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cc Dennis_Schramm@nps.gov
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Subject Comments on the Draft Environmental Impact Statement for the Ivanpah Solar Electric Generating System and Draft California Desert Conservation Area Plan Amendment (October 2009, 07-AFC-5)

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L1425 (PWR-LP)

February 10, 2010

Memorandum

To: George Meckfessell, Planning and Environmental Coordinator
Bureau of Land Management

From: Rory D. Westberg /s/ George J. Turnbull (for)
Acting Regional Director, Pacific West Region

Subject: Comments on the Draft Environmental Impact Statement for the Ivanpah Solar Electric Generating System and Draft California Desert Conservation Area Plan Amendment (October 2009, 07-AFC-5)

The Pacific West Region of the National Park Service (NPS) appreciates the opportunity to provide comments on the above noted document. We have organized our comments in two parts: general overall comments below, and detailed comments corresponding to specific sections of the draft Environmental Impact Statement (DEIS) in the attachment.

As a preface to our comments, we support renewable energy projects on the public lands so long as such projects can be constructed and operated in an environmentally responsible manner that serves the public interest and protects our treasured landscapes. The NPS manages many such landscapes as embodied in units of the National Park System and other special status areas like national trails, national historic sites and national natural landmarks.

Overall Comments

We commend the Bureau for its cooperative approach with the State of California to jointly evaluate the environmental implications of the

Ivanpah Solar Electric Generating System. The document contains a lot of helpful information. However, it lacks an adequate analysis of potential impacts to Mojave National Preserve and options for mitigating those impacts, including possibly shifting site locations of the various phases of the development to avoid and/or reduce impacts to the park. For example, the document appears to fully evaluate the implications of the project on the local golf course and the nearby town of Primm, Nevada, but does not apply a similar level of analysis to the preserve, which is a nationally recognized and protected treasured landscape.

In establishing Mojave National Preserve in 1994 as a park unit, Congress specifically directed that it be administered in accordance with the laws applicable to the National Park System. The Congress also noted that the new park unit "possesses outstanding, natural, cultural, historical, and recreational values..." As a result, protecting the resources and values of the preserve needs to be fully examined in the document along with ways to mitigate impacts.

We understand that the BLM is contemplating preparing a supplement to the current DEIS to address the lack of sufficient alternatives. We think such a step is warranted. It also presents a means for the bureau to fully address the potential impacts associated with the project on Mojave National Preserve and options for mitigating those impacts.

We recommend that the bureau does so through the inclusion of a separate section dedicated to the park in the supplement. Impact topics that need more analysis include: the potential loss of tortoise habitat and how that loss affects the recovery actions in the recovery unit located in the park; air quality; bighorn sheep seasonal migration routes from the park to Clark Mountain for lambing; invasive species; plant species; soundscapes; night skies; management of displaced livestock, including potential impacts to the park; and cumulative impacts on the park from this project and other reasonable foreseeable projects in the vicinity of the park. We would like to work closely with the bureau as it carries out the park related analysis in the supplement. We have both park and nationally recognized subject matter experts that can be of assistance.

The one topic in the DEIS pertinent to the preserve that appears to have been addressed adequately is viewsheds. We agree with the conclusions presented in the document that direct impacts to visual resources resulting from the proposed project are significant and immitigable if the solar generating project is constructed in the location(s) and configuration proposed. We would like to explore with BLM as part of the supplemental analysis whether any options exist for re-orienting the project or shifting its site location to reduce the project's intrusion on the park's viewshed.

We look forward with working with you on the supplement to the DEIS. If you have any questions please contact Larry Whalon, Deputy Superintendent Mojave National Preserve at 760-252-6109.

cc: Dennis Schramm, Superintendent, Mojave National Preserve

ATTACHMENT

Specific NPS Comments on the Draft Environmental Impact Statement for the Ivanpah Solar Electric Generating System and Draft California Desert Conservation Area Plan Amendment (October 2009, 07-AFC-5)

Section 3.3-Project Description - The general Project Description should include reference to appurtenant project features, specifically transmission lines and telecommunication facilities

Section 6.1 - Air Quality -- The DEIS includes an air quality analysis that evaluates emissions from project construction, operation and overlap time periods. The analysis also includes an AERMOD dispersion modeling run for each of these emission scenarios. However, the NPS is concerned that the analysis does not evaluate the air quality impacts to sensitive resources such as Mojave National Preserve.

Because the project is so close to the Preserve, the modeling analysis should have included AERMOD receptors in the park and reported the concentration impacts at these receptors in the document. The document also should have included visibility and deposition modeling analyses. Fugitive dust emissions and primary pollutant emissions from construction equipment and point sources have the potential to impact visibility at the park.

