



**Submitted to:**

Rafik Albert  
E|P|D Solutions, Inc.  
2030 Main St., Ste. 1200  
Irvine, CA 92614

**Prepared on Behalf of:**

Forefront Power  
100 Montgomery Street, Ste.  
1400  
San Francisco, CA 94104

**CULTURAL AND PALEONTOLOGICAL ASSESSMENT:**

**California Correctional Institute Solar Project**

**Tehachapi, Kern County, California**



**CULTURAL AND PALEONTOLOGICAL ASSESSMENT:  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
CALIFORNIA CORRECTIONAL INSTITUTION (CCI) SOLAR PROJECT  
CITY OF TEHACHAPI, KERN COUNTY, CALIFORNIA**

**Prepared on Behalf of:**

Forefront Power  
100 Montgomery Street, Ste. 1400  
San Francisco, CA 94104

**Prepared for:**

EPD Solutions, Inc.  
2030 Main St., Ste. 1200  
Irvine, CA 92614

**Principal Investigators/Authors:**

Tria Belcourt, M.A., RPA, Jennifer Kelly, M.Sc., and Sonia Sifuentes, M.Sc., RPA  
Material Culture Consulting, Inc.  
2701-B North Towne Avenue  
Pomona, CA 91767

**October 2018**

**MCC Project Number:** 20180213

**Type of Study:** Cultural and paleontological resources assessment

**Cultural/Paleontological Resources within Area of Potential Impact:** None

**Paleontological Formations:** Younger Quaternary Alluvium

**USGS 7.5-minute Quadrangle:** Cummings Mountain, Section 29, Township 32 S, Range 32 E

**APN(s):** N/A

**Survey Acreage:** Approx. 36.77 acres

**Date of Fieldwork:** August 14, 2018

**Key Words:** Paleontology, Archaeology, CEQA, Phase I Survey, Kern County, Negative Cultural, Unknown-moderate Paleontological Sensitivity

## MANAGEMENT SUMMARY

Forefront Power proposes to construct a new solar facility at the California Department of Corrections and Rehabilitation (CDCR) California Correctional Institution (CCI) in the City of Tehachapi, Kern County, California (Project). The Project involves installation of solar panels and associated maintenance facilities to provide energy to CCI. Material Culture Consulting, Inc. (MCC) was retained by E|P|D Solutions, Inc. to conduct a Phase I cultural and paleontological resource investigation of the Project Area. These assessments were conducted in accordance with the California Environmental Quality Act (CEQA), and included cultural and paleontological records searches, a search of the Sacred Lands File by the Native American Heritage Commission (NAHC), outreach efforts with 13 Native American tribal representatives, background research, and a pedestrian field survey.

The archival research and SLF search did not identify any previously known cultural resources or fossil localities within the Project Area. The cultural resources records search identified fifteen cultural resources investigations previously conducted within a 1-mile radius of the Project, with one study encompassing the Project Area. Two previously recorded cultural resources were identified within a 1-mile buffer of the Project Area, neither of which are located within the Project boundary. The geologic unit present within the Project Area is identified as mostly younger Quaternary Alluvium, derived as alluvial fan deposits from the east, with exposures of metamorphic rock in the northeastern and southeastern portion of the Project Area. The vicinity also has potential exposures of older Quaternary deposits underlying the younger deposits. As a result of the Native American outreach efforts, multiple tribes stated that the Project Area is located out of their respective reservation boundaries. The Kern Valley Indian Community (KVIC) stated concerns with the Project Area and recommend culturally-affiliated Native American monitors be employed to monitor all ground disturbing activities related to the Project.

A pedestrian survey of the Project Area was conducted on August 14, 2018 by Judy Cardoza, MCC archaeologist and cross-trained paleontologist. During the course of fieldwork, survey conditions were poor due to dense chaparral brush and short annual grasses, which resulted in low ground visibility (approximately 30%) throughout most of the 36.77-acre Project Area. Off road vehicle tracks and a modern steel pipe were noted as disturbances along the southern edge of the Project Area. A review of historical imagery and maps indicates that development of a correctional facility occurred within the Project Area prior to the 1940s with minimal change until the 1980s, when expansion of the facility occurred, and into the 2000s, with solar development. No cultural or paleontological resources were identified during the survey.

Based on the negative findings in our archival research and field survey, as well as the prior disturbance of the ground surface within the Project Area, the probability of encountering cultural resources within the Project Area is considered very low. MCC recommends no further cultural resource mitigation measures are needed for the duration of the Project. While we do not recommend additional mitigation, we do recommend setting a plan in place to expediently address inadvertent discoveries and human remains, should these be encountered during construction activities.

Considering the potential for older Quaternary Alluvium lying underneath younger deposits at undetermined depths in Project Area, MCC recommends that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the Project Area. Due to the nature of the work proposed, we only recommend paleontological monitoring during excavations that extend to depths greater than 10 feet (ft.). We do not recommend paleontological monitoring during drilling, pile-driving, directional boring or other similar activities. These construction activities compromise the fine details used to identify species of fossils, and obscure valuable contextual information - both of which are required for assigning significance to fossil finds.

A copy of this report will be permanently filed with the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield, California. All notes, photographs, correspondence and other materials related to this Project are on file at MCC, Inc., located in Pomona, California.

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## INTRODUCTION

Forefront Power proposes the development of a new solar facility at the California Department of Corrections and Rehabilitation (CDCR) California Correctional Institution (CCI), in the City of Tehachapi, Kern County, California (Project). Material Culture Consulting, Inc. (MCC) was retained by E|P|D Solutions, Inc. to conduct a Phase I cultural and paleontological investigation of the Project in accordance with the California Environmental Quality Act (CEQA). The State of California is the lead CEQA agency, in collaboration with the State of California Department of General Services and the CDCR. This assessment was conducted pursuant to all applicable State regulations regarding cultural and paleontological resource assessments, as well as paleontological guidelines established by the Society of Vertebrate Paleontology (SVP 2010). According to these regulations and guidelines, if development of a Project has the potential to impact significant cultural and/or paleontological resources, a plan must be developed to mitigate those impacts.

### PROJECT LOCATION AND DESCRIPTION

The proposed Project Area is located east of the main facility complex of CCI at 24900 Highway 202, Tehachapi, CA 93561, which is the western terminus for State Route (SR) 202, Kern County, California (Figures 1 and 2). The survey area associated with the Project is presently an agricultural field east of the CCI main property boundaries (Figure 3). Specifically, the proposed Project is located in the southeast corner of Section 29, Township 32 South, Range 32 East on the Cummings Mountain USGS 7.5-minute topographic quadrangle (Mount Diablo Base Meridian) (Figure 2).

The project would install and operate an approximately 3.625-MWac photovoltaic solar power generation facility on 35 acres of undeveloped state-owned land adjacent to the California Correctional Institution in the city of Tehachapi in Kern County. The project site is immediately west of an existing solar field. Project features include installation of single-axis trackers, installation of arrays providing approximately 12,544 solar panels, inverters, underground and above-ground conduits, and associated electrical equipment. The ground-mounted solar array would convert sunlight to direct current (DC) electrical power which would then be converted to alternating current (AC) by string inverters before being delivered to the distribution system. The total system size is subject to final design and site optimization. The project has been designed to avoid and/or minimize potential significant environmental impacts.

The solar system would be configured into generally contiguous arrays. The solar system will utilize either fixed-tilt or single-axis tracking mounting technology to optimize efficiency and performance. Single-axis trackers are designed to rotate the arrays in the east-to-west plane to track the sun's movement across the horizon. The ground-mounted arrays would be supported on driven pipe piles, driven H-piles, or reinforced-concrete cast-in-drilled-hole (CIDH) piers, with the foundation design to be finalized following completion of on-site geotechnical surveys. Once installed, the ground-mounted solar arrays would be approximately 8 feet in height depending on the time of day to the extent a tracking system is utilized.

The electrical collection system is not expansive due to the contiguous nature of the site. Conduits and wires would be buried in trenches that run between rows and/or installed above-grade running along the backside of strings to connect the output of each string to the inverters. String inverters would be attached to racking adjacent to each array to convert electricity from direct current to alternating current. The inverters then send alternating current electricity to an on-site transformer to step the electricity up to the interconnection voltage of 12 kV. The transformer is planned to be pad mounted.

From the transformer, a power line will either be buried underground or be run above-ground on utility poles for about 1,780 feet to the point of interconnection where reclosers, metering, and other utility features will be installed prior to connecting with the electrical system. Trenching will either be excavated and backfilled pending

the final conduit size and equipment utilized or may be directionally drilled to avoid any existing natural resources or infrastructure features. The array field would be surrounded by approximately 4,700 feet of 8-foot-high chain link fence with a 20-foot wide access gate.

The energy generated onsite would be directly supplied to the power grid by an interconnection with the Southern California Edison system at the southern corner of the prison.

## **PROJECT PERSONNEL**

Tria Belcourt, M.A., RPA, President of MCC, served as the Project Manager and Principal Archaeologist for the study. Ms. Belcourt coordinated the records searches, created the maps for the report, and performed editorial review of this report. Belcourt is a Registered Professional Archaeologist (RPA) with a M.A. in Anthropology from the University of Florida, a B.A. in Anthropology from the University of California at Los Angeles, and is a cross-trained paleontologist with over twelve years of experience in California archaeology and seven years of experience in California paleontology (See Appendix A). Jennifer Kelly, M.S., MCC Geologist and Qualified Professional Paleontologist, served as the Principal Paleontologist for the study. Ms. Kelly conducted the paleontological resource literature and map reviews, oversaw the field study, and prepared this report. Kelly received a M.Sc. in Geology from California State University, Long Beach and has over ten years of experience in environmental and paleontological compliance in California (See Appendix A). Sonia Sifuentes, M.Sc, RPA, provided authorship of this report. Judy Cardoza, B.A., MCC qualified archaeologist and cross-trained paleontologist, conducted the CHRIS records search and pedestrian survey. Julia Carvajal, B.S., provided technical support and GIS data.

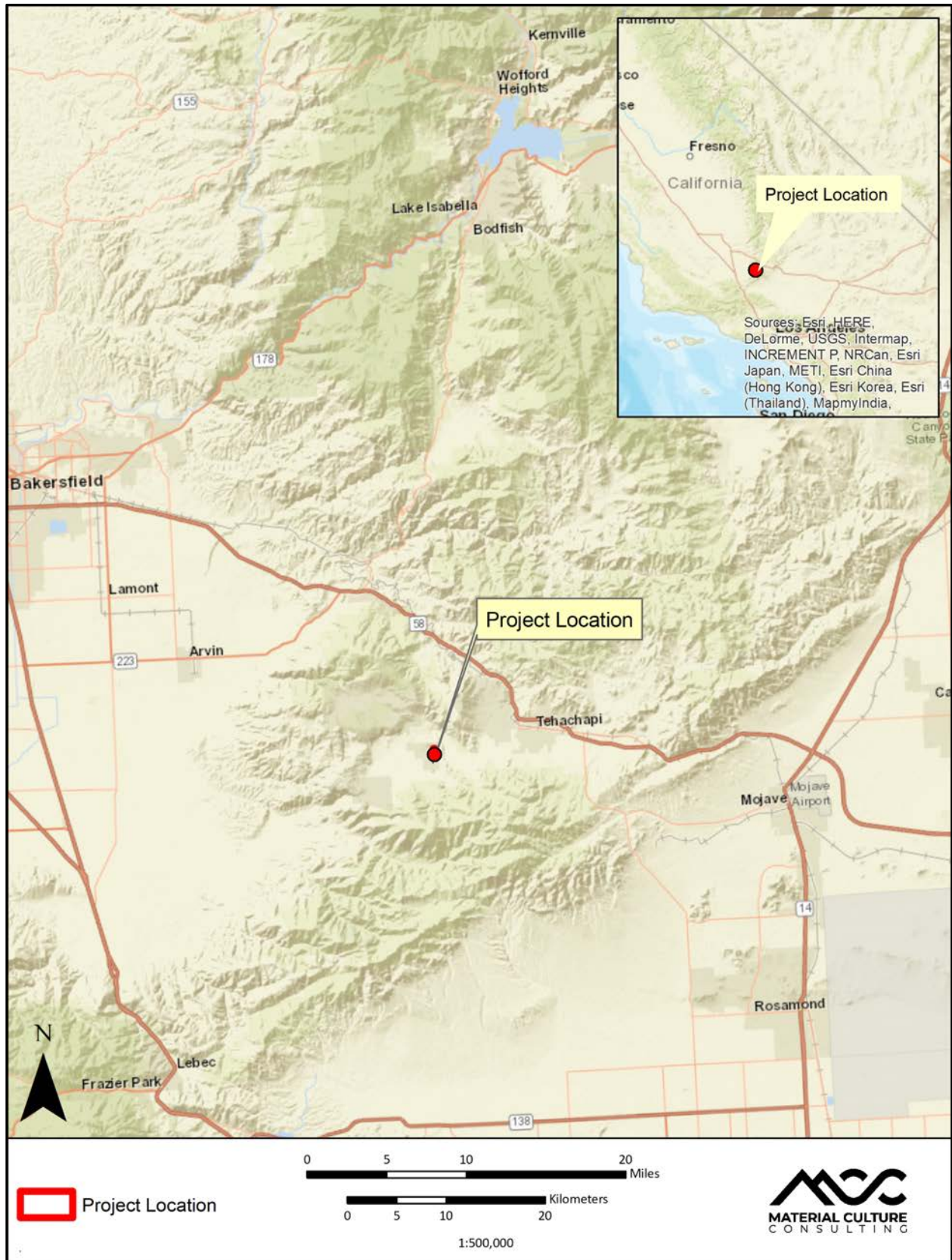
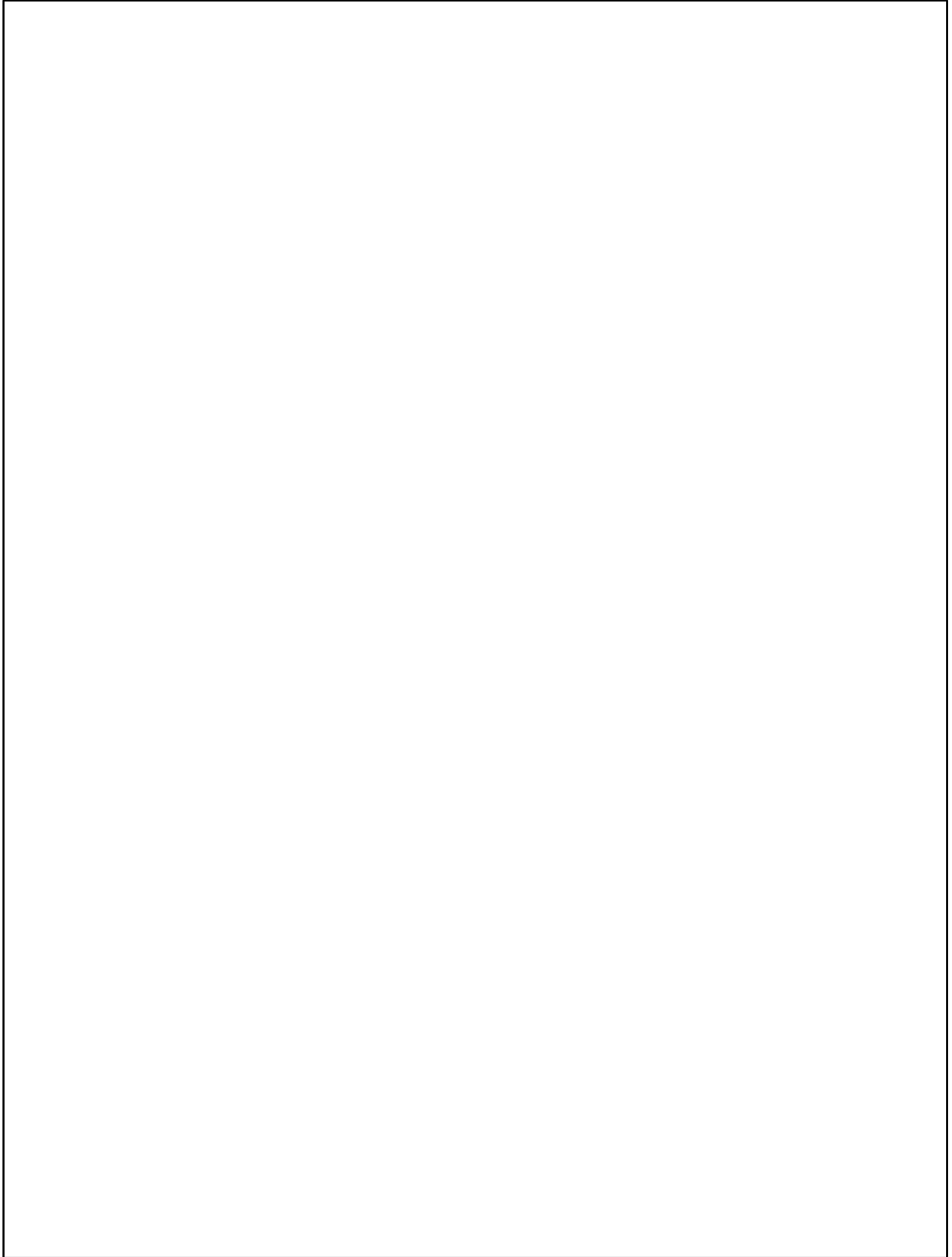


Figure 1. CCI Solar Project Location (1:500,000).







