

**IVANPAH SOLAR ELECTRIC GENERATING SYSTEM
(07-AFC-5)
DATA REQUESTS**

DOCKET	
07-AFC-5	
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Technical Area: Cultural Resources

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BACKGROUND

The potential presence of Native American traditional use areas in sight of the project area has been the subject of an ongoing discussion among the applicant and the staff of both the Energy Commission and the Bureau of Land Management (12 December 2007 Data Request 41 (CEC Log No. 43714), 14 January 2008 Data Response (CEC Log No. 44310), 23 June 2008 Data Response and Issue Resolution Workshop, and 2 July 2008 Continuance of the 23 June 2008 Data Response and Issue Resolution Workshop (10 July 2008 Energy Commission Report of Conversation)).

Staff, the BLM, and the applicant re-opened discussion in the 2 July workshop continuance on the purpose of the reconnaissance survey for Native American traditional use areas that staff and the BLM requested at the 23 June workshop. Staff sought to clarify that the purpose of the proposed survey would be to provide more factual data on whether the construction, operation, and maintenance of the proposed project may degrade the integrity of the setting and feeling of any such areas that may be present in close proximity to the project area. Staff reiterated its and the BLM's request to do the reconnaissance survey as a way to augment the limited information that the applicant had been able to acquire about such use areas. Staff confirmed that the scope of the reconnaissance survey would include only those areas that staff and the BLM presented to the applicant on a hardcopy map at the 23 June workshop, and asked that the applicant note that the proposed survey areas include only the lowest ridgelines that border the project area.

Staff further asked the applicant, as part of the proposed reconnaissance survey, to more formally assess and evaluate the origin and significance of the archaeological site (Temporary Field No. ISEGS-01) that staff discovered adjacent to and above the project area on 23 May 2008. Staff presented this discovery to the applicant at the 23 June workshop as evidence of the potential presence of unknown historical resources in sight of the project area. The interpretation of ISEGS-01 has proven problematic, and staff and the BLM requested that the applicant incorporate the further effort to interpret the site into the proposed reconnaissance survey.

Steve De Young, Director of Environmental, Safety and Health for Bright Source Energy, agreed to do the reconnaissance survey and to work on the interpretation of ISEGS-01 as a part of that survey effort. He asked that the BLM extend Bright Source's present fieldwork authorization to cover the additional work, and he also asked that the scope of the proposed reconnaissance survey and the proposed work at ISEGS-01 be made explicit and finite. The BLM agreed to extend the applicant's fieldwork authorization, and staff and the BLM agreed to draft survey and evaluation protocols to cover this work. Please find these requested protocols below.

**IVANPAH SOLAR ELECTRIC GENERATING SYSTEM
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DATA REQUESTS**

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1. PROTOCOL FOR RECONNAISSANCE SURVEY FOR NATIVE AMERICAN TRADITIONAL USE AREAS

Staff and the BLM request that Bright Source conduct a reconnaissance survey for Native American traditional use areas along the particular ridgelines above the proposed project area that staff and the BLM presented to the applicant on a hardcopy map at the 23 June workshop. Staff and the BLM further request that Bright Source conduct the survey using the following protocol, the results of which will be considered sufficient to conclude the archaeological effort to identify cultural resources that may be of concern to the Native American community. Please note that staff and the BLM may request that the applicant gather additional information on select cultural resources that may be found as a result of the survey to facilitate determinations of the historical significance of those select resources. The selection of cultural resources for further investigation will be a consensus decision among staff, the BLM, and the applicant. The intent of the protocol below is to provide the minimum amount of data necessary, in a timely and efficient manner, to conclude the analysis of the potential impacts that the proposed project may have on cultural resources. Rather than stipulating the wholesale acquisition of the data classes necessary to evaluate the historical significance of each potential Native American traditional use area that the survey encounters, the protocol below provides for quick field documentation of such areas and subsequent consultation to potentially narrow the scope of those areas that may warrant further consideration. The protocol would include

a. FIELD INVESTIGATION METHODS.

