management Plan, a Habitat Compensation Plan, and other mitigation measures discussed in section 4.3.

Groundwater Impact Analysis

Issue Number: PP-CA-Desertsun-11-06-20

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS failed to adequately analyze these impacts because it relied on two-dimensional flow and sediment transport modeling, rather than more accurate three dimensional modeling. Without proper modeling the BLM cannot rely on the FEIS to determine that the project area is suitable for solar energy development.

Issue Number: PP-CA-Desertsun-11-06-23

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The [Desert Sunlight Solar Farm] DSSF FEIS asserts that rainfall and inflow from other basins will

recharge the Chuckwalla Valley groundwater basin, but environmental analyses of other proposed solar energy projects in the region have reached a different conclusion. For example, evidence was presented at the July 13, 2010 California Energy Commission Evidentiary Hearing for the Genesis Solar Energy Project that no recharge to the Chuckwalla Valley groundwater basin was likely to take place.

More important, BLM has conceded that "[f]urther characterization of the groundwater safe-yield for the Chuckwalla Valley and Palo Verde Mesa basins would be needed prior to the evaluation of impacts associated with project-specific groundwater withdrawals. Draft Programmatic Environmental Impact Statement for Solar Development in Six Southwestern States, 9.4-77. The controversy points to the need to do further groundwater modeling before BLM can properly determine whether the project area is suitable for solar energy development.

Summary

The FEIS does not adequately analyze the impacts of the Proposed Plan Amendment with regard to:

- groundwater recharge not consistent with U.S. Geological Survey (USGS) model

- need for additional transport and flow modeling prior to development
-

Response

“The FEIS failed to adequately analyze these impacts because it relied on two-dimensional flow and sediment transport modeling, rather than more accurate three dimensional modeling. Without proper modeling the BLM cannot rely on the FEIS to determine that the project area is suitable for solar energy development.”

While the AECOM study in Appendix G of the FEIS describes its model as two-dimensional, it is actually semi-three dimensional (unlike the USGS model on which it is based). The AECOM study models flow in two dimensions (i.e., horizontally), but adds a one-dimensional vertical component at the locations of groundwater pumping. It should also be noted that while flow is not fully three-dimensional, the aquifer is modeled in three dimensions, albeit with constant physical parameters throughout its depth. Additionally, as described in Appendix G, the modeled basin is subdivided horizontally into four zones, each with a different transmissivity. As a result, given the available data, the model is as close to three-dimensional as can be reasonably expected, with the exception of its omission of modeled input from surface recharge (see response to Comment 1 above).

“The DSSF FEIS asserts that rainfall and inflow from other basins will recharge the Chuckwalla Valley groundwater basin, but environmental analyses of other proposed solar energy projects in the region have reached a different conclusion. Evidence was presented at the July 13, 2010 California Energy Commission Evidentiary Hearing for the Genesis Solar Energy Project that no recharge to the Chuckwalla Valley groundwater basin was likely to take place.”

There are uncertainties in the basin’s water budget that argue for a conservative approach to assumptions regarding the impacts of groundwater extraction; this would include minimizing or eliminating altogether the recharge from precipitation and underflow from adjacent basins when performing groundwater modeling.

In response, as described in FEIS Appendix G, the USGS model assumes no recharge from precipitation or underflow from the Pinto or Orocopia groundwater basins. It does, however, assume hydrologic connection with the Colorado River groundwater system via the Palo Verde Mesa groundwater basin; if the water table in the Chuckwalla Basin drops sufficiently, the USGS model thus allows groundwater flow out of the Chuckwalla Basin to reverse, with recharge flowing in from the Palo Verde Mesa Basin. The USGS model was set up this way because its primary purpose was to assess the potential impact of water extraction in adjacent groundwater basins to affect discharge within the Colorado River. Ignoring potential inflow from precipitation or other upgradient groundwater basins thus provided a worst-case scenario for this assessment.

The Genesis Solar Project groundwater study, and by extension the Palen and Desert Sunlight studies, utilized this same assumption, for largely the same purpose: to determine a worst-case scenario for groundwater depletion from pumping associated with their respective solar projects. Indeed, the analysis described in Appendix G for the Desert Sunlight project predicts a

maximum one-foot drop in water table elevation at a distance of one mile from each extraction well, even with the bulk of basin water inputs eliminated from analysis. Had the model concluded that pumping would have a greater impact under this scenario, this would have argued for a more detailed water budget to be incorporated into the model parameters.

It should also be noted that Chapter 4.17 does include and assess two water budgets for the basin, derived from the Palen and Genesis project studies, as shown in Table 4.17-1; this includes a total basin inflow from precipitation and underflow of 13,719 to 14,571 acre-feet per year (AFY), respectively; when measured against this inflow (which is based on available data, not speculation), the EIS concludes that sufficient water is available to supply the approximately 650 AFY to be extracted for the Desert Sunlight Project, without significant impacts to the basin.

“More important, BLM has conceded in its Draft Programmatic Environmental Impact Statement for Solar Development in Six Southwestern States, 9.4-77, that further characterization of the groundwater safe-yield for the Chuckwalla Valley and Palo Verde Mesa basins would be needed prior to the evaluation of impacts associated with project-specific groundwater withdrawals. This controversy points to the need to do further groundwater modeling before BLM can properly determine whether the project area is suitable for solar energy development.”

