

**Cultural Resources Management Plan
For Southern California Edison Company's
West of Devers Transmission Line Upgrade Project
Riverside and San Bernardino Counties, California**



Prepared for:

Southern California Edison
2244 Walnut Grove Ave.
Rosemead, CA 91770

and

Department of Interior, Bureau of Land Management
Palm Springs—South Coast Field Office
1201 Bird Center Drive
Palm Springs, California 92262

Prepared by:

Audry Williams, M.A.
Senior Archaeologist
Southern California Edison
2244 Walnut Grove Ave.
Rosemead, CA 91770

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1.0 INTRODUCTION

Southern California Edison (SCE) proposes to construct the West of Devers Transmission Line Upgrade Project (WOD) to upgrade transmission facilities between Vista and San Bernardino Substations in San Bernardino County and Devers Substation in Riverside County. This upgrade includes replacement of existing 220 kilovolt (kV) transmission lines with new, higher-capacity 220kV transmission lines and structures and modifications and replacement of ancillary facilities. The project is located in or near the cities of Grand Terrace, Loma Linda, and Redlands in San Bernardino County and the cities of Beaumont and Banning in the San Geronio Pass area in Riverside County, California.

The project is located on privately held lands, lands administered by the Bureau of Land Management (BLM), and lands within the Morongo Band of Mission Indians Reservation (Reservation) that is administered by the Bureau of Indian Affairs (BIA). A Class III inventory (McLean et al. 2013) was undertaken to assist federal permitting agencies in complying with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA) and to assist the California Public Utilities Commission (CPUC) in complying with the California Environmental Quality Act (CEQA). The lead federal agency for the project is the BLM. The state lead agency is the CPUC. In a letter dated May 17, 2016 the SHPO concurred with the BLM's determinations of eligibility pursuant to 36 CFR 800.4(c) and that the WOD project will not cause adverse effects pursuant to 36 CFR 800.5(a).

This Cultural Resources Management Plan (CRMP) describes the measures that SCE will take to ensure no adverse effects to Historic Properties during construction of the WOD project in accordance with the WOD Final Environmental Impact Report (FEIR) and Final Environmental Impact Statement (FEIS).

1.1 Organization of the CRMP

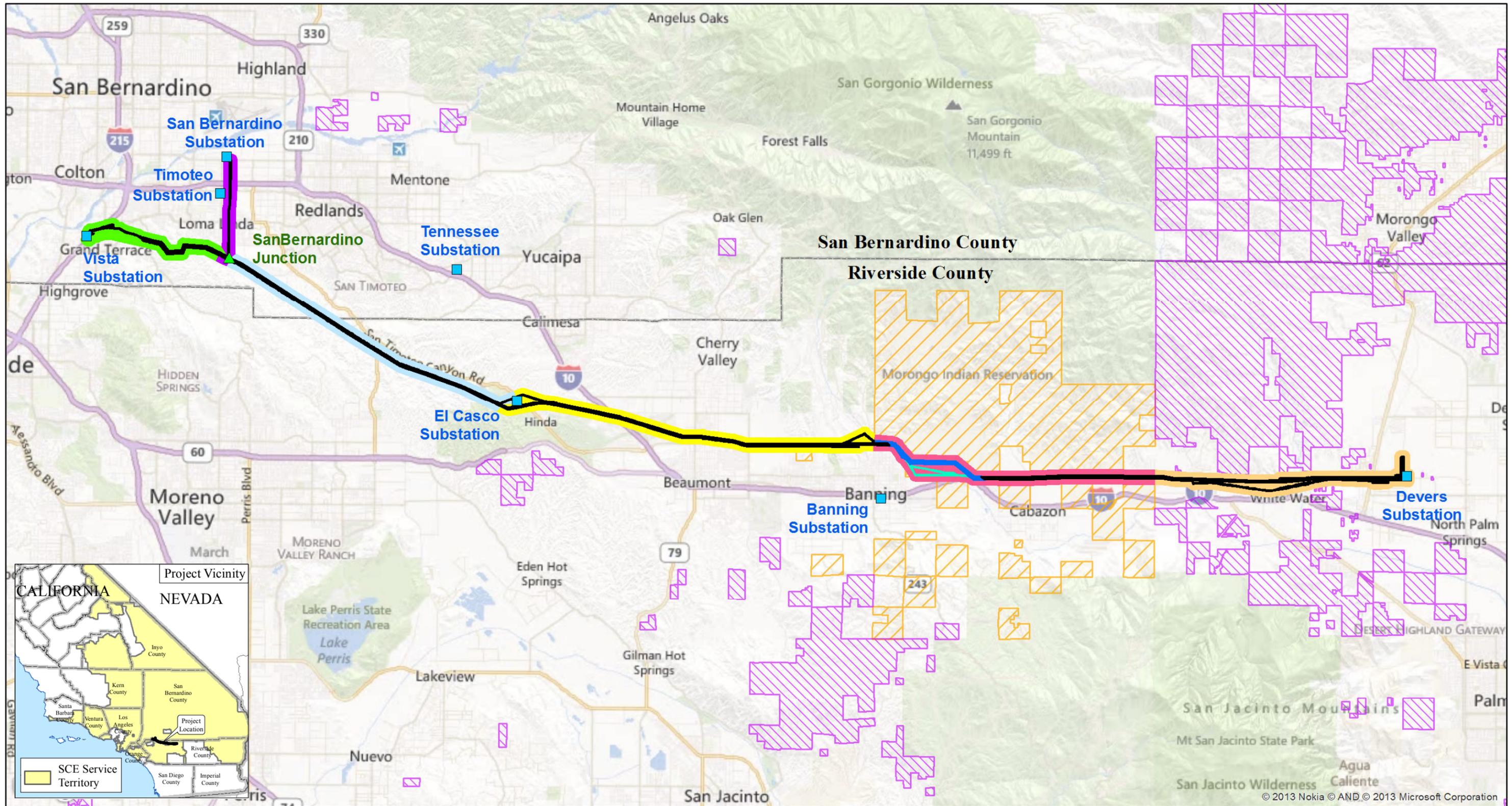
Section 1 of this CRMP is the Introduction. Section 2 provides a description of the WOD Project and definition of the Project Area of Potential Effects (APE). Section 3 summarizes the cultural resources investigations completed to date and the results of those studies. Section 4 presents the historic context applicable to the Project APE. Section 5 presents the monitoring and avoidance plan, which includes provisions for monitoring during project construction, and the plan of discovery. Section 6 evaluation and analysis measures of new sites and appropriate research questions. Section 7 is a list of references cited in this CRMP.

2.0 PROJECT DESCRIPTION

The Proposed Project is located in northwestern Riverside County and southwestern San Bernardino County, where the San Gorgonio Pass forms a topographical break between the San Bernardino Mountains to the north and the San Jacinto Mountains to the south. The Proposed Project includes the northern Coachella Valley region at SCE's existing Devers Substation and extends west through San Timoteo Canyon and El Casco Substation to the San Bernardino and Vista Substations (Figure 1).

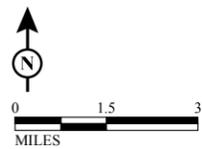
The Proposed Project would upgrade the existing WOD system by replacing existing 220kV transmission lines and associated structures with new, higher-capacity 220kV transmission lines and structures; modifying existing substation facilities; removing and relocating existing subtransmission (66kV) lines; removing and relocating existing distribution (12kV) lines; and making various telecommunication improvements. In particular, the Proposed Project would:

- Upgrade substation equipment within SCE's existing Devers, El Casco, Etiwanda, San Bernardino, and Vista substations in order to accommodate continuous and emergency power on the upgraded WOD 220kV transmission lines.
- Remove and upgrade the existing 220kV transmission lines and structures primarily within the existing WOD corridor as follows:
 - Segment 1 would be approximately 3.5 miles in length and extend south from San Bernardino Substation to the San Bernardino Junction and include the following existing 220kV transmission lines: Devers-San Bernardino, Etiwanda-San Bernardino, San Bernardino-Vista, and El Casco-San Bernardino.
 - Segment 2 would be approximately 5 miles in length and extend west from the San Bernardino Junction to Vista Substation and include the following existing 220kV transmission lines: Devers-Vista No. 1 and Devers-Vista No. 2.
 - Segment 3 would be approximately 10 miles in length and extend east from the San Bernardino Junction to El Casco Substation and include the following existing 220kV transmission lines: Devers-Vista No. 1, Devers-Vista No. 2, El Casco-San Bernardino, and Devers-San Bernardino.
 - Segment 4 would be approximately 12 miles in length and extend east from the El Casco Substation to San Gorgonio Avenue in the City of Banning and include the following existing 220kV transmission lines: Devers-Vista No. 1, Devers-Vista No. 2, Devers-El Casco, and Devers-San Bernardino.
 - Segment 5 would be approximately 9 miles in length and extend east from San Gorgonio Avenue in the City of Banning to the eastern limit of the Morongo Band of Mission Indians Reservation at Rushmore Avenue and include the following existing 220kV transmission lines: Devers-Vista No. 1, Devers-Vista No. 2, Devers-El Casco, and Devers-San Bernardino.
 - Segment 6 would be approximately 8 miles in length and extend east from the eastern boundary of the Morongo Band of Mission Indians Reservation to Devers Substation and include the following existing 220kV transmission lines: Devers-Vista No. 1, Devers-Vista No. 2, Devers-El Casco, and Devers-San Bernardino.



LEGEND

- Existing Transmission Line Right of Way
- Existing Transmission Line Right of Way to be Removed
- Proposed and Alternative Transmission Line Right of Ways
- Substations
- Junctions
- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- U.S. Bureau of Land Management
- Morongo Reservation



SOURCE: Bing Maps (c. 2008); BLM (2012); BIA (2012); SCE (2012, 2013)
 I:\SCE1110\GIS\MXD\ProjectArea_11x17.mxd (10/9/2013)

Southern California Edison
 West of Devers Upgrade Project
 Transmission Line Route Description

Figure 1. Overview map of West of Devers Upgrade Project

- Remove a portion (approximately 2 miles) of the existing San Bernardino-Redlands-Timoteo and San Bernardino-Redlands-Tennessee 66kV subtransmission lines from within the existing WOD right-of-way (ROW) and reconstruct as follows:
 - The relocated San Bernardino-Redlands-Timoteo 66kV Subtransmission Line would be approximately 2 miles in length and would reconnect to the San Bernardino-Redlands-Timoteo 66kV Subtransmission Line inside Timoteo Substation.
 - The relocated San Bernardino-Redlands-Tennessee 66 kV Subtransmission Line would be approximately 3.5 miles in length and would reconnect to the San Bernardino-Redlands-Tennessee 66 kV Subtransmission Line at Barton Road.
- Remove a portion of the existing Dental and Intern 12kV distribution circuits within the WOD ROW and relocate the circuits as follows:
 - The relocated Dental 12kV Distribution Circuit would be approximately 1.5 miles in length and would reconnect to the existing Dental 12kV circuit.
 - The relocated Intern 12kV Distribution Circuit would be approximately 2.25 miles in length and would reconnect to the Intern 12kV circuit.
- Install telecommunication lines and equipment for the protection, monitoring, and control of transmission lines and substation equipment.

2.2 Area of Potential Effects

The Area of Potential Effects (APE) for direct effects as defined for project licensing/permitting and subsequent construction will correspond to the area within any existing ROW, which, for the 220kV transmission lines, varies from 100 to 800 feet wide and any new ROW acquired under the project; a 25-foot-wide buffer on each side of the centerline of any existing road, 66kV subtransmission line, or distribution line that will be modified or newly developed for use during construction that otherwise extends beyond the 220kV transmission line corridor ROW; and the land disturbance footprint for any staging area, materials yard, helicopter assembly yard, etc., as well as the entire area of any substations constructed or modified for the Project. The APE for indirect effects will be no more than ½-mile wide on each side of the direct effects APE. Indirect effects to location, setting, feeling, and association of properties eligible for or listed on the NRHP under Criterion A, B, or C, and unevaluated or unrecorded resources identified by Indian tribes will be considered. These definitions will apply for the WOD project unless Native American or public consultation produces credible evidence of a need to expand the APE. See Appendix A for APE boundary maps.

3.0 CULTURAL RESOURCES INVESTIGATIONS AND FINDINGS

This section discusses the cultural resources investigations that have been completed for the WOD project. It also provides the findings of those studies and identifies Historic Properties located within the WOD APE.

3.1 Inventory

Cultural resource inventories (Class I and Class III Survey, as defined in BLM Manual 8100 Guidance) have been completed for the WOD Project APE in a manner consistent with the Secretary of Interior's Standards and Guidelines for Identification (National Park Service 1983), and California's State Office of Historic Preservation's publications Archaeological Resources Management Reports (ARMR): Recommended Contents and Format (December 1989) and Guidelines for Archaeological Research Designs (February 1991).

The results of literature and records research (Class I Survey, as defined in BLM Manual 8100 Guidance), and the findings of intensive archaeological survey (Class III Survey, as defined in BLM Manual 8100 Guidance) conducted on behalf of SCE over the period 2011-2015 have been summarized in McLean et al. 2013 and DeCarlo and Winslow 2015c. Reports were submitted to the California State Historic Preservation Office (SHPO), BLM, CPUC and Tribes.

The BLM will ensure that any additional areas within the APE not yet inventoried for cultural resources including, but not limited to, any rerouting of the right-of-way (ROW) and activity locations not identified at the time of this plan will be subject to cultural resource inventory by SCE. SCE shall submit to the BLM and CPUC cultural resource inventory reports, which will include preliminary recommendations of National Register of Historic Places (NRHP) eligibility, as needed, and a description of potential effects to Historic Properties and/or unevaluated cultural resources. Copies of all evaluation reports shall be forwarded to the CPUC and Tribes for review and comment.

The inventory of WOD cultural resources identified within the APE and addressed in this CRMP document is current through October 2016, and consists of 51 archaeological sites, 21 historical buildings, structures, or objects, and 46 isolated finds.

3.2 Evaluation of Resources

SCE and their consultants have identified and evaluated all historic and archaeological resources within the APE. Based on the results of those studies and evaluations (listed below), the BLM has made determinations of the NRHP-eligibility of all resources, as summarized in Table 1 below. Evaluation methods included archival research on all historic-period sites, field work as

needed which consisted of site checks and additional recordation, and test excavation at one protohistoric site (P36-02311).

