CULTURAL RESOURCES ASSESSMENT AND ARCHAEOLOGICAL TEST EXCAVATIONS

SEPV Imperial LLC Solar Project Sites (SEPV Dixieland East and SEPV Dixieland West)
Imperial County, California

Prepared for:
Freeman S. Hall
SEPV Imperial, LLC
11726 San Vicente Boulevard, Suite 414
Los Angeles, California 90049

Prepared by:
David Brunzell, M.A., RPA
BCR Consulting LLC
1420 Guadalajara Place
Claremont, California 91711
Project No. SEP1501

National Archaeological Data Base (NADB) Information:
Type of Study: Intensive Survey
Resources Recorded: P-13-9539, 9540, 9589, 13122, 13123, 13124, 13125, SEP1501-P-1
Keywords: Prehistoric Lithic Isolates, Lithic Scatter, Ceramic
USGS Quadrangle: 7.5-minute Plaster City, California (1979)

April 13, 2015
MANAGEMENT SUMMARY

BCR Consulting LLC (BCR Consulting) is under contract to SEPV Imperial LLC to complete a Cultural Resources Assessment and Archaeological Test Excavations of the proposed SEPV Imperial LLC Solar Project (project) in the unincorporated community of Plaster City, Imperial County, California. The project occupies two contiguous sites on approximately 76 acres (cumulatively), north of the West Evan Hewes Highway. The two project sites are known as SEPV Dixieland East and SEPV Dixieland West, which are linked by a gen-tie corridor. A cultural resources records search, pedestrian field survey, archaeological test excavations, Native American consultation, and vertebrate paleontological resources overview have been completed for the project sites pursuant to the California Environmental Quality Act (CEQA).

The records search revealed that 20 previous cultural resource studies have taken place within or adjacent to the project sites, and 47 cultural resources have been recorded within one-mile of the project sites. Four of the previous studies have assessed portions of the project sites, and seven cultural resources have been previously recorded within the project sites’ boundaries. All of the previously recorded resources within the project sites’ boundaries were contained within SEPV Dixieland West. These resources are summarized below.

- P-13-9539: two isolated prehistoric lithic flakes;
- P-13-9540: one isolated prehistoric lithic flake;
- P-13-9589: two isolated pottery sherds;
- P-13-13122: one isolated prehistoric lithic flake;
- P-13-13123: one isolated pottery sherd;
- P-13-13124: one isolated prehistoric lithic flake;
- P-13-13125: prehistoric lithic scatter.

During the field survey BCR Consulting updated documentation for each of the seven cultural resources yielded by the records search, and identified one additional cultural resource, all within SEPV Dixieland West. No cultural resources were discovered within SEPV Dixieland East. The additional (previously unrecorded) resource is a prehistoric artifact scatter that has been temporarily designated SEP1501-P-1. The prehistoric isolates (P-13-9539, 9540, 9589, 13122, 13123, and 13124) from the records search were not re-identified during the current study. Since isolated artifacts have limited data potential, none of these is considered a “historical resource” under CEQA and they do not warrant further consideration. BCR Consulting did re-identify the prehistoric lithic scatter designated P-13-13125. This site appears to be a secondary deposit and as such does not retain any integrity. Lacking integrity, P-13-13125 is not recommended a “historical resource” under CEQA. The resource identified as SEP1501-P-1 was initially considered potentially eligible for listing in the California Register of Historical Resources (California Register; i.e. potentially a “historical resource” under CEQA) due to its potential significance. Preservation in place is the preferred manner of treatment for archaeological/historical resources. As preservation for this resource was not considered feasible, an archaeological testing program was recommended to determine whether the site contained important information potential. The recommended testing program included a sample surface collection, mapping of all artifacts, and shovel test pit excavation. This work was performed to determine the
presence and significance of buried cultural resources. The artifacts recovered were not found to be associated with any intact archaeological features or soil changes, and no datable materials (including bone, suitable carbon samples, obsidian, and diagnostic projectile points) were noted during the current study.

Based on the above results, BCR Consulting recommends that the items recorded during the pedestrian survey, and the prehistoric site evaluated during the testing program, are not “unique archaeological resources” or “historical resources” under CEQA. While the testing program has indicated that the soils tested do not contain significant buried deposits, this study has only tested a percentage of the subsurface area. Also, while all of the recorded resources were located within SEPV Dixieland West project site boundaries, both SEPV Dixieland East and SEPV Dixieland West are considered sensitive for buried cultural resources due to the high number of resources recorded in the vicinity. As a result, BCR Consulting recommends that an archaeological monitor be present during all proposed ground-disturbing activities associated with both the SEPV Dixieland East and the SEPV Dixieland West project sites. All monitoring should take place under the direct supervision of a cultural resource professional who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology (project archaeologist). Prior to commencement of project related ground disturbing activities within either the SEPV Dixieland East or the SEPV Dixieland West project sites, the project archaeologist should attend a pre-construction meeting with construction personnel. During this meeting, the project archaeologist would inform construction personnel that archaeological materials may be encountered, and provide information on the role of archaeological monitors. If any prehistoric or historic cultural resources are uncovered during any ground-disturbing activities within the project sites, the monitor should be empowered to temporarily halt or redirect construction work in the vicinity of the find until it can be evaluated by the project archaeologist. Impacts to finds determined to represent significant cultural resources will be mitigated through data recovery.