The BLM believes that the EIS analysis is adequate to support a decision to amend the CDCA plan to permit solar energy development. For subsequent project development, the BLM is seeking funding through its own budget, as well through the Department of Energy via Sandia National Laboratories, for a program of well drilling, sampling, data analysis, and groundwater modeling to determine the potential impacts of the various energy projects currently proposed for the Chuckwalla Valley. However, the results of this analysis will not be available for at least 2 years. Until such data are available, more detailed groundwater modeling would be of limited value. Each energy project that the BLM approves involves a program of groundwater monitoring in and around each project site, and BLM has the authority to order groundwater extraction to be reduced or curtailed altogether until the water table recovers sufficiently. As the results of future analyses become available, the BLM may also bring these to bear on its management of groundwater extraction associated with these energy projects.

Wildlife Impact Analysis

Issue Number: PP-CA-Desertsun-11-06-8

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Regarding bighorn sheep and burro deer, the FEIS states: "Large mammal species can use desert washes and include special status species, such as bighorn sheep (*Ovis canadensis*) and burro deer (*Odocoileus hemionus eremicus*). While sign for burro deer was

observed during surveys, bighorn sheep, including tracks and scat, were not observed."

This information is inaccurate and cannot be used to support the proposed Plan amendment. Local land owners have stated that bighorn sheep have visited agricultural lands adjacent to the project site. Burro deer have also been seen on the site. This is not surprising, as the site represents an important connectivity zone for both of these species. Removal

of up to 4,200 acres of this habitat will impair long term connectivity for both species. Bighorn biologists Dr. John Wehausen and Dr. Vern Bleich have used radio telemetry studies of bighorn sheep in various

southwestern deserts, including the Mojave Desert of California, and found considerable movement of these sheep between mountain ranges.

Summary

The FEIS does not adequately analyze the impacts of the Proposed Plan Amendment to wildlife, because it is based on inaccurate information regarding the presence of burro deer and bighorn sheep.

Response

Burro Deer and Bighorn Sheep

As discussed in the protest, BLM did not find any sign of bighorn sheep, including tracks and scat, when conducting a wildlife survey in the planning area (Chapter 3.4.3). Chapter 3.4.4 of the FEIS states that bighorn sheep is known to live in the mountainous rocky areas of Joshua Tree National Park, west and northwest of the Solar Farm alternatives, and states that the population is known to cross the northern extreme of the Chuckwalla Valley.

Chapter 3.4.5 of the FEIS analyzes the movement of bighorn sheep in the region, citing a recent state-wide evaluation of habitat connectivity that included the Chuckwalla Valley, where the site is located, as an 'Essential Connectivity Area' for wildlife, including bighorn sheep (Spencer et al. 2010). The Spencer study describes Essential Connectivity Areas as "placeholder polygons that can inform land-planning efforts, but that should eventually be replaced by more detailed Linkage Designs, developed at finer resolution based on the needs of particular species and ecological processes."

BLM has begun to conduct more detailed analyses to evaluate more localized connectivity priorities in the region (discussed above). The preliminary results of this analysis do not indicate that the Solar Farm layouts within the site are within priority linkage areas for bighorn sheep. These analyses conclude that bighorn sheep may infrequently travel across the planning area, but that it is unlikely that any individual animal would need to move across the valley to access different parts of its regular home range.

Protestors rely on older studies (1986 and 1990) that were conducted at a broader level (the Mojave Desert as a whole) to bolster their allegation that the site is an important connectivity area.

After review of the science relating to habitat connectivity and in light of the results of the preliminary analysis of localized connectivity priorities, BLM is confident that the Desert Sunlight site is not an important connectivity area for bighorn sheep.

As stated by protestor, burro deer have been seen on the site. BLM agrees with this statement, noting that signs of burro deer were observed during site surveys.

Federal Land Policy and Management Act

Multiple Use Class

Issue Number: PP-CA-Desertsun-11-06-36

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Under the CDCA Plan, land classified as Multiple-Use Class L (Limited Use) is to be managed to protect "sensitive, natural, scenic, ecological and cultural resource values." Class L lands are to be "managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished." Amending the CDCA Plan to authorize industrial solar development on the Class L lands at issue here is clearly contrary to the classification, for industrial solar development is a high intensity use that would severely limit and degrade other uses of resources on or near the lands. An industrial solar facility with a footprint of more than four thousand acres in size would significantly diminish the Class L lands' natural, scenic, ecological and cultural resource values.

Although the classification Multiple-Use Class M (Moderate Use) permits higher intensity uses than the Class L classification, the proposed Plan Amendment would still be incompatible with this classification. Class M lands require a "controlled balance between higher intensity use and protection of public lands." While Class M lands are suitable for a wide range of uses, the lands must be managed to "conserve desert resources and mitigate damage to those resources." Industrial solar development is so intensive that it effectively bars concurrent uses. The intensity of the use also negates any efforts at conserving resources.

Solar farms require the leveling of large swaths of land. The leveling will obliterate any cultural resources on the land. The solar arrays will be an overwhelming visual presence, greatly degrading the visual and scenic resources currently found there. Construction would destroy the wildlife habitat resource values of the project area land for the foreseeable future. The FEIS admits that the visual resource impacts of the proposed project cannot be fully mitigated. Quite simply, industrial scale solar cannot co-exist with the existing resource values or the management prescriptions for Class L and Class M lands.