Five historic-era resources, P33-02262, -04213, -15004/07296, -14871, and 11265 located within the APE have been determined eligible for listing in the NRHP. No direct impacts are to occur to these resources and/or historic features within the resource; protection will be ensured by use of barriers and monitoring in the vicinity of the Historic Properties. The remaining resources located within the APE have been determined not eligible for listing in the NRHP. The portion of Guachama Rancheria, P-36-02311, within the project APE does not contribute to the eligibility of the resource as a whole (Table 1). In addition, 45 isolated artifacts were located within the Project APE. Isolated artifacts are not eligible for listing on the NRHP (Table 2). As stated above the SHPO has concurred with the determinations of eligibility pursuant to 36 CFR 800.4(c) and that the project will not cause adverse effects pursuant to 36 CFR 800.5(a).

Table 1 also includes management measure to be carried out during the construction of the WOD Project.

Table 1. Cultural Sites Located within the WOD APE (Confidential)

Table 2. Isolates Located within the WOD APE (Confidential)

4.0 CULTURAL CONTEXT AND ASSOCIATED RESOURCE TYPES

The location of the Project in southern San Bernardino County and western Riverside County falls within the Desert Archaeological Region of southern California (Moratto 1984). The following provides a brief description of the temporal periods and cultural complexes that have been defined within these regions.

4.1 Prehistoric Background

4.1.1 Paleoindian Period and Archaic Periods

A prevailing interest in the origins of native cultures has led to a body of controversial data interpreted by some as evidence of cultural development predating the terminal Pleistocene, or older than 10,000-12,000 years ago. Interdisciplinary research conducted by E. L. Davis and others (1978) examined cultural systems associated with pluvial lake stands and landscapes in the western Mojave Desert, raising the possibility of Early Pleistocene occupation. In general, an Early Pleistocene occupation of the California deserts has not been demonstrated (Crabtree 1981:34-39), and current consensus recognizes Clovis as the earliest cultural complex represented (Sutton et al. 2007:233-234 and Table 15.4).

Approximately 12,000–7,000 before present (B.P.), during what is now referred to as the Early Holocene, the area between San Bernardino and San Geronimo Pass was occupied by Native American people (Moratto 1984:110–113). This initial occupation of prehistoric Southern California was labeled “Early Man” or “Horizon I” by Wallace (1955). Elsewhere this “Paleo Indian” or “Early Period” covers the time period from the first presence of humans in Southern California until post-glacial times. Wallace (1978:25–28) renames this period the “Hunting Period” and states that the terminal portion of the Early Period fell approximately 6000–5500 B.C. Early Holocene cultures of California have been interpreted as diversified foraging economies (Moratto 1984:79–88; Erlandson 1994:44–45). Elsewhere, Early Holocene artifacts and cultural activities suggest a predominantly hunting culture (Wallace 1955), with social structure and survival based on the hunting of now extinct megafauna, such as mammoth. The occurrence of extremely large and occasionally fluted bifaces marks sites from this time (Moratto 1984:81). Large bifaces are associated with the use of the spear and atlatl, also known as the spear thrower, and indicate big game hunting activities.

In much of California, the Western Pluvial Lakes Tradition (WPLT) has been proposed as a concept to “...bring order to some of the taxonomic chaos...” in an effort to organize the “...terminological jungle that has obscured basic archaeological patterns and relationships...” (Moratto 1984:92). In general, the WPLT toolkit commonly includes crescentics, large flake and core scrapers, choppers, scraper planes, hammerstones, different core types, drills, graters, and diverse types of flakes (Moratto 1984:93). A primary characteristic of WPLT sites is their location on the shores of pluvial lakes. The WPLT is thought to have manifestations at sites on

the shores of pluvial lakes from northern central California to Southern California (Moratto 1984:81, 103). The Lake Mojave Complex is one of the best known expressions of the WPLT.

Situated between San Bernardino and the San Gorgonio Pass area, the southeastern end of the Project APE/Study Area lies near the greatest northwestern extent of ancient Lake Cahuilla, which measuring over 100 miles (160 km) long by 30 miles (48 km) wide. Ancient Lake Mojave, over 60 miles (96 km) northeast of the APE/Project Study Area, is located on the north side of the San Bernardino Mountains. Prehistoric sites and material from both ancient lake areas are relevant to the current discussion.

The Lake Mojave Period is a generalized hunting and gathering subsistence system, and is considered a Paleoindian assemblage by most archaeologists. The Lake Mojave Period is also thought to be ancestral to archaic cultures of the Pinto Period and, as such, has become the comparative unit for Early Man in the Mojave Desert (Warren and Crabtree 1986:184). Flaked stone artifacts include large stemmed Lake Mojave and Silver Lake projectile points, long-stemmed corner-notched points, leaf-shaped bifaces, and bifacially worked cores, crescentics, formed flake tools such as domed and keeled scrapers, shaft straighteners, large core and cobble tools, and large quantities of debitage. Notable features of Lake Mojave flaked stone technology are the use of percussion flaking for all stages of tool manufacture and the high proportion of fine-grained igneous lithic material (Hall 1993:19; Horne and McDougall 1997:9).

4.1.2 Middle Holocene

The pinto culture complex is well document between 7,000 and 3,500 B.P. in the Mojave Desert (Crabtree 1981:40; Sutton et al. 2007:238). Pinto Period flaked stone artifacts include weakly-shouldered, concave-base Pinto points, large and small leaf-shaped bifaces, domed and keeled scrapers, and an abundance of core and cobble tools. Percussion flaking of fine-grained igneous lithic material continues to dominate the lithic assemblage from this period. Ground stone implements, including large slightly modified milling slabs, small thin extensively used milling slabs, and both shaped and unshaped handstones indicate an increase in reliance on seed processing (Hall 1993:21; Horne and McDougall 1997:9). The definition of the Pinto Complex is based on material from the Mojave Desert (Warren 1984:412), original studies of which were conducted at Pinto Basin and the Twentynine Palms area northeast of the APE/Project Study Area (Campbell and Campbell 1935).

Flaked stone tool forms attributed to the Middle Holocene include the stemmed, indented-base Pinto series projectile points, leaf-shaped points and knives, drills, retouched flakes, and unifacial core/tool forms (Crabtree 1981:40-41; Warren 1984:349 and Figure 8.2; Sutton et al. 2007:238-239). Tool stone technologies appear as a continuum advancing from the flaked stone tool kits assigned to earlier Paleoindian sequences. Milling equipment becomes more prevalent, or even moderately abundant in Pinto assemblages from the Mojave Desert. Revised dating estimates of Pinto deposits in the Mojave Desert demonstrate that intensive levels of

plant processing began sometime before 7,000 years B.C., before the onset of severe Middle Holocene desiccation (Sutton et al. 2007:238).

Expanded investigations at the Indian Hill rock shelter (CA-SDI-2537) revealed a substantial Late Archaic component located in the southwest margin of the Colorado Desert, along the foot of the Peninsular Range (McDonald 1992; Wilke and McDonald 1989; Wilke et al. 1986; cf. Wallace 1962). The archaeological record at Indian Hill spans the transition from the Middle Holocene to the Late Holocene/Late Prehistoric. Buried beneath more than three feet of Late Prehistoric deposits, the Middle Holocene component is represented by multiple rock-lined storage cache pits, numerous hearths, Elko Eared dart points, other flaked stone and milling equipment, and inhumations, one of which was radiocarbon dated at 4,070±100 years B.P. The primary function of the rock-lined cache pits was interpreted as concealment for food stores, and use of the pits appeared to have ceased with the introduction of ceramics (McDonald 1992:131). Hearth features were recognized by presence of charcoal, ash, and clusters of fire-affected rock; associated faunal remains of freshwater mussels and fish and terrestrial game, including small mammals, reptiles, and desert bighorn sheep, were identified as food resources on the basis of butchering marks, burned elements, and other modification. The research indicates a consistent long-term use during winter and spring and, to some extent, possible use during other seasons. Two similar rock-lined cache pits, also attributed to Late Holocene times, are reported for a Tahquitz Canyon (CA-RIV-45) rock shelter (Locus I Feature 3), where concealed milling equipment, low artifact frequency, and absence of midden accumulation suggest a highly mobile foraging strategy whereby Tahquitz Canyon was only briefly used for short episodes to hunt and gather (Bean et al. 1995).

Dart points in the Indian Hill rock shelter assemblage were manufactured of very hard, dense igneous and metamorphic materials, including porphyritic volcanic, basalt, and quartz. Analysis of the dart point assemblage documents that these points were reworked after suffering impact damage into shorter and blunter profiles and that 11 broken dart points possess breakage patterns consistent with impact damage, indicating that the site served as a "home base" or "hunting camp" where retooling took place (McDonald 1992:155). Milling equipment in the assemblage consists mostly of broken and fire-affected manos and metates. Representing a range from minimally to well-used, many of these milling stones were not singular in function, but were also used as hammerstones and cooking stones and reused again as construction material in cache pits and hearths (McDonald 1992:240).

Cultural research in the Colorado Desert has recently exposed site deposits and features dating to the Late Holocene, all located within the Salton Trough and Coachella Valley, and generally bracketing the northern margins of the Lake Cahuilla Basin (Love and Dahdul 2002). Historically this area has been an agricultural hub of eastern Riverside County, and has been undergoing rapid development. Love and Dahdul (2002:75-80) document the findings of more than a dozen discovery and excavation efforts focusing on cultural deposits that are, with one exception, deeply buried and only exposed by construction grading. The exception is a stratified rock shelter at site CA-RIV-6243/H, where a pre-ceramic deposit was recognized from a unit

excavated into the floor. Construction monitoring identified the majority of these discoveries within sand dune formations. Some were also found in flats, where alluvial sands and lake bottom sediments are interblended, and one (CA-RIV-6797) was located well below the Lake Cahuilla shoreline in desert flats far from any channel or stream, where the Archaic deposit rests 0.5m below later lakebed silts and clays. Citing a collection of 30 radiocarbon assays from 13 distinct deposit and features, Love and Dahdul (2002) demonstrate cultural occupation, activities, and use of the region bracketing the northern margins of the Lake Cahuilla basin going back at least 3,000 years.

For the Late Archaic Period, the northern Lake Cahuilla basin appears to demonstrate a growing complexity in cultural development leading into the Late Prehistoric Period. This is represented in the numbers of workshops, camps, and residential/occupation sites distributed across the landscape surrounding the northern shorelines, in the stone tool assemblages reflecting subsistence practices focusing on available resources from either lacustrine or terrestrial environments, or both, and in the representation of regional economic trade and exchange as evidenced by presence in the assemblage of marine shell ornaments (e.g., *Olivella dama* spire-removed beads) from the Gulf of California and obsidian tool stone debitage from the Coso Volcanic Field.

4.1.3 Late Holocene

Within the Project area during the Late Holocene, the ethnographically recognized Cahuilla occupied the region of western Coachella Valley and the San Gorgonio Pass to the south of the study area that includes the San Jacinto Valley, which was most likely a transition zone occupied between the Cahuilla and Luiseño (Bean and Vane 1979). During the ethnohistoric period, the Serrano were also present in the San Gorgonio Pass, and the Cahuilla were present in the San Jacinto Valley and San Timoteo Canyon.

The Cahuilla, Luiseño, and Serrano are Takic-speaking people of the Uto-Aztecan linguistic stock (Bean and Vane 1979, Miller 1984). The Cahuilla and Luiseño are of the Cupan sub-group, while the Serrano (and Gabrielino) are of the Serrano-Gabrielino sub-group (Miller 1984). Before the more recent Takic linguistic grouping, the Cahuilla, Luiseño, Gabrielino, and Serrano were included within the southern Californian branch of the Shoshonean family by Kroeber (1907, 1925). Cahuilla, Serrano, and Luiseño settlement patterns and culture are further addressed in the following Ethnohistoric section.

Speakers of the Uto-Aztecan family were located in the Great Basin, southern California, and an area stretching from southern Arizona into northwest and central Mexico (Miller 1984). The expansion of the Takic group into southern California is unrefined; however, several scholars have hypothesized on when the Uto-Aztecan wedge into the region occurred. Most recently, Sutton (2010) argues that the Takic group expanded into southern California from the San Joaquin Valley at about 3,500 years ago. Moratto (1984) also proposes that the Takic expansion into the Southern Coast region correlates with the end of the Early Period ca. 3,200 to 3,500

years ago. However, Bean and Smith (1978a) state that the Gabrielino did not expand into the Los Angeles Basin until 2,500 years ago, while Golla (2007) suggests the expansion of the Uto-Aztec speakers into southern California did not occur until approximately 2,000 years ago, with the Cupan expansion occurring even later around A.D. 900. Wilke (1978) also suggests that the Cahuilla occupied the general area around Lake Cahuilla from around A.D. 900.

While the exact chronology involving the immigration and Late Holocene settlement of the Takic-speaking groups in southern California remains uncertain, it is generally accepted that the population of Native Americans in the region substantially increased towards the end of the Late Prehistoric period. Additionally, after A.D. 1600, there occurred a change in settlement and subsistence patterns influenced by the drying up of Lake Cahuilla and an intensification of land use in the San Geronio Pass, the San Jacinto Plain, and Perris Valley regions that was reflected into the ethnohistoric period (Bean et al. 1991; Wilke 1974, 1978; Schaefer 1994).

The changes in settlement and subsistence patterns and increase in population in the Late Prehistoric Period may have been influenced by climatic factors and the cycles of filling and drying of Lake Cahuilla. Around A.D. 700, Lake Cahuilla began its last stand as a freshwater lake. Within this period, there were four, and possibly five, lacustral intervals (Waters 1983; Schaefer 1994). According to Wilke (1978), between A.D. 1,500 and 1,600, the Colorado River changed its course and the lake levels dropped, resulting in a reestablishment of desert conditions where the lake once stood. However, more recent research suggests that the lake experienced an infill occurring into the middle to late seventeenth century (Love and Dahdul 2002; Laylander 2006). During this time of Lake Cahuilla's last stand, the Medieval Warm Period was occurring (approximately A.D. 800 to 1350), which was characterized by warm and arid conditions (Goldberg 2001; Sutton et al. 2007).

