Section 2 CULTURAL RESOURCES

2.1 SUPPLEMENTAL ANALYSIS

On January 31, 2013, PSH docketed under a Request For Confidentiality a report entitled, “Geoarchaeology of the Palen Solar Generating System Project Area” (Nials 2013). This new report documents a geomorphological reanalysis of the project area as it relates to the potential for buried intact prehistoric archaeological sites.

The Revised Staff Assessment for the Approved Project relied on available information and dated materials that identified Palen Dry Lake as a “pluvial lake”. The reanalysis by Nials documents that Palen Dry Lake was not a pluvial lake during the time period for human occupation. It also summarizes the reasons why finding buried intact prehistoric archaeological sites within the Project are highly unlikely due to geomorphological activities that can affect site preservation.

The Nials Geoarchaeology Report separates the project into three areas: Playa, Distal Alluvial Fan and Middle Alluvial Fan.

Playa

Playas have been intermittently present throughout the Holocene. None of the playas would have been very large due to the lack of a sill to hold back enough water to form a lake. Dunes would have formed small playas. The archaeological sites are mostly located in this area, where there would have been resources (as well as water) for prehistoric peoples exploitation. However, wave action from the playas, wind, dune movement all contributed to disturbing any contextual evidence from these sites and deflating them onto the hard clay pan.

Distal Alluvial Fan

Several sites are located in this area, probably for easy access to the resources in the valley bottom around playas. However, the mixing of sediments by aeolian and fluvial processes has destroyed the stratigraphic context of archaeological materials. These activities, as well as significant animal burrowing, have caused bioturbation which is obvious and pronounced.

Middle Alluvial Fan

No sites are located in this area, and significant processes affect this area including flash floods,

The Nials report concludes, in summary, that:

- There are no lake deposits representing late Pleistocene deposition. There are playa sediments interspersed with the sand dunes, but do not indicate deep playas like at Ford Dry Lake.
- The sand was primarily deposited during the late Pleistocene and mid Holocene. There is modern erosion and modern reactivation of the dunes, but the sand sheets are still recognizable paleo features.
- There is no potential for buried lake deposits within or adjacent to the project area. There may be deeper playa deposits northeast of the project, outside of the project footprint.
- The playa has prorated at various times, but any interfingering of those alluvial fan sediments with deposits containing clay is either alluvial or playa sediments, not lacustrine There are places where alluvial processes has brought down gravel in the alluvial fans and deposited it on harder playa sediments, then the finer grained materials has been eroded away leaving the gravels as a lag concentrate on older deposits. The presence of these gravels was interpreted by the CEC as evidence of a lake, but it is just the alluvial fan processes.

2.2 CONDITIONS OF CERTIFICATION

Based on the new information described above, the potential to find significant cultural resources within a large portion of the site is decreased; therefore, PSH recommends that Condition of Certification **CUL-8** be revised to specify that cultural monitoring only needs to occur in those areas where there is a potential to discover cultural materials that may be significant.

CUL-8 CONSTRUCTION MONITORING PROGRAM

The project owner shall ensure that the CRS, alternate CRS, or CRMs, to prevent construction impacts to undiscovered resources and to ensure that known resources are not impacted in an unanticipated manner, monitor full time ~~all~~ ground disturbance ***in the areas identified in the Geoarchaeology Report, Figure 14 (Nials 2013).***

Full-time archaeological monitoring for this project shall be the archaeological monitoring of the earth-removing activities in the areas specified in the previous paragraph ***to a depth of 18" in Area "A" Figure 14 (Nials 2013). In Area "B," monitoring will occur up to 4' in depth at the power blocks and to a depth of 18" for all paved and unpaved roads.***~~, for as long as the activities are ongoing~~. Where excavation equipment is actively removing dirt and hauling the excavated material farther than 50 feet from the location of active excavation,

full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the dumped material. For excavation areas where the excavated material is dumped no farther than 50 feet from the location of active excavation, one monitor shall both observe the location of active excavation and inspect the dumped material.