Issue Number: PP-CA-Desertsun-11-07-7

Organization: Colorado River Indian Tribes

Protester: Winter King

Issue Excerpt Text:

Finally, because the proposed Project may impact CRIT's cultural resources, CRIT does not believe that the BLM can make the requisite findings under the California Desert Conservation Area ("CDCA") Plan to approve the Project in its current location and form. The CDCA Plan is a comprehensive, long-range management plan developed under the Federal Land Policy and Management Act of 1976 and has binding legal effect. 43 U.S.C. 1732(a). A portion of the Project is located on Class L land, which, under the CDCA Plan, is protected for "sensitive, natural, scenic, ecological, and cultural resource values." The BLM can approve consumptive uses, such as large-scale solar facilities, on Class L lands "only up to the point that sensitive natural and cultural values might be degraded.

Summary

The Proposed Plan Amendment is inconsistent with the Multiple-Use Class designations of the CDCA plan.

Response

The CDCA Plan provides guidance for balancing public needs and protecting resources in the management and use of BLM-administered lands in the California Desert. The Plan specifically cites energy development and transmission as a “paramount national priority” to consider in balancing uses and protection of resources (CDCA Plan, p. 13) and states that power facilities may be allowed within Multiple Use Class M (Moderate Use or MUC-M) and Multiple Use Class L (Limited Use or MUC-L) areas after NEPA analysis and a plan amendment process (if it is a power generation facility not already identified in the Plan) has been completed (CDCA Plan, pp. 15 and 95). The EIS that accompanies this proposed Plan Amendment process acts as the mechanism for complying with NEPA requirements.

As noted on page 13 of the CDCA Plan, lands classified as Moderate Use may allow higher-intensity use balanced with protection of public lands and “provides for a wide variety of present and future uses such as ...energy, and utility development.” Limited Use lands generally provide for lower intensity, controlled, multiple uses without major diminishment of resource values. Solar and wind electrical generation facilities are identified in the CDCA Plan as an allowable use within lands classified as Limited Use (CDCA Plan p.13).

Regarding MUC-L lands, in the 1980 CDCA Plan Record of Decision, the Assistant Secretary for Land and Water Resources discussed the remaining major issues in the final CDCA Plan before he approved it (CDCA ROD, p. 10 et seq.). One of the remaining major issues was the allowance of wind, solar, and geothermal power plants within designated Class L lands (CDCA ROD, p. 15). The 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 ASLW approved the allowance of wind, solar, and geothermal power plants on designated Class L lands in the CDCA and the Secretary of the Interior concurred on December 19, 1980.

As noted on page 2-5 of the FEIS, the amendment area is primarily made up of lands classified as MUC-M, with respect to the solar farm site, and the portion of the proposed generation-tie line that lies outside of the 300' county easement for Kaiser road, with a small portion classified as MUC-L, with respect to the proposed generation- tie line that lies within the 300' county easement for Kaiser Road, and the proposed Red Bluff Substation A. The solar farm portion of plan amendment area (3,912 acres) is to be located solely within MUC-M lands. Approximately half of the 92-acre portion of BLM lands along the Gen-Tie Line is MUC-M, while others are MUC-L. A majority of the Gen-Tie Line lands fall within the 300 foot easement for the road. The 76-acre Red Bluff Substation portion of the amendment area is classified as MUC-L and exists within the Corridor K energy production and utility corridor identified in the 2002 NECO Amendment to the CDCA Plan. In this corridor, there are a number of authorized rights-of-ways, such as gas, fiber optics, and major transmission lines.

Because the CDCA Plan requires that the BLM strike a balance between uses and protecting resources, the FEIS identifies and analyzes sensitive resources and values within these

classification areas. Multiple uses in a given area “will be mutually exclusive and require selective decisions to be made for that area. Resolution of these conflicts and tradeoffs between and within varying uses are fundamental to multiple-use management” (CDCA Plan, p. 21). During the plan amendment process, the BLM has identified and developed measures to resolve existing or possible conflicts. Impacts to these resources and values were adequately analyzed in the FEIS and have been addressed to the extent possible and in an environmentally acceptable way of design features, mitigation measures, and monitoring actions to reduce impacts, as listed in Table ES-3 of the FEIS.

Conformance with the California Desert Conservation Area Plan

Issue Number: PP-CA-Desertsun-11-06-2

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The CDCA [Plan] identifies protecting, stabilizing, and enhancing wildlife values as a general long term wildlife management goal for Chuckwalla Valley public lands. (CDCA [Plan], 34). The CDCA [Plan] also categorizes a portion of the Chuckwalla public

lands as Desert Tortoise Management Category 1, with the goal of "maintain[ing] stable, viable populations and increas[ing] populations where possible." (CDCA [Plan], 31) The proposed Plan amendment would identify the DSSF project site as suitable for industrial solar energy development. Under even the best of circumstances, solar energy development would not maintain or increase wildlife populations and is therefore inconsistent with the long term wildlife management goals of the CDCA [Plan].

Summary

The Proposed Plan Amendment is inconsistent with the specific wildlife management principles in the CDCA plan.

Response

The proposed Plan Amendment adheres to the management principles and guidelines in the CDCA Plan and considers the broader CDCA context. The CDCA Plan recognizes the potential compatibility of solar generation facilities on public lands and requires that all sites associated with power generation or transmission not specifically identified in the CDCA Plan for a project site be considered through the plan amendment process (FEIS Section 2.2.2).

