

DOCKET
07-AFC-5

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STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:)
The Application for Certification)
for the Ivanpah Solar Electric)
Generating System)

DOCKET NO. 07-AFC-5

INTERVENOR CALIFORNIA NATIVE PLANT SOCIETY

Supplemental Testimony of California Native Plant Society

Docket 07-AFC-5

March 16, 2010

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CNPS Supplemental Testimony in response to Mitigated Ivanpah 3 proposal

The applicant proposes that the Mitigated Ivanpah 3 (MI3) proposal, in combination with management measures outlined in their previously submitted ISEGS Special-Status Plant Avoidance and Protection Plan (Exhibit 81, referenced multiple times within the MI3 proposal), will reduce project impacts to native rare plants to less than CEQA significant. The applicant claims that the removal of approximately 433 acres from the northern boundary of Ivanpah powerblock 3 (Block 3) from the project area, where higher densities of rare plant taxa exist will reduce overall project impacts to rare plants. The applicant claims additional rare plant avoidance will occur as a result of management measures outlined in their previously submitted ISEGS Special-Status Plant Avoidance and Protection Plan (Exhibit 81), which focuses on maintaining localities of rare plants identified during Spring 2007 and 2008 surveys within heliostat fields during construction and operational phases of the project.

The California Native Plant Society (CNPS) maintains that neither approach (MI3 or Exhibit 81) nor both approaches in combination reduces impacts to native rare plants to a level of CEQA insignificance, nor represents measures that will "support healthy, self-sustaining populations of the avoided rare plants with local distributions similar to pre-project conditions" (Exhibit 81, p. 2-3), for the following reasons:

1. The types of direct and indirect impacts to on-site plant populations that will occur as a result of this project are known to increase mortality, decrease both size and fitness, decrease evolutionary functions, and increase the probability of extinction of impacted populations both in the short and long terms. Breaking the intact nature of pre-project plant population conditions into separate islands of locations, or islands of plant occurrences is known as fragmentation. Extensive scientific literature on the detrimental effects of fragmentation on plant and animal populations exists (e.g., CNPS Exhibit 1007). The applicant has provided no scientific foundation for their claims that measures in Exhibit 81 will support self-sustaining populations of rare plants within heliostat fields, nor for how these measures represent anything resembling impact "avoidance", particularly with respect to the following types of impacts:

- altered hydrology resulting from 2.5 gallons of water dripping within every 8-foot heliostat shadow every 2 weeks,
- altered soil nutrient chemistry resulting from changes in nutrient uptake by mowed vegetation and by increased nitrogen soil inputs from composted, mulched cuttings
- altered light regime from shading of heliostats
- introduction of invasive species
- altered hydrology of landscape runoff

On what basis should we conclude that measures described in Exhibit 81 provide "avoidance" of these impacts to a level of insignificance to on-site rare plant populations?

2. Removing the northern portion of Block 3 from the project as described in MI3 does represent localized avoidance of rare plants occurring in that region as identified during Spring 2007 and 2008 surveys. Nevertheless, localized avoidance in the Block 3 area provides no reduction to project impacts to on-site Mojave Milkweed (*Asclepias nyctaginifolia*) occurrences. Mojave Milkweed is a CNPS List 2 species that meets the definition of rare under CEQA and requires project impacts to be mitigated to a less than significant level. Mojave Milkweed is also ranked by the State Heritage as an S1.3 taxa. S1 species are considered Critically Imperiled within California.

What's more, removing the northern acreage from Block 3 does not represent avoidance of, or provide mitigation for the landscape-scale impacts the project will have on functional integrity of the Ivanpah Valley ecosystem. The ability of a population of plants to grow from seeds, propagules (e.g., cuttings), underground root systems, etc., and to produce more seeds that have the opportunity to establish themselves in a variety of habitat conditions over time, are examples of evolutionary processes essential to the long-term viability plant populations. The proposed MI3

plan will not result in the avoidance of impacts to the types of essential evolutionary processes described above when considering the scale of impacts from Block 1, Block 2, and Block 3 (original or reduced size) together. The nature of the evolutionary processes described above are alluded to in Exhibit 81 as a "biological constraint to rare plant avoidance" where, "[d]ue to seed dispersal, or germination within the pre-existing seed bank, rare plants that are annuals or short-lived perennials may occur later, outside previously established avoidance areas," (Exhibit 81, p. 2-4). Underlining the point that avoiding the northern clusters of rare plants, though potentially beneficial to those identified plant localities in the short-term, will not reduce the project's rare plant impacts at the landscape-scale to less than significant and does not represent mitigation for impacts to rare plants on site. This is particularly significant to those taxa that are underrepresented within the northern acreage of Block 3 (e.g., Mojave Milkweed).

As we have stated previously, the ISEGS project would be precedent setting as the first of several large proposed utility scale renewable energy projects of similar size (several thousand acres) to be constructed and operated within both the Ivanpah Valley and the greater California Desert Conservation Area. Impacts to biological resources associated with the proposed project, and related mitigation requirements would also be precedent setting for projects of this scale. The proposed Mitigated Ivanpah 3 plan, taken together with the Exhibit 81 plan or by itself, does not improve the project impacts to on-site rare plant populations to a less than significant level.



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APPLICATION FOR CERTIFICATION
FOR THE *IVANPAH SOLAR ELECTRIC
GENERATING SYSTEM*

DOCKET No. 07-AFC-5
PROOF OF SERVICE
(Revised 3/11/10)

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DECLARATION OF SERVICE

I, Greg Suba, declare that on March 16, 2010, I served and filed copies of the attached, Testimony dated, March 16, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [\[www.energy.ca.gov/sitingcases/ivanpah\]](http://www.energy.ca.gov/sitingcases/ivanpah). CNPS
Supplemental

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

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- sent electronically to all email addresses on the Proof of Service list;
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- sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

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CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 07-AFC-5
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I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Electronically signed by
Greg Suba