**Figure 3.** CCI Solar Project Area (1:1000, as depicted on aerial photograph).

## REGULATORY ENVIRONMENT

This Project is subject to state regulations, including CEQA and the California Public Resources Code. These state regulations require the identification of archaeological and paleontological resources during the planning stage of new projects; include application review for projects that would potentially involve land disturbance; provide a project-level standard condition of approval that addresses unanticipated archaeological and/or paleontological discoveries; and provide requirements to develop specific mitigation measures if resources are encountered during any development activity.

### CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA declares that it is state policy to "take all action necessary to provide the people of this state with...historic environmental qualities." It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a Project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered. CEQA includes historic and archaeological resources as integral features of the environment. If paleontological resources are identified within a proposed Project Area, the sponsoring agency must take those resources into consideration when evaluating Project impacts. The level of consideration may vary with the importance of the resource.

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources. A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Section 21084.1), a resource included in a local register of historical resources (Section 15064.5(a)(2)), or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5 (a)(3)). Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were used as the basic guidelines for the cultural resources study. PRC Section 5024.1 directs evaluation of historical resources to determine their eligibility for listing on the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change.

The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties. According to Public Resources Code (PRC) Section 5024.1(c)(1-4), a resource is considered historically significant if it meets at least one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Associated with the lives of persons important to local, California or national history;
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values; or
4. 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 having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced

by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Note that California Historical Landmarks with numbers 770 or higher are automatically included in the CRHR.

Under CEQA, if an archeological site is not a significant "historical resource" but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined in PRC Section 21083.2(g) as follows:

An 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 that 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.

Resources that neither meet any of these criteria for listing on the NRHP or CRHR nor qualify as a "unique archaeological resource" under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, "A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" [PRC Section 21083.2(h)]. Under CEQA, impacts to historical resources that alter the characteristics that qualify the historical resource for listing on the CRHR are considered to be a significant effect. The impacts to a historical resource are considered significant, if the project activities physically destroy or damage all or part of a resource, change the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance, or introduce visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made, to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)).

#### **CALIFORNIA HISTORICAL LANDMARKS AND POINTS OF HISTORICAL INTEREST**

Historical landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. In order to be considered a California Historical Landmark, the landmark must meet at least one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Associated with the lives of persons important to local, California, or national history;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values;

4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

If a site is primarily of local or countywide interest, it may meet the criteria for the California Point of Historical Interest Program. Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

1. The first, last, only, or most significant of its type in the local geographic region (city or county);
2. Associated with an individual or group having a profound influence on the history of the local area;
3. A prototype of, or an outstanding example of, a period, style, architectural movement or construction; or
4. One of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point of Interest. If a Point of Interest is subsequently granted status as a Landmark, the Point of Interest designation will be retired.

## **PALEONTOLOGY**

The State of California PRC (Chapter 1.7), Sections 5097.5 and 30244, includes state level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands, define the removal of paleontological “sites” or “features” from state lands as a misdemeanor, and prohibit the removal of any paleontological “site” or “feature” from State land without permission of the jurisdictional agency. These protections apply only to State of California land, and thus apply only to portions of a project, if any, which occur on State land.

As defined by Murphey and Daitch (2007): “Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. Paleontological resources include not only fossils themselves, but also the associated rocks or organic matter and the physical characteristics of the fossils’ associated sedimentary matrix. The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years. Fossils are considered non-renewable resources because the organisms they represent no longer exist. Thus, once destroyed, a fossil can never be replaced. Fossils are important scientific and educational resources because they are used to:

1. Study the phylogenetic relationships amongst extinct organisms, as well as their relationships to modern groups;

2. Elucidate the taphonomic, behavioral, temporal, and diagenetic pathways responsible for fossil preservation, including the biases inherent in the fossil record;
3. Reconstruct ancient environments, climate change, and paleoecological relationships;
4. Provide a measure of relative geologic dating that forms the basis for biochronology and biostratigraphy, and which is an independent and corroborating line of evidence for isotopic dating;
5. Study the geographic distribution of organisms and tectonic movements of land masses and ocean basins through time;
6. Study patterns and processes of evolution, extinction, and speciation; and
7. Identify past and potential future human-caused effects to global environments and climates.”

Fossil resources vary widely in their relative abundance and distribution and not all are regarded as significant. Vertebrate fossils, whether preserved remains or track ways, are classed as significant by most state and federal agencies and professional groups (and are specifically protected under the California PRC). In some cases, fossils of plants or invertebrate animals are also considered significant and can provide important information about ancient local environments. Assessment of significance is also subject to the CEQA criterion that the resource constitutes a “unique paleontological resource or site.” A significant paleontological resource is considered to be of scientific interest if it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on earth, or has an identified educational or recreational value. Paleontological resources that may be considered not to have scientific significance include those that lack provenience or context, lack physical integrity due to decay or natural erosion, or that are overly redundant or are otherwise not useful for research. Vertebrate fossil remains and traces include bone, scales, scutes, skin impressions, burrows, tracks, tail drag marks, vertebrate coprolites (feces), gastroliths (stomach stones), or other physical evidence of past vertebrate life or activities (BLM 2008).

The full significance of fossil specimens or fossil assemblages cannot be accurately predicted before they are collected, and in many cases, before they are prepared in the laboratory and compared with previously collected material. Pre-construction assessment of significance associated with an area or formation must be made based on previous finds, characteristics of the sediments, and other methods that can be used to determine paleoenvironmental conditions. A separate issue is the potential of a given geographic area or geologic unit to preserve fossils. Information that can contribute to assessment of this potential includes:

1. The existence of known fossil localities or documented absence of fossils nearby and in the same geologic unit (e.g. “Formation” or one of its subunits);
2. Observation of fossils within the Project vicinity;
3. The nature of sedimentary deposits in the area of interest, compared with those of similar deposits known elsewhere (size of particles, clasts and sedimentary structures conducive or non-conductive to fossil inclusion) that may favor or disfavor inclusion of fossils; and
4. Sedimentology details, and known geologic history, of the sedimentary unit of interest in terms of the environments in which the sediments were deposited, and assessment of the favorability of those environments for the probable preservation of fossils.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004).

## BACKGROUND

### ENVIRONMENTAL SETTING

The Project site is at CDCR CCI, located off SR 202 at 24900 Highway 202, within the area known as Cummings Valley, east of the City of Tehachapi, Kern County, California. While this region is part of the Tehachapi Mountain Range, the Project Area itself is relatively flat, with elevations ranging from approximately 1,199 meters (m) (3,935 ft.) to 1,210 m (3,970 ft.) above mean sea level (AMSL).

The Tehachapi Mountains are part of the Transverse Ranges and provide a geographical divide and transitional zone between the San Joaquin Valley and the western Mojave Desert (Norris and Webb 1976, Orfila 2011). This range is east-west trending and rises steeply from the floor of the San Joaquin Valley to peaks over 7,000 ft. in elevation (Nilsen 1987). Presently, the Tehachapi Mountains are primarily comprised of California montane chaparral and woodlands (Olson 2014). Vegetation known within the Project Area includes valley oak (*Quercus lobata*), blue oak hybrid (*Quercus X alvordiana*), California buckeye (*Aesculus californica*), coyote melon (*Cucurbita palmata*), jimson weed (*Datura stramonium*), and foxtail (*Hordeum murinum*) (Kelly and Stammerjohan 1990; Orfila 2005). Cummings Valley is located 20 minutes east from downtown Tehachapi. The area has a large agricultural presence with numerous ranches and farms located throughout the region (Tehachapi Life 2017). Wildlife species commonly observed within the area include kangaroo rat (*Dipodomys* spp.), various woodrats (*Neotoma* spp.), and cottontail rabbit (*Sylvilagus audobanii*).

### PALEONTOLOGICAL SETTING

The Sierra Nevada and the Peninsular Ranges near the Project Area are composed of largely continuous exposures of Cretaceous age plutonic rocks and are part of the exhumed root zone of an Andean-type continental margin magmatic arc of Cretaceous age (Wood 1996). The topographic boundary of the Project Area is primarily between sedimentary and crystalline rocks, which is expressed by a fault-line scarp eroded along the White Wolf fault, located east of Tehachapi (Norris and Webb 1976). It was this fault that triggered the Bakersfield Earthquake that affected Tehachapi and the surrounding area in 1952. The rocks of the Tehachapi Mountains are made of late Paleozoic or early Mesozoic sedimentary rock, with early Mesozoic intrusive record of the Necedan orogeny present (Norris and Webb 1976). Within the Tehachapi Range, several flat-floored valleys, known as grabens, are present, with these valleys either having internal drainage or evidence of former internal drainage (Norris and Webb 1976). The geological units underlying this Project are mapped as younger Quaternary alluvium (Qyfa) deposits and granodiorite quartzite (grMz) with metamorphic rock (m) observed to the east of the Project Area (see Figure 4) (Jennings et al. 1977).

*Young Quaternary alluvium* (Qyfa) are Holocene to late Pleistocene-aged alluvial fan deposit that typically consists of river and stream derived sediments. The sediments are comprised of slightly consolidated gray-hued arkosic, sandy and gravel-sand deposits derived from local Peninsular Ranges batholith granitic bodies (Morton 2003).

*Granodiorite quartzite* (grMz) are Mesozoic-aged plutonic rock defined in the Quartz, Alkali feldspar, Plagioclase, Feldspathoid (Foid) (QAPF) diagram as having Q between 20% and 60% and P/(A+P) between 65% and 90% (USGS 2018).



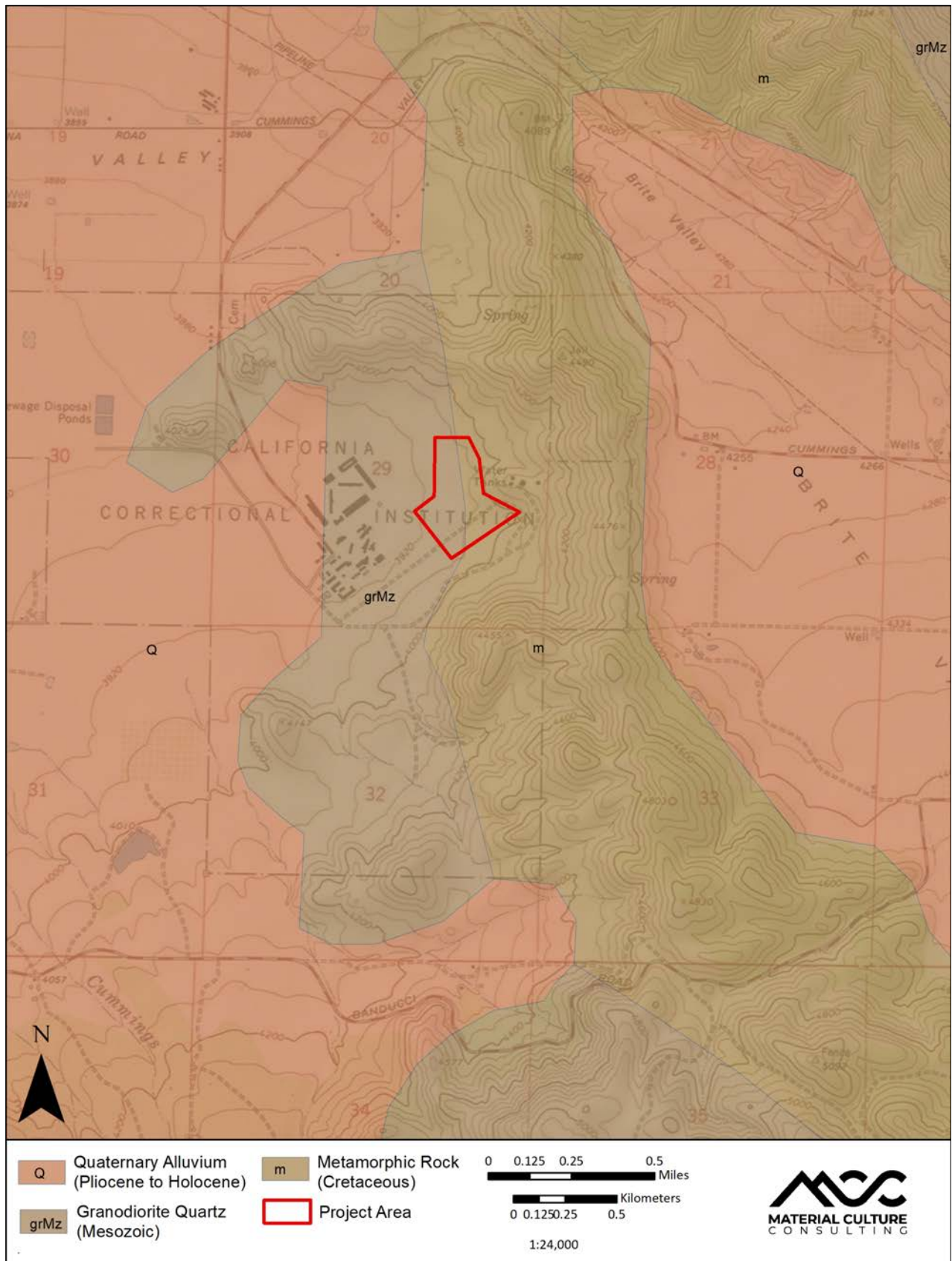


Figure 4. Geological Map of Project Area (compiled by USGS in open source PDF format, accessed in March 2018).

## PREHISTORIC CONTEXT

Regional chronologies for the archaeology of southeastern California continue to evolve, with Kern County having a rich prehistoric and historic cultural heritage. Previously recorded archaeological sites within the region have been found spanning thousands of years, ranging in date from 12,000 years ago to modern history. It must be noted that persistent problems have impeded a complete archaeological record, which include but are not limited to destruction of archaeological sites, biases via natural processes of landscape evolution, and incomplete synthesis of cultural resource reports that have been generated in recent years for compliance with State and Federal historic preservation laws (Riddell 2002; Rosenthal et al 2007; Garfinkel 2015). The following chronology for the region builds on the chronological framework first presented by Moratto (1984), which is found within Jones and Klar's compilation *California Prehistory: Colonization, Culture, and Complexity* (2007).