The CDCA Plan itself recognizes that plan amendments such as the proposed Plan Amendment may occur, and outlines a process to approve or deny these amendments (CDCA Plan, pp. 119-122). The management principles in the CDCA Plan include “multiple use, sustained yield, and maintenance of environmental quality contained in law” (CDCA Plan, p. 6) and were the basis for the BLM's development of the proposed Plan Amendment. The CDCA Plan provides management approaches to be used to resolve conflicts. These approaches are designed to help achieve the goals of allowing for the use of desert lands and resources while preventing their undue degradation or impairment, and responding to national priority needs for resource use and development “both today and in the future, including such paramount priorities as energy

development and transmission, without compromising basic desert resources...[and] erring on the side of conservation in order not to risk today what we cannot replace tomorrow” (CDCA Plan, p. 6). The CDCA Plan conceives of balancing use and protection in the overall context of the entire CDCA, but recognizes that certain sites will strike the balance in favor of protection or use depending on relevant factors. The management principles section of the Plan specifically cites energy development and transmission as a paramount national priority to consider in striking that balance (CDCA Plan, p. 6).

Amendments to the CDCA Plan can be site-specific or global depending on the nature of the amendment. In the case of the proposed Plan Amendment, while the Amendment is site-specific, it is considered in the larger context of the CDCA and its plan. The CDCA Plan has been amended several times to include industrial uses analogous to the solar use analyzed by the proposed Plan Amendment, including utility rights-of-way outside of existing corridors, power plants, and solar energy development and transmission within the broader CDCA context (CDCA Plan, p. 95). The BLM has the discretion, based on its expertise, to determine whether a plan amendment adheres to the principles of multiple use, sustained yield, and maintenance of environmental quality.

Consistency with Other Plans

Issue Number: PP-CA-Desertsun-11-06-17

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The proposed Plan amendment would open land visible from numerous viewpoints on the eastern portion of the Park to development of a monolithic, landscape-altering solar farm more than four thousand acres in size. This would be incompatible with the Park Service's commitment to maintaining the quality of JTNP's visual resources. The proposed Plan amendment would therefore violate the agreement in place within the Department of the Interior to approach planning and management of the California Desert region on an integrated ecosystem basis. Adoption of the proposed Plan amendment would also be in dereliction of Interior's duties under the 1916 Organic Act. The BLM should reject the proposed Plan amendment and instead adopt Alternative 5, which is consistent with the JTNP Plan and the duties imposed by the 1916 Organic Act.

Response

In its analysis, the BLM acknowledges that there will be impacts to the viewshed of the Joshua Tree National Park from siting renewable energy development within the plan amendment area. The BLM has proposed a number of project-specific mitigation measures intended to reduce some of these impacts.

The National Park Service Organic Act of 1916 applies specifically to lands within the National Park System managed by the NPS; it does not apply to Federal lands managed by other Federal agencies and accordingly, does not direct the actions of the BLM.

In providing comments on the DEIS, the NPS did not state that the plan Amendment would be inconsistent with its organic legislation and has since made no such statement. Further, because the decision to approve the plan amendment and the Record of Decision for the Desert Sunlight project is being approved by the Deputy Secretary of the Interior, the missions of both agencies have been carefully considered.

Air Resources

Issue Number: PP-CA-Desertsun-11-06-38

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS acknowledges that both the construction and decommissioning of a solar energy facility would exceed [South Coast Air Quality Management District] regional emissions significance thresholds for reactive organic compounds, nitrogen oxides, carbon monoxide, PM10, and PM2.5. The Environmental Protection Agency has noted that JTNP (a Class 1 area for [National Ambient Air Quality Standards] NAAQS) is at 5,200% of the [Prevention of Significant Deterioration] PSD increment for [Particulate Matter] PM10. Page 26, EPA comment letter on Draft Programmatic Environmental Impact Statement for Solar Development in Six Southwestern States. The exceedance of these significance thresholds makes it necessary to reject the proposed Plan amendment, especially when the cumulative emissions impacts of other solar energy projects in the region are considered.

Issue Number: PP-CA-Desertsun-11-06-39

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

During construction of an industrial-scale solar energy facility, removal of stabilized soils and the biological soil crust would create a destructive cycle of airborne particulates and erosion. As more stabilized soils would be removed, particulates blown off recently eroded areas would act as abrasive catalysts, eroding the remaining crusts and thus resulting in more airborne particulates. The FEIS failed to analyze the cumulative impacts on air quality that would result from the removal of so much stabilized soil and biological soil crust. Construction would not only create a visual contrast from soil disturbance, but erosion from the removal of soils would compromise the visual quality of the

area by allowing dust to be stirred up whenever there are wind events. The short term construction would most likely result in long term visual disturbances due to the permanent removal of desert soils. The FEIS acknowledges that visibility in the Park can be impaired by haze caused by dust and other fine particles in the air. FEIS 3.2-17. Despite this, the FEIS failed to consider the cumulative impacts from fugitive dust that solar energy development at the project site. The assertion that the Park's worst visibility days are caused by increased ammonium nitrate emission levels does not negate the need to address what cumulative effect fugitive dust will have to visibility on those worst visibility days at the Park when ammonium nitrate emission levels are above normal.

Issue Number: PP-CA-Desertsun-11-06-40

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS falsely asserted that the region of interest for directly emitted PM10 and PM2.5 matter is "typically less than one mile from the construction site." FEIS 4.2-1. The assertion lacks a citation and cannot be relied upon to support the proposed Plan amendment. PM2.5 in suspension in the air can travel for thousands of miles.

