

**WORKER ENVIRONMENTAL AWARENESS
PROGRAM (WEAP)
GENESIS SOLAR ENERGY PROJECT**

Submitted to:

**California Energy Commission
Sacramento, California**

Prepared by:



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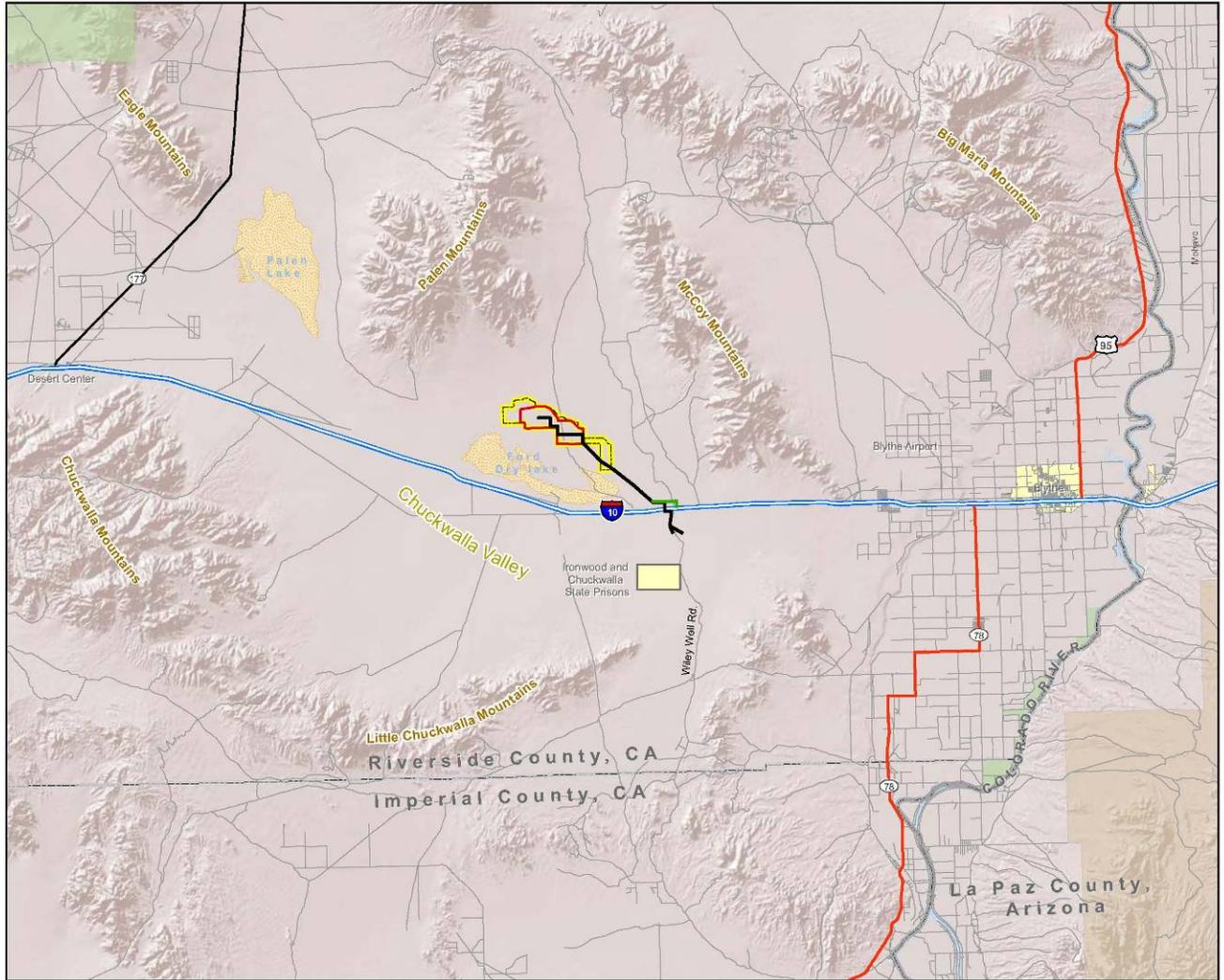
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1.0 INTRODUCTION

Genesis Solar, LLC (Genesis Solar) intends to construct the Genesis Solar Energy Project (GSEP, or Project), a 250-megawatt (MW) solar thermal power generating facility located in Riverside County, CA. The Project is located between the community of Desert Center and the city of Blythe on 1,820 acres of land managed by the Bureau of Land Management (BLM).

Project construction is expected to occur over a total of approximately 37 months. The Plant Site will include the solar arrays, power blocks, power generating equipment, support facilities, and evaporation ponds. The Linear Facilities include a transmission line, distribution line, natural gas pipeline, and a main access road that would be mostly co-located for approximately 6.5 miles.