The near-field visibility screening model, VISCREEN, should have been run to evaluate visibility effects in Mojave National Preserve. Further, recent studies evaluating the effects of nitrogen deposition in both Mojave National Preserve and nearby Joshua Tree National Park indicate that nitrogen deposition may be causing negative effects to these ecosystems. These effects include changes in species composition and exacerbation of increased growth of non-native exotic species due to the additional atmospheric nitrogen inputs. Further, studies at Joshua Tree NP found that the nitrogen deposition related increases in non-native vegetation significantly increase risk of more frequent wild fires, beyond historical fire return intervals for these systems. For this reason, the air quality section should include a deposition analysis for Mojave National Preserve. The newest EPA approved regulatory version of AERMOD (version 09292) now includes deposition algorithms. The NPS also provides guidance on how to conduct visibility and deposition analyses in our Federal Land Managers Air Quality Related Values Workgroup (FLAG), and our Deposition Analysis Threshold (DAT) guidance documents, both available at: http://www.nature.nps.gov/air/permits/flag/index.cfm. We recommend that the analysis is updated to include visibility and deposition impacts at Mojave National Preserve following the NPS provided guidance.

Additionally, while we are pleased that the analysis included modeling results using the EPA approved regulatory model for short range transport, we believe the analysis is lacking significant documentation of the assumptions that were used to develop emission estimates and modeling inputs. These concerns are outlined in detail below.

Page 6.1-3, Table 6 - This Table depicts the estimated emissions for project construction, both on a daily basis and on an annual basis. More information should be provided on the assumptions used to derive these estimates, particularly for PM10, NOx and VOCs due to the nonattainment issues for these pollutants in the region. For instance, were estimates of acres disturbed, miles of road, level of activity, soil characteristics, etc. used to develop PM10 emission estimates for fugitive dust? What types of construction equipment were assumed, what emission factors (i.e. AP-42) were used for the various types of equipment? The document should disclose the specific data sources and assumptions that went into developing these estimates. Further, it is unclear how the annual emission estimates were derived from the daily maximum estimates. For instance, if one assumes 365 days in a year, the annualized emissions reported in Table are much lower than what would be anticipated based on the daily emissions (52 tons/year for PM10 vs. 24.5 reported in Table 6). If the analysis assumed that

construction emissions would not occur each day of the year, the document should also disclose these assumptions.

Page 6.1-13 - This page states that the "onsite fugitive dust emissions estimate may be underestimated given the amount of activity on the site and appropriate level of control for the applicant's proposed mitigation measures (specifically unpaved roads)." If the staff has reason to believe that the emissions for this important pollutant have been underestimated, how can it be certain that the proposed mitigation measures are effective in reducing emissions below the conformity de minimums levels, or that the modeling analysis adequately reflects impacts to the National Ambient Air Quality Standard for PM10 in the region? This should be clarified in the analysis.

Additionally, no specific information on the AERMOD modeling analysis was provided. For example, the extent of the modeling domain was not identified, how far did it extend from the project area? Were discrete receptors included in sensitive areas such as Mojave National Preserve to evaluate the impacts to these places? The modeling inputs for emission sources, meteorological data sources, etc. were not described in detail. While modeling inputs for the point sources, such as stack parameters, were identified in the document, this information was not provided for the area source emissions, such as emissions from construction. More information should be provided identifying how emissions from construction activities were input into the model. Finally, the document does not specify what results are reported in Tables 9, 10 and 11. Are these the maximum concentrations modeled for the domain, or are they the high second high concentrations? Where do these impacts occur relative to the project area? This information should be disclosed in the document.

Pages 6.1-21, 6.1-24 and 6.1-25 - This section states that "[t]he modeling analysis shows that, after implementation of the recommended fugitive dust mitigation measures, the project's construction is not predicted to cause violations of the NAAQS. Therefore, no significant NEPA impacts would occur after implementation of the fugitive dust mitigation measures." It is unclear whether the results in Tables 9, 10 and 11 reflect these additional recommended mitigation measures, or if this information is omitted from the document. This should be clarified, and if necessary, any results of additional modeling which reflect mitigation options should be included. Conversely, if the modeling results for the tables reflect impacts after applications of the additional mitigation options, the results without these mitigations should also be disclosed in the document.