Issue Number: PP-CA-Desertsun-11-06-41

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS did not adequately examine the possible impacts of fugitive dust created during the construction of a solar energy facility. Although the FEIS acknowledges that "[g]eotechnical studies conducted at the solar farm site indicate sandy soils throughout the site, with a typical silt plus clay content of 5 to 13 percent" and "[a]gricultural lands near the solar farm site were generally characterized

as gravelly loamy, coarse sand, or loamy sand with a high potential for wind erosion," FEIS 3.2-19, the FEIS included no quantitative analysis of wind erosion conditions for the proposed Gen Tie [GT] Line A-1. FEIS 4.2-26. The FEIS claims that such analysis is unnecessary because GT-A-1 would be a relatively narrow corridor partially shielded from wind erosion by adjacent undisturbed areas. This

conclusion is contradicted by other claims in the FEIS, including those that the site has a high potential for wind erosion and that existing vegetation at the solar farm site covers only 15 percent of the area, "with little or no stable biological or mineral crusts in the open areas between desert shrubs." FEIS 3.2-19.

Summary

The impacts of development of solar energy development at this site will have detrimental effects on air quality.

- Construction of a solar facility would exceed South Coast Air Quality Management District (SCAQMD) regional thresholds. When considered with the cumulative effects of other solar energy projects in the region, the plan amendment should have been rejected.
 - The FEIS falsely asserted a small region of interest for directly emitted PM10 and PM2.5 matter.
 - The FEIS failed to consider the direct, indirect, or cumulative impacts of the construction of a solar facility on airborne particulates caused from erosion of stabilized soils and the biological soil crust.
-

Response

Threshold Exceedance

The FEIS does state that "construction-related emissions for the proposed Project would be an unavoidable significant air quality impact under all action alternatives (Alternatives 1, 2, and 3)."

As stated in the FEIS Chapter 4.2.9, "[c]umulative air quality impacts would occur when multiple projects affect the same geographic areas at the same time or when sequential projects extend the duration of air quality impacts on a given area over a longer period of time."

However, the cumulative effects discussed in the FEIS state that "the air quality impacts of the Project alternatives stem primarily from temporary construction activities." The FEIS also states that "the proposed Desert Sunlight Project would not be a meaningful source of precursor emissions for ozone or secondary particulate matter during its operational lifetime. Thus, the time frame for potential cumulative air quality impacts related to precursors of ozone and secondary particulate matter is restricted to the construction period for the Desert Sunlight Project."

In sum, the air quality impacts of this project are generally restricted to the construction period time frame. As a result, the cumulative emissions impacts from other solar energy projects in the region that do not fall within this time frame were properly excluded from the cumulative impacts analysis in combination with the Desert Sunlight Project.

PM10 and PM2.5 Emissions

As stated in Chapter 4.2.9 of the FEIS, "[t]he air quality impacts of the Project alternatives stem primarily from temporary construction activities. Ozone precursor emissions associated with engine exhaust from construction equipment and construction-related traffic would contribute to area-wide and regional air quality conditions. Direct particulate matter emissions, such as fugitive dust emissions from construction activities, generally would have a more localized impact, with the most noticeable impacts occurring within one-half mile or less of active construction sites."

Common experience with dispersion modeling analyses shows that fugitive dust from common land disturbance activities or vehicle travel on unpaved roads is unlikely to create high downwind concentrations of particulate matter at distances beyond 1/2 mile. Soils at the project site have a very low PM10 fraction, further limiting the potential for high downwind PM10 concentrations from construction-related site disturbance.

Airborne Particulates

As stated above and in the FEIS's air quality cumulative impacts analysis, impacts to air quality within the site will stem primarily from temporary construction activities (Letter 29-03, Appendix N-50). Fugitive dust generated during construction would be short-term and temporary and would be minimized with AM-AIR-1, which requires implementation of a Dust Control Plan including the use of dust suppressants during facility construction.

While visibility in the Joshua Tree National Park can be impaired by dust and other fine particles in the air, the FEIS outlines that any such impacts would be temporary and limited to the time frame of construction of a project on the site.

Particular to dust, and as stated above, the FEIS states that "[d]irect particulate matter emissions, such as fugitive dust emissions from construction activities, generally would have a more localized impact, with the most noticeable impacts occurring within one-half mile or less of active construction sites." Chapter 4.2.9. At its closest point, the solar farm site is 1.4 miles from the Joshua Tree National Park boundary. Therefore, fugitive dust emissions from construction activities would be unlikely to have an impact on visibility or air quality within the Park.

In sum, the effects of fugitive dust on visibility within Joshua Tree National Park are minimal and were considered in Chapter 4 of the FEIS.

Additionally, protestor alleges that the FEIS should have included a quantitative analysis of wind erosion conditions for the proposed Gen Tie Line A-1. However, the analysis quoted by protestor in Chapter 3 that purports to show the BLM contradicting itself relates to the solar farm site itself, not for the Gen Tie Line. Because Gen Tie Line A-1 would be a relatively narrow corridor, would be partially shielded by adjacent undisturbed areas, and would be cleared only where necessary for laydown and staging areas, tower assembly areas, and other localized work areas, BLM was justified in not including a quantitative analysis of wind erosion conditions.

Cultural Resources and Tribal Consultation

Issue Number: PP-CA-Desertsun-11-06-33

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Native American consultation regarding the proposed Plan amendment is incomplete and may yet result in the identification of sacred sites, traditional cultural properties or traditional use areas. The FEIS acknowledges that solar energy development would have direct and indirect impacts to these resources if any are found within the project area. Similarly, the Memorandum of Agreement-concerning the National Historic Preservation Act's Section 106 national historic register eligibility has not been completed. There are numerous potentially eligible sites within the Project's Region of Influence ("ROI"). The CDCA [Plan] should not be amended while Section 106 determinations are incomplete.