The primary research debates surrounding Lake Cahuilla land use revolve around arguments of whether settlement adjacent to the lake was year-round and permanent or seasonal and temporary; what role the lake played in the shift of settlement patterns; and relationships to population increases seen in the seventeenth and eighteenth centuries. According to Weide (1974) and Weide and Barker (1974), the shoreline of Lake Cahuilla fluctuated, and the habitats were unstable and unreliable; therefore, the settlement pattern around the lakeshore must have been seasonal with greater reliance placed on the inflow lake channels and spring-fed streams inland from the lake for plant-based food resources (Schaefer 1994; Laylander 2006). On the other hand, Wilke (1978), using D. Weide's analysis of Lake Cahuilla's hydrological regimen, argued that Lake Cahuilla was a stable lake that supported year-round, or nearly year-round, settlement bases (Schaefer 1994; Laylander 2006). Wilke (1978) sought to debunk the hypothesis that southern California was warmer and more arid during the last 1,000 years. By relying on evidence of the Little Ice Age that occurred beginning 400 to 500 years ago, Wilke (1978) instead argued that the Salton Basin was less arid than modern measurements and therefore provided further evidence of conditions supporting a stable lake environment. Based on the concept of Lake Cahuilla providing a stable habitat that supported year-round settlement, Wilke (1978) inferred that the sudden drying up of Lake Cahuilla resulted in the

permanent shift of populations from the lakeshore to locations of low desert or upland resources, such as Coachella Valley or the Peninsular Range. However, it is unclear if the shift in population away from lake edge habitation after the final recession of the lake reflects a more subtle, rather than a major, readjustment in settlement change as proposed by Wilke (1978; Schaefer 1994). If the Weide model of Lake Cahuilla being used more as a secondary, seasonal resource is taken into account, then the drying up of the lake would not have had such a dramatic effect on regional settlement patterns as Wilke suggested. Also, as mentioned above, recent research has suggested that Lake Cahuilla experienced partial infillings well into the late seventeenth century and possibly even into the eighteenth century (Schaefer 1994; Love and Dahdul 2002). Lastly, contrary to Wilke's argument for cooler conditions for the last 1,000 years, the Medieval Warm Period (approximately A.D. 800 to 1350) has been well established (Goldberg 2001; Sutton et al. 2007).

While the Medieval Warm Period does not support Wilke's argument for a stable lake, it may well have been a contributing factor supporting Late Prehistoric settlement around the shore of Lake Cahuilla. Goldberg (2001) hypothesizes that the Medieval Warm Period may account for the lack of sites occurring in the Eastside Reservoir Project area during the Saratoga Springs Period (A.D. 500 to 1200), claiming that desert and inland areas of western Riverside County, such as where the Eastside Reservoir Project and the current Project are located, may not have been suitable to support residential bases. Goldberg (2001) further hypothesizes that settlements may have been clustered at more suitable water sources during this time, such as the coast or at Lake Cahuilla or Lake Elsinore.

On the other hand, the Eastside Reservoir Project's Late Prehistoric (A.D. 1200 to 1540) and Protohistoric (A.D. 1540 to 1770s) periods coincide with the Little Ice Age, generally dated from A.D. 1400 to 1875 (Goldberg 2001; Sutton et al. 2007). During these periods, the climate was cooler and moister, and the sites identified within the Eastside Reservoir Project area reflect a substantial increase in diversity and number, longer occupation periods, and more sedentary land use. Intensification of land use also occurred in neighboring San Geronimo Pass (Bean et al. 1991) and Perris Valley (Wilke 1974). However, the role that Lake Cahuilla played in the population growth and intensification of land use in these areas north and west of the lake, as well as to the east along the Colorado River, is still not entirely clear (Schaefer 1994; Laylander 2006).

4.2 Ethnohistoric Background

As described in the previous section, during the Late Holocene/Late Prehistoric Period, the western portion of the study area was at the confluence of the Cahuilla, Luiseño, and Serrano territories, while the Cahuilla also occupied areas within the western Coachella Valley and San Geronimo Pass.

During the ethnohistoric period, a great deal of settlement shifting took place. By the early twentieth century, Serrano were present in the San Gorgonio Pass along with the Cahuilla, Cahuilla and Luiseño were present in San Jacinto Valley, and some Cahuilla groups from the San Jacinto Mountains had moved to the San Bernardino Valley and then to San Timoteo Canyon in the mid-1800s.

Much of what is known about the native occupants of southern California at the time of Spanish contact comes from ethnographic and ethnological studies conducted in the early part of the twentieth century. Unfortunately, in the late eighteenth and nineteenth centuries, Spanish and Mexican influences greatly reduced native populations, particularly those along the coast (Cook 1978). The more western Luiseño and other coastal tribes were most affected by the missions. Due to the inland geographical location of the Cahuilla and Serrano territories, the Spanish institutions did not directly affect them as much (Strong 1929, Bean 1978).

The following paragraphs provide brief descriptions of the region's ethnohistoric cultural groups. Ethnographic research detailing the relationships between these native people, the lands within the Project vicinity area, and the effects of energy transmission developments include studies by Bean and Vane (1978, 1979) and a more recent study by Halmo (2003).

3.2.1 Cahuilla

The Cahuilla inhabited a territory from the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, a portion of Colorado Desert west of Orocopia Mountain to the east, and the San Jacinto Plain near Riverside and the eastern slopes of Palomar Mountain to the west (Bean 1972, 1978). The Cahuilla occupied portions of the Project vicinity within the western Coachella Valley and San Gorgonio Pass. Cahuilla territory was bisected by the Coco-Maricopa Trail, one element in the Pacific Coast-Great Plains trading routes used by native people beginning in pre-Columbian times (Bean et al. 1978). Similarly, the territory was at the periphery of two other trail systems: the Santa Fe and the Yuman trails (Bean 1978:575). Subsequently, the Cahuilla regularly interacted with neighboring tribes (Bean 1978:575).

Cahuilla habitation coincided with the filling of Lake Cahuilla, a freshwater lake that provided them with numerous resources (Carrico et al. 1982:13). As the lake began to dry out approximately 400 to 500 years ago, the Cahuilla moved into the nearby mountains and upper Coachella Valley around springs and water seeps.

Villages were situated in canyons or on alluvial fans, areas that provided adequate water and food sources as well as protection from strong winds (Bean 1978:575). Group members left the permanent villages for specific purposes, including trade, hunting, or gathering (Bean 1978:575). The Cahuilla relied on hunting and gathering as a primary subsistence method—hunting rabbit and other small game and gathering acorns, mesquite and screw beans, pinyon nuts, and cactus bulbs (Bean 1978:578). In addition, Cahuilla practiced proto-agriculture where corn, beans, squash, and melon were harvested (Bean 1978:578). Cahuilla used stone mortars

and pestles, manos and metates, wooden mortars, baskets, pottery (small-mouthed jars, cooking pots, open bowls, dishes, and pipes), soapstone arrow shaft straighteners, willow and mesquite bows and arrows, and numerous ceremonial instruments (Bean 1978:578-9).

3.2.2 Luiseño

The Luiseño possessed a more rigid social structure and greater population density than the Cahuilla or Serrano. However, Strong (1929) suggested that social organization was more complex among the populous coastal villages, and less so among smaller inland settlements. Sedentary villages were located in diverse ecological zones, and exploitation of resource areas was strictly controlled by ownership of resource territories along family, lineage, and village lines. During historic times, five Luiseño clans, or "parties," were present at Soboba in the San Jacinto Valley (Strong 1929).

Each lineage had exclusive hunting and gathering rights in their procurement ranges, and violation of trespass was seriously punished (Bean and Shipek 1978). The Luiseño settlement pattern was seasonally based. In the winter, the larger clan coalesced into a shared habitation village and lived primarily on stored foods, such as acorns. Beginning in the spring, the winter village group divided into smaller groups, each group occupying and exploiting a small area where fresh vegetal resources could be gathered. Occasionally, journeys to the coast to collect shellfish may also have occurred at this time (White 1963). This breakup of the village group into family groups at the end of winter, after the stored fall crops were depleted, was a normal occurrence in hunter-gatherer societies and compensated for sparse spring resources, which generally were harder to find and less plentiful. At the end of summer and beginning of fall, a secondary base camp, frequently situated near an oak grove, was inhabited for two to three months for acorn collecting as well as hunting. These summer-fall camps were also subdivisions of the primary winter camp, being occupied by smaller clan subdivisions of the larger clan-group.

3.2.3 Serrano

Researchers document the Serrano as highly mobile, utilitarian-based societies, residing in permanent villages with satellite camps spread throughout their territories (Bean et al. 1981; Kroeber 1925). Plant and animal resources were widely dispersed across the landscape. Therefore, many collecting and food processing areas were used throughout the year as different resources became available in various life zones. Subsistence also related to the use of extensive trail systems throughout the southern California region, coursing the distance from the Pacific Ocean to the Colorado River and beyond (Davis 1974). The Serrano were loosely organized into exogamous clans that served as the largest autonomous political and landholding unit (Strong 1929). There was no form of pan-tribal political union among the clans, all bonds being strictly ceremonial in nature with alignments arising along lines of economic, marital, or ceremonial reciprocity. In addition to forming bonds with other Serrano clans, they also formed alliances with Cahuilla, Chemehuevi, Gabrielino, and Cupeño groups (Bean and Smith 1978:572).

Serrano subsistence included gathering, hunting, and (occasionally) fishing (Bean and Smith 1978). Material culture represented a wide variety of implements, including baskets; pottery; stone milling equipment; stone, wood, and bone implements; rabbit skin blankets; and woven nets and storage pouches (Drucker 1937). Their structures consisted of family residences and ramadas, storage granaries, and sweathouses. Village locations most often included a large ceremonial house, for use by the lineage leader that also served as a religious center (Bean and Smith 1978). Because the San Bernardino Mountains were the central home of the Serrano, villages were primarily located in the forest; however, many were located in the foothills and a few on the desert floor (Strong 1929; Bean and Smith 1978). The primary factor for village choice was proximity to a year-round water source (Bean and Smith 1978).

The Serrano clan named Māriña occupied the Mission Creek region north of White Water (Strong 1929). This clan was prominent among both the Serrano and Pass Cahuilla and, during historic times, was present and active at Morongo along with Pass Cahuilla clans. Serrano clans were also located to the north of the San Gorgonio Pass in Yucaipa Valley and near the headwaters of the Santa Ana River.

4.3 Historical Background

Historic cultural activities began within what is now San Bernardino and Riverside Counties in the late 1700s. Below is an overview of the historical activities of Spanish, Mexican, and American rule, occupation, and land use within the Project and vicinity.

Hernando de Alarcón sailed up the Colorado River in 1540, marking the first European entrance into the Arizona/California region. Alarcón stopped at a point near Yuma and did not travel far enough north to enter the Project. More substantial Spanish exploration began with the entradas of Father Jacobo Sedelmayr in 1744, when he traversed the region near what is now Blythe, which was then controlled by the Halchidhoma. Almost 30 years passed before Francisco Garces and his party crossed areas near the Project in 1774 and then again in 1776.

In 1769, a Spanish expedition headed by Gaspar de Portolá and Junípero Serra traveled north from San Diego. The aim of the expedition was to seek out locations for a chain of presidios and missions in order to extend the Spanish Empire from Baja California into Alta California. The Presidio of San Diego and Mission San Diego de Alcalá were established in San Diego in July 1769, followed by the Presidio of Monterey and Mission San Carlos Borromeo de Carmelo in 1770 in northern California. Other missions established close to the study area include San Gabriel Arcángel (1771), San Juan Capistrano (1776), and San Luis Rey de Francia (1798).

The first Spaniard to visit what is now Riverside County was Don Pedro Fages, commander at the San Diego presidio, in 1772. In the pursuit of deserted soldiers, Fages traveled from San Diego east to the desert in Imperial County and then northwest through the San Jacinto Mountains and San Jacinto Valley towards Riverside (Lech 2004). The first well-documented

Spanish contact within inland southern California was by Spanish military captain Juan Bautista de Anza, who led expeditions in 1774 and 1775 from Sonora to Monterey (Bolton 1930). Anza embarked on the 1774 expedition to explore a land route northward through California from Sonora, and on the 1775 expedition to bring settlers across this land route to strengthen the colonization of San Francisco (Rolle 1963). Anza's route crossed the Colorado River near its confluence with the Gila River, near modern-day Yuma, Arizona. West of the Colorado River, the expeditions turned westward, avoiding the Algodones dunes and moving cautiously between the scarce available sources of water. Once reaching the Peninsular Range, the expeditions headed north-northwest, and Anza's route followed a similar one as Fages' from the San Jacinto Mountains and northwest through Bautista Canyon into the San Jacinto Valley, which was named "San José" by Anza.

Anza's 1774 expedition into Alta California included 34 people with horses and cattle, while the 1775 colonizing expedition brought 240 people, of whom 151 were women and children, and more sizeable herds (Pourade 1971). With these numbers, more than half of the colonial population of Alta California traveled this route (Mason 1998). Little documentation exists of Anza's route being used after the 1774 and 1775 expeditions, although it certainly would have been in order to supply and communicate with colonial California (Lech 2004). Seven years later, the Spanish government closed the route due to uprisings by the Yuman Indians. However, by that time, the missions were established and increasingly self-sufficient, thus diminishing the need for resupply from Sonora.

Due to the inland geographical location of the Cahuilla and Serrano territories, the Spanish missions did not have as direct an effect upon them as they did upon the Luiseño and other tribes who lived along the coast (Bean 1978). However, in the late 1810s, ranchos and mission outposts, called *asistencias*, were established near the Cahuilla and Serrano territories, thereby increasing the amount of Spanish contact. An *asistencia* was established south of the study area in Pala in 1818, and the San Bernardino *asistencia* was established in 1819 on the Guachama Rancho, located partly within the Project Study Area. Additionally, Rancho San Jacinto was established for cattle grazing in the San Jacinto Valley (Bean and Vane 1980; Brigandi 1999). It was here that the first adobe structure in the San Jacinto Valley, Casa Loma Adobe, was built. In 1820, Father Payeras, a senior mission official, suggested that the San Bernardino and Pala *asistencias* be developed into full missions in order to establish an inland mission system (Lech 2004). However, Mexico won its independence from Spain in 1821, and shortly thereafter a decline in mission activity occurred followed by the secularization of the missions in the 1830s.

Between 1834 and 1836, secularization of the missions was implemented. Although California's governor José Maria Echeandía suggested in the 1820s that the former mission lands should be used for Indian village settlement, the Secularization Act passed by the Mexican government in 1833 enabled successive governors to disperse the land as they wanted (Lech 2004). Lands previously held by the missions began to be divided into ranchos, granted to private Mexican citizens. In order to obtain a rancho, an applicant submitted a petition containing personal information and a land description and map (*diseño*). In 1835, Jose Antonio Estudillo of San

Diego submitted the first petition in Riverside County for the San Jacinto Rancho. Although Estudillo's petition was for four square leagues (approximately 30,000 acres), in 1842 he was granted close to the maximum size allowed of 11 square leagues (Lech 2004; Perez 1982). In 1845, Estudillo's son-in-law, Miguel de Pedrorena, filed a petition for half of the San Jacinto Viejo Rancho and a small additional portion of land to the northeast in the hills east of Lamb Canyon (Lech 2004). This portion, the northern half of the San Jacinto Viejo Rancho, became known as the Rancho San Jacinto Nuevo y Potrero.