GENESIS SOLAR, LLC
GENESIS SOLAR ENERGY PROJECT
RIVERSIDE COUNTY,
CALIFORNIA



Legend

- Project Requested ROW
- Interstate
- Highway
- Major Road
- Local Road
- State Boundary
- County Boundary
- Plant Site
- Runways (500 to 250k)
- Lake/River
- Intermittent Lake
- Local Park
- Military Installation
- Urban Area
- Proposed Transmission Interconnect
- Proposed Access Road

N

0 2.5 5 7.5 10

Notes:
 (a) JTM Zone 11, NAD 1983 Projection.
 (b) Source data: ESRI, BLM, TTEC

FIGURE 1
REGIONAL LOCATION MAP

TETRA TECH EC, INC.



Construction of the Project could result in adverse environmental impacts unless all on-site construction personnel actively participate in the implementation of compliance and mitigation measures needed to protect these resources.

To ensure proper training of project personnel during construction and operation, the California Energy Commission (CEC) requires Genesis Solar to implement this Workers Environmental Awareness Program (WEAP) throughout construction and operation. All workers are required to attend this training and sign a training acknowledgement form upon completion.

The measures outlined in this WEAP were developed based on the CEC's and BLM's requirements put forth in their respective environmental assessment documents. This training will review all requirements that pertain to biological, cultural and paleontological resources in the Project area.

It is important for each member of the construction team to understand that their actions and behavior in the field are critical for keeping the project in compliance and avoiding unnecessary delays or work shutdowns. Failure to comply with the environmental requirements can result in discipline including, but not limited to, dismissal from the job site.

**ALL CONSTRUCTION PERSONNEL ARE RESPONSIBLE FOR
MINIMIZING IMPACTS TO SENSITIVE PLANTS AND ANIMALS AT ALL
TIMES !**

2.0 CULTURAL RESOURCES

[no comments received on Dec 10 submittal]

Cultural resources include prehistoric or historically important structures or objects, the location of a historic event, or an area considered important to a group of people. Cultural resources provide insight into local and regional history. Each cultural resource is unique and irreplaceable. Genesis Solar is committed to preserving California's cultural heritage by implementing mitigation measures during project construction.

2.1 Setting

The project area in Riverside County is primarily undeveloped desert bounded by mountains. The project area is within the Sonoran Desert where precipitation is typically about 2 inches per year. The desert's predominant plant is the creosote bush in the lower, relatively flat areas.





The Colorado Desert and GSEP region prehistoric cultural sequence consist of three major periods. The earliest of these is the Paleoindian period (13,000 – 10,000 BP) when prehistoric peoples are believed to have based their subsistence on hunting the large animals that lived there during the cooler, wetter climate that prevailed during this period.

Following was the Archaic period (10,000 – 1,500 BP) when area inhabitants adapted to the drier desert conditions that prevailed. During this period prehistoric peoples followed a general hunting and gathering lifestyle using dart throwers for hunting and grinding stones for processing wild seeds and other plant foods.

The final Late Prehistoric period (1,500 BP to European contact) was marked by the introduction of maize, bean and squash agriculture in the Colorado River Valley and the technological innovations of the bow and arrow and ceramics. The presence of distinctive stone tools, marine shells and ceramics indicate that the prehistoric inhabitants of the area either traveled to or traded with peoples up and down the Colorado River Valley, on the Pacific Coast, and the coast of the Gulf of California.

The ethnographic record shows that the region in which the proposed GSEP site is located was somewhat a boundary area between the territories of a number of Native American groups. The GSEP site is also located near a corridor of trails used by Native Americans for east – west travel between the Colorado River and the Pacific Coast. It was periodically used by a number of groups including the Chemehuevi, Serrano, Cahuilla, Mojave, Quechan, Maricopa, and Halchidhoma. These groups used the uplands of the project area for hunting and gathering and utilized numerous seasonal desert resources such as deer and small game, mesquite, screwbean, yucca, mescal, cacti, and a variety of seeds. In the nearby Colorado River Valley, they practiced agriculture and produced wheat, beans, maize, squash, and pumpkin. Valley dwellers would also supplement their diets with fishing.

The area was generally considered unappealing to European settlers until advances in dry land farming techniques, well drilling, and irrigation were made in the late nineteenth century. Although there was some gold mining activity in the hills, permanent European settlements did not occur until the 1880s.

During World War II, the desert region was utilized as a training facility for troops bound for the deserts of Africa. The Desert Training Center/California Arizona Maneuver Area (1942–



1944) was originally established by General George Patton and included areas with semi-permanent facilities, infantry camps, outpost, airstrips, roads, and training areas.



2.2 Regulation and Protection of Cultural Resources

The following state and federal laws and regulations affect the management of cultural resources:

- Archaeological Resources Protection Act
- National Historic Preservation Act
- California Environmental Quality Act
- California Public Resources Code (Sections 5097.5, 5097.9, and 5097.99)

IT IS ILLEGAL FOR SITE WORKERS TO COLLECT ANY OBJECTS, INCLUDING OLD BOTTLES, FROM PUBLIC LAND.

DISTURBING NATIVE AMERICAN BURIAL SITES IS A FELONY.

THE DELIBERATE DESTRUCTION AND REMOVAL OF CULTURAL RESOURCES ON PRIVATE LAND IS PROHIBITED UNDER THE CONDITIONS OF GSEP'S PERMIT FROM THE CEC.