1) *Helicopter Reconnaissance.*

- a) Conduct a helicopter reconnaissance of the crest of each ridgeline in the circled areas of the hardcopy map from the 23 June workshop to identify archaeological sites and loci where cultural modification of the natural landscape is apparent.
- b) The helicopter would maintain a skid-to-ground height of approximately 25 feet while conducting the reconnaissance.
- c) An initial flyover of the archaeological site (Temporary Field No. ISEGS-01) that staff discovered adjacent to and above the project area on 23 May 2008 would assess the viability of the use of a helicopter for the reconnaissance of Native American traditional use areas.
- d) If ISEGS-01 is not clearly visible during the initial flyover, the reconnaissance would be conducted on the ground in accordance with a.3) below.

- 2) *Sample Ground Verification of Helicopter Reconnaissance.* Pedestrian surveys of sample areas on several of the ridgelines in the survey area would be conducted to verify the accuracy of the results of the helicopter reconnaissance. The surveys of the sample areas would be conducted in accordance with a.3) below, and the field notes for the surveys would include the recordation of the information elicited in b.5) below.

**IVANPAH SOLAR ELECTRIC GENERATING SYSTEM
(07-AFC-5)
DATA REQUESTS**

- 3) *Alternate Pedestrian Reconnaissance.* A pedestrian reconnaissance survey of the subject ridgelines would be conducted in the event that the initial flyover of ISEGS-01 proves the helicopter reconnaissance method to not be viable. The pedestrian reconnaissance would be a meandering survey of the crest of each ridgeline in the circled areas of the hardcopy map from the 23 June workshop to identify, as in a.1)a above, archaeological sites and loci where cultural modification of the natural landscape is apparent.
 - b. FIELD RECORDATION OF ARCHAEOLOGICAL REMAINS.
 - 1) Complete California Department of Parks and Recreation (DPR) 523A and 523J forms for each archaeological site or locus of natural landscape modification found that may be a prehistoric or historical Native American traditional use area.
 - 2) Augment P5a and P5b on any DPR 523A completed to include a minimum of one aerial plan or oblique image, three on-the-ground overview images from three different azimuths, and representative close-up images of any constituent features or elements of the documented cultural resource.
 - 3) Complete a DPR 523I to document any images taken in fulfillment of 2) above.
 - 4) Record field notes that document descriptions of and global positioning system coordinates for archaeological sites and loci of natural landscape modification that the applicant does *not* believe are Native American traditional use areas.
 - 5) Record field notes that document descriptions of isolate artifacts and diffuse artifact scatters that collectively make up the low frequency background of the local archaeological record.
 - c. DOCUMENTATION OF SURVEY RESULTS. Draft, for the review and approval of staff and the BLM, a relatively brief letter report that
 - 1) describes the purpose of the reconnaissance survey and the area surveyed,
 - 2) references the background research of the applicant's other cultural resources reports for the proposed project,
 - 3) describes the survey field methods, and
 - 4) presents the results of the survey, including a concise summary of the local low frequency archaeological background and the cultural resources that the applicant does *not* believe are Native American traditional use areas, and discussions of the cultural resources found that may be prehistoric or historical Native American traditional use areas.
2. PROTOCOL FOR THE DOCUMENTATION AND EVALUATION OF ARCHAEOLOGICAL SITE ISEGS-01

Staff and the BLM request that Bright Source more formally assess and evaluate the origin and significance of ISEGS-01. Staff found the site on a reconnaissance survey of a portion of the metamorphic inselberg complex along the eastern edge of the project area. Staff briefly examined the site and took a number of images of it. The site is a group of dry-stacked stone features that appears to include