While the Spanish established trails and roads that served the San Diego area and Los Angeles Basin by way of the southern route out of Yuma, Arizona, the majority of the Mojave Desert was rarely traversed until after Mexican independence in 1821. Unlike the coastal areas and foothills of southern California, there were no Spanish- or Mexican-period land grants established in the Mojave or Colorado deserts. Around this time, Jose Romero and Juan Maria Estudillo crossed the study area via Indio and the Colorado River (Bean and Mason 1962). The expedition reportedly traveled northeast between the Orocopia and Chuckwalla Mountains and then turned east. Surveys for potential railroad routes followed a similar path in the 1850s, with a trail established that became known as Frink's Route or Brown's Wagon Road. As was the case with many early Spanish, Mexican, and American overland routes, the famed Coco-Maricopa Trail that began as an Indian trail served as a mail route between Sonora Mexico and Alta California and then later as the Bradshaw Trail. Spaniards and Mexican travelers were content to travel across the study area and left no record of permanent settlements or outposts.

In 1848, the United States (U.S.) acquired California through the Treaty of Guadalupe Hidalgo. Although California had begun to see the arrival of Americans from the east in the 1830s and 1840s, it was after acquisition by the U.S. that the growth of the American population in California began to increase. Southern California was increasingly developed and occupied as more Americans migrated to the region in pursuit of land, gold and other minerals, agriculture, and speculation interests (Lech 2004).

Initially, southern California was divided into only two counties: Los Angeles and San Diego. In 1853, San Bernardino County was added, placing what is now Riverside County primarily within San Diego County and partially within San Bernardino County. In the early era of the American period, the U.S. government quickly went to work surveying their newly acquired land in order to facilitate settlement; however, the Treaty of Guadalupe Hidalgo bound the U.S. to honor the land claims of Mexican citizens who were granted ownership of ranchos by the Mexican government (Lech 2004; California State Archives 2007). The Land Act of 1851 ("Act to Ascertain and Settle the Private Land Claims in the State of California") established a board of commissioners to review land grant claims. Patents for the Rancho San Jacinto and Rancho San Jacinto Nuevo y Potrero grants were issued in 1880 and 1883 to the heirs of Estudillo and Pedrorena, respectively.

The California Gold Rush of 1849 affected the northern regions of the state but had little effect on inland areas of the south. Men with gold wanderlust poured into the gold regions of northern

California by a variety of routes, but very few tempted the dry and inhospitable passage across the Mojave and Colorado deserts. Nonetheless, some small-scale mining took place within the Colorado Desert in the 1860-1890 eras as a result of strikes near Blythe. Individuals, rather than formal mining companies, eked out their living working claims in the La Paz and Castle Dome areas (Vredenburg et al. 1981). One of these prospectors, William Bradshaw, established an overland stage route that linked the mining boomtown of La Paz, Arizona, with San Bernardino, California. Known as the Bradshaw Trail, the route followed ancient Cahuilla and Maricopa trails that linked wells and springs located throughout the desert.

The coming of the railroads to the deserts would change the face of the region (Fickewirth 1992). In the early 1880s, the Atlantic and Pacific Railroad (now the Santa Fe Railway) completed its track system across the California desert (Myrick 1962). The rail system included railroad sidings, water tanks, and section houses. These sidings and stations were given alphabetical names, including Amboy, Bristol, Cadiz, and so on. Until the coming of paved roads and automobiles in the 1930s, the railroad served as the major transportation artery across the deserts.

One of the main thoroughfares commissioned was Highway 60. This highway was originally slated to follow U.S. Route 66 from Los Angeles to Chicago, but intervention by the southern states led to it becoming one of two major transcontinental highways with U.S. Route 60 running from Virginia Beach, Virginia, to Los Angeles (Cooper 2004). For over 40 years, U.S. 60 served as a key distribution route for goods throughout the southern portion of the U.S. (Cooper 2004). In 1964, California implemented a plan to simplify its highway numbering system, and as a result, U.S. Highway 60 was decommissioned. During the construction of Interstate 10 (I-10), previously Route 10, U.S. 60 was provisionally reinstated from Beaumont to Blythe. When all of Route 10 was upgraded to a freeway, this U.S. Highway designation disappeared, and U.S. 60 became California State Highway SR-60. Portions of I-10 from Beaumont to Blythe still contain markers designating it jointly as I-10 and U.S. Highway 60, while some signs still carry evidence of the original U.S. 60 shield, though covered by the SR-60 signs. Much of the old U.S. 60 is still preserved, with some sections in the desert remaining virtually untouched since it ceased to be a legislative route (Cooper 2004). Additional evidence of U.S. 60 can still be seen in stacks of highway survey monuments used by construction workers while upgrading the road to federal conditions as dictated by the 1926 mandate.

Water has always played an important role in the development of southern California, and the location of the Mojave Desert between the Colorado River and coastal communities predisposed it to becoming the major thoroughfare for aqueducts, pumping stations, and canals. In 1922, California reached an agreement with the other states (with the exception of Arizona) in the Colorado River watershed basin allowing the allotment of water needed to construct the Colorado River Aqueduct (CRA) (Gruen 1998). Construction of the CRA by the Metropolitan Water District (MWD) of Southern California occurred along various points simultaneously between 1934 and 1941, helping to fuel a torpid economy in the midst of the Great Depression. This massive undertaking allowed the MWD, through its contractors and subcontractors,

including Kaiser and Griffith, to employ up to 10,500 people at any given time, with a total employment of 35,648 over an eight-year period, making it southern California's single largest work opportunity during the Great Depression (Gruen 1998). The MWD also established better infrastructure in the desert with the grading of new roads, a water supply system, power lines, and telephone lines, leading to new towns associated with the construction of the CRA (Gruen 1998).

Continuing into the postwar era, Americans began to embrace the automobile as never before. The boom years of the 1950s and early 1960s led to a new phenomenon, the off-road vehicle. Enamored with four-wheel drive, powerful engines, and large tires, a new breed of Americans sped across the California desert. These off-road enthusiasts sought recreation and the sense of freedom that the wide-open spaces of the desert afforded. Magazines of the era, including *Desert Magazine* and *Off Roader*, extolled the virtues of relic collecting, visiting ghost towns, and penetrating the far-flung corners of the desert that would have been virtually unthinkable only a few decades before.

Taken as a whole, the Euro-American period of history in the study area is dominated by development of linear infrastructures (roads, aqueducts, and transmission lines), by mining, and, in the past 50 years, by off-road vehicle use. The military, cattle ranchers, and the occasional farmer have left their mark on the desert too but to a far lesser extent. The archaeological record within the study area will generally reflect these themes and can be expected to span the last 200 years of history.

4.4 Definitions of Resource Types

Three hundred twenty-five cultural resources were identified during the original Class III Inventory effort (McLean et al. 2013). The following descriptions include prehistoric and historic resource types that have been identified within the APE and resource types that are located within the region.

4.4.1 Prehistoric Resources

Prehistoric resources are the surface manifestations of human activity generally associated with early Native American activity into the ethnohistoric period. These resource types include artifact scatters, habitation areas, lithic scatters, bedrock milling features, quarries, rock shelters, and archaeosediments. The resources that were encountered within the APE are discussed below.

Lithic Scatter

A lithic scatter contains a scatter of only flaked stone artifacts, such as cores, lithic debitage, or bifaces that may have been created from one or more distinct lithic reduction episodes. Site P-

33-022367 within the Project APE meets this definition. If no subsurface distribution is evident, a lithic scatter is often referred to as a "sparse lithic scatter."

Diversified Artifact Scatter

This type of site contains a scatter of two or more artifact types, such as cores, bifaces, ground stone or milling tools, pottery, and debitage. Artifact scatters may represent short-term resting areas or special-purpose sites. Ecofacts, such as bone and shell, are seldom present at sites of this type. Analysis of preliminary design plans indicates that diversified artifact scatters will not be subject to Project impacts. However, resources of this type are reported within the vicinity and might be encountered in the future during supplemental gap surveys and/or project construction.

Quarry

A quarry is a location where the primary activity consisted of procuring material for stone tools. Quarry sites may be extensive and involve the mining of lithic material, or the site may be an area where cobbles from outcrops were tested for suitability. Quarry sites do not usually contain ceramics, bedrock milling features, or faunal material. Occasionally, areas exhibiting limited testing of locally available lithic material are referred to as lithic scatters when they are more appropriately limited quarry areas. Analysis of preliminary design plans indicates that quarries will not be subject to impacts. However, resources of this type are on record near the Project APE and might be encountered in the future during supplemental gap surveys and/or project construction.

Milling Station

A milling station is a locality where the primary activity consisted of milling or grinding and processing food. The majority of artifacts at a milling station are milling tools, such as manos, metates, mortars, and pestles. A bedrock milling feature may or may not be present. A light scatter of ceramics and lithic debris may exist, but ecofacts that indicate a habitation site, such as bone and shell, will be absent. Analysis of preliminary design plans indicates that milling stations will not be subject to impacts. However, resources of this type are on record within and near to the Project APE and might be encountered in the future during supplemental gap surveys and/or project construction.

Habitation Site

A habitation site contains a variety of ecofacts and artifacts and may contain multiple features such as bedrock milling features, hearths, or specific activity areas. Habitation sites may have been occupied for a short period of time, seasonally over hundreds of years, or may represent a village site occupied throughout most of the year. When occupied for short periods of time, habitation sites are referred to as "short-term habitation sites" or "temporary camps." When occupied by large numbers of individuals over a long period of time, habitation sites are referred to as "long-term habitation sites" or "villages." In addition to well-defined, often deep, cultural deposits (midden), indications of habitation sites are the presence of fire hearths and burned bone, indicating that cooking occurred. Analysis of preliminary design plans indicates

that prehistoric habitation sites will not be subject to impacts. However, these site types were observed within the study region during survey of the study area and may be encountered in the future during supplemental gap surveys and/or project construction.

Ethnohistoric Period Sites

Ethnohistoric sites are defined as Native American settlements occupied after the arrival of European settlers in California. P-36-002311, Guachama Rancheria, recorded within the Project APE, was reported by a Spaniard named Fray Francisco Hermenegildo Garces, who entered the San Bernardino Valley on March 21, 1776, whereupon he “found a Rancheria of Gauchamas Indians” (Brown and Boyd 1922:8).

4.4.2 Historic-era Resources

Historic-era resources are those with structures or other remains of historic activities greater than 45 years old (per Office of Historic Preservation Guidelines [OHP] 1995). Historically, the Beaumont/Banning area was used extensively, and a number of historic-era resources were encountered within the Project APE, including ranch-related sites, irrigation and water conveyance features, artifact scatters, and isolated artifacts. The historic-era resources encountered in the APE are discussed below.

Historic-era Refuse Deposits

Historic refuse deposits represent the end products or final depositories of waste management behavior, i.e., dumping trash. Deposits can range from simple isolated deposits to more complex deposits that include features and/or are associated with other types of resources. Isolated historic refuse deposits are surface sites, unassociated with other historic remains that contain only refuse materials with no features suggesting other functions. They typically, but not exclusively, date to the twentieth century. More complex sites may be open dumps, representing multiple uses of areas by individuals or groups. Open dumps are areas generally larger than waste piles where trash has been repeatedly dumped by multiple individuals or communities.

Historical Structures/Buildings/Foundations

Historic homestead settings include residential buildings and any associated outbuildings, such as garages, barns, sheds, or equipment housing. During surveys for the Project, often only the foundations of such buildings, including concrete pads or remnant walls, were observed. Historic foundations are considered to be archaeological, while standing buildings/structures are part of the historic built environment. A building, such as a house, barn, church, hotel, or similar construction, is created principally to shelter any form of human activity. “Building” may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn. The term “structure” is used to distinguish buildings whose functional construction was for purposes other than creating human shelter (OHP 1995:3).

Water Conveyance

Other resources encountered within the Project APE include historic water conveyance features, which played an important role in the early agricultural development of the region. Water conveyances can include lined or unlined ditches, pipelines, and any appurtenances associated with altering the natural flow of waterways. Check dams, weirs, and valves are included in this category. The development of the Banning area was heavily dependent on irrigation features, and remnants of these extensive systems are visible today. Analysis of preliminary design plans indicates that historic water conveyances will not be the subject of impacts. However, these site types were observed within the study region during survey of the study area and may be encountered in the future during supplemental gap surveys and/or project construction. Given the potential for impact, several water conveyance resources are currently the subject of archival research to determine NRHP and CRHR eligibility to be completed in the near future.

Historical Electrical Conveyance System

A typical electrical distribution and transmission system, also referred to as a power grid, consists of four components that deliver electricity to individual properties. Electrical power originates at the power plant (component 1) housing a spinning electrical generator powered by a steam turbine, a diesel engine, a gas turbine, or a hydroelectric dam. The power is conveyed from the generator to a transmission substation (component 2) that uses large transformers to intensify the original voltage to a higher level before distributing the electricity out through the grid. High voltage transmission lines mounted to large steel towers (component 3) carry the electricity great distances to the power substation, also referred to as the step-down or subtransmission station, wherein the high voltage is reduced and split for distribution via low-voltage power lines (component 4) mounted to wooden poles. The electricity distributed via these low voltage lines carries power at anywhere from approximately 420kV down to 26kV depending on the recipient customer type. Although perceived as or referred to as a 'system', a power grid, including the grid that constitutes SCE's present-day 55,000-square-mile service territory, is constantly evolving via expansion and upgrades to respond to energy demands. The grid is typically expanded in a piecemeal and incremental fashion with individual transmission lines or substations being installed separately as independently operating facilities to accommodate customer demand. Numerous substations, transmission lines, and distribution lines fall within the APE.

4.4.3 Isolated Artifact

The term "Isolate" refers to a cultural resource consisting of a single object, several objects of a single class, or few objects of two classes. An isolate is one or two distinct artifacts or a few fragments of the same artifact that are too far away (typically more than 30-50 meters) from other artifacts or features to be considered part of a site. Quite often isolates are located in areas of active erosion or within areas disturbed by recent land use; these items are frequently displaced from their original context and disassociated from their provenience. Just as frequently, continued intensive survey of a locus of isolate discovery results in recognition of other artifacts and/or site elements in association, elevating the initial singular discovery and

leading to its recordation with the suite of elements, artifacts, or features thus exposed. Some isolated finds might represent accidental discards—items that are dropped or lost. Interpretation depends on the context and the circumstances of the surface survey examination. The common denominator for isolates, however, is that they each provide information on the expanse of a cultural behavior but rarely provide substantial information concerning that behavior.