Issue Number: PP-CA-Desertsun-11-06-33

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

[Colorado River Indian Tribes] CRIT is concerned, however, that the BLM may not have adequately consulted with CRIT during the process leading up to the execution of a memorandum of agreement, as federal law requires. See, e.g., id. 800,2(c)(2)(ii); see also Quechan Tribe, at 5 ("Section 800.4 alone requires at least seven issues about which [a tribe], as

a consulting party, is entitled to be consulted before the project [is] approved."). The BLM's failure to engage in the government-to-government consultation required under these regulations violates the fiduciary duty owed to all Indian tribes. Id. at 7; see also Pit River Tribe v. US. Forest Serv., 469 F.3d 768, 788 (9th Cir. 2006).

Issue Number: PP-CA-Desertsun-11-07-4

Organization: Colorado River Indian Tribes

Protester: Winter King

Issue Excerpt Text:

CRIT is also concerned that the EIS for the Project understates and defers analysis of the Project's impacts to cultural resources. Pursuant to the National Environmental Policy Act ("NEPA"), the EIS must consider "the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources." 40 C.F.R. 1508.27. The EIS defers this analysis, stating that no sacred sites, traditional cultural properties or traditional use areas have been identified to date, but noting that the BLM has not finished consultation. Project approval at this stage undermines NEPA's informational purpose and creates the risk that the Project will impact tribal cultural resources that have yet to be identified.

Summary

Native American consultation regarding the Proposed Plan Amendment is incomplete and may yet result in the identification of sacred sites, traditional cultural properties or traditional use areas. Similarly, the Memorandum of Agreement (MOA) concerning the National Historic Preservation Act's (NHPA) Section 106 national historic register eligibility has not been completed.

Response

The BLM initiated consultation with the CRIT on April 9, 2010, with a letter inviting the tribe to consult on the development of a Programmatic Agreement (PA) and to attend a meeting for the Desert Solar project. The BLM did not receive a response to this invitation nor to a number of subsequent invitations to meet, to attend project overview meetings and site visits, to consult on archaeological site eligibility determinations, or to comment on a proposed Memorandum of Agreement (MOA) which was being prepared in place of a PA. At the time that the protest letter from the CRIT was written, consultation with the CRIT was not complete nor was the MOA.

Subsequent their protest letter, the CRIT and the BLM did engage in productive consultation. Representatives from the CRIT participated in one meeting at its tribal administrative offices with the BLM (represented by the Field Office manager and staff via phone), and with First Solar and its consultant. This meeting was held primarily to discuss the project and to hear and respond to the CRIT's specific concerns. No additional, specific tribal resources or sites were identified during this consultation. The CRIT subsequently participated in a substantive conference call, among representatives from the BLM, the State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), First Solar, the Department of Energy (DOE), another tribe and others. The purpose of this call was to discuss comments received on the draft MOA from various parties, including the CRIT and other tribes also engaged in consultation, and to make final changes to the MOA. At the conclusion of this conference call both participating tribes, including the CRIT, expressed general satisfaction with the process.

The MOA was subsequently executed on June 21, 2011 when signed by the ACHP, following signature by the BLM, the SHPO, and the DOE. Continuing the Section 106 process, Tribal consultation will be ongoing. The BLM considers this protest to be resolved.

Fish, Wildlife, Plants, Special Status Species

Golden Eagles

Issue Number: PP-CA-Desertsun-11-06-25

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS states that at least one nesting pair of golden eagles has an active territory overlapping the proposed solar development area, and acknowledges that a portion of the pair's foraging habitat would be lost if a solar energy facility were constructed. The golden eagle is listed as a sensitive species by the BLM. The Northern and Eastern Colorado Desert Coordinated Management Plan ("NECO Plan") identifies protecting and enhancing the habitat of special status species, including sensitive species, as a management objective. The proposed plan Amendment should be rejected for it is counter to the NECO Plan objective by permitting the destruction a portion of golden eagle foraging habitat on the public lands covered by the NECO Plan. Eliminating a portion of the pair's foraging habitat may result in the take of the active pair, a violation of the Bald and Golden Eagle Protection Act.

Response

The elimination of a portion of the foraging habitat for the golden eagles whose active territory overlaps the proposed solar development area will not result in the take of the pair and will not result in a violation of the Bald and Golden Eagle Protection Act. The project will have a very small impact on the golden eagles' foraging habitat, and the establishment of a Habitat Conservation Plan will further reduce these impacts.

Out of the total 76,000 acres of foraging habitat in the active territory of this pair, removal of 4,176 acres associated with Alternative 1 would comprise less than 5.5% of the foraging habitat for this pair. Implementation of the Habitat Compensation Plan required in Applicant Measure AM-BIO-1...would reduce these impacts (FEIS 4.4-10).

AM-BIO 1 is a Habitat Compensation Plan that has been prepared and will be implemented by the Applicant to compensate for the loss of creosote desert scrub, desert dry wash woodland, and other jurisdictional resources. Compensation will be accomplished by acquisition of mitigation land or conservation easements or by providing funding for specific land acquisition, endowment, restoration, and management actions under one of several programs. The precise details of the mitigation will be established in the BLM ROW grant, USFWS Biological Opinion, and CDFG 2080.1 Consistency Determination.

As the small percentage of the golden eagle's foraging habitat that is affected will be mitigated per the Habitat Compensation Plan, it is consistent with the NECO Plan's objective of "protecting and enhancing the habitat of special status species" and will not result in a taking of the active pair.