Department of Park and Recreation (DPR) 523 forms have been used to document the cultural resources located within the project sites’ boundaries. These are included in Appendix A, along with site photographs. The Paleontological Resources Overview is included as Appendix B, and Native American communications are included as Appendix C.

If human remains are encountered during project activities, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.
# TABLE OF CONTENTS

MANAGEMENT SUMMARY ............................................................................................................. ii
INTRODUCTION ............................................................................................................................ 1
NATURAL SETTING ........................................................................................................................ 1
CULTURAL SETTING ..................................................................................................................... 3
  PREHISTORIC CONTEXT ............................................................................................................ 3
  ETHNOGRAPHY ......................................................................................................................... 4
  HISTORY .................................................................................................................................... 5
PERSONNEL ................................................................................................................................. 5
RESEARCH DESIGN ...................................................................................................................... 6
METHODS ...................................................................................................................................... 6
  RESEARCH ................................................................................................................................. 6
  FIELD SURVEY .......................................................................................................................... 6
  SURFACE COLLECTION/ARCHAEOLOGICAL TEST EXCAVATION ........................................ 7
RESULTS ........................................................................................................................................ 7
  RESEARCH ................................................................................................................................. 7
  FIELD SURVEY .......................................................................................................................... 7
  SURFACE COLLECTION/ARCHAEOLOGICAL TEST EXCAVATION ........................................ 9
SIGNIFICANCE EVALUATIONS ..................................................................................................... 9
  SIGNIFICANCE CRITERIA .......................................................................................................... 9
SIGNIFICANCE THRESHOLDS CRITERIA .................................................................................... 10
  EVALUATION ............................................................................................................................ 11
RECOMMENDATIONS .................................................................................................................. 11
REFERENCES .............................................................................................................................. 13

FIGURES
1: Project Location Map ............................................................................................................. 2

TABLES
A: Cultural Resources and Reports Within the Project Sites’ Study Radius ................................. 7

APPENDICES
A: DEPARTMENT OF PARK AND RECREATION 523 FORMS
B: PALEONTOLOGICAL RESOURCES ASSESSMENT
C: NATIVE AMERICAN CORRESPONDENCE
INTRODUCTION

BCR Consulting LLC (BCR Consulting) is under contract to SEPV Imperial LLC to complete a Cultural Resources Assessment and Archaeological Test Excavations of the proposed SEPV Imperial LLC Solar Project (project) in the unincorporated community of Plaster City, Imperial County, California. A cultural resources records search, pedestrian field survey, archaeological test excavations, Native American consultation, and vertebrate paleontological resources overview have been completed for the project pursuant to the California Environmental Quality Act (CEQA). The project occupies two contiguous sites on approximately 76 acres (cumulatively), north of the West Evan Hewes Highway. The two project sites are known as SEPV Dixieland East and SEPV Dixieland West, which are linked by a gen-tie corridor. The project sites are mostly surrounded by vacant desert although an electric substation is located between the two, north of the gen-tie corridor, and the Westside Main Canal is located along the eastern boundary of SEPV Dixieland East. Both project sites are vacant, however the Dixieland East portion has been artificially terraced for cultivation. The SEPV Dixieland East project site is located in Township 16 South, Range 12 East, Section 7, and the SEPV Dixieland West project site is located in Township 16 South, Range 11 East, Section 12 (San Bernardino Baseline and Meridian). Both project sites are depicted on the United States Geological Survey (USGS) Plaster City, California (1979) 7.5-minute topographic quadrangle (Figure 1).