5.0 MONITORING PLAN AND PLAN OF DISCOVERY

Construction of the WOD has been designed to avoid impacts to cultural resources within the APE whenever feasible. The construction of new towers and new access routes; the maintenance and modification of existing roads for construction; and the construction of staging areas, wire-pulling sites, and tower construction yards all include ground disturbing activities that have the potential to impact cultural resources. This section outlines the measures SCE will employ to avoid and manage cultural resources within the WOD APE. These measures and their application to each cultural resource identified within the WOD APE are summarized in table form provided in Table 1 above.

Appendix B provides illustrations depicting how WOD facilities will be constructed to avoid cultural resources or, where avoidance is not feasible, how potential effects to those resources will be managed. Consistent with WOD FEIR and FEIS the following management measures will be implemented to train workers in recognizing and taking measures to protect cultural resources; determine the potential for cultural resources to be affected; and to mitigate any adverse effects to Historic Properties

The BLM, CPUC and SCE welcome the participation of Native Americans in the management of cultural resources of significance to Native Americans local to the WOD area. The BLM, CPUC and SCE make no preferential distinction between federally recognized and non-recognized tribes, groups and individuals except as mandated under certain laws such as NAGPRA. It is the intent that Native Americans consulting on the WOD be afforded the opportunity to participate in the development and implementation of worker training programs, identifying and avoiding significant cultural resources, protecting human remains, responding to unanticipated discoveries of cultural materials, determining curation facilities and access for recovered materials, and for coordinating the participation of Native American tribes, groups, and individuals in this process.

5.1 Cultural Resources Avoidance and Protection

Measures will be implemented to either avoid impacts or to minimize impacts to cultural resources wherever appropriate regardless of the NRHP eligibility status. Examples of complete avoidance include:

- re-locating proposed new towers and related construction areas outside of site boundaries, when feasible;
- re-aligning proposed access roads or proposed spur roads to avoid sites, when feasible;
- construction of all support work areas outside of resource boundaries, when feasible;
- flagging of archaeological site boundaries for avoidance;
- monitor road maintenance activities for existing roads within and immediately adjacent to archaeological sites; and

- pre-construction designation of turn-around areas and access routes when work conducted is in close proximity to cultural resources.

Consistent with mitigation measures outlined in the Final EIR/EIS, each NRHP/CRHR located within a 100 feet of the WOD APE will be identified as an Environmentally Sensitive Area (ESA). Each ESA will be flagged for avoidance prior to ground disturbing activities. Periodic (not less than once weekly) monitoring will be conducted to ensure compliance during construction activities.

Methods of flagging ESAs will include the following:

- The Project Archaeologist or Monitors shall flag or provide signage for previously recorded and newly identified NRHP/CRHR ESA that are within 100 feet of the WOD APE.
- The use of "Environmental Sensitive Area" signage shall be used for cultural and biological sensitive areas during construction.
- Signage will be posted at cultural resource ESA(s) by a member of the Cultural Resources Team.
- Archaeological Monitors shall field check and maintain signs. The signs shall remain in place during construction activities within the area.
- A member of the Cultural Resources Team shall remove the signs following the completion of project-related construction activities.
- All NRHP/CRHR sites listed above in Table 1 at Section 2.0 as ESAs shall be flagged as appropriate to ensure avoidance of the resources in those locations. Built resources such as railroads, aqueducts, and roads will not be marked as ESAs.

SCE will make efforts to minimize impacts to archaeological sites that have been evaluated and determined ineligible for NRHP/CRHR by limiting areas of direct impact to the extent possible, by flagging for avoidance and monitoring during construction.

5.2 Worker Training

All construction personnel and monitors shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. SCE shall design a Worker Environmental Awareness Program (WEAP) for cultural resources per the Final EIR/EIS for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that all travel and construction activity must be confined to designated roads and areas. Actual training sessions may be conducted by qualified non-SCE personnel.

Native American representatives have been invited to make presentations in person or on video media to express a Native American perspective regarding the cultural significance of cultural resources associated with the WOD APE. Native American representatives will also be given the opportunity to meet with archaeological monitors to advise them of Native American perspectives and concerns regarding the management of cultural resources of interest to Native Americans, including non-archaeological resources such as plant species and plant collecting areas.

All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the ROW by SCE, their representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws and violation will be grounds for removal from the WOD project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order.

The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- SCE shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notification required in the event of discoveries by project personnel or archaeological monitors.
- Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restriction on collection or disturbance of artifacts or other cultural resources.
- Upon discovery of potential buried cultural materials by archaeologists, monitors or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and SCE's archaeologist notified. Once the find has been inspected and a preliminary assessment made, SCE's archaeologist will consult with the BLM to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs.

5.3 Cultural Resources Team, Native American Monitors and Monitoring Plan

This section defines the procedures that shall be followed during construction activities associated with the WOD Project to avoid and minimize potential impacts to cultural resources. In addition, this section also discusses the WOD cultural resources team and responsibilities and describes the monitoring plan. The objectives of the monitoring plan are to: protect known significant structures, sites, or objects from construction impacts; to identify, during construction, any subsurface archaeological materials (unanticipated discoveries), and to

protect said resources from damage while archaeological materials are evaluated for eligibility for the NRHP/CRHR by the SCE Lead Archeologist and the Consultant Project Manager and eligibility recommendations are provided to the BLM Archaeologist for review and approval. Contact information is provided below in Table 4.

5.3.1 Cultural Resources Team

SCE Lead Archaeologist (SCE LA)

The SCE Lead Archaeologist (LA) provides cultural resources technical expertise, management oversight and direction to the cultural resources project team and consultants for all activities.

SCE Work Package Archaeologist(s) (SCE WPA)

The SCE Work Package Archaeologist(s) (WPA) communicates with the Consultant Project Manager (CPM) to assign consultants to conduct cultural resources work to support Project compliance with the NHPA and CEQA guidelines as they relate to the management of cultural resources, as well as to the mitigation, protection and preservation of Historic Properties and Historical Resources respectively within the WOD Project Area.

Consultant Project Manager (CPM)

The Consultant Project Manager (CPM) facilitates the daily assignment of monitors and specialists conducting the necessary surveys prior to and during construction; provides field oversight of monitors; facilitates the communication process in the field between monitors, the Construction Management Team and Construction Contractor, as needed; and coordinates with the SCE LA/WPA on cultural resources project supporting documents.

Lead Archaeological Monitor (LAM)

A Lead Archaeological Monitor (LAM) will be assigned to each work package. The LAM reports to the CPM and acts as a field point of contact for the CPM and LA/WPA. The LAM provides daily assignments to the monitors and specialists conducting necessary surveys prior to and during construction; determines the level of construction monitoring needed (e.g., fulltime, periodic) in coordination with the CPM and SCE LA/WPA based on the extent of construction activities; communicates with the CPM and SCE LA/WPA on the construction schedule; provides field oversight of monitors; participates in construction meetings, as appropriate; facilitates the monitoring and communication process in the field between monitors, the Construction Contractor, as needed.

Archaeological Field Monitors

The Archaeological Field Monitors (AFM) report to the LAM and are responsible for: flagging or marking cultural resources designated as Environmentally Sensitive Areas (ESAs) in the field, as necessary; monitoring all personnel and Project activities on-site for compliance with the management recommendations in this CRMP including adherence to mitigation measures, permit conditions, and requirements of other approvals; monitoring construction crews and

Table 4. Contacts for Emergency Discovery Procedures

Contact	Telephone	E-mail	Involvement
Audry Williams, SCE Lead Archaeologist			SCE Lead Archaeologist
George Kline BLM, Palm Springs			Federal Lead Agency, Project Archaeologist
Susan Goldberg Applied Earth Works, Archaeologist			CPUC State Lead Agency, Project Archaeologist
Native American Heritage Commission			Native American traditional cultural properties and human remains
Riverside County, Medical Examiner-Coroner, East County Dispatch			Identification of human remains
San Bernardino County, Deputy Coroner			Identification of human remains

providing clarification on mitigation measure requirements and disturbance area boundaries; communicating with construction crews and other environmental monitors on mitigation measure requirements; implementing and following the Field Incident Process; resource discoveries, etc.; initiating temporary work holds due to non-compliance issues, clarifications, or sensitive resource discoveries; and communicating directly with the SCE LA/WPA, CPM, LM as needed to extend construction holds or work-around strategies. The AFM prepares and submits daily reports, including photographs as applicable, to the LAM for review and comment.

Native American Monitors

Tribal Monitors shall be retained to monitor ground disturbing activities where prehistoric and protohistoric resources are located. Tribal Monitors shall be retained for data recovery within prehistoric and protohistoric resources identified for data recovery, Tribal Monitoring shall occur through a designated Tribal Monitoring Program, to be established in consultation between BLM, SCE and the Tribes. Tribal Monitors shall be selected through consultation with the consulting Tribes and shall be contracted through the Tribal Monitoring Program.

Native American Tribes or Tribal Organizations who choose to participate in the construction monitoring phase of the Project shall prepare a list of individual tribal members or qualified individuals to act as a Tribal Monitor on behalf of their Tribe or Tribal Organization. Tribal Monitors will be selected on a rotating basis. For example, if there are two participating Tribes and two Tribal Monitors are needed for X consecutive days Tribe A will provide one Tribal Monitor and Tribe B will provide one Tribal Monitor. If another Tribal Monitor is required for the same time frame, Tribe A will provide a second Tribal Monitor and so on. If it is the turn of Tribe A to provide a Tribal Monitor but no monitors are available, SCE will request a Tribal Monitor from Tribe B and so on. Rotation duration for Tribal Monitors shall be one calendar

week, Monday to Sunday as required by the Project schedule. A rotation shall not exceed seven consecutive calendar days unless other Tribal Monitors are unavailable or due to special circumstances as agreed to in advance by Project management.

The WOD Project area spans multiple Tribal areas. The Tribe affiliated with a specific area will be considered first to provide Tribal Monitors. If multiple Tribes or Tribal Organizations are affiliated with a specific area, Tribal Monitors will be selected on a rotating basis as outlined above.

The designated Tribal Monitor shall participate in the evaluation of Native American artifacts. In addition, the Tribal Monitor shall be invited to assist with recordation of any find. In the event that data recovery excavation is necessary, the Tribal Monitor shall be invited to assist in excavation and site documentation.

If efforts to obtain the services of a qualified Tribal Monitor are unsuccessful, SCE, as applicable, shall immediately inform the BLM and CPUC. The BLM shall coordinate with the Tribes to identify potential monitors that may be contacted.

5.3.2 Cultural Resources Monitor Plan

Cultural resource monitoring on the Morongo Band of Mission Indians Reservation (Morongo) will require that the cultural resources contractor contact the Bureau of Indian Affairs (BIA) for a determination of the need for and Archaeological Resources Protection Act (ARPA) Permit. Cultural resources monitoring on BLM Lands will require that the cultural resources contractor contact the BLM for a field work authorization for SCE's WOD Project.

An Archaeological Field Monitor shall be present during ground disturbing activities at all areas identified in Table 1 in Section 3.0. These sites have been identified as containing cultural resources and or are areas that have been identified as sensitive in order to ensure these areas are not inadvertently impacted by construction activities. In addition, areas deemed sensitive will also be monitored during construction at least during initial ground disturbing activities.

For the purposes of this CRMP, archaeological construction monitoring is defined as on-the-ground, close-up observation by an Archaeological Field Monitor. The Archaeological Field Monitor shall observe ground disturbance for any kind of archaeological remains that might be exposed by machines during construction activities. These activities include mechanical disking, scraping, grading, and excavating. The AFM shall monitor ground disturbance until the LAM certifies that culturally sterile alluvium or underlying geologic formations have been reached.

In areas of construction where excavation equipment is actively removing dirt and hauling the excavated material 200 feet (or further) away from the active excavation, one AFM shall monitor the excavation and one additional AFM shall monitor the spoils pile. Only one AFM is

required if the ground disturbing excavation and dumping of materials activity is maintained within 200 feet of each other.

SCE shall provide the CPM with a construction schedule prior to the start of earth disturbing activities. The CPM or LAM in consultation with the SCE LA/WPA shall then establish a schedule for the LAM and AFM(s) to follow and a protocol for communication with construction who shall confer with the CPM or LAM on any changes to construction dates.

The AFM shall maintain daily logs of Project-related construction monitoring activities. The information shall include the amount of time spent at a construction monitoring location, the crew being monitored, the construction supervisor, construction activities monitored, and activities in which cultural resource problems, noncompliance activities, concerns, or identification of a find occur. The AFM shall complete weekly and monthly summary reports of construction progress and status of cultural resource related issues. The SCE LA and CPM oversees all construction monitoring activities and is responsible for the removal or relocation of a monitor.

5.4 Plan of Discovery of Cultural Resources

This section discusses the procedures that will be implemented for the WOD Project if unknown/undocumented cultural resources are discovered during the construction. In addition, this section provides guidance to differentiate between cultural resources that will not require avoidance (isolates and selective portions of sites previously determined not to be or hold the potential to be a historic property), and cultural resources that will require avoidance. Since it is not possible to predict which kinds of cultural resources, if any, might be discovered during construction monitoring, the cultural resource types described below are necessarily generic.

In general, if any previously unknown/undocumented cultural resources are discovered during the construction of WOD, all work within 100 feet of the discovery will be halted and the onsite AFM will evaluate the discovery. If an AFM is not onsite, all work within 100 feet of the discovery will be halted and an Environmental Monitor will be notified immediately. The AFM or Environmental Monitor will notify the CPM, LAM, SCE LA/WPA or SCE Environmental Coordinator immediately. Activities within 100 feet of the discovery will not resume until the discovery has been assessed by a member of the Cultural Resources Team and the area released for construction by the SCE LA.

5.4.1 Unanticipated Discoveries-Isolated Finds Procedures

The AFM will carefully inspect the ground surface around the discovery and the displaced dirt in order to determine whether the discovery is an isolated find (fewer than three items) or a site (three or more items, or a feature). If the find is determined to be an isolated find (with the exception of human remains), the discovery will be documented, reported and described in the

daily monitoring log. The find will be recorded on applicable Department of Parks and Recreation forms that will at minimum include a Primary Record, a photograph, a location map and a recordation of the geographic location with the use of Global Positioning System. The BLM, BIA and CPUC will be apprised of such discoveries in the Monthly monitoring summaries.