### *Paleoindian and Clovis Complex (15,000 BP to 11,000 BP)*

Current research places initial occupation of the Mojave Desert region at 12,000 years before present (BP) time, though future research may extend this date. This early period is often called the Paleoindian period or Pleistocene-Holocene Transition. Archaeological evidence from the Pleistocene-Holocene Transition is characterized by two cultural traditions: The Western Stemmed Point tradition, an interior tradition identified by stemmed projectile points; and the Clovis tradition, an interior tradition identified by fluted projectile points (Bettinger and Taylor, 1974; Erlandson et al. 2007). There is overall scat data within the Mojave Desert region, with the minimal evidence in the form of isolated surface finds of the Clovis points that lack primary context or association with Pleistocene fauna and/or stratigraphical radiocarbon dates (Davis 1978; Sutton 1996; Beck and Jones 1997:163-164; Rondeau and Taylor 2007; Rondeau 2009).

### *The Lake Mojave Complex (approximately 10,000 to 8,000 BP)*

Dating to the Early Holocene, the Lake Mojave Complex exhibits similarities to sites in the western Great Basin and to San Dieguito sites in southern California (Warren and Crabtree 1986). Some of the various alternate designations for the Lake Mojave Complex include Lake Mojave Culture (Campbell et al. 1937; Wallace 1962), Malpais and Playa (Rogers 1939), San Dieguito Complex (Warren 1967), Western Lithic Co-Tradition (Davis et al. 1969), and the Western Pluvial Lakes Tradition (Bedwell 1970; Moratto 1984). This complex is characterized by large Great Basin stemmed series projectile points (Lake Mojave and Silver Lake points), lunate and eccentric stone crescents, small flake engravers, steep-edged scrapers, foliate or leaf-shaped knives/projectile points, drills, and abundant stone tools (Tuohy and Layton 1977). Milling stones or other grinding implements are generally absent or rare from Lake Mojave Complex sites, suggesting grains and nuts were not an integral part of the subsistence pattern (Warren and Crabtree 1986; Sutton et al. 2007:234-236). Instead, the use of groundstone tools may have been sporadic or opportunistic in nature.

### *The Pinto Complex (approximately 8,000 to 4,000 years BP)*

This cultural system of the Middle Holocene reflects a transition from a wetter period with sites frequently associated with streams, washes and pluvial lakes to increasingly arid conditions represents an extreme environmental change (Hall 1985; Warren and Crabtree 1986:184; Spaulding 1995). With changes in fauna and flora accessible in the region, changes in material culture is present. Artifacts representative of the Pinto Basin Complex include Pinto Series projectile points, leaf-shaped points and knives, domed and elongated keeled scrapers, and occasional stemmed Lake Mojave and Silver Lake points. The appearance of groundstone is an important distinction between Pinto and previous occupations, and it has been demonstrated to be very common at some Pinto Basin Complex sites (Warren and Crabtree 1986:184-187; Sutton et al. 2007:238). The emergence of these large numbers of handstones and flat millstones indicates that intensive plant exploitation was important, and access to plant resources appears to have been an important factor in determining site placement. The possible overlapped between the Pinto Complex and the Lake Mojave Complex perhaps indicates that new populations arrived in the region, bringing with them new technologies to combat the changing environmental conditions (Sutton et al. 2007).

#### *Gypsum Complex (approximately 4,000 to 1500 years BP)*

The beginning of the Late Holocene Period in the Mojave Desert is initially represented by the Gypsum Complex, which is distinctively different from prior complexes, with diversity of projectile types and tools, population increases and broadening economic activities as well as indicators of southwest influences. Hunting, with an emphasis on rodents and lagomorphs, as well as artiodactyls, continued to be an important subsistence activity (Sutton et al. 2007:241). The increase in the frequency and diversity of groundstone artifacts at Gypsum Complex sites indicate however that plant foods were an increasingly important subsistence item (Warren and Crabtree 1986:189). Shouldered and stemmed projectile points (Gypsum Cave), medium-to-large corner-notched (Elko series) projectile points and concave based (Humboldt) projectile points are the diagnostic artifacts of the period. Stratified sites such as Newberry Cave (Smith, et, al. 1957) and Gypsum Cave (Harrington 1933), both protected, dry caves, provide occupations of the early part of Gypsum Period. The assemblages also include artifacts such as rectangular-base knives, flake scrapers, infrequent large scraper planes, choppers, and hammerstones, with milling equipment becoming more common and diverse, with the appearance of the mortar and pestle. Non-regional items, such as marine shell beads and ornaments appear more frequently in Gypsum Complex sites, indicating increased contact with the California coast (Warren and Crabtree 1986: 188-189). Increase presence of ritualistic artifacts suggests a stronger role of spiritual ideology (Davis and Smith 1981; Fowler and Madsen 1986).

#### *Rose Springs Complex and the Saratoga Springs Complex (approximately 1,750 to 800 years BP)*

The Rose Springs Complex in the northern Mojave and the Saratoga Springs Complex in the eastern Mojave Desert show another change in technology. The Eastgate and Rose Spring projectile points mark the introduction of the bow and arrow to the region (Bettinger and Eerkens 1999; Garfinkel 2007) and begin to dominate assemblages in parts of the Mojave Desert and southern Great Basin (Lyneis 1982). Other common artifacts from these complexes include Cottonwood Series projectile points, stone knives, drills, bone awls, a range of groundstone implements, pipes, incised stone and slate pendants, marine shell beads and ornaments, and abundant obsidian, almost exclusively sourced to the Coso volcanic field (Sutton et al. 2007:241; Warren and Crabtree 1986:191). The presence of larger village sites suggests population aggregation and a move to a sedentary or semi-sedentary lifestyle, with a number of large sites identified within Antelope Valley, Ridgecrest, Death Valley, Victorville and Barstow/Needles (Warren and Crabtree 1986: 189). Evidence for Anasazi/Ancstral Puebloan influence on the Mojave Desert is limited with a stronger argument for influence within the northeastern part of the Mojave Desert (Larson 1981; Blair 1985; Fowler and Madsen 1986: 175-181; Warren and Crabtree 1986).

#### *Late Prehistoric Period (800 years BP to contact)*

This period represents a transitional era between prehistoric and historic dates with the first contact with Europeans (Warren 1980; Warren and Crabtree 1986). Regional diversity is present, with diagnostic artifacts being small projectile points (Cottonwood and Desert Side-notched points) and the Owens Valley Brownware type of pottery were introduced (Eerkens and Spurling 2008, Riddell 1951, Riddell and Riddell 1956). Also present in these assemblages are steatite beads, large triangular knives, unshaped handstones and milling stones, mortars and pestles, incised stones, slate pendants, and shell beads (Warren and Crabtree 1986). There is also an observed shift from utilization of obsidian and an increase of cryptocrystalline sedimentary rock, such as localized chert (Sutton 1990a: 6). Population growth, along with specialization of technologies, continued with trade between native groups intensifying (Bettinger 1999).

## **ETHNOGRAPHY**

The Tehachapi Range is located within the shared/transitional ethnographic territory of the Kawaiisu and Kitanemuk. The following section is a brief outline of key characteristics for the Kawaiisu and Kitanemuk based on the ethnographic literature (e.g. Zigmond 1986 for Kawaiisu; Blackburn and Bean 1978 for Kitanemuk).

### *Kawaiisu*

The Kawaiisu are a semi-sedentary hunter-gatherer group who are part of the Numic-speaking branch of the Uto-Aztecan language family, with a population which occupied the southern Sierra Nevada south of the Kern River and into the northern Tehachapi Mountains south of the Tehachapi Pass, as well as portions of the western Mojave Desert (see Figure 5) (Orfila 2011). It is believed that the Kawaiisu migrated out of the Mojave Desert sometime before contact and settled within the Tehachapi area while still using the western Mojave Desert region (Zigmond 1986; Macko et al. 1993; Sutton 1996). The Kawaiisu engaged in a subsistence and settlement system which consisted of seasonal rounds, where groups would move throughout the Tehachapi Mountains in summer and fall, then move to permanent winter settlements at lower elevations in Tehachapi Valley, the Antelope Valley and closer to San Joaquin Valley (Macko et al. 1993). Winter homes made of willow poles covered with brush and mats of bark or tule, earth-covered sweat houses, and circular brush enclosures are some of the structures observed among the Kawaiisu settlements (Mason et al. 2001).

Traditional Kawaiisu social organization appears to have centered on the family, with limited formal political organization. There was no headman or chief for the Kawaiisu as a whole, though some families would organize under a leader with limited authority who exhibited enough wealth and strength of character to oversee the organization and expense of communal feasting for mourning ceremonies and other rituals. The Kawaiisu practice of destroying an individual's wealth after death prohibited children from inheriting the wealth and political positions from their parents, maintaining a merit-based form of leadership among the group (Garfinkel and Williams 2011). Much of Kawaiisu subsistence strategy was based on movement to geographically limited and seasonally available plant resources. The Kawaiisu, like many native California groups, did not practice agriculture, instead engaging in a highly sophisticated wild plant management system. While many plants were harvested, acorns and pinyon pine nuts were major staples and most of the plants gathered within the mountain regions with minimal desert flora collected (Zigmond 1986). Fauna hunted included deer, bighorn sheep, chuckwalla, pronghorn, and rabbits (Zigmond 1986). Interaction between other groups varied, but typically consisted of positive relations with neighboring groups like the Western Shoshone, Chumash, Kitanemuk, and the Tübatulabal (Zigmond 1986; Macko et al. 1993). Relations between the Kawaiisu and the Yokuts was more complex, with intermittent hostilities and trade relations present (Zigmond 1986). It has been stated that the most prominent of the archaeological evidence for the Kawaiisu are bedrock mortars and pictographs (Zigmond 1986).



Figure 5. Map of Kawaiisu Territory (from Orfila 2011).

### Kitanemuk

The Kitanemuk are Tatic language speakers, part of the Northern Uto-Aztecan linguistic family (Blackburn and Bean 1978; Shipley 1978; Moratto 1984; Harvey 2011). The Kitanemuk population traditionally inhabited portions of the Tehachapi Mountains and portions of the Antelope Valley in the southwestern Mojave Desert. By the proto-historic period, the Kitanemuk primarily occupied the mountainous region of their territory, utilizing the desert region on a seasonal basis (Kroeber 1976; Blackburn and Bean 1978; Sutton 1980). It has also been suggested that the Kitanemuk occupied lower elevation canyons in the western foothills of the Tehachapi's compared to the Kawaiisu, who occupied higher elevations to the northeast (Mason et al. 2001). However, it should be stated that settlement patterns of the pre-contact Kitanemuk is not fully understood.

The Kitanemuk settlement system consisted of semi-sedentary occupation of villages located in the mountains and foothills during larger portions of the year, with small seasonal sites used for exploitation of specific resources during certain seasons (Sutton 1980). Based on the known ethnographic data, it has been suggested the Kitanemuk subsistence pattern was focus on gathering plants and other food resources, with minimal emphasis on hunting game. Acorn and pinyon harvest, along with the collection of seeds, berries, roots, and shoots were central in the Kitanemuk's subsistence strategy (Underwood and Cleland 2002). Large game, primarily deer, mountain sheep, and antelope, were hunted with bow and arrow with smaller game trapped (Underwood and Cleland 2002). The Kitanemuk had a more complex social organization when compared to other local tribes, particularly Numic speaking groups (Blackburn and Bean 1978; Mason et al. 2001). Two known villages of the Kitanemuk include *Hihikeave*, on Caliente Creak, and *Na-kwalki-ve*, located at the confluence of Chanac and Tejon Creek (Kroeber 1976; Blackburn and Bean 1978; Underwood and Cleland 2002). The Kitanemuk have also been referred as "Tejon Indians", along with other native people from the Tejon Ranch area (Blackburn and Bean 1978; Harvey 2011). Known archaeological data suggests that around 300 B.P., the territorial base of the Kitanemuk moved from Antelope Valley to the Tehachapi Mountains for currently indeterminate reasons (Sutton 1980).

## HISTORIC CONTEXT

While indigenous peoples lived within what is now California for thousands of years, those same lands remained isolated from European and Asian cultures until the early-sixteenth century. After the arrival of European settlers in California, the Tehachapi Mountains provided a refuge for indigenous populations who fled the mission system and Spanish control (Macko et al. 1993). In 1776, Padre Francisco Garcés traveled through the trail that was utilized by Pedro Fages in 1772, which crossed the Tehachapi Mountains, and entered the San Joaquin Valley via the Cottonwood Creek and Tejón Canyon on April 26, 1776 (Walker 1946: 47). Exploration within the Project Area continued into the early 1800s, typically to recapture escaped neophytes and to establish suitable mission sites, both of which were generally unsuccessful (McGuire et al. 1990). The Mexican War of Independence in 1821 brought about the end of Spanish rule and greatly diminished the of power held by the Catholic Church in Alto California. Secularization of governing institutions resulted in the establishment of large land grants by the Mexican government. By 1846, most of the lands considered favorable had been disbursed into either large private land holdings, known as ranchos, or remained under the control of the greatly reduced mission system (BioSystems Analysis, Inc 1989). In the early 1840s, a number of land grants were made at the southern end of the Tehachapi's, including Castac, El Tejon, Los Alamos y Agua Caliente and La Liebre (Boyd 1972; Makco et al. 1993). The start of the Mexican Period also saw an increase in military and economic exploration in the study area, with ventures such as fur trading and mining expeditions. In 1827, well known fur trapper Jedediah Smith ventured into present-day Kern County. There are two theories on Smith's route into the area, one suggesting he traveled via what was known as the "Old Tehachapi" route that went up the mountains by way of Oak Creek Pass to Tehachapi Creek and into the valley near present Caliente, the other suggesting Smith traveled via the "Old Tejon Pass" further southwest (Brooks 1977; Molter 2014). Based on Smith's journal, it appears most likely that he took the latter path. Additional explorers such as Ewing Young, Joseph Walker, and U.S. Army officer John C. Fremont travelled throughout the region during this period (McGuire et al. 1990; Molter 2014).

### *American Period to Present in the Project Area*

The area sustained immense growth of non-indigenous populations at the end of the Mexican Period and the start of the American Period with the emergence of the California Gold Rush in the late 1840s. In 1848, the United States gained control of California through the Treaty of Guadalupe-Hidalgo, which was a result of the American victory in the Mexican-American War. In 1853, the Williamson Railroad Survey visited the Tehachapi area (Williamson 1856; Macko et al. 1993), where the party encountered local Native Americans who told him that the name of a creek near their camp was "Tah-ee-chay-pah" (Barras 1984; Harvey and Williams 2004). The first non-indigenous settlers to the area were John and Amanda Brite, Texans who arrived in the place presently known as Brite Valley (south of the study area) in 1854 to raise cattle (Harvey and Williams 2004). Soon, agriculture arrived in the Tehachapi area, with 60,000 acres of grain crops listed by 1894 (Harvey and Williams 2004).

Gold was discovered in the Grizzly and Water Canyons, south of Tehachapi, and by 1876, the Southern Pacific Railroad arrived in the Tehachapi Valley, along with two small towns: Williamsburg (1867) and Greenwich (1875) (Gossard 2007; Orfila 2011). Founded in 1876, Tehachapi, which was originally named Summit Station, was the pinnacle of the railroad route before its descent into Mojave Desert. Shortly after the town was established, business began to open and within a year Summit Station's growth was consistent enough that Greenwich closed, followed shortly by Williamsburg in 1885 (Gossard 2007; Orfila 2011). Tehachapi was officially established in 1909. Cummings Valley, within the study area, was named for prominent rancher George Cummings, who established a cattle ranch in 1854 which would become incorporated in the former Hart Ranch (Orfila 2011). Banducci Road is named after the Banducci family, who were a successful farming family in the area in the early 1900s (Orfila 2011).