Desert Tortoises—General

Issue Number: PP-CA-Desertsun-11-06-15

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Approval of the proposed plan amendment would ultimately result in the translocation of tortoises currently residing on the DSSF project area to the Chuckwalla DWMA (designated Critical Habitat), causing harm to at least two populations of tortoises. The proposed Plan amendment must be rejected because it will increase harm to a federally- listed species, counter to the objectives of the Endangered

Species Act and the CDCA Plan.

Issue Number: PP-CA-Desertsun-11-06-5

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Implementation of the proposed Plan amendment would serve to eliminate a substantial portion of this connectivity zone.

The project site must be preserved as a connectivity corridor to maintain gene-flow; therefore solar energy development is unsuitable for the site and the proposed Plan amendment should be rejected.

Summary

The Proposed Plan Amendment should be rejected because:

- Development of the project site for solar energy would disrupt habitat connectivity making the site unsuitable for solar development; and
 - The FEIS does not identify how translocation will mitigate impacts to the desert tortoise.
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Response

Habitat Connectivity

The FEIS fully analyzed the impacts of the proposed plan amendment on habitat connectivity and identified mitigation measures, such as preparation of a Habitat Compensation Plan, which will serve to reduce these impacts below significance (see Habitat Fragmentation section of response to Impacts Analysis). As a result of the analysis and mitigation process, the BLM has determined that the project site is suitable for solar energy development.

Translocation

The FEIS discusses the impacts of translocation on desert tortoises, including impacts to resident animals, in detail at pages 4.4-7 to -9. As noted in the response to comments, "translocation poses a lesser risk to desert tortoises than leaving them on the site where they would be subject to mortality by project construction and operation. Additionally, it is the policy of the CDFG and USFWS to require translocation of desert tortoises from project sites where they otherwise would be taken." (page N-76) The response to comments further notes that "[t]he translocation plan is intended to minimize take of desert tortoises and is preferable to leaving the animals in place. To ensure that any tortoise translocation effort is consistent with up-to-date agency policy, AM-WIL-1 has been revised in the FEIS to require that 'the final [translocation] plan will conform to the 2010 USFWS desert tortoise relocation guidelines ... or any updated CDFG and USFWS policy that may be available as of the date of implementing the translocation.'" (FEIS p. N-131) Consistent with USFWS protocol, translocated desert tortoise will be tested for disease before translocation, and resident populations will also be tested (including an alternate site) to inform translocation efforts and minimize impacts to the species.

Desert Tortoises—Surveys

Issue Number: PP-CA-Desertsun-11-06-3

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

A presence survey was conducted for the FEIS and as a result BLM estimates that eight adult tortoises and potentially eight juveniles inhabit the project area. The presence survey was conducted one time, in 2008. Desert Center, California received very little, if any measurable precipitation in 2008. In dry years,

desert tortoise activity is even more limited than usual in order to reduce the animal's need for water and food. The 2008 survey numbers almost certainly underreport the actual tortoise population within the project area because tortoise were in burrows and difficult to locate that year. The proposed Plan amendment cannot be approved on the basis of limited, flawed survey numbers for a federally listed species.

Issue Number: PP-CA-Desertsun-11-06-7

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The preliminary construction work done for the solar energy facility on public lands in the Ivanpah Valley further underscores the conflict between the proposed Plan amendment and the larger goals of the CDCA

Plan. The FEIS for that project greatly underestimated the number of desert tortoise that would be harmed, estimating that the construction of the Ivanpah facility would "take" 40 tortoises. Although only preliminary construction has begun, biologists at the Ivanpah site have already found 39 tortoises. Further construction has been halted as a result and BLM now estimates that the Ivanpah project site contains 140 tortoises. The methodology used to estimate the number of tortoises found on the DSSF project area is certainly similar to that used for the Ivanpah project. The number of tortoises found within the Ivanpah project area after just preliminary construction is further evidence that the proposed Plan amendment must be rejected because it would prevent the BLM from attaining the larger CDCA Plan goal of maintaining or increasing stable, viable desert tortoise populations.

Summary

The Proposed Plan Amendment should be rejected because the survey methodologies used are likely to underestimate the number of desert tortoises on the proposed project site.

Response

Survey data is used as a tool to determine presence of and areas of use by tortoises (FEIS p. N-70). It is not intended to identify every tortoise at the site. Rather, survey data is used to develop a statistical estimate of tortoises at the project site. Take is then authorized in the Biological Opinion. The FEIS acknowledges that the actual number of desert tortoises on the project site cannot be determined from field survey data alone (FEIS p. 3.4-20). The FEIS also acknowledges that the number of tortoises found on the site during field surveys may not reflect the actual number of tortoises that use the site or may need to be removed prior to construction because tortoises may move onto or off of the project site prior to initiation of project construction (FEIS p. 3.4-20). Tortoise surveys occurred during five periods: March 18 and April 5, 2008; October 1 and 12, 2008; October 26 and 31, 2009; March 15 through April 17, 2010; and July 7 through 12, 2010 (FEIS p. N-66). Each survey period mentioned above covered a different project component, meaning no project component was surveyed more than one time, per the current USFWS protocol. The data gathered is sufficient to provide a basis for identifying and interpreting potential impacts of the alternatives.

If additional tortoises are observed during clearance surveys of the project area, qualified biologists would implement USFWS, CDFG and BLM-approved protocol provided in the project's Desert Tortoise Translocation Plan (FEIS p. N-76). If it becomes apparent that the project is likely to exceed the level of take authorized by the BO, the BLM would reinitiate consultation with the USFWS.