Isolated finds deemed diagnostic may be collected in consultation with the BLM, CPUC and Tribes such as:

- Prehistoric
 - Ceramics: decorated, rim, or basal sherds, lugs, figurines, ear spools, complete vessels
 - Lithics: projectile points, exceptional/unusual ground stone, exceptional/unusual chipped-stone artifacts.
 - Items deemed significant by the consulting Tribes.
- Historic
 - Ceramics: decorated rim or basal sherds, makers marks, complete vessels.
 - Glass: cut, pressed, or decorated, vessel bases and lips, labels, complete vessels

5.4.2 Unanticipated Discoveries-Archaeological Sites Procedures

If the discovery is determined to be an archaeological site, the AFM has the authority to initiate a temporary hold on construction activity if the discovery is located in an active construction area. Upon the discovery of unanticipated finds within an active construction area, work will be stopped within 100 feet, and the LAM/CPM and SCE LA/WPA will be contacted immediately. The AFM will not redirect the work crews but will work with the on-site construction supervisor/foreman to protect the unanticipated discovery, including but not limited to establishing an appropriate buffer around the find.

If the LAM/CPM does not immediately answer the notification call, the AFM will contacting the SCE LA/WPA directly. Once contact is made the Cultural Resources Team will assemble the information necessary and make the decision about the nature of the resource and how it should be reported. The SCE LA/WPA will notify the construction manager as soon as a temporary hold has been initiated.

The Cultural Resources Team and construction manager will work together to formulate an adequate response to any modifications in construction and monitoring procedures. Until the appropriate response is resolved, the area with the find can be recorded, mapped, and stabilized by the AFM. It shall be the SCE LA choice whether there should be a general work halting at that location until an on-site inspection of resources can be completed, or whether work can continue with the current level of monitoring. The SCE LA shall make a decision on how to proceed within the temporary hold.

Discovery of archaeological sites within the project APE (the project corridor), but outside of areas of impact shall be reported to the LAM by the end of the work day.

The Cultural Resources Team will work together to determine that a discovery found while monitoring is in fact an archaeological site requiring further exploration or write-up. If it is determined that the find is a site it will be recorded on applicable Department of Parks and Recreation forms, the forms will at minimum include a Primary Record, a photograph, a location map and a recordation of the geographic location with the use of Global Positioning System. The SCE LA, in consultation with construction personal, will assess if the site can be protected and/or avoided by construction with the methods outlined in Section 4.1. If the site can be avoided and protected, the discovery will be documented, reported and described in the daily monitoring log. The BLM, BIA and CPUC will be apprised of such discoveries in the weekly monitoring summaries.

5.4.3 Unanticipated Procedures for Sites that Cannot Be Avoided

In the event that construction activities cannot be relocated in order to avoid cultural resources, the SCE LA will notify the BLM, BIA and Morongo, the CPUC by telephone of the nature and extent of the discovery. In the event of unanticipated discoveries on Morongo Reservation, the Morongo and BIA archeologist must be contacted. Any proposed collection/excavation and removal of archaeological resources on Indian trust land will require an ARPA Permit that is issued by BIA at the Regional Office. In consultation with the SCE LA, the BLM, BIA and Morongo as appropriate, CPUC and interested tribes will determine what additional fieldwork is necessary, such as limited test excavation, to determine the site's potential eligibility for the NRHP/CRHR. It may be determined that a site visit by the BLM, BIA and Morongo as appropriate, and SCE LA, is necessary to make that determination.

If test excavation is required to evaluate a discovery, the BLM, BIA and Morongo as appropriate, CPUC, interested tribes and the SCE LA will formulate a testing program, and it will be implemented. Upon completion of a testing plan, the BLM, BIA and Morongo, CPUC, and interested tribes as appropriate, will have five (5) business days to review the proposed testing plan. In general, any evaluation effort will be focused on the area of discovery within the area of direct effect, including a reasonable buffer (not more than 10 meters from the maximum extent of the find). The focus will be to determine the nature of the archaeological resource and to assess the quantity, quality, and variety of preserved archaeological items that are or may be present. Evaluation will include shovel test pits of a sufficient number to characterize the extent of subsurface archaeological deposits and a minimum of one sample unit to evaluate the condition of the discovery and acquire a controlled sample of the preserved cultural materials.

A Native American monitor will be present during evaluation field work of prehistoric and protohistoric resources, as well as during any subsequent ground-disturbing work at the discovery location. Upon completion of field work, the SCE LA and/or CPM will have five (5) business days in which to prepare a summary letter report assessing the archaeological site's eligibility and recommending appropriate treatment measures, such as the need for archaeological data recovery, if the archaeological site is recommended eligible to the

NRHP/CRHR. The letter report will be submitted to the BLM, BIA and Morongo, the CPUC, and interested tribes as appropriate who will have ten (10) business days to review the report and evaluate the proposed treatment measures, if deemed necessary. Determinations concerning NRHP/CRHR eligibility and the implementation of proposed treatment measures will be made by the BLM and submitted to the SHPO for concurrence for a ten (10) day review period. If the determination is that the discovered resource does not qualify for nomination to the NRHP/CRHR, the BLM will issue a written notice-to-proceed for Federal land in consultation with the CPUC for private lands.

The level of effort will be dictated by the nature and extent of the discovery and on the results of the initial evaluation effort. The focus will be on recovering a sufficiently large sample to characterize the discovery and to address regional research questions, as appropriate. Upon completion of any required fieldwork, the SCE LA will prepare a brief interim letter report summarizing the results. The BLM, BIA and Morongo, CPUC, and interested tribes as appropriate will have five (5) business days to review the letter report and determine whether or not construction work at the discovery can resume or if additional sampling is required. The BLM, in consultation with the CPUC, will notify SCE when work can resume. A final data recovery report will be prepared after laboratory studies and analyses have been completed.

5.4.4 Discovery of Human Remains

If human remains and/or cultural items (funerary objects) defined by the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, as amended (25 USC 3001 et seq.; Public Law 101-601) are inadvertently discovered during construction activities, all work in the vicinity of the find will cease within a 200-foot radius of the remains, the area will be protected by posting a monitor or construction worker to ensure that no additional disturbance occurs, and the Riverside County Coroner, the BLM Field Manager, BIA, and the Morongo Tribal Official as appropriate, and the CPUC will be contacted immediately by the SCE LA pursuant to Section (3)(d)(1) of NAGPRA.

If human remains and/or cultural items are discovered on Morongo Reservation, then NAGPRA applies. This requires notification to the tribal official, and although not required under NAGPRA, it is appropriate also to contact BIA, particularly if there is to be a removal of remains or associated items that would require BIA to issue an ARPA permit.

In addition, the SCE LA will notify the project manager. If the discovery occurs at the end of the work day, the area must be secured by posting a guard and/or covering the area with ply wood or other materials that will not damage the remains (if remains are found below surface in a trench) until the BLM Field Manager provides specific protection and treatment guidance.

The coroner will have two (2) working days to examine the remains after being notified in accordance with California Health and Safety Code (HSC) Section 7050.5. If the coroner determines that the remains are Native American, and not subject to the coroner's authority,

and are located on public lands, the coroner has twenty-four (24) hours to notify the BLM or the BIA as appropriate of the determination. If the remains are found to be Native American as defined by NAGPRA, the BLM or the BIA as appropriate will then take the lead in treatment of those remains and cultural items found in association with them by implementing that agency's procedures for complying with NAGPRA. The NAGPRA Plan of Action, Appendix C, would be implemented at this point. In addition, work may be delayed in the vicinity of the remains for at least thirty (30) days, in order to conduct required consultation.

If the coroner determines that the remains are Native American, not subject to the coroner's authority, and are located on private or state land, the coroner has twenty-four (24) hours to notify the Native American Heritage Commission (NAHC) of the determination. The NAHC is required (Public Resources Code Section 5097.98) to identify a Most Likely Descendant (MLD), notify that person, and request that they inspect the remains and make recommendations for treatment and/or disposition. The MLD will have Forty-eight (48) hours to inspect the find and make recommendations for treatment of the human remains. Work will be suspended in the area of the find until the BLM and/or land owner, as applicable, approves the proposed mitigation and treatment of the human remains. If the NAHC is unable to identify a descendent, or the descendent identified fails to make a recommendation, or the recommendation of the MLD is rejected and the mediation provided for in Public Resources Code Section 5097.94 subdivision (k) fails to provide measures acceptable to the landowner, the human remains and associated burial items will be reburied, with appropriate dignity, on the property in a location not subject to further subsurface disturbance.

Pursuant to Public Resources Code Section 5097.94 subdivision (f), if multiple sets of human remains are uncovered, or if the find appears to be part of a prehistoric cemetery or burial area, the SCE LA will notify interested tribes and consult with them as to the treatment of the burial area and disposition of the remains and associated cultural material.

Construction may continue 200 feet from the discovery of human remains in areas that would not be likely to affect buried cultural resources near the find, as determined by the SCE LA and BLM (if on public lands) or CPUC (Private Lands).

5.5 Curation

For lands administered by the BLM and Morongo Reservation are involved, all records and materials collected shall be curated in accordance with 36 CFR Part 79 and the provisions of NAGPRA, 43 CFR Part 10, as applicable. Curation and disposition of cultural materials obtained from state-owned lands and records pertaining to cultural resources on state-owned lands will be curated with materials obtained from federal lands. If cultural materials are recovered from private lands or Morongo Reservation, BLM will seek to have the materials donated through a written donation agreement to be curated with other cultural materials. BLM will attempt to have all collections curated at one location. The materials collected during the WOD project will

be curated together.

Curation of materials collected on lands managed by the BLM or Morongo Reservation resulting from the implementation of this CRMP will be determined in consultation with the BLM, BIA and Morongo as appropriate. Should the agency decide not to curate cultural materials, materials collected will be returned to the resource from which they were collected. If the agency chooses to curate materials, all publicly owned items, records, and materials resulting from implementation of this CRMP shall be maintained at a local curatorial facility in accordance with standards specified in 36 CFR Part 79. A curatorial agreement may be executed between the BLM, SCE and the curatorial facility prior to the implementation of any archaeological data recovery that may be required under the terms of this CRMP. If no suitable facility can be identified to house the material recovered during implementation of this CRMP, the BLM shall consult with the SHPO to identify and finalize alternative arrangements.

Archaeological and other materials recovered from private lands will remain the property of the legal landowner unless the arrangement outlined above has been made by the BLM for the legal transfer of ownership of such remains to a qualified curation facility. If curation involves Native American materials on private land, Native Americans will be consulted to the extent possible. Cultural materials found during Phase 1 survey or Extended Phase 1 investigations were not collected. Artifacts were described and, if appropriate, photographed and left in place or returned to the excavation feature. In the event of an unanticipated discovery requires data recovery, then curation will be determined on a case-by-case basis in consultation with the appropriate agency, landowner and Tribes. In these instances, SCE will implement a discard policy for classes of artifacts/materials recovered from evaluations or data recovery programs. This class of materials from significant features may be discarded after they have been analyzed, cataloged, counted, and weighed. Such materials may be discarded because they lack long-term research values, occur in excessive quantity, are in poor condition, and/or pose health and safety risks. Discarded items will be recorded in the catalog and described in the site report. The discarded classes of remains may include the following:

- Window glass
- Glass lamp chimney, undiagnostic bottle, and undiagnostic glass fragments
- Asphalt, concrete, and utility pipe fragments
- Nails (after being identified by type and given MNI totals)
- Metal scraps, sheets, strips, and wire
- Corroded, non-temporally diagnostic ferrous items
- Slag and amorphous metal and glass
- Large items for which curation may be a problem (e.g., barrel hoops, porcelain toilets).

6.0 SITE RECORDING AND EVALUATION OF CULTURAL RESOURCES

If archaeological resources are discovered within the project APE during construction, they will be recorded and evaluated using the procedures outlined below.

6.1 Site Recording Methods

The Project Archaeologist, Field Director, or Monitor will record cultural resources on DPR Form 523 using the "Instructions for Recording Historical Resource (OHP 1995) and to the standards of the California Historical Resources Information System (CHRIS). The entire site area will be recorded. A tape measure and compass or Global Positioning System (GPS) will be used to record the distance and bearing of surface artifacts from the site datum and to prepare a detailed scale map of prominent site features. This map will show landmarks, artifacts, and test unit locations. The site will also be plotted on a United States Geological Survey 7.5' topographic map.

The field crew will also photograph the site and record standard site information about the topography, physiography, vegetation, location, and artifacts and features (mapped in plan view and/or profile, as appropriate). No artifacts will be collected for curation unless the artifacts are in danger of being stolen or destroyed, or at the request of the BLM Archaeologist. Any potential human remains must be treated as described in Section 4.4.4. A permanent site number will be obtained from the appropriate information center. The draft site form, along with maps and photos, will be submitted to the BLM, the BIA as appropriate and the CPUC for review and approval. Once approved, the final site form will be submitted to the appropriate information center of the CHRIS.

6.2 Site Evaluation Methods

Site avoidance will be the preferred method of dealing with cultural resources during construction of WOD. However, if a newly discovered resource is potentially significant and if avoiding the resource proves infeasible (as determined through consultation between the Project Archaeologist and the BLM or BIA as appropriate), then site evaluation will proceed as outlined in Sections 5.4 and 5.5 above.

6.2.1 Eligibility Criteria for Listing in the NRHP

The standards employed in this analysis are consistent with evaluation of eligibility for listing in the NRHP, as described below.

Section 106 of the NHPA requires that a federal agency, or those they fund or permit, must take into account the effects of the undertaking on historic properties within the APE and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the potential effects of the undertaking.

Cultural resources significance is evaluated in terms of eligibility for listing in the NRHP. National Register criteria for evaluation at 36 CFR Part 60.4, states, "the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b) that are associated with the lives of persons significant in our past; or
- c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) that have yielded, or may be likely to yield, information important in prehistory or history."

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 CFR Part 800.5. An effect is considered adverse when prehistoric or historic archaeological sites, structures, or objects listed in or eligible for listing in the NRHP are subjected to the following effects:

- physical destruction of or damage to all or part of the property
- alteration of a property
- removal of the property from its historic location
- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features
- neglect of a property that causes its deterioration
- transfer, lease, or sale of the property

6.2.2 Significance Criteria under CEQA

Under CEQA Guidelines, section 15064.5 defines "historical resource" as:

- a resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the CRHR (mandatory significance); or
- a resource included in a local register of historical resources or identified as significant in an historical resource survey unless the preponderance of evidence suggests it is not significant (presumptive significance).