### *The Southern Pacific Railroad*

Southern Pacific Railroad was incorporated in 1865 from the owners of the Central Pacific Railroad: Leland Stanford, Mark Hopkins, Charles Crocker, and Collis P. Huntington (Dumke 1954). Initial plans were to build a railroad line that traveled from the Bay Area along the coast south; however, subsequent surveys caused the route

to change, going through the San Joaquin Valley via Pacheco Pass (Dumke 1954). In 1871, Congress authorized Southern Pacific to essentially be the only railroad entity to “construct a line of railroad from a point at or near Tehachapi Pass, by way of Los Angeles, to the Texas Pacific Railroad at or near the Colorado River”, thereby blocking the latter company of possible encroachment of service (Lesley 1936). Further insult to injury came seven years later, when Congress granted “the right of way through the military reservation at Fort Yuma” to Southern Pacific, leading the way for the railroad company to reach into Sierra Blanca, Texas (Lesley 1936).

Early on, the altitude of the Tehachapi Pass was considered a major obstacle for Southern Pacific. Civil engineer William Hood was given the task of designing the railroad line to go over the Tehachapi Pass, rather than keeping at the foothills of the mountain range (Gossard 2007). His design included 18 tunnels on a circular track, creating two large circles that looped over and around themselves (Gossard 2007). This would become known as the Tehachapi Loop, or as it became locally known, “The Loop” (Figure 6). This endeavor had a workforce of 3,000 men that dug, shoveled and tunneled the path, with 1,000 Chinese workers hired to handle the 600 kegs of blasting powder used per week (Gossard 2007). Construction began in 1874 and opened in 1876, with the tracks still in use, though mostly freighted trains utilize the tracks due to trackage rights own by Union Pacific, who absorbed Southern Pacific in 1996 (Brossard 2014). Currently, only 11 of the original 18 tunnels remain in service (Gossard 2007).



**Figure 6.** Drawing depicting the Tehachapi Pass Loop Line (Dumke 1954).

#### Bakersfield Earthquake of 1952

In the early morning of July 21, 1952, the San Joaquin Valley experienced what is considered the sixth largest earthquake in California (Morrison 2014). The quake’s center was the White Wolf Fault, west of Tehachapi, which extends northeast underneath the Tehachapi Pass (Gossard 2007). It lasted 45 seconds and was registered a 7.7 magnitude on the Richter Scale (Gossard 2007). The shock was felt over most of California, into western Arizona and into western Nevada, with almost 200 aftershocks of a magnitude greater than 4.0 recorded for months afterwards (Morrison 2014). Destruction in and around Tehachapi was immense. A total of 12 individuals were killed and property damage estimated at \$60 million (Morrison 2014). The earthquake affected present-day CCI, forcing its previous function as a female institution to close due to damage (Tehachapi Life 2017; CDCR Historical notes 2017) (Figure 7).

## California Correctional Institution

CCI is considered the third oldest California State Prison (1933), behind Folsom (1880) and San Quentin (1852) (Tehachapi Life 2017). Established as the California Institution for Women in 1933, CCI's initial purpose was to rehabilitate female inmates (Figure 8) (Chaddock 2015; Tehachapi Life 2017; CDCR 2017). Women from San Quentin were transferred to the institution and were initially housed in two-story cottages rather than traditional cells (Chaddock 2015). Hollywood referenced the facility multiple times during the 1940s and 1950s when it was mentioned in the 1941 film *The Maltese Falcon* with Humphrey Bogart, the 1944 film *Double Indemnity*, and in some episodes of the 1950s TV show *Perry Mason* (Chaddock 2015; Tehachapi Life 2017).

By 1944, California Prison Reorganization Statue established the California Department of Corrections which overtook operations and management of the prison (Chaddock 2015). However, with the earthquake of 1952, the facility closed due to damage. When it reopened in 1954, it was converted to an all-male facility (Chaddock 2015; Tehachapi Life 2017). In 1985, the facility underwent major renovations, with the first new maximum-security facility built in over 100 years constructed at CCI (CDCR 2017).



**Figure 7.** Damage at the CCI (Originally California Institution for Women) from the 1952 earthquake (Chaddock 2015).





**Figure 8.** The California Institution for Women (undated photo) (Chaddock 2015).

## **METHODS**

### **CALIFORNIA HISTORIC RESOURCES INVENTORY SYSTEM AND CULTURAL BACKGROUND RESEARCH**

On August 13, 2018, Judy Cardoza, B.S., MCC Archaeologist, conducted a search of the California Historical Resource Information System (CHRIS) at the Southern San Joaquin Valley Information Center (SSJVIC), located on the campus of California State University, Bakersfield, in Kern County. The search covered previously recorded cultural resources and investigations within a 1-mile radius of the Project Area. The CHRIS search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Inventory of Historic Resources.

### **NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH**

A Sacred Lands File search was requested by MCC from the Native American Heritage Commission (NAHC) on February 28, 2018. The Commission responded on March 6, 2018, stating that there are no known sacred lands within a 1-mile radius of the Project Area. The NAHC requested that 13 Native American tribes or individuals be contacted for further information regarding the Project Area and vicinity. MCC subsequently sent letters on March 8, 2018 requesting information related to the Project Area. Additional attempts at contact by letter, email, or phone call were made on March 27 and August 6, 2018.

### **PALEONTOLOGICAL RECORDS SEARCH**

The paleontological literature review included an examination of geologic maps of the project area and a review of relevant geological and paleontological literature. This effort was to determine which geologic units are present and whether fossils have been recovered from those geologic units elsewhere in the region. As geologic units may extend over large geographic areas and contain similar lithologies and fossils, the literature review includes areas well beyond the Project Area. The results of this literature review include an overview of the geology of the region and a discussion of the paleontological sensitivity (or potential) of these rock units. A locality search for paleontological records was completed by staff of the Natural History Museum of Los Angeles (LACM) on March 14, 2018. The record search, which included a 1-mile radius around the Project Area, as well as the Project Area itself, identified any vertebrate localities in the museum's records that exist near the project area in the same or similar deposits.

### **CULTURAL AND PALEONTOLOGICAL FIELD SURVEY**

The survey stage is important in a project's environmental assessment phase to verify the exact location of each identified cultural or paleontological resource, the condition or integrity of the resource, and the proximity of the Project to areas of cultural resources sensitivity. In addition, the field survey provides invaluable information on the type of sediment present within the Project Area, which informs the assessment of paleontological sensitivity. Judy Cardoza, archaeologist and cross-trained paleontologist, conducted the survey of the proposed Project Area on August 14, 2018. The survey consisted of walking in parallel transects spaced at approximately 15-meter intervals over the Project parcel, while closely inspecting the ground surface. All undeveloped ground surface areas within the ground disturbance portion of the Project Area were examined for paleontological resources, artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Existing ground disturbances (e.g. cutbanks, ditches, animal burrows, etc.) were visually inspected. Representative photographs were taken of the entire Project Area.

## RESULTS

### CALIFORNIA HISTORIC RESOURCES INVENTORY SYSTEM AND CULTURAL BACKGROUND RESEARCH

The records search identified fifteen cultural resource investigations that have been previously conducted within a 1-mile radius buffer around the Project Area, with one report (Schiffman and Uli 1981) encompassing the Project Area (see Table 1). The CHRIS records search identified a total of two previously recorded cultural resources within a 1-mile buffer and none located within the Project Area boundaries (see Table 2). A review of additional sources resulted in negative findings (see Table 3). A review of historical imagery and maps indicates that development of a correctional facility occurred prior to the 1940s, with minimal change until the 1980s when the facility was expanded and in the 2000s with solar development (Figures 9 and 10). The results of the CHRIS records search are presented in Confidential Appendix B.

**Table 1.** Previous Conducted Resources Studies within 1-mile Buffer of Project Area

CHRIS Report Number	Authors	Year	Title of Study	Affiliation	Distance from Project Area
KE-00643	McGuire, Kelly	1990	A cultural resources inventory of the proposed Mojave Pipeline Corridor, the El Dorado Primary Route, Kern County, California	Far Western Anthropological Research Group, Inc.	Within 1 mile of Project Area
KE-01273	Schiffman, Robert A.	1987	Archaeological Investigation for Parcel Map No. 8476, Kern County, California	Bakersfield College	Within 1 mile of Project Area
KE-01383	Schiffman, Robert A.	1990	Archaeological Investigation for Parcel Map No. 6445, Kern County, California	Bakersfield College	Within 1 mile of Project Area
KE-01393	Schiffman, Robert A.	1990	Archaeological Investigation of 18.49 Acre Parcel Map #9508 Section 20, Township 32S., Range 32E Kern County, California	Bakersfield College	Within 1 mile of Project Area
KE-01488	Schiffman, Robert A. and Uli, Jim J.	1981	Archaeological Investigation of the California Corrections Institution Near Tehachapi	Individual Consultants	Within Project Area
KE-01491	Schiffman, Robert and Uli, Jim	1981	Archaeological Evaluation of CA-KER-1302 California Correctional Institute at Tehachapi, Kern County, CA	Unknown	Within 1 mile of Project Area
KE-01500	Scientific Resource Surveys, Inc.	1981	Archaeological/Historical Survey Report on a 600 Acre Parcel (The Erteszek Property), Brite Valley, in the Tehachapi Range, Kern County, CA	Scientific Resource Surveys, Inc.	Within 1 mile of Project Area
KE-01502	Scientific Resource Surveys, Inc.	1981	Archaeological Survey Report on a 40 Acre Parcel (Robert C. Monroe Property) Located in Cummings Valley, in the Tehachapi Range, Kern County, CA	Scientific Resource Surveys, Inc.	Within 1 mile of Project Area
KE-02273	Schiffman, Robert	1992	Archaeological Investigation of the Tamaron Specific Plan Section 21, T.32S, R.32E. Kern County, CA	Bakersfield College	Within 1 mile of Project Area
KE-02413	Schmidt, James J.	2000	Tehachapi Prison Electrical Upgrade Project, Kern County	Compass Rose Archaeological, Inc.	Adjacent to Project Area
KE-02673	Fleagle, Dorothy	2002	A Cultural Resources Assessment of 20 Acres for a Proposed Ground Water Recharge Site in Cummings Valley near Tehachapi, Kern County, California	Three Girls and a Shovel	Within 1 mile of Project Area
KE-03196	Hudlow, Scott	2005	A Phase I Cultural Resource Survey for Tentative Parcel Map 11337, Tehachapi, Kern Co., CA	Hudlow Cultural Resource Associates (Bakersfield)	Within 1 mile of Project Area
KE-03407	Hudlow, Scott M.	2005	A Phase I Cultural Resource Survey for Burns Property, Tehachapi, Kern County, California	Hudlow Cultural Resource Associates	Within 1 mile of Project Area
KE-03464	Hudlow, Scott M.	2004	A Phase I Cultural Resource Survey for Tentative Parcel Map 11096, Tehachapi, Kern County, California	Hudlow Cultural Resource Associates	Within 1 mile of Project Area

**Table 1.** Previous Conducted Resources Studies within 1-mile Buffer of Project Area

CHRIS Report Number	Authors	Year	Title of Study	Affiliation	Distance from Project Area
KE-04275	Parr, Robert	2012	Archaeological Survey Report for Southern California Edison Company's Replacement of Two Deteriorated Power Pole Structures (WO 6053-4800, 1-4813/TD572574) on the Jordan 12 kV Distribution Circuit, Near Glennville, Kern County, California	Cal Heritage	Within 1 mile of Project Area

**Table 2.** Previous Recorded Resource within 1-mile Buffer of Project Area

Primary Number	Trinomial	Age	Attributes	NRHP/CRHR	Distance from Project Area
P-15-001302	CA-KER-001302/H	Multi-component site	AP02-Lithic scatter, AH02-Foundations/structure pads	Unknown	Within 1 mile of Project Area
P-15-001303	CA-KER-001303	Prehistoric	AP02-Lithic scatter; AP04-Bedrock milling feature	Unknown	Within 1 mile of Project Area

**Table 3.** Additional Sources Consulted for the Project

Source	Results
National Register of Historic Places (1979-2002 & supplements)	Negative
Historical United States Geological Survey topographic maps (USGS 2012)	Negative- development of a correctional facility occurred prior to the 1940s with minimal change until the 1980s with expansion of the facility and into the 2000s with solar development
Historical United States Department of Agriculture aerial photos	Negative- development of a correctional facility occurred prior to the 1940s with minimal change until the 1980s with expansion of the facility and into the 2000s with solar development
California Register of Historical Resources (1992-2010)	Negative
California Inventory of Historic Resources (1976-2010)	Negative
California Historical Landmarks (1995 & supplements to 2010)	Negative
California Points of Historical Interest (1992 to 2010)	Negative
Local Historical Register Listings	Negative
Bureau of Land Management General Land Office Records (GLO)	Negative



**Figure 9.** Project Area pre-development (depicted on 1963 aerial photography)



**Figure 10.** Project Area pre-development (depicted on 2012 aerial photograph)

## **NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH**

On March 12, 2018, MCC received an email from Jessica Mauck, Cultural Resources Analyst, representing the San Manuel Band of Mission Indians. Ms. Mauck informed MCC that the Project Area is outside the Serrano ancestral lands. In addition, Ms. Mauck informed MCC that the tribe would no longer be a consulting party for the CCI Solar Project. During a phone call on August 6, 2018, Danelle Gutierrez, Tribal Historic Preservation Office (THPO) of the Big Pine Paiute Tribe of the Owens Valley (BPPTO), stated that the Project Area is located outside BPPTO's Traditional Use Area and they defer to closer tribes for consultation. Ms. Gutierrez did state that BPPTO were marched through this area when they were driven away from their homelands during the 1860s. On August 6, 2018, MCC received an email response from Robert Robinson, Chairperson for Kern Valley Indian Community (KVIC). Mr. Robinson stated that the Cummings Valley area, where the Project Area is located, has been the homeland of the Nuwa people for over 10,000 years. An abundance of resources and the presence of graves in the region raises concerns for KVIC and they recommend culturally-affiliated Native American monitors be employed to monitor all ground disturbing activities related to the Project for cultural resources. As of August 17, 2018, no additional groups or individuals have responded with information about the Project Area. MCC did not conduct formal consultation with the Native American representatives. NAHC and Native American correspondence materials, including our communication log, responses from tribes, are provided as Appendix C.

## **PALEONTOLOGICAL RECORDS SEARCH**

The locality search at LACM did not yield any fossil localities within the Project Area nor within a 1-mile radius of the Project (See Appendix D) (McLeod 2018). The surface deposits within this Project consist of younger Quaternary Alluvium, derived as alluvial fan deposits from the elevated terrain immediately to the east with portions in the northeastern and southeastern of the Project Area mapped as exposures of metamorphic rock, which does not contain any recognizable fossils. While these deposits typically do not contain significant vertebrate fossils, there are exposures of older underlying Quaternary deposits in the western portion of the Tehachapi Valley that could potentially contain significant vertebrate fossils. LACM did note one vertebrate fossil locality from similar older Quaternary deposits located east-northeast of the Project Area, within the City of Tehachapi. This locality, LACM 3722, produced a fossil specimen of horse (*Equus*) during excavation for a sewer line (McLeod 2018). Additional literature was consulted, including The University of California Museum of Paleontology (UCMP)'s Miocene Mammal Mapping Project (MioMap), with no fossil localities within the area of the Project (Carrasco et al. 2005).

## **CULTURAL AND PALEONTOLOGICAL FIELD SURVEY RESULTS**

During the course of fieldwork, survey conditions were poor with minimal ground visibility (approximately 30%) throughout the 36.77-acre Project Area. Vegetation cover was extensive chaparral brush and short annual grasses. The area exhibited heavy disturbances, including observed off-road vehicle tracks and a modern steel pipe along the southern edge of the Project Area. A visual observation of the sediment does align with the geologic mapping of younger alluvial sediments with surface inclusions of igneous material observed within the Project Area. Small basalt boulders were also noted along the edges of the eastern boundary. No cultural or paleontological resources were identified during the survey. Representative photos of the survey area are found below (Figures 11-15).