NATURAL SETTING

The elevation of the project sites ranges from approximately 15 to 35 feet below mean sea level (BMSL). It is located in the Imperial Valley Area of the Colorado Desert. The region is characterized by an arid climate with dry, hot summers and mild winters. Annual rainfall averages 2-5 inches (Jaeger and Smith 1971), and usually occurs as winter rain and monsoonal summer showers. The gentle slopes of the project sites convey water in an easterly direction, and occupy the former western shoreline of prehistoric Lake Cahuilla. Now partially occupied by the artificially (and accidentally) created Salton Sea, the Lake Cahuilla was formed by periodic prehistoric natural diversions of the Colorado River. Local sediments retain a high water-holding capacity and served to contain the huge lake between circa A.D. 900 and 1500 during its most recent stand (Wilke 1978). The project sites occupy a relatively high shoreline for the former lake, and at that depth the lake would have exhibited salinity levels suitable to sustain a variety of fish used by the prehistoric human population (ibid.). The oldest local rocks are Precambrian rocks derived from the San Gorgonio complex, and are intruded by Cactus Granite, quartz monzonite, breccia, diorite porphyry, and plutonic rocks (Proctor 1968:9). Many lakes (now dry) in the Colorado Desert are thought to have supported small human populations during the terminal Pleistocene (22,000-11,000 years before present) and early Holocene (11,000-8,000 years before present). Since the desiccation of California’s deserts during the later Holocene, local lakes have dried and significant sand dunes have formed. Common local flora includes cacti, desert agave, cheesebush, catclaw acacia, creosote, and seasonal grasses. Common animals include coyotes, foxes, rabbits, rodents, ravens, and raptors (see Lightfoot and Parrish 2009:341-363).
CULTURAL SETTING

Prehistoric Context

Two primary regional syntheses are commonly utilized in the archaeological literature for southern California. The first was advanced by Wallace in 1955, and defines four cultural horizons, each with characteristic local variations: Early Man Horizon, Milling Stone, Intermediate, and Late Prehistoric. Employing a more ecological approach, Warren (1984) defined five periods in southern California prehistory: Lake Mojave, Pinto, Gypsum, Saratoga Springs, and Protohistoric. Warren viewed cultural continuity and change in terms of various significant environmental shifts, defining the cultural ecological approach for archaeological research of the California deserts and coast. Many changes in settlement patterns and subsistence focus are viewed as cultural adaptations to a changing environment, beginning with the gradual environmental warming in the late Pleistocene, the desiccation of the desert lakes during the early Holocene, the short return to pluvial conditions during the middle Holocene, and the general warming and drying trend, with periodic reversals, that continue to this day (Warren 1984).

Paleoindian (12,000 to 10,000 BP) and Lake Mojave (10,000 to 7,000 BP) Periods.

Climatic warming characterizes the transition from the Paleoindian Period to the Lake Mojave Period. This transition also marks the end of Pleistocene Epoch and ushers in the Holocene. The Paleoindian Period has been loosely defined by isolated fluted (such as Clovis) projectile points, dated by their association with similar artifacts discovered in-situ in the Great Plains (Sutton 1996:227-228). Some fluted bifaces have been associated with fossil remains of Rancholabrean mammals approximately dated to ca. 13,300-10,800 BP near China Lake in the Mojave Desert. The Lake Mojave Period has been associated with cultural adaptations to moist conditions, and resource allocation pointing to more lacustrine environments than previously (Bedwell 1973). Artifacts that characterize this period include stemmed points, flake and core scrapers, choppers, hammerstones, and crescentics (Warren and Crabtree 1986:184). Projectile points associated with the period include the Silver Lake and Lake Mojave styles. Lake Mojave sites commonly occur on shorelines of Pleistocene lakes and streams, where geological surfaces of that epoch have been identified (Basgall and Hall 1994:69).

Pinto Period (7,000 to 4,000 BP). The Pinto Period has been largely characterized by desiccation of southern California. As formerly rich lacustrine environments began to disappear, the artifact record reveals more sporadic occupation of the drier regions, indicating occupants' recession into the cooler fringes (Warren 1984). Pinto Period sites are rare, and are characterized by surface manifestations that usually lack significant in-situ remains. Artifacts from this era include Pinto projectile points and a flake industry similar to the Lake Mojave tool complex (Warren 1984), though use of Pinto projectile points as an index artifact for the era has been disputed (see Schroth 1994). Milling stones have also occasionally been associated with sites of this period (Warren 1984).

Gypsum Period. (4,000 to 1,500 BP). A temporary return to moister conditions during the Gypsum Period is postulated to have encouraged technological diversification afforded by the relative abundance of available resources (Warren 1984:419-420; Warren and Crabtree 1986:189). Lacustrine environments reappear and begin to be exploited during
this era (Shutler 1961, 1968). Concurrently a more diverse artifact assemblage reflects intensified reliance on plant resources. The new artifacts include milling stones, mortars, pestles, and a proliferation of Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched dart points (Warren 1984; Warren and Crabtree 1986). Other artifacts include leaf-shaped projectile points, rectangular-based knives, drills, large scraper planes, choppers, hammer stones, shaft straighteners, incised stone pendants, and drilled slate tubes. The bow and arrow appears around 2,000 BP, evidenced by the presence of a smaller type of projectile point, the Rose Spring point (Rogers 1939; Schroeder 1953, 1961; Shutler 1961; Yohe 1992).