An historical resource still may be considered significant in the absence of a federal, state, or local listing, if substantial evidence demonstrates its significance (discretionary significance). This includes any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering,

scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource shall be historically significant if it is:

- a) 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.
- b) Associated with the lives of persons important to local, California, or national history.
- c) 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.
- d) Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Critical to the eligibility of a resource for the CRHR is its integrity. The Office of Historic Preservation (OHP) offers the following guidance for assessing the integrity of a resource under CEQA:

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 (OHP 2002:3).

The Guidelines state that CEQA applies to impacts on archaeological sites and direct that, when a project would impact an archaeological site, the lead agency should first determine whether the site is a historical resource as defined immediately above or whether it meets the definition of a "unique archaeological resource" per Section 21083.2 of the Public Resources Code.

"Unique archaeological resource" refers to 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 it:

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

6.3 Research Design

The following research design will aid the assessment and interpretation of Project resources and any additional resources identified during future gap surveys or construction. The primary goals of archaeology include reconstructing history, understanding past human behavior, and determining cultural change over time. The archaeological record, which includes the physical remains from past human activity, is used to address these issues. The theoretical premise on which most archaeology is based is Cultural Materialism, or the idea that human behavior is related to economic, environmental, and social aspects of culture. Archaeologists attempt to understand these aspects of culture by qualitatively and quantitatively analyzing the physical artifacts left behind as a result of past activities. Artifacts found *in situ* preserve much of the original context of use and meaning that surrounded the creation and use of the object. Direct relationships between the people, economy, environment, and the social aspects of culture can be observed or inferred.

The models, theories, and approaches presented below attempt to reconstruct human behavior based on the physical remains left behind. The discussion begins with three generalized models of behavior and concludes with several models applicable to hunter-gatherer societies.

6.3.1 Optimal Foraging Theory

One of the most general and widely used theories applied to hunting and gathering groups is the theory of optimal foraging. Originating in evolutionary ecology, optimal foraging with respect to anthropology deals with four variables: (1) diet breadth or food choice, (2) foraging location or patch choice, (3) foraging time, and (4) foraging group size (Winterhalder 1981:14; Bettinger 1991:84). To this, Bettinger (1991:14) adds a fifth variable, settlement location. Optimization pertains to the efficiency, relative to energy costs, with which foraging activities occur. The assumption is that increased efficiency leads to an increase in level of fitness. In this respect, the concept of optimal foraging relates to group or species viability and, as such, is a biological concept forwarded to explain relative fitness among groups of organisms. Anthropologically, the concept has been used to explain differences in foraging techniques over time.

6.3.2 Forager-Collector Model

A distinction has been made between foragers practicing residential mobility and collectors practicing logistical mobility in order to examine organizational dynamics of prehistoric hunting and gathering cultures (Binford 1980). Foraging, where resource exploitation is marked by frequent residential moves, is best suited to conditions where resources are clustered. Problems arise with foraging strategies when resources are differentially distributed or occur beyond a normal daily foraging radius. These problems can be solved by developing a collector strategy, where splinter groups form to retrieve distant resources (Binford 1982:15). Storage strategies, while useful in solving some problems encountered during foraging, are important factors

contributing to increases in sedentism. Ethnohistoric accounts (Steward 1938; Thomas 1983; Shackley 1990) for hunter-gatherers in arid western North America indicate that groups spent part of the year utilizing stored resources.

Few groups practiced either forager or collector strategy exclusively, instead employing a combination of the two during different seasonal and environmental conditions. Alternatives between these strategies can be viewed as adaptive responses to changing environmental conditions and changes in group size and organization (Jochim 1981). Recognition of the contrasting settlement patterns in the archaeological record is difficult and is being constantly reconsidered and reexamined (Thomas 1983; Kelly 1985; Shackley 1987; Kelly and Todd 1988; Byrd 1996). However, the basis for identifying an individual site is the material deposited by human use and occupation at the site under consideration. In this respect, models of hunter-gatherer resource exploitation are comparisons developed by the differential recovery of material remains from sites.

6.3.3 Landscape Theory

The relationship between humans and nature is also a central aspect of landscape theory, which attempts to eliminate artificial barriers between nature and culture and between culture and environment. Culture and nature are unified, and environmental change simultaneously constrains and enables human action. Therefore, whether studying economics, politics, or subsistence strategies, approaching data on a landscape level can provide a wider and more comprehensive picture of the society as a whole.

6.3.4 Prehistoric Resources Research Questions

Interpreting archaeological data collected in the field is dependent on understanding the context of the observed objects and features. Establishing the context of a site provides the foundation for addressing other research questions and provides a cultural context in which to analyze cultural material. This analysis can provide a basis for determining the significance of the resource and the applicability of the NRHP and CRHR evaluation criteria.

Establishing the chronological context of a site is one of the most important goals of research, provides the foundation for addressing research questions, and provides a cultural context in which to analyze cultural material.

- What time period or periods are represented at the site?
- Do the recovered artifacts represent a specific time period or do they lack temporally diagnostic features?

The following research questions are intended to address a broad range of both general and specific topics, particularly concerning site integrity, lithic technology, settlement patterns, subsistence, and trade and exchange.

Site Integrity/Site Formation

Integrity refers to how well stratigraphy and artifact association are preserved. The integrity of a site is crucial in determining research potential and eligibility for the NRHP/CRHR. Many sites in the APE have been affected by development, agriculture, and bioturbation, limiting the integrity and therefore research potential.

- What are the boundaries of the intact, primary deposits?
- Is there evidence of significant modern disturbance, including bioturbation, at the site?
- Are clear stratigraphic layers that indicate matrix integrity observed in the construction excavation areas? Are the recovered artifacts clearly associated with specific stratigraphic layers?
- Is the site located in an erosional environment, in a depositional environment, or a combination of the two?
- If located in a depositional environment, does the site appear to have a relatively even stratigraphic deposition that can be used for chronological reconstruction?
- Are there other indicators of site formation that are apparent, such as relatively unweathered ecofacts that would have to be buried quickly to be preserved or aeolian deposits that would have been deposited during periods of low moisture?

Settlement Patterns

The nature of the distribution of how people have settled an area is a main focus of archaeological studies. In general, settlement patterns are usually associated with how a particular society used the available resources in its region and/or an expression of cultural traditions. Changes in artifact densities and diversity distributed across the site can indicate distinct processing areas, suggesting a more complex use of the site.

- What activities are represented at the site and do they represent specialized activities?
- What role did these activities play in the larger economic pattern?
- Do different areas of the site reflect specific activity locations, e.g., areas for resource processing, ceremonial or spiritual areas, or living areas?
- Do the artifacts recovered reflect a variety of activities or one specific activity that may have occurred at the site?

Subsistence

Reconstructing prehistoric subsistence patterns is of particular interest to southern California archaeologists with regard to the environmental changes that appear to affect resource exploitation during the prehistoric period.

- What resources are being exploited at the site?
- Do the artifacts recovered indicate a change in the number and types of resources being exploited over time?

Trade and Exchange

The protohistoric and historic record for southern California indicates that seasonally cyclical and geographically dispersed resources were perhaps the principal commodities in prehistoric and historic trade and exchange networks. In addition, lithic materials utilized for both hunting

and grinding were both obtained locally and through regional trade networks. For example, there are three obsidian sources that are relatively proximate to southern California, including Obsidian Butte in Imperial County, San Felipe in Baja California, and the Coso Range in Inyo County.

- Are the artifact material types locally available? What exotic materials are represented?
- Are there any obsidian artifacts? What is the source of the obsidian?

6.3.5 Historic Resources Research Questions

Successful archaeological studies, coupled with thorough documentary research, provide important reconstructions of homestead economics, subsistence activities, social behavior, ethnic attributes, and demographics. When used as a comparative database, homestead sites can provide information about differences between urban and rural households, households from different regions of the country, and homesteads from different temporal periods. Assessments can be made of how households with different attributes adapted to national and regional events. Appropriate research themes include self-sufficiency, responses to cycles of economic change, acculturation and ethnicity, subsistence strategies, transportation systems, frontier politics, technology, economic patterns and status, land-use/settlement patterns, environment, and architecture.

The archaeological and architectural record has the potential to supply additional important information on families and their resources that is not available from written documents. Systematic recovery (through excavation) and analysis of possible privy pits and refuse deposits are also likely to yield important information. Artifacts related to food consumption (e.g., ceramics, glassware, pots, bottles, faunal remains, seeds, and pollen) provide details of diet, eating habits, and consumer behavior. Personal items lost and discarded reflect the site occupants' participation in both local and statewide markets (e.g., toiletry items, buttons and fasteners, medicines, gaming pieces, and religious items). Structural and industrial items provide information on the buildings and their participation in the modern industrial world, especially on adaptation and reuse over time.

A farm/ranch is more than a collection of artifacts and buildings, and the function of a ranch as a place for livestock or milk production must be studied as an agricultural enterprise. Archaeological studies must also focus on the types, numbers, and locations of outbuildings, activity areas, and trash disposal and how they changed over time.

Settlement pattern and house type vary with economic class, while artifact patterns in the post-industrial world are relatively homogeneous among social and ethnic groups. Interestingly, the size of sheet refuse areas on the modern farm are substantially smaller and less dense than in the past, as more activities are mechanized or occur inside and farmyards are used very differently now than in traditional rural farmsteads.

Historic Context

Agriculture/ranching played a prominent role in the socioeconomic development of Riverside County from the latter half of the nineteenth century. The earliest agricultural activity in the San Geronimo Pass-San Timoteo Canyon area was cattle ranching, with Mission San Gabriel creating the Rancho San Bernardino as a cattle ranch to support the Mission. Following the increased population in the project area of Anglo-American settlement, grain production (including barley, oats, and wheat) emerged as a primary crop for many farmers. The California Gold Rush and concomitant increase in population created a large market for dairy products. Due to the limits of early transportation systems, most dairy production was located close to cities. Construction of railroads in the 1870s allowed the dairies to function farther from population centers, which was desirable due to the lower cost of land in more remote locations. During the railroad boom of the 1880s and beyond, the dairy business in the San Bernardino Valley region was an important early industry that provided milk products to the burgeoning cities of Redlands and San Bernardino. Presence of the railroad also allowed for transport of hay, grain, and cattle. Fruit trees were first grown in the project vicinity in the late 1840s, ushering in the emphasis on citriculture in southern California. By the 1880s, grain farming was surpassed by citriculture as the dominant agricultural pursuit in western Riverside County. In the 1900s, citrus farming was promoted locally and resulted in, according to the California State Department of Parks and Recreation, a "second Gold Rush." Agricultural enterprises, which had served the area well for over 100 years, were to change forever with the advent of World War II. The overwhelming need for housing engendered by the GI Bill and the postwar building boom inaugurated the transition into residential development that continues to this day.

Isolated Historic Refuse Deposit

The following context protocol applies to recording and making determinations of NRHP/CRHR eligibility for the very common class of historic sites known as isolated historic refuse deposits. Generally, isolated historic refuse deposits are surface sites, unassociated with other historic remains that contain only refuse materials with no features suggesting other functions. They typically, but not exclusively, date to the twentieth century.

Isolated historic refuse deposits represent the end products or final depositories of simple waste management behavior, i.e., dumping trash. They are most often waste piles representing single or minimal uses of areas by individuals or groups. Waste piles are roughly bounded, open, mostly surface deposits of trash, and they can be variable in their contents. When found in proximity to the historic properties generating the trash, they are treated as features of those properties (Sullivan and Griffith 2005: 12-16). When isolated from their sources, they qualify under this protocol.

More complex sites may be open dumps, representing multiple uses of areas by individuals or groups. Open dumps are areas generally larger than waste piles where trash has been repeatedly dumped by multiple individuals or communities. Like waste piles, they are roughly bounded and open, but open dumps represent long-term deposition from many sources and may contain multiple loci or considerable depth from trash build-up over time (Sullivan and

Griffith 2005:16). Only the simplest open dumps are included in this protocol, specifically those with surficial deposits only.

By definition, isolated historic refuse deposits have no physical proximity to the sources of the waste that establish associations with historic contexts. In addition, the deposits may be mixed with other trash. As such, they have limited or no research potential (Sullivan and Griffith 2005: 15-16, 27). Isolated historic refuse deposits, both waste piles and open dumps separated and located at distances from the sources that generated their rubbish, are commonly found throughout the vicinity of the Project APE.

Isolated historic refuse deposits lack integrity of location, design, setting, materials, workmanship, feeling, and most importantly, association. Isolated historic refuse deposits are disassociated from their sources and thus from their historic contexts. The waste in isolated historic refuse deposits has been removed from its source and may be mixed with other deposits. Thus, the key to ineligibility of isolated historic refuse deposits is that trash dumps have no integrity of association with adjacent or nearby eligible properties for which historic contexts are or can be established. They represent variable and idiosyncratic behavior by unknown persons or groups. Without historic contexts, isolated trash dumps lack significance under any NRHP or CRHR criteria.

Many refuse deposits are found at the ends of or adjacent to roads. In most cases, the only association is that for road use; the roads were used to access generally remote areas in order to dump trash well removed from the sources of the trash. The roads themselves may have been originally built long before their use to dump trash, or reengineered many times since original construction and subsequent use for dumping trash, or incidental to the use for dumping trash.

Isolated historic refuse deposits may exhibit the following characteristics:

- Have a single locus or multiple loci.
- Have only surficial deposits (less than 10 centimeters soil accumulation/deposition), unless they clearly represent single events (no layering/stratigraphy) where holes may have been dug to bury trash or where large artifacts such as buckets may be buried deeper.
- Contain discarded metal, glass, ceramics, bone, rubber, leather, and other historic items.
- Contain diagnostic artifacts (e.g., maker's marks or labels).
- Date from the twentieth century.
- Be associated with generalized events or themes such as recreation, refuse deposition, or transmission line construction/maintenance.
- Cannot be associated with or contain any structures or features that suggest functions other than refuse disposal.
- Cannot be associated with specific persons, households, commercial entities, or specifically identified local, regional, or national events.

The following research questions are intended to address a broad range of both general and specific topics, particularly concerning site subsistence, economic status, land use, transportation networks, and environment within the APE.

Subsistence

- What was the degree of self-sufficiency? Were some of the foodstuffs produced on the farm, or imported, or a combination?
- Where did the family obtain its foodstuffs, medicines, home furnishings, clothing, etc.? Were they locally obtained or from great distances?
- How does the agricultural resource compare with other historic resources in the area?