**Figure 11.** Project Overview from Northeastern corner (View towards West).



**Figure 12.** Project Overview from Northwestern corner (View towards South).



**Figure 13.** Project Overview from center of area (View towards South).



**Figure 14.** Project Overview from Southeastern corner (View towards West).





**Figure 15.** Representative photo of soils observed within Project Area.

## CONCLUSIONS AND RECOMMENDATIONS

### CULTURAL RESOURCES CONCLUSIONS

The Phase I cultural resource assessment of the Project Area included a CHRIS records search, NAHC outreach, archival background research, and a field pedestrian survey. The records search results indicated no previously recorded resources within the Project Area, with two cultural resources located one mile from the proposed Project. During the field survey, no cultural resources were encountered.

### CULTURAL RESOURCES RECOMMENDATIONS

Based on the results of the cultural resources search and survey, the proposed Project Area is considered to have a low sensitivity for presence of prehistoric or historical archaeological deposits or features. MCC recommends **No Mitigation is Needed**. While we do not recommend additional mitigation, MCC does recommend setting a plan in place to expediently address inadvertent discoveries and human remains (as described below), should these be encountered during construction activities. Please note that one Native American group (KVIC) has recommended Native American monitoring during all ground disturbing activities.

#### INADVERTENT DISCOVERIES

Despite actions taken to ensure that all cultural resources are located prior to construction, including record searches and field surveying, there still remains the possibility that undiscovered, buried archaeological resources might be encountered during construction. In the event that these resources are inadvertently discovered during ground-disturbing activities, work must be halted within 50 ft. of the find until it can be evaluated by a qualified archaeologist. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as subsurface testing or data recovery excavation, may be warranted and would be discussed in consultation with the appropriate regulatory agency.

#### HUMAN REMAINS

Procedures of conduct following the discovery of human remains on non-federal lands have been mandated by California Health and Safety Code §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to insure the integrity of the immediate area must be taken. The Kern County Coroner will be immediately notified. The Coroner must then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the NAHC, who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

### PALEONTOLOGICAL RESOURCES CONCLUSIONS

The Phase I paleontological resource assessment of the Project Area included a locality records search, literature review, and a field pedestrian survey. No significant paleontological resources were identified within the Project Area during the locality search. The Project Area surface consists of younger Quaternary Alluvium which exhibits a low potential for fossil specimens. However, LACM had records of vertebrate fossil specimens that were recovered

in older Quaternary Alluvium that may be underlying the younger Quaternary Alluvium at an undetermined depth within the Project Area. During the field survey, no paleontological resources were encountered. Based on these findings, the Project Area is considered to have low to moderate potential for encountering significant paleontological resources. The upper levels of excavation exhibit low potential for fossil specimens, with the potential for encountering paleontological resources increasing at depth, as older Quaternary Alluvium with moderate potential for fossilized remains may be present at an unknown distance below ground surface.

#### **PALEONTOLOGICAL RESOURCES RECOMMENDATIONS**

Based on the above findings, MCC recommends any substantial excavations at depths greater than 10 feet be monitored closely to quickly and professionally recover any fossil remains while not impeding development. It is recommended the Project implement the following procedures:

- A trained and qualified paleontological monitor should perform spot-check and/or monitoring of any excavations on the Project that have the potential to impact paleontological resources in undisturbed native sediments below 10 feet in depth. The monitor will have the ability to redirect construction activities to ensure avoidance of adverse impacts to paleontological resources.
- The Project paleontologist may re-evaluate the necessity for paleontological monitoring after examination of the affected sediments during excavation, with approval from lead agency and Client representatives.
- Any potentially significant fossils observed shall be collected and recorded in conjunction with best management practices and SVP professional standards.
- Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.
- A report documenting the results of the monitoring, including any salvage activities and the significance of any fossils, will be prepared and submitted to the appropriate personnel.

Due to the nature of the work proposed, we only recommend paleontological monitoring during grading/site prep for installation of the solar panels. We do not recommend paleontological monitoring during drilling, pile-driving, directional boring or other similar activities. These construction activities compromise the fine details used to identify species of fossils, and obscure valuable contextual information - both of which are required for assigning significance to fossil finds.

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## Appendix A: Qualifications

Tria Belcourt, M.A., RPA  
President and Principal Environmental Specialist



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Tria Belcourt oversees and is responsible for the entire work process at Material Culture Consulting. She is responsible for planning, supervising, and overseeing field projects, including responsibility for the professional quality of evaluations and recommendations. Tria has primary accountability for the technical completeness and competence of work conducted by her staff. She is responsible for development of work plans and/or research designs, for performance of crew chiefs, for selection standards and limitations on work assignments of crew members, for analysis and interpretation of field data, for integration of fieldwork results into comparative regional perspectives, and for preparation of reports. Tria's advanced academic training and more than twelve years of professional archaeological experience has included rigorous training and application of anthropological and archaeological theory and methods, and in recording, collecting, handling, analyzing, evaluating, and reporting cultural property data, relative to the type and scope of work proposed.

Tria has been an archaeological project manager and principal investigator for over six years, leading and managing several complex compliance projects throughout the State of California and in Southern Nevada, which have involved each step of cultural resource compliance and management. Prior to this, she spent six years as a field technician and crew chief on projects throughout California and the Southeastern United States. Her experience includes conducting background research, field survey, resource testing and formal NRHP/CRHR evaluation, data recovery plan development and implementation. She has prepared hundreds of technical reports for all of the above to state and federal standards, including following BLM standards for GIS spatial data management and technical reporting – ranging from simple clearance forms, to letter reports, to extensive data recovery reports. She was the lead preparer of the Fort Irwin Integrated Cultural Resource Management Plan (2009-2013) and has also prepared several cultural resource management plans for state regulated projects. She has overseen and conducted archaeological monitoring and management of unanticipated discovery of resources, including Native American human remains on federal lands (and repatriation of the remains), and reported the results and outcomes of cultural resource monitoring efforts in lengthy technical reports. Finally, Tria regularly provides third party and QA/QC review of cultural resource technical documents, due to her keen understanding of state and federal regulations and laws governing the management of cultural resources throughout the state of California.

## Education

- 2014 Graduate Certificate in Environmental Management of Military Lands, Colorado State University
- 2010 Professional Certification in CEQA/NEPA, ICF International Corporation
- 2009 M.A. in Anthropology, University of Florida Gainesville, Florida  
Professional Certification in GIS
- 2006 B.A. in Anthropology, Magna Cum Laude, University of California, Los Angeles, California

## Affiliations/Certifications/Training

- American Rock Art Research Association (ARARA)
- Archaeological Institute of America (AIA)

- Eastern States Archaeological Federation (ESAF)
- Midwest Archaeological Conference, Inc. (MAC)
- Ohio Archaeological Council (OAC)
- Society for American Archaeology (SAA)
- Public Education Committee Member 2015-current
- Society for Historical Archaeology (SHA)
- Society for California Archaeology (SCA)
- Workshop in Current Archaeological Prospection Advances for Non- Destructive Investigations in the 21<sup>st</sup> Century (2003)
- GPS Technology Course, Ball State University (2004)
- GLHS/MAST Nautical Archaeology Workshop and Training, National Museum of the Great Lakes,

## Utility Sector Experience

***Pacific Gas and Electric Company (PG&E), NERC Alert Program – Archaeological Principal Investigator; throughout California; 2015 – Present.*** Belcourt provides oversight of all task orders and project management of on-call task orders involving cultural resource desktop reviews, records searches and field reviews for the PG&E NERC Alert program: tracking and reporting efforts, maintaining project schedule, and timely submittal of data to prime contractor (ARCADIS).

***Southern California Edison (SCE), On-Call and Emergency Projects – Archaeological Principal Investigator and Project Manager; throughout California, 2013 – Present.*** Belcourt provides oversight of all task orders and project management of on-call task orders involving cultural resource desktop reviews, records searches and field reviews for deteriorated poles, system upgrades, initial studies to support capital projects, and monitoring support to replace facilities due to natural disasters. This high-volume program includes preparing and submitting budgets, managing support staff and overseeing work, tracking and reporting efforts, maintaining project schedules, and preparing technical reports and GIS datasets for submittal to prime contractor (SWCA).

***Southern California Edison (SCE), Small Capital Projects – Archaeological Principal Investigator and Project Manager; throughout California, 2014 – Present.*** Belcourt provides oversight of all task orders and project management of task orders involving cultural resources for this contract with ICF. This includes preparing and submitting budgets, managing support staff and overseeing work, tracking and reporting efforts, maintaining project schedule, and preparing technical reports and GIS datasets for submittal to prime contractor.

***Southern California Edison (SCE), Coolwater Lugo Transmission Project — Environmental Project Manager; San Bernardino County, California; 2014 – 2015.*** Belcourt provided oversight of all project management on CWLTP: tracking and reporting efforts of subconsultants (Pacific Legacy, Paleo Solutions and Urbana Preservation and Planning), maintaining project schedule and timely submittal of project deliverables to agency reviewers. Served as communication facilitator between SCE and BLM/CPUC agency reviewers. Provided final review of the Cultural Resources Technical Report (which included over 1,000 cultural resources) and the Historic Built Environment Report - prior to draft submittal to BLM.

***SCE, Eldorado Ivanpah Transmission Project – In-house Consultant for Archaeology; San Bernardino County, California and Clark County, Nevada; 2010-2012.*** Belcourt provided complex regulatory oversight and project management regarding cultural and paleontological resource management. She developed cultural resource specific compliance training to inform and guide construction activities and

major capital project teams. She also developed and implemented internal cultural resource management programs based on the mitigation measures in the FEIR/EIS. Tria coordinated with BLM archaeologists on discovery and management of previously unknown cultural resources discovered during construction, and managed the treatment of these resources and reporting. She provided environmental analyses, technical reports, and clearance documentation for over 20 project modifications during construction without delay to project. Developed the cultural resources geodatabase for EITP and coordinated regularly with the project GIS team.

***Silver State South Substation, In-house Consultant for Archaeology; Southern California Edison, Clark County, NV; 2010-2012.*** Provided regulatory oversight and project management regarding cultural and paleontological resource management during project licensing and scoping. Identified potential impacts to cultural and paleontological resources, developing appropriate mitigation measures in preparation for and projecting alternative conclusions.

***Tehachapi Renewable Transmission Project, Multiple Roles; Southern California Edison, Segments 1-3 and Segments 6-11, Kern, Los Angeles and Orange County, CA; 2009 - Present.*** Tria provided service to this project over seven years in multiple roles – archaeological field monitor, project coordinator, in-house consultant at SCE, and principal investigator. She provided regulatory oversight and project management regarding cultural and paleontological resource management for all segments of TRTP. Developed and implemented internal cultural resource management programs based on the mitigation measures in the Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) for TRTP, and for the existing Special Use Permits and Record of Decision for TRTP, issued by the Angeles National Forest (ANF). Oversaw preparation of the Historic Properties Treatment Plans, fieldwork and technical report preparation for two large-scale Phase III Data Recovery excavations on Angeles National Forest. Coordinated with ANF archaeologists on discovery and management of previously unknown cultural resources identified during construction. Provided cultural resources analyses and clearance documentation, including technical reports, for over 100 project modifications during construction without delay to project. Finally, Tria was responsible for maintaining the geospatial data for the project within the SCE cultural resources geodatabase TRTP and coordinated with the project GIS team.

***Desert Tortoise Habitat Conservation Plan Area, Principal Investigator; Cadiz Inc., San Bernardino County, CA; 2013.*** Oversaw records search to identify the extent of previous cultural resources surveys and all previously recorded prehistoric and historic resources within the 7,500-acre Desert Tortoise Habitat Conservation Plan (HCP) area (Project Area) located on lands administered by the BLM Needles Field Office in unincorporated San Bernardino County, California.

## Selected Publications

Belcourt, T.

- 2014- 2016 *Southern California Edison – TRTP Segments 6 and 11C - Cultural Resources Monitoring Report*, Prepared Monthly (October 2014-March 2016) for Angeles National Forest (ANF) and SCE. On file at ANF and SCE Irwindale.
- 2013 *Cultural and Paleontological Resource Assessment for the Ames/Reche Groundwater Storage and Recovery Program, Winters Road Flow Control and Recharge Facility, Mojave Water Agency, Landers, San Bernardino County, California.* Prepared by Cogstone Resource Management, Inc. On file at Mojave Water Agency.
- 2014 *Cultural and Paleontological Monitoring Compliance Report for Street and Storm Drain Improvements, Jackson Avenue Bridge at Warm Springs Creek, City of Murrieta, Riverside County.* Prepared by Cogstone Resource Management, Inc. On file at City of Murrieta Planning Department.
- 2014 *Cultural and Paleontological Resource Assessment for the OC-44 Pipeline Rehabilitation and*

- Replacement Project, Mesa Water District, Newport Beach, Orange County, California.* Prepared by Cogstone Resource Management, Inc. On file at Mesa Water District.
- 2015 *Archaeological Monitoring and Survey Report, Southern California Edison Dead Tree Removal near Pine Flat, Tulare County, California.* Submitted to SCE and on file at SCE Irwindale.
- 2015 *Class III Cultural Resources Survey of the Pacific Gas & Electric Company (PG&E) Kerckhoff #1-Kerckhoff #2 115kV and Kerckhoff-Clovis-Sanger 115kV Projects, located on Lands Administered by the Bureau of Land Management (BLM), Bakersfield Field Office, within Fresno County, California.* Prepared on behalf of PG&E and submitted to BLM Bakersfield Office. On file at PG&E, Fresno.
- 2015 *Class III Cultural Resources Survey of the SCE Shoshone Emergency Response Location, on Lands Administered by the Bureau of Land Management (BLM), Barstow Field Office, within Inyo County, California.* Prepared on behalf of SCE and submitted to BLM Barstow Field Office. On file at SCE Irwindale.
- 2015 *Cultural Resources Assessment of Effect for Southern California Edison TD835602: Deteriorated Pole Replacement, Sequoia National Park, Three Rivers Area, Tulare County, California.* Prepared on behalf of SCE for Sequoia National Park. On file at SCE Irwindale.
- 2015 *Cultural Resources Impact Assessment for Southern California Edison TD1037389: Line Extension – Soda Springs 12 kV, Tulare County, California.* Prepared for SCE. On file at SCE Irwindale.
- 2015 *Cultural Resources Inventory for Southern California Edison’s Replacement of Nine Deteriorated Power Structures (TD993840, TD994158, and TD1029116), near Kramer Junction, on Lands Administered by the Bureau of Land Management Barstow Field Office, San Bernardino County, California.* Prepared on behalf of SCE and submitted to BLM Barstow Field Office. On file at SCE Irwindale.
- 2015 *Cultural Resources Monitoring for Southern California Edison IO328390: Replace Pole and Upgrade Overhead Switch – Dinkey Creek 4kV (TD721303). Sierra National Forest, High Sierra District, Fresno County, California.* Prepared on behalf of SCE for Sierra National Forest. On file at SCE Irwindale.
- 2015 *Cultural Resources Survey in Support of a Request for Final Engineering Concurrence for Tehachapi Renewable Transmission Project Segment 8 T/L West (Phase IV) – Erosion Repair Associated with Structure M43-T3, unincorporated Los Angeles County, California.* Submitted to SCE and CPUC. On file at SCE Irwindale.
- 2015 *Cultural Resources Survey in Support of a Temporary Work Change Request for Wire Setup Sites, Distribution Pole Work Area, and Access Road near Structure M57-T2 for Segment 8, Tehachapi Renewable Transmission Project, unincorporated Los Angeles County, California.* Submitted to SCE and CPUC. On file at SCE Irwindale.
- 2015 *Results of Faunal Analysis for the Los Angeles Metropolitan Transportation Authority (Metro) Division 13 Bus Maintenance and Operation Facility Construction Project, City of Los Angeles, Los Angeles County, California.* Submitted to Metro. On file at Resource Sciences and Planning, LLC, Monrovia.
- 2016 *Archaeological Monitoring Compliance Report, Pacific Gas & Electric Company NERC Alert Program, Helms-Gregg 230kV Grading Project, Sierra National Forest, Fresno County, California.* Prepared on behalf of PG&E and submitted to Sierra National Forest. On file at PG&E, Fresno.
- 2016 *Archaeological Resource Assessment, SCE Infrastructure Replacement- Pickle Meadows 12kV, Toiyabe National Forest, Bridgeport, Inyo County, California.* Prepared on behalf of SCE and submitted to Toiyabe National Forest. On file at SCE, Irwindale.
- 2016 *Cultural Resources Assessment: 84 Lumber Company Project, City of Lancaster, Los Angeles County, California.* Prepared on behalf of 84 Lumber Company for City of Lancaster. On file at Material Culture Consulting, Claremont.