Saratoga Springs Period (1,500 to 800 BP). During the Saratoga Springs Period regional cultural diversifications of Gypsum Period developments are evident. Influences from Patayan/Yuman assemblages are apparent in the southern inland areas, and include buff and brown wares often associated with Cottonwood and Desert Side-notched projectile points (Warren 1984:423). Obsidian becomes more commonly used throughout southern California and characteristic artifacts of the period include milling stones, mortars, pestles, ceramics, and ornamental and ritual objects. Large villages evidence more structured settlement patterns, and three types of identifiable archaeological sites (major habitation, temporary camps, and processing stations) emerge (McGuire and Hall 1988). Diversity of resource exploitation continues to expand, indicating a much more generalized, somewhat less mobile subsistence strategy.

Shoshonean Period (800 BP to Contact). The Shoshonean period is the first to benefit from contact-era ethnography – and is subject to its inherent biases. Interviews of living informants allowed anthropologists to match artifact assemblages and particular traditions with linguistic groups, and plot them geographically (see Kroeber 1925; Gifford 1918). During the Shoshonean Period, continued diversification of site assemblages and reduced Anasazi and Yuman influence both coincide with the expansion of Numic (Uto-Aztecan language family) speakers across the Great Basin, Takic (also Uto-Aztecan) speakers into southern California, and the Hopi across the Southwest (Sutton 1996). Hunting and gathering continued to diversify, and the diagnostic arrow points include desert side-notch and cottonwood triangular, which have been locally recorded. Ceramics continue to proliferate, though are more common in the desert during this period (Warren and Crabtree 1986). Trade routes have become well established between coastal and inland groups during this period.

Ethnography

Kumeyaay. The Kumeyaay were also known as Tipai-Ipai, Kamia, and formerly as Diegueño (Luomala 1978; Kroeber 1925). Kumeyaay boundaries were somewhat fluid. Their territory ranges from the San Luis Rey River in the north to the Salton Sea and Sand Hills in the east, south to the Hardy River and west to the Todas Santos Bay in Baja, California. Kumeyaay spoke three distinct Yuman language family dialects (still often generalized as Diegueño), including Ipai in the north, Tipai in the south, and a third hypothesized dialect in Baja’s southern interior (Luomala 1978:592-593). The Kumeyaay occupied semi-sedentary villages or rancherias, and subsisted by hunting and gathering small game, acorns, grass seeds, and other plant resources. Kumeyaay stone tools include complex chipped and groundstone industries, which are commonly manufactured
using locally abundant quartzite, felsite, andesite, and fine-grained granitics. Obsidian, chalcedony, chert, and other stone tool materials were also used, but were acquired through trade.

History

Historic-era California is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present).

Spanish Period. The first European to pass through the area is thought to be a Spaniard called Father Francisco Garces. Having become familiar with the area, Garces acted as a guide to Juan Bautista de Anza, who had been commissioned to lead a group across the desert from a Spanish outpost in Arizona to set up quarters at the Mission San Gabriel in 1771 near what today is Pasadena (Beck and Haase 1974). Garces was followed by Alta California Governor Pedro Fages, who briefly explored the region in 1772. Searching for San Diego Presidio deserters, Fages had traveled through Riverside to San Bernardino, crossed over the mountains into the Mojave Desert, and then journeyed westward to the San Joaquin Valley (Beck and Haase 1974).

Mexican Period. In 1821, Mexico overthrew Spanish rule and the missions began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches, lost their vast land holdings, and released their neophytes (Beattie and Beattie 1974).

American Period. The American Period, 1848–Present, began with the Treaty of Guadalupe Hidalgo. In 1850, California was accepted into the Union of the United States primarily due to the population increase created by the Gold Rush of 1849. The cattle industry reached its greatest prosperity during the first years of the American Period. Mexican Period land grants had created large pastoral estates in California, and demand for beef during the Gold Rush led to a cattle boom that lasted from 1849–1855. However, beginning about 1855, the demand for beef began to decline due to imports of sheep from New Mexico and cattle from the Mississippi and Missouri Valleys. When the beef market collapsed, many California ranchers lost their ranchos through foreclosure. A series of disastrous floods in 1861–1862, followed by a significant drought further diminished the economic impact of local ranching. This decline combined with ubiquitous agricultural and real estate developments of the late 19th century, set the stage for diversified economic pursuits that have continued to proliferate to this day (Cleland 1962).