**IVANPAH SOLAR ELECTRIC GENERATING SYSTEM
(07-AFC-5)
DATA REQUESTS**

stone-faced terraces, niches, a stand alone triangular stone feature, a stone upright, and a small patch of angular white quartzite pavement. Staff did not observe any artifacts in the midst of or in the vicinity of the feature group. The origin of the site has proven problematic. Staff and the BLM have discussed the issue and solicited the professional opinions of a number of resource managers, consultants, and scholars of Mojave Desert archaeology. The results of those discussions and solicitations are inconclusive. Staff and the BLM request that the applicant implement the protocol below in an attempt to acquire the minimum amount of data necessary to determine whether the subject site is a Native American traditional use area eligible for inclusion in either the California Register of Historical Resources (California Register) or the National Register of Historic Places (National Register), *and*, if so, whether the degradation of the integrity of the site would be either a substantial adverse change in the significance of a historical resource under the California Environmental Quality Act or an adverse effect under the National Historic Preservation Act. Staff and the BLM will consider the results of the work done under this protocol sufficient to conclude the archaeological effort to determine whether ISEGS-01 is a Native American traditional use area and, if so, whether the site is eligible for inclusion in either the California or National Registers. The protocol would include

- a. BACKGROUND LITERATURE REVIEW. Review the available ethnographic literature for the Southern Paiute, the Chemehuevi, and the Mojave to discern whether comparable site types are known for these Native American peoples.
- b. CONSULTATION WITH REGIONAL EXPERTS. Contact resource managers, consultants, and scholars of the Great Basin and of the Southwest to inquire whether the subject site is a familiar site type and to solicit professional opinions as to its origin and use.
- c. FIELD AND LABORATORY INVESTIGATION METHODS.
 - 1) Conduct a close field examination of the subject site and the site vicinity, including visual inspection for artifacts, cultural manuports, and ecofacts.
 - 2) Conduct appropriate geophysical inspections of site features and the site vicinity to ascertain the presence of ferrous metal objects or other subsurface anomalies.
 - 3) Conduct an examination of the stone features to ascertain the material composition of the features, feature construction methods that any patterns in the placement of the stone may reveal, and the apparent relative age of the features as may be discerned by the differential development of patination and varnish, or of organisms on the stones in the faces of the features.
 - 4) Conduct, if the results of the examination done in fulfillment of 1) through 3) above prove to be inconclusive, test excavations of the stone-faced terrace that impounds the stone upright and the quartzite pavement patch, and the triangular, stand-alone stone feature to ascertain the presence or absence of cultural residues. Such excavations ought to include examinations of sediment composition, and the lateral and vertical

**IVANPAH SOLAR ELECTRIC GENERATING SYSTEM
(07-AFC-5)
DATA REQUESTS**

- distributions of fine and course fraction sediment texture behind the terrace faces (Geoarchaeological methods may prove useful here.).
- 5) Excavate, in the fulfillment of 4) above, as space allows, 50 x 50 cm units abutting the interior and exterior face of each subject feature, in natural or cultural levels, where apparent, to bedrock or to a depth at least 10 cm below the base of each terrace face, conducting and recording the excavation in accordance with standard professional practice.
 - 6) Collect and analyze, for each subject feature, where feasible, one 8 liter sediment sample for micro-artifact and micro-organic constituent analyses, and two 4 liter soil humate samples to attempt to radiocarbon date the construction and use of the features.
- d. FIELD RECORDATION OF ARCHAEOLOGICAL REMAINS. Complete DPR 523A, 523C, 523J, 523K, and 523I forms to document the field investigation of the site.
- e. DOCUMENTATION OF SURVEY RESULTS. Draft, for the review and approval of staff and the BLM, a relatively brief letter report that
- 1) describes the purpose of the investigation of the subject site,
 - 2) references the relevant background research of the applicant's other cultural resources reports for the proposed project,
 - 3) describes the methods of the investigation,
 - 4) presents and interprets the results of the investigation,
 - 5) evaluates the historical significance of the resource relative to California Register and National Register criteria, and,
 - 6) if the resource is thought to be either a historical resource under the California Register or a historic property under the National Register, assesses the character of the proposed project's effect on it.