2.3 Cultural Resources at the Project Site

Prior to construction, the Project area was carefully investigated to identify prehistoric and historic artifacts. During construction phases when grading or excavation occurs, additional artifacts may be exposed. Artifacts can be anything that has been manufactured, altered, transported, or used by humans.



Examples of prehistoric artifacts may include such items as bones, hammer stones, scrapers, stone flakes, flaked knives, pottery, projectile points, grinding stones, or similar items.



Prehistoric ceramic sherd



Prehistoric shell bead



Prehistoric lithic core

Historic artifact examples may include glass bottles, ceramics, tin cans, military-related artifacts, or similar items. In addition, materials and locations attributed to Hispanic and other ethnic or racial groups may also be considered important cultural resources.



Historic World War II blank ammunition brass



World War II ration coffee can



World War II gasoline can

Artifacts can become buried or partially buried by natural environmental processes such as rodent activity, soil erosion, wind, and water (e.g. drainages, flooding). **Partially buried and/or buried artifacts may appear, on the surface, as a rock, an earthen mound, an odd object, or a piece of trash.**



Prehistoric ceramic sherd scatter



World War II ration cans



World War II ration can scatter

Deeply buried artifacts are typically not noticeable on the surface. When a buried artifact is uncovered or freshly exposed part or all of it may appear darker in color (compared to artifact or parts of artifacts on the surface), it may be very fragile, and the defining attributes that make it an artifact may become more apparent.



Prehistoric projectile point

On the Project site prehistoric surface deposits may appear as a scatter of large rocks that look out of place, a cluster of fire-cracked rocks, pottery and/or lithics (e.g. stone flakes, tools, etc) within a relatively defined area. Historic surface deposits can appear as refuse scatters or dump (e.g. cans, glass, ceramics, military related items, etc.), depressions, rock alignments, and/or foundations.





Two prehistoric grinding stones or metates



World War II excavated gun emplacement

Subsurface archaeological deposits on the Genesis site could range from concentrated light to dark soil with fire-cracked rock, baked clay, ash or charcoal, bone, and/or artifacts (e.g. stone flakes, tools, ground stone, shell). Subsurface historic deposits could include burnt or darkened soils with refuse (e.g. cans, glass, ceramics, military related items, etc.), rock alignments and/or foundations.

2.4 Project Construction and Unanticipated Finds

Indicators of artifact presence include bone fragments, shellfish remains, distinct baked clay or ash layers in the soil, remnants of a foundation (stacked stones, bricks, or cobbles), trash pits, ammunition casings, rock rings or distinct depressions.

Genesis Solar will have Archaeological Monitors on site during ground disturbance, including earth-moving activities, clearing, grading, drilling, and trenching. The Archaeological Monitors will observe all activities involving native soil disturbance in areas where buried cultural resources may exist, down to soils that predate human occupation. In the event that any of the above items or conditions are identified during construction, the archaeological monitor has the authority to halt construction within the area of the find. If an archaeological monitor is not present, it is imperative to stop the activity and notify the Archeological Monitor or a Supervisor. A qualified Archeological Monitor will evaluate the find to determine if it warrants further investigation.

2.5 Site Worker Responsibilities

It is important that each person on the jobsite remembers these basic rules for protecting cultural resources:



UNANTICIPATED FIND PROTOCOLS

- **IF AN ARCHAEOLOGICAL MONITOR IS PRESENT WHEN A CULTURAL RESOURCE IS EXPOSED, HE OR SHE WILL DIRECT THE WORKER TO STOP WORK AT THE LOCATION OF THE “FIND.”**

- **STOPPING CONSTRUCTION IN THE VICINITY OF AN ARCHAEOLOGICAL FIND IS AN IMPORTANT CONDITION OF THE GESEP’S PERMIT FROM THE CEC AND ONE WITH WHICH SITE WORKERS MUST COMPLY.**

- **WORK MAY BE STOPPED FOR ONLY A FEW MINUTES, OR IT MAY BE SHUT DOWN FOR AN EXTENDED PERIOD OF TIME, DEPENDING ON WHAT IS FOUND.**

- **IF AN ARCHAEOLOGICAL MONITOR IS NOT PRESENT WHEN A CULTURAL RESOURCE IS FOUND, YOU MUST:**
 - **STOP WORK AND NOTIFY A SUPERVISOR IMMEDIATELY,**
 - **MARK THE LOCATION OF THE FIND AND BLOCK OFF ACCESS TO IT UNTIL THE ARCHAEOLOGICAL MONITOR ARRIVES.**
 - **THE AREA OF THE FIND MUST BE PROTECTED FROM POTENTIAL DAMAGE TO CULTURAL RESOURCES THAT COULD BE CAUSED BY CONSTRUCTION ACTIVITIES.**

- **DISCOVERIES OF BONE ARE TO BE TREATED AS POTENTIAL HUMAN REMAINS UNTIL A DETERMINATION CAN BE MADE BY A CULTURAL RESOURCE SPECIALIST.**

(A discussion of t local Native American beliefs, how those beliefs are related to archaeological resources that may be found in the area, and the appropriate respectful behavior towards sacred places and objects is pending response from the Tribes to BLM.)