PERSONNEL

David Brunzell, M.A., RPA acted as the Project Manager and Principal Investigator for the current study. He carried out the fieldwork with assistance from BCR Consulting Staff Archaeologist Maximilian van Rensselaer, B.A., and Geographic Information Systems (GIS) Specialist and Staff Archaeologist Joseph Brunzell. Mr. van Rensselaer and BCR Consulting Staff Archaeologist Anne Maloney completed the research through the South Coast Information Center (SCIC). David Brunzell wrote the technical report, and completed the Department of Park and Recreation (DPR) 523 forms with assistance from Mr. van Rensselaer.
RESEARCH DESIGN

This work was completed pursuant to CEQA, the Public Resources Code (PRC) Chapter 2.6, Section 21083.2, and California Code of Regulations (CCR) Title 14, Chapter 3, Article 5, Section 15064.5. The pedestrian cultural resources survey was intended to locate and document previously recorded or new cultural resources, including archaeological sites, features, isolates, and buildings that exceed 45 years in age within defined project boundaries. The project sites were examined using 15 meter transect intervals, where accessible, and using archaeological test excavations.

This study is intended to determine whether cultural resources are located within the boundaries of the project sites, whether any cultural resources therein are significant pursuant to the above-referenced regulations and standards, and to develop specific mitigation measures that will address potential impacts to existing or potential resources. Tasks pursued to achieve that end include:

- Vertebrate paleontology resources report through Dr. Samuel McLeod of the Los Angeles County Natural History Museum;
- Cultural resources records search to review studies and documentation of cultural resources recorded within a one-mile radius of the project boundaries;
- Systematic pedestrian survey of the both project sites and archaeological test excavations;
- Evaluation of California Register of Historical Resources (California Register) eligibility for any cultural resources discovered;
- Development of recommendations and mitigation measures for cultural resources documented within the boundaries of the project sites, following CEQA;
- Completion of DPR 523 forms for any discovered cultural resources.

METHODS

Research

On March 5, and 12, 2015 a records search was conducted at the SCIC. This archival research reviewed the status of all recorded historic and prehistoric cultural resources recorded, and survey and excavation reports completed within one mile of the project sites. Additional resources reviewed included the National Register of Historic Places (National Register), the California Register, and documents and inventories published by the California Office of Historic Preservation (OHP). These include the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures.

Field Survey

A pedestrian cultural resources field survey of the project sites was conducted on March 3 and April 2, 2015. The survey was conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the project sites, where accessible. Cultural resources were recorded on DPR 523 forms. Digital photographs included detail photographs of all cultural resources. Cultural resources were recorded per the California OHP Instructions for Recording Historical Resources in the field using:
• Detailed note taking for entry on DPR Forms (see Appendix A)
• Hand-held Garmin Global Positioning systems for mapping purposes
• Digital photography of all cultural resources (see Appendix A).

Surface Collection and Archaeological Test Excavations

Surface collection and archaeological test excavations were also conducted to evaluate a prehistoric site discovered within the SEPV Dixieland West project site for California Register eligibility (see also Results/Field Survey, below). Based on location of the surface artifacts, a maximum of six shovel test pits (STPs) were planned in order to apprehend data from immediately below the site surface. STPs were approximately 35 centimeters in diameter and were excavated at 20-centimeter intervals. Each discrete interval was screened to identify the presence/absence of cultural remains. Sediment was screened through 1/8-inch hardware mesh, and any artifacts were bagged, labeled, and collected for analysis. If cultural remains had been identified, the site would have been considered present in the area of the STP. If remains were absent in six consecutive STPs, the site would not be considered to retain additional data potential.

RESULTS

Research

Data from the SCIC revealed that 20 previous cultural resources studies have taken place within or adjacent to the project sites, and 47 cultural resources have been recorded within one-mile of the project sites. Four of the previous studies have assessed portions of the project sites, and seven cultural resources have been previously recorded within the boundaries of SEPV Dixieland West. These included six isolated prehistoric artifacts, and one secondary deposit of mixed prehistoric artifacts and modern materials. No cultural resources have been previously recorded within the boundaries of SEPV Dixieland East. The records search is summarized as follows:

Table A. Cultural Resources and Reports Within the Project Sites’ Study Radius

<table>
<thead>
<tr>
<th>USGS 7.5 Minute Quadrangle</th>
<th>Cultural Resources Within One Mile of Project Sites</th>
<th>Studies Within One Mile of Project Sites</th>
</tr>
</thead>
</table>

*Recorded within SEPV Dixieland West.
**Previously assessed portions of the project sites.

Field Survey

During the field survey, BCR Consulting archaeologists updated documentation for the seven previously recorded cultural resources using DPR 523 forms, and identified one
previously unrecorded cultural resource (a prehistoric artifact scatter temporarily designated SEP1501-P-1). Each of the eight resources was discovered within SEPV Dixieland West, and is described below (see also Appendix A).

**P-13-9539.** This isolate was originally recorded as “one porphyritic metavolcanic debitage and one black volcanic debitage located amongst dense creosote mounds separated by rills” (Doose et al. 2007a). BCR Consulting was unable to find the isolate during intensive pedestrian field survey on March 3, 2015.