- 2016 *Cultural Resources Assessment of Effect for Southern California Edison TD1029531: Deteriorated Pole Replacement on Lands Administered by Bureau of Land Management, Ridgecrest Field Office, near Mojave, Kern County, California.* Prepared on behalf of SCE. On file at SCE Irwindale.
- 2016 *Cultural and Paleontological Resources Records Searches and Field Survey, Tandis Homes Residential Development, City of Menifee, Riverside County, California.* Prepared for City of Menifee. On file at Material Culture Consulting Claremont.
- 2016 *Class III Cultural Resources Survey of the Southern California Edison Company Replacement of Thirteen Deteriorated Poles Near Lockhart and Flamingo Heights, on Lands Administered by the Bureau of Land Management, Barstow Field Office, within San Bernardino County, California.* Prepared on behalf of SCE and submitted to BLM Barstow Field Office. On file at SCE Irwindale.
- 2016 *Phase I Cultural and Paleontological Assessment: Tandis Homes 21 Lot Residential Development Project City of Menifee, Riverside County, California.* Prepared on behalf of Ridgemoor Investments, LLC for City of Menifee Planning Department. On file at Material Culture Consulting, Claremont.
- Belcourt, T. and S. Gust
- 2014 *Class III Cultural Resource Investigations for Bodie Hills Desert Restoration Projects, Bureau of Land Management, Bishop Field Office, Mono County, CA - FY13-14.* Prepared by Cogstone Resource Management, Inc. for BLM Bishop Field Office. On file at BLM Bishop Field Office.
- 2015 *Class III Cultural Resource Investigations for Bodie Hills Desert Restoration Projects, Bureau of Land Management, Bishop Field Office, Mono County, CA - FY14-15.* Prepared by Cogstone Resource Management, Inc. for BLM Bishop Field Office. On file at BLM Bishop Field Office.
- Belcourt, T., T. Jackson, M. Kay and R. Moritz
- 2016 *Class III Cultural Resources Inventory for the Southern California Edison Company Kelly Cutover Project (FWA 680-16-07), Volume I – Archaeological Resources, San Bernardino County, California.* Submitted to BLM Barstow Field Office, On file at Resource Sciences and Planning, LLC, Monrovia.
- Belcourt, T. and M. Kay
- 2016 *Southern California Edison Company Replacement of Three Deteriorated Poles Near Fort Irwin, on Lands Administered by the Bureau of Land Management, Barstow Field Office, San Bernardino County, California.* Prepared on behalf of SCE and submitted to BLM Barstow. On file at Resource Sciences and Planning, LLC Monrovia.
- Belcourt, T., M. Kay, and R. Moritz
- 2016 *Cultural Resources Assesment of the State of California Department of General Services and Department of State Hospitals, Metropolitan Hospital, Norwalk, Los Angeles County, CA.* Prepared for DGS/DSH. On file at Resource Sciences and Planning, LLC, Monrovia.
- Belcourt, T. and J. Kelly
- 2016 *Cultural and Paleontological Resources Assessment: Village 605 Environmental Impact Report Addendum, City of Los Alamitos, Orange County, California.* Prepared for City of Los Alamitos on behalf of Katella Property Owner, LLC by Material Culture Consulting, on file at Material Culture Consulting, Claremont.
- Belcourt, T., K. Scott and S. Gust
- 2013 *Paleontological and Archaeological Assesment of the Bloomington Affordable Housing Project, San Bernardino County, California.* Prepared by Cogstone Resource Management, Inc., On file at Cogstone Resource Management, Inc., Orange.
- Belcourt, T., M. Valasik, and S. Gust
- 2013 *Class III Cultural Resource Investigation for the Cadiz Solar Array Desert Tortoise Habitat*

*Conservation Plan Area, on Lands Managed by BLM Needles Field Office, San Bernardino County, CA. Prepared by Cogstone Resource Management on behalf of Cadiz, Inc.*

Daly, P. and T. Belcourt

2016 *Class III Cultural Resources Inventory for the Southern California Edison Company Kelly Cutover Project (FWA 680-16-07), Volume II – Historic Built Environment Resources, San Bernardino County, California. Submitted to BLM Barstow Field Office, On file at Resource Sciences and Planning, LLC, Monrovia.*

## **Technical Report QA/QC and Third-Party Review (representative selection)**

Lamb, Meghan

2016 *Archaeological Resources Monitoring Report: Lot 19 Tustin Legacy (Tustin Air Base) Project, City of Tustin, Orange County, California. Prepared by Paleo Solutions, Inc., and submitted to City of Tustin, California. On file at Paleo Solutions, Monrovia.*

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 6, Los Angeles County, California. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.*

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 7, Los Angeles County, California. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.*

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 8, Los Angeles County, California. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.*

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 11, Los Angeles County, California. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.*

Tinsley-Becker, W.

2015 *Cultural Resources Inventory for the SCE Coolwater-Lugo Transmission Project, San Bernardino County, California, Volume 1: Historic-Era Built Environment Survey Report. Submitted to BLM Barstow Field Office, On file at Resource Sciences and Planning, LLC, Monrovia.*

Pacific Legacy, Inc.

2015 *Cultural Resources Inventory for the SCE Coolwater-Lugo Transmission Project, San Bernardino County, California, Volume 2: Archaeological Resources. Submitted to BLM Barstow Field Office, On file at Pacific Legacy, Inc., Berkeley.*

Webster, B.

2016 *Archaeological Monitoring Report: OCTA San Juan Capistrano Rail Side Passing Project, City of San Juan Capistrano, Orange County, California. Prepared for Earth Mechanics, Inc. by Paleo Solutions, Inc. On file at Paleo Solutions, Monrovia.*

Webster, B. and M. Kay

2016 *Archaeological Survey Report for the Southern California Edison Company Replacement of Five Deteriorated Power Poles on an Unnamed Circuit (TD 979272), Topanga State Park, Los Angeles County, California. Prepared by Paleo Solutions, Inc., on behalf of SCE.*

2015 *Archaeological Survey Report for the Southern California Edison Company Replacement of One Deteriorated Power Pole on an Unnamed Circuit (TD 1020522), Topanga State Park, Los Angeles County, California. Prepared by Paleo Solutions, Inc., on behalf of SCE.*

2015 *Archaeological Survey Report for the Southern California Edison Company Replacement of Two Deteriorated Power Poles on the Vicasa 16kv Circuit (TD 1039350), Topanga State Park, Los Angeles County, California. Prepared by Paleo Solutions, Inc., on behalf of SCE.*



Jennifer Kelly, M.Sc.  
Senior Paleontologist and Principal Investigator



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Jennifer Kelly has experience in all aspects of paleontology. She has extensive experience with monitoring, salvage, fieldwork, project management, and report writing, as well as volunteer experience from the La Brea Tar Pits/Page Museum and the Cooper Center of Orange County (Paleontology department) and field experience as a Staff Geologist for Leighton Geotechnical. Her expertise is Geology, and she has her M.S. in Geological Sciences, emphasis in Geochemistry.

Jennifer has taught lab courses in paleontology and general geology, and also assisted with field mapping classes. Jennifer is HAZWOPER 40-hour certified and a registered Orange County paleontologist. She has co-authored more than 60 paleontological compliance documents, including PRMPs, EIR, EIS, PEA, final monitoring reports, survey reports, and other compliance documents, in compliance with NEPA, CEQA, Caltrans and city and county laws, ordinances, regulations, and statutes.

## Education

- 2012 M.Sc. in Geology, California State University, Long Beach, California
- 2005 B.S., Geology (preliminary work for entry to M.S. Geology Program), California State University, Long Beach
- 2004 B.A., Theater Arts, California State University, Long Beach

## Certifications and Training

- 40 Hour Certification for HAZWOPER training under 29 CFR 1910.120, CA (2013 – 2014)
- Orange County Certified Paleontologist
- San Diego County Certified Paleontologist

## Utility Sector Experience

***Assistant PM/Research Specialist, Tehachapi Renewable Transmission Project (TRTP), Southern California Edison (SCE), Kern County, Los Angeles County, San Bernardino County.*** Kelly conducted and led surveys along this project's right of way. She additionally was in charge of scheduling monitoring crews during grading in areas of paleontological sensitivity, managing and reviewing log sheets, and tracking data that is incorporated to final reports. Ms. Kelly played a valuable role with scheduling for the project's needs. She has monitored, surveyed, and reported on all paleontological facets of this project as the Lead Paleontological Monitor for segment 3B and 4-11. She has co-authored more than 10 of the compliance reports for this project. She has also performed monitoring on every segment of this Project.

***Assistant PM/Research Specialist, SCE, Valley South Subtransmission Line Project, Riverside County, California.*** Kelly assisted with scheduling and oversight for coordination of all surveying, preparation of compliance and environmental documentation for this project, including three proposed alternatives,

and co-wrote the final PEA and survey reports, utilizing CEQA and Riverside County paleontological guidelines.

**Assistant PM/Research Specialist, SCE, San Joaquin Cross Valley Loop Project, Tulare County, California.** Kelly assisted with coordination of all surveying, preparation of compliance and environmental documentation for this project, and co-authored the final Paleontological Monitoring Plan for this project.

**Assistant PM/Research Specialist, SCE, Devore Substation Project, San Bernardino County, California.** Kelly assisted with preparation of compliance and environmental documentation including a paleontological inventory and geological map research for this project.

**Assistant PM/Research Specialist, SCE, Horsetown Substation Project, Riverside County, California.** Kelly assisted with preparation of compliance and environmental documentation including a paleontological inventory and geological map research for this project.

**Paleontological Field Technician, El Casco System-Transmission Line, SCE, throughout Riverside County.** Kelly performed paleontological monitoring. Her duties included salvaging small and large fossils, screen washing and sorting fossils. She aided in the processing of microfossils collected from bulk sampling of fossil bearing sediment, and documenting stratigraphic locations of fossil bearing units. This project was in compliance with both CEQA and the CPUC.

**Assistant PM/Research Specialist, South of Kramer Project, SCE, Hesperia to Barstow, San Bernardino, County.** Kelly assisted in overseeing portions of project management and compliance surveying, which included surveying from Hesperia to Barstow, CA for a Proponent's Environmental Assessment (PEA). All portions of the Proposed Project were located within San Bernardino County, California. This project is still active and survey results are being finalized. Kelly co-authored the final survey report for this Project. A BLM Permit was authorized for the survey.

**Assistant PM/Research Specialist, OC Access Road Grading, SCE, Orange and Riverside County.** Kelly assisted in documentation for the cultural resources portion, which include information regarding the location and condition of archaeological and paleontological sites recorded at or near the access roads, and recommends impact avoidance measures for future years in implementing the Protocol for 73 known archaeological sites. This required extensive coordination with Orange County Fire Authority grading department, SCE's Operations and Maintenance (O&M), and Orange County Parks. Trimble units were used for the documentation before and after grading of access roads. Communication played a key role when strategizing which locations were being graded where and when. The company came in under budget because of Kelly's efficiency and ability to coordinate and schedule.

**Assistant PM/Research Specialist, West of Devers Transmission Line Project, SCE, Riverside County, California.** Kelly assisted with all project management and paleontological related services. This included proper BLM authorization and permitting to conduct surveying and a research design for field reconnaissance related to PEA, EIS/EIR documentation for the proposed transmission line. She assisted with managing documentation with laws relating to paleontological resources, among which are CEQA and NEPA compliance.

**Assistant PM/Research Specialist, Grid Reliability and Maintenance for Seawolf, Thresher, and Argonaut 12 kV Distribution Lines, SCE, City of Temecula, Riverside County, California.** Kelly assisted with preparation of compliance and environmental documentation including co-authoring the final paleontological report for this project in Riverside County. This report was prepared under CEQA and Riverside County guidelines.

**Assistant PM/Research Specialist, Pacific Gas and Electric (PG&E), Line 300A/MP 147.7 and 180.8 Projects, San Bernardino County, California.** Kelly assisted in the preparation of mitigation recommendations and a paleontological inventory report for this project. She also assisted with and scheduled planned surveys on BLM and United States Marine Corps lands.

**Assistant PM/Research Specialist, PG&E, Jefferson to Stanford No. 2 60 kV Feasibility Project, San Mateo County, California.** Kelly assisted with the preparation of the paleontological resources review and paleontological inventory report (PIR) and Proponent's Environmental Assessment (PEA) for this project. Several potential routes were assessed for this project, and the feasibility and paleontological potential was determined for this project. The report and PIR were prepared according to CEQA guidelines.

**Assistant PM/Research Specialist, PG&E, Line 107/131 Projects, Alameda County, California.** Kelly assisted with preparation of mitigation recommendations and a paleontological inventory report for this project. She also assisted with and scheduled planned surveys of proposed pipeline locations.

**Assistant PM/Research Specialist, Laguna Niguel Reliability Project, SDG&E, Laguna Niguel, Orange County.** Kelly performed initial research for this Project and co-authored the final report on the monitoring efforts for this project in the Capistrano Formation.

**Assistant PM/Research Specialist, Camp Pendleton Project, SDG&E, throughout San Diego and Orange Counties.** Kelly provided on-call paleontological services for this project. She was a key facet in report production and research which enabled her firm to perform all survey and monitoring work required on Camp Pendleton for CEQA/NEPA check list assessments requested from SDG&E. Kelly was cleared from the Department of Defense in order to conduct work on the base. Site assessments and monitoring include all work related to: future location of power poles and towers, water control features, trenching and subsurface excavations, access roads, grading impacts to develop substations and other facilities, work pads, staging yards, and gas pipelines.

**Assistant PM/Research Specialist, SDG&E Wind Interconnection Project (WIP), San Diego County, California.** Kelly co-authored the paleontological mitigation portion of the Environmental Impact Report (EIR) for this project, utilizing both San Diego County and CEQA guidelines for paleontological resources.

**Assistant PM/Research Specialist, LADWP-Scattergood Project, County of Los Angeles.** Kelly provided on-call paleontological support for this project. She assisted with all project aspects associated to paleontology. She co-authored a paleontological mitigation monitoring plan and assisted in scheduling the monitoring the Scattergood Olympic Line 1 Project, completed the final mitigation document for trench exploration, and performed extensive monitoring for the project.

## Transportation Sector Experience

**Assistant PM/Research Specialist, Paleontological Mitigation Plans (PMP) for Caltrans Cherry/Citrus Ave I-10 interchange Project — PCR/Caltrans, San Bernardino, California.** Kelly conducted all aspects of surveying, and literature searches for both projects.

## Water Sector Experience

**Assistant PM/Research Specialist, Cadiz Ground Water Project, ESA, San Bernardino County, California.** Kelly conducted all research and data collection for the Cadiz Groundwater Conservation and

Storage Project for completion of a DEIR section on paleontological resources. The project included the pipeline corridor but not the Well Field Area and Spreading Basins. Based on the results of the analysis, mitigation measures were developed and are designed to reduce potential adverse impacts to paleontological resources as a result of proposed Project construction to a less than significant level. Only one Project alternative was analyzed for impacts on paleontological resources. The paleontological analysis for the Cadiz Project is a requirement of the California Environmental Quality Act (CEQA).