Visual Resource Management

Issue Number: PP-CA-Desertsun-11-06-43

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

However, even under Class 2 standards, "[c]hanges should repeat the basic elements found in the predominant natural features of the characteristic landscape." An industrial solar energy facility's immense size would not conform to this standard. The proposed action and even the reduced footprint alternative would replace and dramatically alter 4 to 5 square miles of the characteristic visual landscape. Both construction as well as the actual facility would cause a contrast so dramatic that mitigation of visual impacts would be impossible.

The BLM VRM rating system of Class 1 to 4 is inadequate to accurately define the impacts imposed by a five square mile alteration of the viewscape. For example, an industrial solar energy project would be visible from multiple areas that have different VRM rankings. The project area itself lies on lands that have been designated as both Class 2 and 3. An industrial solar energy project would be visible from BLM wilderness areas which have BLM Class 1 VRM designations. The project would also be highly visible from portions of JTNP, which has its own National Park Service visual resource standards. Development of this project will significantly impact BLM lands with Class 1 VRM designations. The proposed Plan amendment must be rejected because of the significant visual impacts to the Class 2 and Class 3 lands, as well as JTNP's visual resource.

Issue Number: PP-CA-Desertsun-11-06-44

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The proposed Plan amendment must also be rejected because the FEIS's entire visual resource analysis is based on inadequate key observation point ("KOP") study points. Although the BLM received requests to

diversify the KOPs after the Draft EIS was published, there was little change to the analysis in the FEIS. There are no KOPs that analyze the impacts to viewscales from wilderness areas or JTNP that observe the project area site from elevations that provide perspectives from anything other than ground level. The area of disturbance and the cumulative impacts to the visual resources can be evaluated from elevations surrounding the site ranging from about 1,000 to 3,500 feet above sea level or even higher. By only evaluating impacts from ground level, several important perspectives of contrast are missed.

Issue Number: PP-CA-Desertsun-11-06-45

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

The FEIS also understates the full impact to visual resources by only providing KOPs that show non-reflective simulations of the 4,000+ acre solar energy project. Polarized glare has been recognized to have impacts on wildlife, but must also be included in all visual resource evaluations. The photo below of the Sempra Energy Copper Mountain 380-acre facility shows a thin-film industrial photovoltaic large scale solar plant that is only about 1/10th the size of the DSSF project area. This facility is highly visible from highway 93. The polarized glare is visible at many different times of day and times of year.

Issue Number: PP-CA-Desertsun-11-06-51

Organization: Western Lands Project

Protester: Christopher Krupp

Issue Excerpt Text:

Some solar energy project applicants are now providing night time KOP simulations for their proposed projects. Despite this, the FEIS neglected to provide KOP simulations from adjacent wilderness, parks and resorts with analysis of the impacts to wilderness values and star gazing on BLM, NPS and California Desert Conservation Area lands.

Summary

The Visual Resource Management analysis inadequately addresses the visual impacts of a large industrial solar facility with regard to the following:

- Failure to provide Key Observation Points (KOP's) that show non-reflective simulations of this 4,400 acre disturbance. Polarized glare has been recognized to have impacts on wildlife.
 - Lack of KOP simulations from adjacent wilderness, parks and resorts to analyze the impacts to wilderness values and star gazing on BLM, NPS and California Desert Conservation Area lands.
-

Response

In response to comments submitted on the DEIS, the BLM prepared additional analysis in the FEIS on visual resources from a solar facility in the area covered by the plan amendment. The BLM provided an adequate response to comments on the adequacy of the Key Observation Points (KOP) and simulation in Appendix N, pages N-14 to N-16. In particular, the BLM addressed the concerns raised over impacts to the views from the Joshua Tree National Park and nearby wilderness areas.

As stated in Appendix N-15, "...the DEIS has been revised to provide a more in-depth discussion of the potential effect of the proposed action and alternatives on views from elevated vantage points in surrounding wilderness, including Joshua Tree National Park." The FEIS discusses the visual impacts of the proposed plan amendment from adjacent wilderness areas, acknowledging that the visual impact to viewers in Joshua Tree National Park would be substantial. (FEIS p. 4.16-18 and -19).

The FEIS also provides additional analysis to disclose impacts to night sky visibility and impacts to the visitor experience in Joshua Tree National Park. To ensure that the solar project does not substantially contribute to the light pollution in the region or adversely impact visitors to the national park, a Lighting Mitigation Plan is required, with Mitigation Measure MM-VR-4 (see FEIS Chapter 4.16) providing performance standards to be met in the development and implementation of the lighting plan. Please refer to FEIS section 4.14.9, pages 4.14-12 and 13.

To acknowledge wilderness users as a viewer group, the fourth paragraph of the cumulative impact discussion in Section 4.16.9 has been modified, as follows: "Due to the number and extent of projects in the cumulative scenario, visual disturbances would dominate views of the Chuckwalla Valley from elevated vantage points (e.g., Joshua Tree National Park), resulting in a strong contrast with the existing visual environment. Viewers within the I-10 corridor, as well as dispersed recreational users of surrounding wilderness areas, would witness industrial landscapes and activities that are out of character with the desert landscape."

With respect to glare, FEIS Appendix N-55 states: "Additional text has been added to the FEIS, Subsection 3.4.4 for the descriptions for each species, as needed. Section 4.4 was expanded to describe impacts to these species and provide mitigation for those impacts to these species. A

discussion on the topic of polarized light and glare has been added to Section 4.4. The discussion states that glare is not a problem but that polarized light may produce light pollution that can confuse wildlife, affect their navigation ability and ultimately affect dispersal and reproduction. This is also tied into effects to local plant communities."

See also the response to Impact Analysis as it applies to the impact analysis for visual resources.