**P-13-9540.** This isolate was originally recorded as “one porphyritic metavolcanic debitage located amongst dense creosote mounds separated by rills” (Doose et al. 2007b). BCR Consulting was unable to find the isolate during intensive pedestrian field survey on March 3, 2015.

**P-13-9589.** This isolate was originally recorded as “two buffware pottery sherds situated on sandy alluvial sediment” (Doose et al. 2007c). BCR Consulting was unable to find the isolate during intensive pedestrian field survey on March 3, 2015.

**P-13-13122.** This isolate was originally recorded as “a weathered, porphyritic, black, metavolcanic flake” (Doose et al. 2007d). BCR Consulting was unable to find the isolate during intensive pedestrian field survey on March 3, 2015.

**P-13-13123.** This isolate was originally recorded as “a weathered, medium brown color buffware ceramic body sherd” (Doose et al. 2007e). BCR Consulting was unable to find the isolate during intensive pedestrian field survey on March 3, 2015.

**P-13-13124.** This isolate was originally recorded as “an edge modified flake, made of blue/gray porphyritic metavolcanic material” (Doose et al. 2007f). BCR Consulting was unable to find the isolate during intensive pedestrian field survey on March 3, 2015.

**P-13-13125.** This site was originally recorded as “a possible secondary deposit consisting of a lithic scatter” (Doose et al. 2007g). Additionally, “lithics include obsidian, jasper, and petrified wood” (ibid). BCR Consulting re-identified the site during intensive pedestrian field survey on March 3, 2015. We found the same materials mixed with modern shotgun shells and non-diagnostic rusted cans. The deposit is located atop sediments in a clearing created by an intersection of off road vehicle tracks. This appears to be a secondary deposit accumulated during unauthorized collecting.

**SEP1501-P-1.** This site consists of a low-density artifact scatter containing one andesite core, an andesite core reduction flake, two reddish ceramic potsherds, two fish ribs, and a small concentration of fire-affected rock. The boundaries have been defined by the extent of the artifact scatter in addition to limits imposed by vegetation surrounding the site. The site appears to be in poor condition. It is located on a bench with an eastern aspect. Alterations to the site have resulted from sheetwashing and vegetation growth. The site is located in creosote scrub with a large screwbean mesquite located at the southern site boundary.
Surface Collection and Archaeological Test Excavations (SEPV Dixieland West)
The prehistoric isolates (P-13-9539, 9540, 9589, 13122, 13123, and 13124) from the records search were not re-identified during the current study. Since isolated artifacts have limited data potential, none of these is considered a “historical resource” under CEQA and they do not warrant further consideration. Also, P-13-13125 is a mixed artifact concentration atop sediment in a clearing created by an intersection of off road vehicle tracks. The location atop disturbed sediment combined with the mixture of prehistoric and modern items indicates that this resource is a secondary deposit accumulated during unauthorized collecting. As a result P-13-13125 has limited data potential and is not considered a “historical resource” under CEQA. It does not warrant further consideration.

SEP1501-P-1. BCR Consulting archaeologists originally identified this site on March 3, 2015 (see Results/Field Survey section). BCR Consulting revisited the site on April 2, 2015, to complete the surface collection, STP excavation, and mapping. The surface collection yielded the following samples: one fire affected rock, one andesite secondary flake, and one reddish ceramic body sherd. The additional fire affected rocks, ceramic potsherd, and andesite core lacked information and were not collected. The fish bones found during the original site visit could not be found during the site revisit. Due to the low analytical value of the surface finds, additional STPs beyond the original research design (10 total) were excavated on this site. Each STP was intuitively placed within 20 meters of the surface scatter in order to help elicit the horizontal and vertical extent of the deposit. Excavations did not yield any buried cultural remains, relevant soil changes, or visible signs of cultural activity.

SIGNIFICANCE EVALUATIONS
During the field survey and research, eight prehistoric resources were identified (all within SEPV Dixieland West). Six of these were prehistoric isolates (P-13-9539, 9540, 9589, 13122, 13123, and 13124), and one (P-13-13125) was the result of a secondary deposit. As noted above, isolated artifacts and secondary deposits have limited data potential and are not considered “historical resources” under CEQA. They do not warrant further consideration. One additional prehistoric artifact scatter (SEP1501-P-1) with potential for buried resources was also identified. CEQA (PRC Chapter 2.6, Section 21083.2 and CCR Title 145, Chapter 3, Article 5, Section 15064.5) calls for the evaluation and recordation of such resources. The criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the CEQA Guidelines and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance.