The analysis evaluates emissions related to construction, project operation and overlap periods where project operation and construction are ongoing simultaneously. It is unclear whether the project operation and overlapping analyses considered ongoing fugitive dust emissions related to wind erosion of disturbed area, access and maintenance vehicles and other continued sources of dust emissions. This should be clarified in the document. Further, if ongoing fugitive dust emissions beyond the construction phase were not considered in the analysis, the modeling analysis should be rerun, with these emissions included.

Biological Resources, Page 6.2-1 - Paragraphs 2 and 3 on this page state that "[t]he Ivanpah Solar Electric Generating System (ISEGS) project would have major impacts to the biological resources of the Ivanpah Valley, substantially affecting many sensitive plant and wildlife species and eliminating a broad expanse of relatively undisturbed Mojave Desert habitat. Approximately 4,073 acres of occupied desert tortoise habitat would be permanently lost and a minimum of 25 desert tortoises would need to be translocated west of the ISEGS project site."

"Other special-status wildlife species potentially impacted by the project because of loss of breeding and/or foraging habitat include burrowing owl, loggerhead shrike, Crissal thrasher, golden eagle, and American badger. The project would also affect approximately 2,000 ephemeral drainage segments on the ISEGS site, potentially resulting in direct or indirect impacts to the wildlife functions and values provided by 198 acres of waters of the state."

Page 6.2-25 asserts that "sheep inhabiting desert ecosystems can survive without consuming surface water." We note that proposed construction maps provided do not include existing springs, wells and seeps currently utilized by desert sheep species. A more appropriate level of mitigation would be to fund research addressing the critical resource needs to maintain the sheep population.

Page 6.2-40 suggests that transplantation of plant species will not be effective. NPS is aware of a successful plant transplantation project associated with the Viceroy Mine in the Castle Mountains on BLM managed lands

We recommend that the DEIS be revised to analyze whether the loss of habitat and translocation of plant and wildlife species would impact the number or survivability of those same species in nearby Mojave National Preserve. Wildlife species that migrate between the Preserve and the project area, or that are interdependent on the resources of the two areas may be adversely impacted. The current analysis appears to limit its scope to the specific project area.

Ambient Noise Monitoring, Page 6.6-5 - This section states that "[a]mbient noise monitoring was not required for the ISEGS project, since Energy Commission regulations require such monitoring only when facilities where quiet is an important attribute of the environment would be impacted by the project (20 CCR, Chapter 5, Article 6, Appendix B, § [g][4][A]). The community of Primm, Nevada, 4.5 miles distant, is too far from ISEGS to be significantly impacted by project noise. The Primm Valley Golf Club golf course is considered a less noise-sensitive land use."

The NPS considers the lack of ambient noise monitoring to be a significant failing of the DEIS. The lack of monitoring makes impacts on adjacent lands, such as Mojave National Preserve, impossible to predict therefore the analysis is incomplete. The analysis only addressed noise impacts on the town of Primm, NV and the local golf course. While the DEIS acknowledges the presence of Mojave National Preserve, the analysis fails to disclose impacts on the natural soundscape and sound dependent resources of the park. As stated above, without ambient sound monitoring at the project site and in the park, potential soundscape impacts are impossible to analyze or predict.

Visual Resources, Page 6.12-29,-30 and -42 - These pages state that "[a]ccording to comments of National Parks Conservation Association, the Mojave National Preserve contains some of the most pristine night sky views in the continental United States, and new artificial lighting may represent a deterioration of that resource." These statements go to say that"[s]taff is not aware of specific thresholds by which a significant light pollution impact may be defined." However, the DEIS concludes that with mitigation, downward aiming of operational lights and the seven new aircraft safety lights on top of the receiver towers, night lighting of the project ". . . would not likely constitute a significant impact."

Statements made in this section of the DEIS regarding lack of impact, yet

stating that "staff is not aware of specific thresholds by which a significant light pollution impact may be defined" are conflicting. The DEIS needs to adequately assess impacts on the dark night skies, nocturnal species, and visiting public to Mojave National Preserve.

Decommissioning Impacts, Page 6.12-30 should include specific reference to appurtenant project features including transmission and distribution lines, and telecommunication structures.

6.12-42 includes discussion of an "urban frame of reference." This may be acceptable in areas of dense or urban development. There are other alternatives to reference with locations more compatible with the surrounding natural landscape.

Livestock Grazing, Page 6.16-4 - This section of the document lacks discussion of impacts from potential livestock displacement within the Clark Mountain Grazing Allotment. The Allotment is shared between the NPS and Bureau of Land Management with the majority of AUMs on BLM managed lands. We recommend that this section of the document address project impacts on grazing and possible herd migration to relatively undisturbed desert habitat. We recommend that it also address whether the allotment will be reduced by the number of displaced livestock.