## Private Development Sector Experience

***Assistant PM/Research Specialist, Holy Sepulchre Cemetery Expansion Project, Diocese of Orange, Santa Ana, Orange County, California.*** Kelly assisted with scheduling monitoring for this project, performed all project-related research, and was the co-author for the final report. The project consisted of grading and leveling several new areas for expansion of the Holy Sepulchre Cemetery, including portions that lie in paleontologically sensitive rock formations with the potential to produce fossils.

***Assistant PM/Research Specialist, UC Irvine Alumni Center Project, Irvine, Orange County, California.*** Kelly performed all monitoring scheduling and coordination duties, as well as research and writing for the final report and the initial monitoring guidelines. This project was a high-visibility construction project for a new alumni center on the grounds of UC Irvine, in a paleontologically sensitive area.

***Assistant PM/Research Specialist, Peters Canyon County Park Restrooms Project, Orange County, California.*** Kelly performed all paleontological monitoring scheduling and coordination duties, as well as research and writing for the final paleontological resources letter report. This project involved the leveling of a pad and significant trenching through paleontologically sensitive soils in order to install a new restroom at the northern end of this park.

***Assistant PM/Research Specialist, UHS Temecula Medical Center, Tuner Construction, Temecula, Riverside County, California.*** Kelly was in charge of day to day scheduling, conducted occasional monitoring duties and part of the writing process for the final report.

## Renewable Energy Sector Experience

***Assistant PM/Research Specialist, Ocotillo Wind Express Project, ASPEN, Imperial County, California.*** Kelly was responsible for managing and collecting all field forms and data that was electronically mailed daily, and incorporating these forms in the final DEIR/EIS Report. She conducted all technical research and compiled both geological and compliance documentation into the final report that was then incorporated into the EIR/EIS.

***Assistant PM/Research Specialist, Manzana Wind Express Project, Kern County, California.*** Kelly assisted in writing the Paleontological Mitigation Monitoring Resource Plan, which allowed her to develop a key role in presenting environmental training programs to construction workers and other environmental compliance monitors. She co-authored the final paleontological monitoring report. The Project's construction consisted of the installation of 107 to 300 wind energy turbines, aligned along approximately 26 rows, on the 6,275-acre proposed site. The Manzana Wind Energy Project site was found to have the potential for scientifically significant paleontological resources that could be impacted by construction-related ground disturbance. She co-authored the final paleontological mitigation report in compliance with CEQA and Kern County guidelines.

***Assistant PM/Research Specialist, Pacific Wind Express Project, Kern County, California.*** Kelly assisted

in writing the Paleontological Mitigation Monitoring Resource Plan, which allowed her to develop a key role in presenting environmental training programs to construction workers and other environmental compliance monitors. She co-authored the final paleontological mitigation report.

Appendix B:  
CHRIS Results

## CHRIS Results-Reports

ReportNum	Authors	CitYear	CitTitle	CitPublisher
KE-00643	McGuire, Kelly	1990	A cultural resources inventory of the proposed Mojave Pipeline Corridor, the El Dorado Primary Route, Kern County, California	Far Western Anthropological Research Group, Inc.
KE-01273	Schiffman, Robert A.	1987	Archaeological Investigation for Parcel Map No. 8476, Kern County, California	Bakersfield College
KE-01383	Schiffman, Robert A.	1990	Archaeological Investigation for Parcel Map No. 6445, Kern County, California	Bakersfield College
KE-01393	Schiffman, Robert A.	1990	Archaeological Investigation of 18.49 Acre Parcel Map #9508 Section 20, Township 32S., Range 32E Kern County, California	Bakersfield College
KE-01488	Schiffman, Robert A. and Uli, Jim J.	1981	Archaeological Investigation of the California Corrections Institution Near Tehachapi	Individual Consultants
KE-01491	Schiffman, Robert and Uli, Jim	1981	Archaeological Evaluation of CA-KER-1302 California Correctional Institute at Tehachapi, Kern County, CA	Unknown
KE-01500	Scientific Resource Surveys, Inc.	1981	Archaeological/Historical Survey Report on a 600 Acre Parcel (The Erteszek Property), Brite Valley, in the Tehachapi Range, Kern County, CA	Scientific Resource Surveys, Inc.
KE-01502	Scientific Resource Surveys, Inc.	1981	Archaeological Survey Report on a 40 Acre Parcel (Robert C. Monroe Property) Located in Cummings Valley, in the Tehachapi Range, Kern County, CA	Scientific Resource Surveys, Inc.
KE-02273	Schiffman, Robert	1992	Archaeological Investigation of the Tameron Specific Plan Section 21, T.32S, R.32E. Kern County, CA	Bakersfield College
KE-02413	Schmidt, James J.	2000	Tehachapi Prison Electrical Upgrade Project, Kern County	Compass Rose Archaeological, Inc.
KE-02673	Fleagle, Dorothy	2002	A Cultural Resources Assessment of 20 Acres for a Proposed Ground Water Recharge Site in Cummings Valley near Tehachapi, Kern County, California	Three Girls and a Shovel
KE-03196	Hudlow, Scott	2005	A Phase I Cultural Resource Survey for Tentative Parcel Map 11337, Tehachapi, Kern Co., CA	Hudlow Cultural Resource Associates (Bakersfield)
KE-03407	Hudlow, Scott M.	2005	A Phase I Cultural Resource Survey for Burns Property, Tehachapi, Kern County, California	Hudlow Cultural Resource Associates
KE-03464	Hudlow, Scott M.	2004	A Phase I Cultural Resource Survey for Tentative Parcel Map 11096, Tehachapi, Kern County, California	Hudlow Cultural Resource Associates
KE-04275	Parr, Robert	2012	Archaeological Survey Report for Southern California Edison Company's Replacement of Two Deteriorated Power Pole Structures (WO 6053-4800, 1-4813/TD572574) on the Jordan 12 kV Distribution Circuit, Near Glennville, Kern County, California	Cal Heritage

## CHRIS Results-Reports

ReportType	Counties	Maps	PLSS
Archaeological, Field study	Kern	Arvin, Bear Mountain, Cummings Mtn., Tejon Ranch	T32S R30E Sec. 7, unsectioned MDBM
Archaeological, Field study	Kern	Cummings Mtn.	T32S R16W Sec. 28 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 20 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 20 MDBM
Archaeological, Field study	Kern	Cummings Mtn.	T32S R32E Sec. 29, 30, 32 MDBM
Archaeological, Evaluation, Excavation	Kern	Cummings Mtn.	T9N R12W Sec. 18 MDBM
Archaeological, Architectural/historical, Field study	Kern	Cummings Mtn., Keene	T32S R32E Sec. 21, 28 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 19,20 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 21 MDBM
Archaeological, Field study	Kern	Cummings Mtn.	T32S R32E Sec. 29 MDBM
Archaeological, Field study	Kern	Cummings Mtn., Keene	T32S R32E Sec. 19 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 21 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 20 MDBM
Archaeological, Field study	Kern	Keene	T32S R32E Sec. 21 MDBM
Archaeological, Field study	Kern	Glennville	T25S R31E Sec. 21 MDBM



## CHRIS Results-Resources

PrimaryString	TrinomialString	ResType	Age	Attribs	ResourceNotes
P-15-001302	CA-KER-001302/H	Site	Prehistoric, Historic	AH02; AP02	Site could have been destroyed if prison facility was developed.
P-15-001303	CA-KER-001303	Site	Prehistoric	AP02; AP04	Site could have been destroyed if prison facility was developed.

## CHRIS Results-Resources

RecordingEvents	Reports	CountyName	Maps	PLSS
1981 (Jim Uli, Steve Andrews)	KE-01488, KE-01491	Kern	Cummings Mtn.	T32S R32E NW¼ of SW¼ of Sec. 32 MDBM
1981 (Jim Uli, Steve Andrews)	KE-01488	Kern	Cummings Mtn.	T32S R32E NW¼ of SW¼ of Sec. 32 MDBM

Appendix C:  
NAHC and Native American Correspondence

**NATIVE AMERICAN HERITAGE COMMISSION**

Environmental and Cultural Department  
1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
(916) 373-3710



March 6, 2018

Tria Belcourt  
Material Culture

Sent by Email: [tria@materialcultureconsulting.com](mailto:tria@materialcultureconsulting.com)  
Number of Pages: 2

RE: Tehachapi Forefront Solar Project, Cummings Mountain, Kern County

Dear Ms. Belcourt:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. **Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.**

I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. **By contacting all those on the list, your organization will be better able to respond to claims of failure to consult.** If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: [Sharaya.souza@nahc.ca.gov](mailto:Sharaya.souza@nahc.ca.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Sharaya Souza".

Sharaya Souza  
Staff Services Analyst  
(916) 573-0168

**Native American Heritage Commission  
Native American Contacts  
3/6/2018**

Big Pine Paiute Tribe of the Owens Valley  
Genevieve Jones, Chairperson  
P. O. Box 700                      Paiute - Shoshone  
Big Pine                      , CA 93513  
(760) 938-2003  
  
(976) 938-2942 Fax

Kitanemuk & Yowlumne Teion Indians  
Delia Dominguez, Chairperson  
115 Radio Street                      Yowlumne  
Bakersfield                      , CA 93305                      Kitanemuk  
deedominguez@juno.com  
(626) 339-6785

Big Pine Paiute Tribe of the Owens Valley  
Danelle Gutierrez THPO  
P.O. Box 700                      Paiute  
Big Pine                      , CA 93513  
d.gutierrez@bigpinepaiute.org  
(760) 938-2003, ext. 228  
  
(760) 938-2942 Fax

San Manuel Band of Mission Indians  
Lee Clauss, Director-CRM Dept.  
26569 Community Center Drive                      Serrano  
Highland                      , CA 92346  
lclauss@sanmanuel-nsn.gov  
(909) 864-8933  
  
(909) 864-3370 Fax

Chumash Council of Bakersfield  
Julio Quair, Chairperson  
729 Texas Street                      Chumash  
Bakersfield                      , CA 93307  
chumashtribe@sbcglobal.net  
661-322-0121

San Manuel Band of Mission Indians  
Lynn Valbuena  
26569 Community Center Dr.                      Serrano  
Highland                      , CA 92346  
(909) 864-8933

Kern Valley Indian Community  
Julie Turner, Secretary  
P.O. Box 1010                      Kawaiisu  
Lake Isabella                      , CA 93240                      Tubatulabal  
(661) 340-0032 Cell

Santa Rosa Indian Community of the Santa Rosa Rancheria  
Rueben Barrios Sr., Chairperson  
P.O. Box 8                      Tache  
Lemoore                      , CA 93245                      Tachi  
(559) 924-1278                      Yokut  
  
(559) 924-3583 Fax

Kern Valley Indian Community  
Robert Robinson, Chairperson  
P.O. Box 1010                      Tubatulabal  
Lake Isabella                      , CA 93283                      Kawaiisu  
brobinson@iwvisp.com  
(760) 378-2915 Cell

Teion Indian Tribe  
Octavio Escobedo, Chairperson  
1731 Hasti-acres Drive, Suite 108                      Kitanemuk  
Bakersfield                      , CA 93309  
oescobedo@teiontribe.net  
(661) 834-8566  
  
(661) 834-8564 Fax

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:  
Tehachapi Forefront Solar Project, Cummings Mountain, Kern County.

**Native American Heritage Commission  
Native American Contacts  
3/6/2018**

Tubatulabals of Kern Valley  
Robert L. Gomez, Jr., Tribal Chairperson  
P.O. Box 226 Tubatulabal  
Lake Isabella, CA 93240  
(760) 379-4590

(760) 379-4592 Fax

Tule River Indian Tribe  
Neil Pevron, Chairperson  
P.O. Box 589 Yokuts  
Porterville, CA 93258  
chairman@tulerivertribe-nsn.gov  
(559) 781-4271

(559) 781-4610 Fax

Wuksache Indian Tribe/Eshom Valley Band  
Kenneth Woodrow, Chairperson  
1179 Rock Haven Ct. Foothill Yokuts  
Salinas, CA 93906 Mono  
kwood8934@aol.com Wuksache  
(831) 443-9702

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:  
Tehachapi Forefront Solar Project, Cummings Mountain, Kern County.

March 7, 2018



**\*Example Letter\***

**RE: Proposed California Correctional Institution Solar Project, City of Tehachapi; Cummings Mountain USGS Quadrangle, Kern County, California.**

**Greetings,**

Forefront Power is proposing to develop a solar development at the California Correctional Facility near the City of Tehachapi, Kern County, California (see attached map). Material Culture Consulting, Inc. (MCC) is conducting the cultural resources review of the project to support preparation of the environmental documents. As part of our background research, we would like to request your input on potential cultural resources within the project area. This request is not part of any formal local, state, or federal consultation process.

Our firm contacted the Native American Heritage Commission (NAHC) on February 28, 2018 to request review of the Sacred Lands File and for a list of tribes with traditional lands and/or cultural places within the area. The NAHC responded on March 07, 2018, stating that the Sacred Lands File review resulted in **negative** results, and provided your contact information as part of the list. We understand that negative results do not preclude the existence of cultural resources, and that a tribe may be the only source of information regarding the existence of a cultural resources, which is why we are contacting you.

**Project Location and Description**

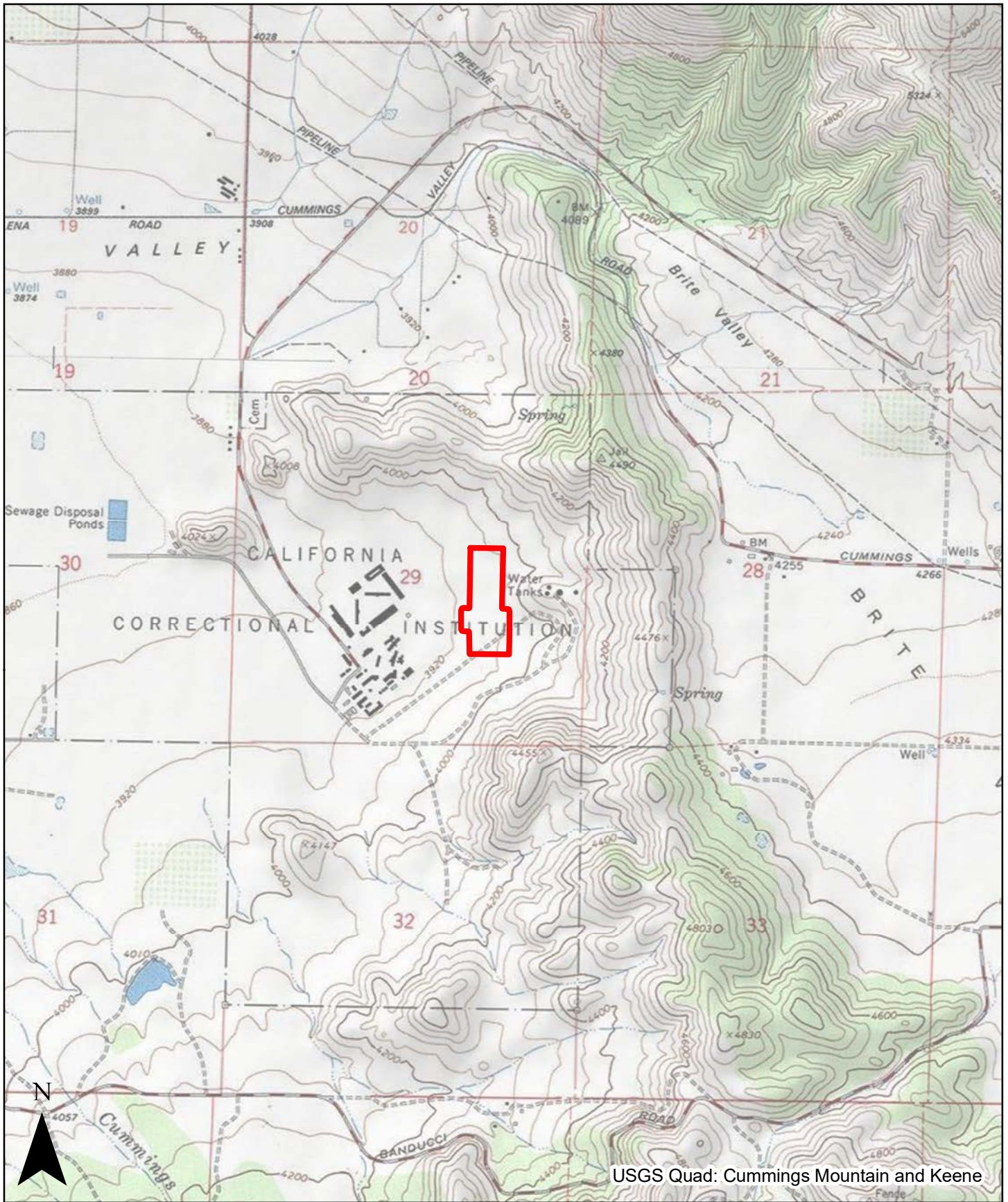
The proposed project is located next to the California Correctional Institution, approximately 0.65 miles west of Cummings Valley Rd. and 7 miles from the City of Tehachapi. The project area includes a parcel that encompass a total of approximately 20 acres and located within Section 29 of Township 32 South and Range 32 East (San Bernardino Base Meridian).