Significance Criteria
California Register of Historical Resources. The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met:
1. It is associated with the events that have made a significant contribution to the
broad patterns of local or regional history, or the cultural heritage of California or
the U.S.;
2. It is associated with the lives of persons important to local, California, or U.S.
history;
3. It embodies the distinctive characteristics of a type, period, region, or method of
construction, represents the work of a master, possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory
or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires
that sufficient time has passed since a resource’s period of significance to “obtain a
scholarly perspective on the events or individuals associated with the resources.” (CCR
4852[d][2]). Fifty years is normally considered sufficient time for a potential historical
resource, and in order that the evaluation remain valid for a minimum of five years after
report completion, all potentially eligible resources older than 45 years require evaluation.
The California Register also requires that a resource possess integrity. This is defined as
the ability for the resource to convey its significance through seven aspects: location,
setting, design, materials, workmanship, feeling, and association. Finally, CEQA requires
that significant effects on unique archaeological resources be considered and addressed.
CEQA defines a unique archaeological resource as any archaeological artifact, object, or
site about which it can be clearly demonstrated that, without merely adding to the current
body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and
there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best
available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or
historic event or person.

SIGNIFICANCE THRESHOLD CRITERIA
CEQA Guidelines Section 15064.5 Appendix G includes significance criteria relative to
archaeological and historical resources. These have been utilized as thresholds of
significance here, and a project would have a significant environmental impact if it would:

a) Cause a substantial adverse change in the significance of a historical resource
as defined in section 10564.5;
b) Cause a substantial adverse change in the significance of an archaeological
resource pursuant to Section 10564.5;
c) Disturb any human remains, including those interred outside of formal cemeteries.

Significance thresholds are based upon evaluation of archaeological and historic-period resources within a project site.

**Evaluation**

**SEP1501-P-1.** BCR Consulting has conducted substantial research regarding the project and recommends that this prehistoric site is not associated with events that have made a significant contribution to the broad patterns of American or California history and cultural heritage (California Register Criterion 1). That research has also failed to show that the resource is associated with the lives of persons important to our past, or that persons of significant regional or national stature can be linked to the resource (California Register Criterion 2). Prehistoric artifact scatters consisting of minimally-diagnostic artifacts do not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual or possess high artistic values (California Register Criterion 3). Pedestrian survey and test excavations have not revealed artifacts, features, or soils that indicate significant archaeological deposits. As a result, the site has not yielded and is not likely to yield information important to the prehistory or history of the local area, California, or the nation (California Register Criterion 4). Although a measure of integrity of location is retained, there is nothing to suggest integrity of setting, design, materials, workmanship, feeling, and association. The site exhibits low integrity and does not meet criteria necessary to define it as a unique archaeological resource under CEQA. Because of the site’s lack of integrity and failure to meet any of the above criteria BCR Consulting recommends that it is not considered potentially eligible for the California Register, and as such is not recommended a historical resource or unique archaeological resource under CEQA.

**RECOMMENDATIONS**

BCR Consulting has conducted an intensive Cultural Resources Assessment and Archaeological Test Excavations of the SEPV Imperial LLC Solar Project, including the SEPV Dixieland East and SEPV Dixieland West sites. Based on the above results, BCR Consulting recommends that the items recorded during the pedestrian survey, and the prehistoric site evaluated during the testing program (all within the boundaries of SEPV Dixieland West), are not “unique archaeological resources” or “historical resources” under CEQA. While the testing program has indicated that the soils tested do not contain significant buried deposits, this study has only tested a percentage of the project sites’ subsurface area. Also, while all of the recorded resources were located within SEPV Dixieland West project site boundaries, both SEPV Dixieland East and SEPV Dixieland West are considered sensitive for buried cultural resources due to the high number of resources recorded in the vicinity. As a result, BCR Consulting recommends that an archaeological monitor be present during all proposed ground-disturbing activities associated with both the SEPV Dixieland East and the SEPV Dixieland West project sites. All monitoring should take place under the direct supervision of a cultural resource professional who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology (project archaeologist). Prior to commencement of project related ground
disturbing activities within either the SEPV Dixieland East or the SEPV Dixieland West project sites, the project archaeologist should attend a pre-construction meeting with construction personnel. The project archaeologist should inform construction personnel that archaeological materials may be encountered, and provide information on the role of archaeological monitors. If any prehistoric or historic cultural resources are uncovered during any ground-disturbing activities within the project sites, the monitor should be empowered to temporarily halt or redirect construction work in the vicinity of the find until it can be evaluated by the project archaeologist. Impacts to finds determined to represent significant cultural resources will be mitigated through data recovery.

If human remains are encountered during project activities, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.
REFERENCES

Basgall, Mark E., and M.C. Hall

Beattie, George W., and Helen P. Beattie

Beck, Warren A., and Ynez D. Haase

Bedwell, S.F.

Cleland, Robert Glass

Doose, N., W. Welsh, J. Huval, M. Werle, T. Osuna
2007a Site Record for CA-RIV-9539. On File at the Eastern Information Center, University of California, Riverside.

2007b Site Record for CA-RIV-9540. On File at the South Coast Information Center, San Diego, California.

2007c Site Record for CA-RIV-9589. On File at the South Coast Information Center, San Diego, California.

2007d Site Record for CA-RIV-13122. On File at the South Coast Information Center, San Diego, California.

2007e Site Record for CA-RIV-13123. On File at the South Coast Information Center, San Diego, California.

2007f Site Record for CA-RIV-13124. On File at the South Coast Information Center, San Diego, California.

2007g Site Record for CA-RIV-13125. On File at the South Coast Information Center, San Diego, California.

Gifford, Edward W.
Jaeger, Edmund C., and Arthur C. Smith  

Kroeber, Alfred L.  

Lightfoot, Kent G. and Otis Parrish  
2009 *California Indians and Their Environment*. University of California, Berkeley and Los Angeles.

Luomala, Katharine  

McGuire, K.R., and M.C. Hall  

Proctor, Richard J.  

Rogers, M.J.  

Schroeder, Albert H.  


Schroth, Adella Beverly  

Shutler, Richard, Jr.  

Sutton, Mark Q.  

U.S. Geological Survey  
1979 *Plaster City, California* 7.5-minute topographic quadrangle map

Wallace, William J.  

Warren, Claude N.  

Warren, Claude N., and R.H. Crabtree  

Wilke, Philip J.  

Yohe, Robert M., II  
APPENDIX A

DEPARTMENT OF PARK AND RECREATION 523 FORMS
APPENDIX B

PALEONTOLOGICAL RESOURCES OVERVIEW
5 March 2015

BCR Consulting
1420 Guadalajara Place
Claremont, CA  91711

Attn:  David Brunzell, Principal Investigator / Archaeologist

re:  Paleontological resources for the proposed Dixieland West and Dixieland East Solar Projects, near Dixieland, Imperial County, project area

Dear David:

I have conducted a thorough check of our paleontology collection records for the locality and specimen data for the proposed Dixieland West and Dixieland East Solar Projects, near Dixieland, Imperial County, project area as outlined on the portion of the Plaster City USGS topographic quadrangle map that you sent to me via e-mail on 25 February 2015. We do not have any vertebrate fossil localities that lie directly within the proposed project boundaries, but we do have localities nearby from the same deposits that occur in the proposed project area.

Beneath soil, both sites of the proposed project area have surface lacustrine and fluvial [lake and stream channel] deposits of late Pleistocene or Holocene age [the latter less than 10,000 years before present] known as the Lake Cahuilla beds. We have several vertebrate fossil localities in these Lake Cahuilla beds, north-northwest of the project area northwest of the current Salton Sea (the remnant of the ancient Lake Cahuilla) and southwest of Coachella, including LACM 6252, 6253, and 6255. These localities produced a significant fauna of terrestrial and freshwater vertebrates (see attachment) as well as diatoms, land plants, clams, snails and crustaceans. A single jaw of the bighorn sheep Ovis canadensis was recovered from locality LACM 6256, nearby to the other localities listed above.
Even relatively shallow excavations in the Lake Cahuilla beds exposed in proposed project area may well encounter significant vertebrate fossil remains. Many of the fossil specimens collected from these latter deposits are small isolated elements of fossil organisms that were recovered from screen-washing sediment samples. Thus it is recommended that in addition to monitoring the excavations to collect any larger fossil remains uncovered, sediment samples be collected and processed to determine the small fossil potential at the proposed project site. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosures: attachment; invoice
Vertebrate fossil taxa from the Lake Cahuilla Beds near Coachella
based on specimens from localities LACM 6252-6253 and 6255

Osteichthyes
Cypriniformes
Catostomidae
Xyrauchen texanus razorback sucker
Cyprinidae
Gila elegans bonytail
Cyprinodon macularius desert pupfish

Reptilia
Squamata
Iguanidae
Phrynosoma platyrhinos desert horned lizard
Sceloporus magister desert spiny lizard
Uma inornata Coachella Valley fringe-toed lizard
Urosaurus gracilis long-tailed brush lizard
Colubridae
Chionactis occipitalis western shovel-nosed snake
Hypsiglena torquata night snake
Pituophis melanoleucus gopher snake
Sonora semiannulata western ground snake
Crotalidae
Crotalus cerastes sidewinder rattlesnake

Aves
Passeriformes advanced land birds

Mammalia
Lagomorpha
Leporidae
Sylvilagus cottontail rabbit
Rodentia
Cricetidae
Neotoma lepida desert wood rat
Peromyscus white-footed mouse
Heteromyidae
Dipodomys kangaroo rat
Perognathus longimembris pocket mouse
Sciuridae
Ammospermophilus leucurus antelope ground squirrel
APPENDIX C

NATIVE AMERICAN CORRESPONDENCE