Please respond at your earliest convenience if you wish to share any knowledge of cultural resources within or adjacent to the project area. Any information, concerns, or recommendations regarding cultural resources within the project area can be shared with me via telephone, email, or via standard mail. Thank you very much for your assistance.

Kindest regards,

A handwritten signature in black ink, appearing to read "Tria Belcourt".

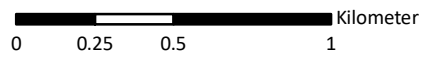
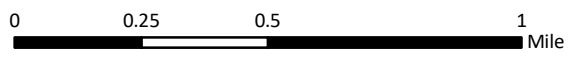
Tria Belcourt, M.A., RPA  
President and Principal Archaeologist  
626-205-8279  
[tria@materialcultureconsulting.com](mailto:tria@materialcultureconsulting.com)



USGS Quad: Cummings Mountain and Keene



Project Area



1:24,000





Tehachapi Forefront Solar Project  
 CEQA Due Diligence Native American Contact Log  
 October 2018  
 Page 1 of 3

<b>Name/Affiliation</b>	<b>Date and Method of 1st Contact</b>	<b>Date of 1<sup>st</sup> Follow Up Attempt</b>	<b>Date of 2<sup>nd</sup> Follow-Up Attempt</b>	<b>Results</b>	<b>MCC Response</b>
<b>Genevieve Jones, Chairperson Big Pine Paiute Tribe of the Owens Valley</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up	Not necessary	See response below	See response below
<b>Danelle Gutierrez, THPO Big Pine Paiute Tribe of the Owens Valley</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018- via email	On August 6, 2018-via phone	Ms. Gutierrez stated that the Project Area is outside the Tribe's Traditional Use Area; however, she did note the tribe was marched down in this area when driven away from their tribal lands. Tribe defers to closer tribes.	MCC thanked the Tribe for their response and stated that response would be included within the report.
<b>Robert Robinson, Chairperson Kern Valley Indian Community</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018- via email	On August 6, 2018-via email	Mr. Robinson stated that the Cummings Valley area, where the proposed Project will be located, is the homelands of the Nuwa people. The Project raises concerns from the Tribe regarding ground disturbing activities. The Tribe strongly recommends culturally affiliated Native American monitors be employed to monitor all ground disturbing activities for cultural resources.	MCC thanked the Tribe for their response and stated that response would be included within the report.
<b>Julie Turner, Secretary Kern Valley Indian Community</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up	On August 6, 2018-via email	See response above	N/A

Tehachapi Forefront Solar Project  
 CEQA Due Diligence Native American Contact Log  
 October 2018  
 Page 2 of 3

<b>Name/Affiliation</b>	<b>Date and Method of 1st Contact</b>	<b>Date of 1<sup>st</sup> Follow Up Attempt</b>	<b>Date of 2<sup>nd</sup> Follow-Up Attempt</b>	<b>Results</b>	<b>MCC Response</b>
<b>Delia Dominguez, Chairperson Kitanemuk &amp;Yowlumne Teion Indians</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up	On August 6, 2018-via phone *message left*	As of August 17, 2018-no response	N/A
<b>Lee Clauss, Director CRM Dept. San Manuel Band of Mission Indians</b>	March 8th, 2018 letter sent via USPS	Not necessary	Not necessary	On March 12, 2018, email response received from Jessica Mauck, Cultural Resource Analyst: Proposed project area is located outside of Serrano ancestral territory. SMBMI will not be requesting consulting party status with the lead agency or requesting to participate in the scoping, development, and/or review of legal and regulatory mandates	Responded back March 12, 2018-MCC thank them and stated their response would be noted within the report.
<b>Julio Quair, Chairperson Chumash Council of Bakersfield</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up	On August 6, 2018-via phone *message left*	As of August 17, 2018-no response	N/A
<b>Rueben Barrios Sr., Chairperson Santa Rosa Indian Community of the Santa Rosa Rancheria</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up	On August 6, 2018-via phone *message left*	N/A	N/A
<b>Robert L. Gomez Jr., Tribal Chairperson Tubatulabals of Kern Valley</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up-service states number is disconnected or no longer in service.	On August 6, 2018- phone call follow up-service states number is disconnected or no longer in service.	N/A	N/A

Name/Affiliation	Date and Method of 1st Contact	Date of 1 <sup>st</sup> Follow Up Attempt	Date of 2 <sup>nd</sup> Follow-Up Attempt	Results	MCC Response
<b>Lynn Valbuena San Manuel Band of Mission Indians</b>	March 8th, 2018 letter sent via USPS	Not necessary	Not necessary	On March 12, 2018, email response received from Jessica Mauck, Cultural Resource Analyst: Proposed project area is located outside of Serrano ancestral territory. SMBMI will not be requesting consulting party status with the lead agency or requesting to participate in the scoping, development, and/or review of legal and regulatory mandates	Responded back March 12, 2018- MCC thank them and stated their response would be noted within the report.
<b>Octavio Escobedo, Chairperson Teion Indian Tribe</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018- via email	On August 6, 2018-via email	N/A	N/A
<b>Neil Pevron, Chairperson Tule River Indian Tribe</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018-phone call follow up-redirected to Environmental Director Kerry Vera. Mrs. Vera did not receive letter and email version was sent to the department on this day.	On August 6, 2018-via phone: Will check to see if she received the email	N/A	N/A
<b>Kenneth Woodrow, Chairperson Wuksache Indian Tribe/Eshom Valley Band</b>	March 8th, 2018 letter sent via USPS	On March 27, 2018- via email	On August 6, 2018-via email	N/A	N/A



Sonia Sifuentes &lt;sonia@materialcultureconsulting.com&gt;

---

**Fwd: CA Correctional Institution Solar Project, Tehachapi, California**

2 messages

---

Tria Belcourt <tria@materialcultureconsulting.com>  
To: Sonia Sifuentes <sonia@materialcultureconsulting.com>

Mon, Mar 12, 2018 at 2:31 PM

Here's the response from San Manuel.

Thanks!

Tria Belcourt, M.A., RPA # 917250  
President and Principal Archaeologist

Material Culture Consulting, Inc.  
Certified DBE/WBE/SBE

**We've Moved! Please note our new address:**

2701-B North Towne Avenue  
Pomona CA, 91767  
Phone: 626-205-8279  
Fax: 626-249-0479

[www.materialcultureconsulting.com](http://www.materialcultureconsulting.com)  
[tria@materialcultureconsulting.com](mailto:tria@materialcultureconsulting.com)

The content of this email, including attachments, is the confidential property of Material Culture Consulting. If you are not the intended recipient, please delete all copies and notify us immediately. Thank you.

----- Forwarded message -----

From: Jessica Mauck <[JMauck@sanmanuel-nsn.gov](mailto:JMauck@sanmanuel-nsn.gov)>  
Date: Mon, Mar 12, 2018 at 2:29 PM  
Subject: CA Correctional Institution Solar Project, Tehachapi, California  
To: Tria Belcourt <[tria@materialcultureconsulting.com](mailto:tria@materialcultureconsulting.com)>

Hi Tria,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project. SMBMI appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on 12 March 2018. The proposed project area is located outside of Serrano ancestral territory and, as such, SMBMI will not be requesting consulting party status with the lead agency or requesting to participate in the scoping, development, and/or review of documents created pursuant to these legal and regulatory mandates.

Regards,

**Jessica Mauck**  
CULTURAL RESOURCES ANALYST

O: (909) 864-8933 x3249

M: (909) 725-9054

26569 Community Center Drive, Highland California 92346

**SAN MANUEL**  
BAND OF MISSION INDIANS

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You

---

Tria Belcourt <[tria@materialcultureconsulting.com](mailto:tria@materialcultureconsulting.com)>  
To: Jessica Mauck <[JMauck@sanmanuel-nsn.gov](mailto:JMauck@sanmanuel-nsn.gov)>  
Bcc: [sonia@materialcultureconsulting.com](mailto:sonia@materialcultureconsulting.com)

Mon, Mar 12, 2018 at 2:32 PM

Hi Jessica -

Thanks for responding so quickly. We'll note your response in the report.

Kindest regards,

Tria Belcourt, M.A., RPA # 917250  
President and Principal Archaeologist

Material Culture Consulting, Inc.  
Certified DBE/WBE/SBE

**We've Moved! Please note our new address:**

2701-B North Towne Avenue  
Pomona CA, 91767  
Phone: 626-205-8279  
Fax: 626-249-0479

[www.materialcultureconsulting.com](http://www.materialcultureconsulting.com)  
[tria@materialcultureconsulting.com](mailto:tria@materialcultureconsulting.com)

The content of this email, including attachments, is the confidential property of Material Culture Consulting. If you are not the intended recipient, please delete all copies and notify us immediately. Thank you.

On Mon, Mar 12, 2018 at 2:29 PM, Jessica Mauck <[JMauck@sanmanuel-nsn.gov](mailto:JMauck@sanmanuel-nsn.gov)> wrote:

Hi Tria,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project. SMBMI appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on 12 March 2018. The proposed project area is located outside of Serrano ancestral territory and, as such, SMBMI will not be requesting consulting party status with the lead agency or requesting to participate in the scoping, development, and/or review of documents created pursuant to these legal and regulatory mandates.

Regards,

**Jessica Mauck**

CULTURAL RESOURCES ANALYST

O: (909) 864-8933 x3249

M: (909) 725-9054

26569 Community Center Drive, Highland California 92346



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Sonia Sifuentes <sonia@materialcultureconsulting.com>

**Re: CEQA Outreach - Follow up Proposed California Correctional Institution Solar Project, City of Tehachapi, Kern County**

Mon, Aug 6, 2018 at 11:46 AM

**Brobinson** <brobinson@iwvisp.com>  
Reply-To: Brobinson <brobinson@iwvisp.com>  
To: Sonia Sifuentes <sonia@materialcultureconsulting.com>

Ms. Sifuentes,

Kern Valley Indian Community (Tribe) is a sacred place for Nuwa, 'Kawaiisu', people. The Cummings Valley area, where the proposed solar project will be located, is the homelands of Nuwa peoples for over 10,000 years. The abundance of resources, food and fiber, made the area an idyllic place to live. Consequently cultural resources as well as the presence of many, many graves raises concerns from the tribe regarding ground disturbing activities. The Tribe strongly recommend culturally affiliated native american monitors be employed to monitor all ground disturbing activities for cultural resources. The Tribe has experienced, trained monitors living in the Tehachapi area. If you need clarifications, or have questions please contact me.

Robert Robinson  
KVIC Chairman, THPO  
P.O. Box 1010  
Lake Isabella, CA 93240  
W: 760.549.2131  
M: 916.803.3408  
E: [brobinson@iwvisp.com](mailto:brobinson@iwvisp.com)  
[bbutterbredt@gmail.com](mailto:bbutterbredt@gmail.com)

-----Original message-----

From: Sonia Sifuentes [sonia@materialcultureconsulting.com](mailto:sonia@materialcultureconsulting.com)  
Date: Mon, 06 Aug 2018 10:19:24 -0700  
To: Tria Belcourt [info@materialcultureconsulting.com](mailto:info@materialcultureconsulting.com)  
Subject: CEQA Outreach - Follow up Proposed California Correctional Institution Solar Project, City of Tehachapi, Kern County

> Good morning,  
>  
> Material Culture Consulting, Inc (MCC) is attempting a follow-up on our  
> letter (dated March 8, 2018) regarding the proposed California Correctional  
> Institution (CCI) Solar Project, located near the City of Tehachapi, Kern  
> County, to verify you received the letter and if you had a change to review  
> the Project Area.  
>  
> Please respond at your earliest convenience if you wish to share any  
> knowledge of cultural resources within or adjacent to the API. Any  
> information, concerns, or recommendations regarding cultural resources with  
> the Project Area can be shared with us via telephone, email, or via  
> standard mail. Thank you very much for your assistance.  
>  
> Sincerely,  
>  
> --  
> Sonia Sifuentes, M.Sc., RPA  
> Archaeologist  
> Material Culture Consulting, Inc.  
> 2701-B North Towne Avenue  
> Pomona CA, 91767  
> Cell: 909-730-8829  
> [www.materialcultureconsulting.com](http://www.materialcultureconsulting.com)  
>  
>

Appendix D:  
LACM Locality Search Results



Natural History Museum  
of Los Angeles County  
900 Exposition Boulevard  
Los Angeles, CA 90007

tel 213.763.DINO  
www.nhm.org



Vertebrate Paleontology Section  
Telephone: (213) 763-3325

e-mail: [smcleod@nhm.org](mailto:smcleod@nhm.org)

14 March 2018

Material Culture Consulting  
2701-B North Towne Avenue  
Pomona, CA 91767

Attn: Julia Carvajal, Archaeologist

re: Paleontological resources for the proposed Tehachapi Solar Project, in Cummings Valley,  
Kern County, project area

Dear Julia:

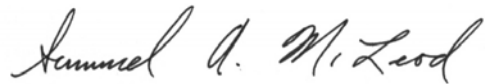
I have conducted a thorough check of our paleontology collection records for the locality and specimen data for the proposed Tehachapi Solar Project, in Cummings Valley, Kern County, project area as outlined on the portion of the Cummings Mountain USGS topographic quadrangle map that you sent to me via e-mail on 28 February 2018. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have a locality nearby from the sedimentary deposits that may occur at depth in the proposed project area.

In the northeastern and southeastern portions of the proposed project area geologic mapping indicates there might be exposures of metamorphic rocks that will not contain any recognizable fossils. Most of the proposed project area, though, has surficial deposits of younger Quaternary Alluvium, derived as alluvial fan deposits from the elevated terrain immediately to the east. These younger Quaternary deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but there are exposures of older Quaternary deposits in the western portion of the Tehachapi Valley, and these deposits may underlie the younger Quaternary Alluvium in the proposed project area. Our closest vertebrate fossil locality from older Quaternary deposits is LACM 3722, found during excavation for a sewer line within the city of Tehachapi east-northeast of the proposed project area, that produced a specimen of fossil horse, *Equus*.

Excavations in the metamorphic rocks that may be exposed in the northeastern and southeastern portions of the proposed project area will not uncover any recognizable fossils. Shallow excavations in the younger Quaternary Alluvium exposed in most of the proposed project area are unlikely to encounter significant fossil vertebrate remains. Deeper excavations in those latter areas that extend down into older sedimentary deposits, however, may well uncover significant vertebrate fossils. Any substantial excavations in the sedimentary deposits in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. 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,

A handwritten signature in cursive script that reads "Samuel A. McLeod". The signature is written in black ink and is positioned above the typed name.

Samuel A. McLeod, Ph.D.  
Vertebrate Paleontology

enclosure: invoice