Ethnic and Economic Status

- Do the artifacts suggest varying ethnic backgrounds (Anglo-European, Native American, etc.)?
- Is there evidence of relationships with the local Native American tribes?
- What relative economic status do the artifacts suggest?
- Did the household goods of the family differ from those of other farmers?

Land Use

- What was the family's method of trash disposal—was it simply scattered as sheet refuse, or was it buried or burned in a trash pit?
- Were irrigation systems constructed? How complex were the systems? How did they change over time?
- How did they use space for the barn and corral (if present), and why? How does the local environment (topography, geology, and hydrology) dictate site configuration?
- What environmental, economic, and social factors determine the location and layout of the resource?
- When were septic tanks introduced, and were the privies utilized as refuse pits when they were installed, thus preserving a discrete deposit of household goods?

Transportation Networks

- Were goods brought from great distances, or purchased fairly locally, and how did the subsistence patterns change over time?

Environment and Development

- How did the environment influence business decisions and agricultural pursuits?
- Did the local supply provide enough water (and what was it), or did the farmers have to construct irrigation systems to import water?
- Do any artifacts or features represent work camps for water features or evidence of other large-scale landscape development?

6.4 Evaluation Methods

Because the type and extent of the subject cultural resources vary, archival research, testing, and evaluation methods will also vary. This plan is designed as a phased approach that begins with archival research and extends to include added field inventory or physical investigation (excavation) if necessary. In most cases, investigations will be restricted to existing SCE ROW. Added field inventory and/or field testing would focus on portions of a site that may be affected by the Project in order to facilitate further application of the criteria used for NRHP/CRHR evaluation and determine if the subject area contributes to that site's eligibility. In the event that archaeological excavation is required, a testing plan will be prepared and submitted to the BLM, BIA and Morongo, CPUC, and interested tribes as appropriate.

6.4.1 Archival Research

Archival research for the historic resources focused on developing resource-specific background and contextual information that could be useful for eligibility evaluation in terms of Criteria A-C. Research types included the following, as feasible:

- Review and documentation of historic maps and aerial photographic imagery;
- Review of Sanborn Fire Insurance maps;
- Chain-of-title search at County Assessor's office to identify parcels and trace title;
- Permit history search at local City Planning office;
- Chain-of-residence search using older city/telephone directories, voter registration records, and census records; and
- Search of ProQuest and/or similar archival newspaper databases by names from chain-of-title, chain-of-residence, and address.

The following repositories, publications, and individuals were contacted to identify known resources and the locations of research material pertinent to the PSA.

- San Bernardino County Assessor
- San Bernardino County Recorder's Office
- San Bernardino County Archives
- Loma Linda Planning Office
- San Bernardino County Planning Division
- Huntington Library, SCE Manuscript archives
- Alan Herndorf, Banning Heights Mutual Water Company
- Bill Bell, Historian/Librarian, Banning Library, City of Banning
- Suzie Earp, Archivist-Aerial Photographs, Water Resources Institute, California State University, San Bernardino California Room, Feldheim Library
- Heritage Room, A. K. Smiley Library
- Local History Center, Banning Library
- Topographic Maps and Aerial Photographs, Nationwide Environmental Title Research, LLC
- Local History Resource Center, Riverside Library

- California State Archives
- California State Library (California History Section and Government Publications Section)

Based on archival research, SCE evaluated whether or not resources are associated with significant events or significant persons in history, or if the potential exists for important information in history. If the archival research provides adequate information to make a recommendation of eligibility about a resource, then no additional testing under this plan will be required. In other words, if archival research demonstrates that there is no possibility of associating a particular archaeological site to an important person, event, or period, then the site will be deemed ineligible without further field studies. If, however, archival research results in a demonstrable association, further fieldwork might be required to ascertain whether there are sufficient data (integrity, quantity, and diversity of artifacts) to represent the association. Additional resources may be observed during future supplemental gap surveys and/or project construction. The project is in preliminary design and more advanced designs will be available in the summer of 2014. One goal of this archival research is to define significance contexts for classes of resource types observed within the APE and those that may fall within future project designs.

6.4.2 Field Studies

If archival research for an historic-era refuse scatter identifies a potential for eligibility, a representative surface sample within the Area of Direct Impact (ADI) would be further documented by recording morphological attributes and makers' marks, and a metal detector or other non-invasive sensing technique would be used to test for the presence of subsurface materials. If areas within the ADI are identified as having potential for buried resources and additional data are needed to complete NRHP/CRHR evaluations, sample excavations would be implemented. For prehistoric/ethnohistoric sites and historic-era sites more complex than a simple refuse scatter, archival research identifying a potential for eligibility would be followed by documenting a representative surface sample within the ADI where feasible and by non-invasive sensing and/or test excavation where warranted. In general, test excavation could include such methods as surface scrape units (SSU), small shovel test pits (STPs), and square or rectangular excavation units. Testing methods for each site are discussed in detail below.

Field Methods

Surface Scrape Units (SSU) will vary in size depending on site measurements. The purpose of surface scrapes is to excavate shallow sites. SSUs will be hand-excavated using a shovel or trowel. Shovel Test Pits (STPs) will measure 0.5 x 0.5 meter (m) square and be hand-excavated using shovel, pick-axe (if necessary), or trowel in 10 cmbs levels. Removed sediments will be dry-screened through 3-mm (1/8-inch) mesh. Excavations will cease after two sterile levels or if bedrock is encountered. If no cultural materials are recovered, excavation will cease after a depth of 60 cmbs, a new soil horizon is reached, or bedrock is encountered. If possible, where a new soil horizon or bedrock is not encountered by 60 cmbs, an auger bore hole will be hand-

dug in the center of the unit to determine whether there are any buried cultural deposits below 60 cmbs.

If cultural material is identified in an STP with a sufficient density and variety of materials or that may provide dating information, the unit will be expanded to a 1 x 1 m Control Unit (CU) and hand excavated in arbitrary 10 cm levels until two sterile levels are reached or bedrock encountered. If bedrock is not encountered, an auger bore hole will be hand-dug in the center of the unit at the base of the second sterile level, to determine whether there are any further buried cultural deposits.

If the results are positive for cultural materials, with the exception of human remains, then the recovered archaeological materials will be collected, analyzed in a laboratory, and catalogued. If the materials are located on private property and SCE or the BLM is not able to obtain permission from the private property owner to retain the materials, the materials will be reburied on site, if feasible, or turned over to the landowner. All materials collected will be curated as outlined below.

Human Remains

In the event of the discovery of human remains on federal lands, the remains will be subject to Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, as amended (25 USC 3001 et seq.; Public Law 101-601). If human remains and/or cultural items (funerary objects) as defined by the NAGPRA are inadvertently discovered during excavation activities, all work in the vicinity of the find will cease within a 200-foot radius of the remains, the area will be protected to ensure that no additional disturbance occurs, and the Riverside or San Bernardino County Coroner, the BLM Field Manager, and the CPUC will be contacted immediately by the SCE Lead Archaeologist, pursuant to Section (3)(d)(1) of NAGPRA. If the discovery occurs at the end of the work day, the area must be secured by covering the area with plywood or other materials that will not damage the remains.

The coroner will have two (2) working days to examine the remains after being notified in accordance with California Health and Safety Code (HSC) Section 7050.5. If the coroner determines that the remains are Native American, are not subject to the coroner's authority, and are located on public lands, the coroner has twenty-four (24) hours to notify the BLM of the determination. If the remains are found to be Native American as defined by NAGPRA, the BLM will then take the lead in treatment of those remains and cultural items found in association with them by implementing that agency's procedures for complying with NAGPRA.

If the coroner determines that the remains are Native American, not subject to the coroner's authority, and located on private or state land, the coroner has twenty-four (24) hours to notify the Native American Heritage Commission (NAHC) of the determination. The NAHC is required (Public Resources Code Section 5097.98) to identify a Most Likely Descendant (MLD), notify that person, and request that they inspect the remains and make recommendations for treatment and/or disposition. The MLD will have forty-eight (48) hours to inspect the find and make

recommendations for treatment of the human remains. Work will be suspended in the area of the find until the land owner, as applicable, approves the proposed mitigation and treatment of the human remains. If the NAHC is unable to identify a descendent, or the descendent identified fails to make a recommendation, or the recommendation of the MLD is rejected and the mediation provided for in Public Resources Code Section 5097.94 subdivision (k) fails to provide measures acceptable to the landowner, the human remains and associated burial items will be reburied, with appropriate dignity, on the property in a location not subject to further subsurface disturbance.

Pursuant to Public Resources Code Section 5097.94 subdivision (f), if multiple sets of human remains are uncovered, or if the find appears to be part of a prehistoric cemetery or burial area, the SCE Lead Archaeologist will notify the BLM, CPUC, and Tribes to consult with them as to the treatment of the burial area and disposition of the remains and associated cultural material.

Curation

Where federal and reservation lands are involved, all records and materials collected shall be curated in accordance with 36 CFR Part 79. The provisions of NAGPRA, 43 CFR Part 10, would apply to human remains or funerary artifacts found on BLM or reservation land. Curation and disposition of cultural materials obtained from state-owned lands and records pertaining to cultural resources on state-owned lands will be curated with materials obtained from federal lands. If cultural materials are recovered from private lands, BLM and SCE will seek to have the materials donated through a written donation agreement to be curated with other cultural materials from the Project. BLM and SCE will attempt to have all collections curated at one location. The curation facility will be chosen in consultation with SCE, the BLM, the CPUC, and Tribes.

All materials, publicly owned items, records, and materials resulting from implementation of this testing plan shall be maintained at a local curatorial facility in accordance with standards specified in 36 CFR Part 79. SCE will consult with the BLM to determine the curatorial arrangements on publicly owned or managed land. A curatorial agreement will be executed between the BLM, SCE consultant, and the curatorial facility prior to the implementation of any archaeological data recovery that may be required under the terms of this testing plan.

Archaeological and other materials recovered from private lands will remain the property of the legal landowner unless the arrangement outlined above has been made by the BLM or SCE for the legal transfer of ownership of such remains to a qualified curation facility. If curation involves Native American materials on private land, Tribes will be consulted to the extent possible.

Cultural materials found during Phase 1 survey or Extended Phase 1 investigations were not collected. Artifacts were described and, as appropriate, photographed and left in place. For the resources requiring data recovery, curation will be determined on a case-by-case basis in consultation with the appropriate agency, landowner, and Tribes. In these instances, SCE will

implement a discard policy for classes of artifacts/materials recovered from evaluations or data recovery programs. This class of materials from significant features may be discarded after they have been analyzed, cataloged, counted, and weighed. Such materials may be discarded because they lack long-term research values, occur in excessive quantity, are in poor condition, and/or pose health and safety risks. Discarded items will be recorded in the catalog and described in the site report. The discarded classes of remains may include the following:

- Cans
- Window glass
- Glass lamp chimney, undiagnostic bottle, and undiagnostic glass fragments
- Asphalt, concrete, and utility pipe fragments
- Nails (after being identified by type and given MNI totals)
- Metal scraps, sheets, strips, and wire
- Corroded, non-temporally diagnostic ferrous items
- Slag and amorphous metal and glass
- Large items for which curation may be a problem (e.g., barrel hoops, porcelain toilets).

6.4.3 Report of Findings

SCE's contractor will produce an Evaluation Results Report documenting the study efforts. The contractor will apply the NRHP/CRHR eligibility criteria to the data and make eligibility recommendations. The appropriate DPR forms will be updated and provided as a confidential appendix to the report. A draft copy of the report will be submitted to the BLM, BIA and Morongo, CPUC and interested tribes for review and comment. Using the comments provided, a final report will be submitted to all reviewers.

6.4.4 Agency Roles and Responsibilities

The BLM as the Lead Agency for Section 106 will make the final determination of eligibility and finding of effect, in consultation as appropriate with SCE, BIA and Morongo, CPUC and interested tribes. In consultation with these parties and SHPO, the BLM will negotiate appropriate treatments or other actions to resolve adverse effects to Historic Properties.

6.4.5 Resolving Adverse Effects

In the event that a NRHP-eligible resources identified within the project area cannot be avoided by construction activities, specific methods to mitigate effects will be outlined in a Historic Properties Treatment Plan. For sites determined eligible under 36 CFR 60.4(d), significant data would be recovered through excavation, research, and analysis. For properties eligible under 36 CFR 60.4(a), (b), or (c), data recovery may include historical documentation, photographic documentation, collection of oral histories, architectural or engineering documentation (Historic American Building Survey/Historic American Engineering Records), or preparation of a scholarly work. Other treatments may be considered at the request of consulting Tribes, such as

development of public interpretive materials, educational outreach, support of other activities benefitting Tribes and the public.

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APPENDIX A (Confidential)

WOD Project Area of Potential Effect (1:24,000 scale)

APPENDIX B (Confidential)

WOD Cultural Resources Avoidance Measures Maps

APPENDIX C
WOD NAGPRA Plan of Action

**A WRITTEN PLAN OF ACTION FOR THE TREATMENT OF
INADVERTENTLY DISCOVERED HUMAN REMAINS, FUNERARY
OBJECTS, SACRED OBJECTS, OR OBJECTS OF CULTURAL
PATRIMONY ON LANDS ADMINISTERED BY
THE BUREAU OF LAND MANAGEMENT AND MORONGO BAND OF
MISSION INDIANS LANDS**

**FOR SOUTHERN CALIFORNIA EDISON COMPANY'S WEST OF
DEVERS TRANSMISSION LINE UPGRADE PROJECT,
RIVERSIDE AND SAN BERNARDINO COUNTIES, CALIFORNIA**

October 2016

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1.0 Introduction

The purpose of this Plan of Action (POA) is to establish procedures in the event of the inadvertent discovery of potential Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony on federal lands administered by the Bureau of Land Management (BLM) and Morongo Band of Mission Indians (Morongo) Tribal Lands during the construction of Southern California Edison's West of Devers Upgrade Project (Project). These procedures have been developed to assist the BLM, Morongo and the Bureau of Indian Affairs (BIA) in complying with the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (P.L. Law 101-601; 25 U.S.C. 3001–3013; 104 Stat. 3048–3058) and implementing regulations as described in 43 CFR Part 10.

The following POA will be implemented for all discoveries of NAGPRA items made during construction activities on federal lands administered by the BLM and on Morongo Tribal Lands. Construction activities on BLM and Morongo Tribal Lands may occur in association with the planning, construction, operation and maintenance of the Project which is proposed to be constructed by Southern California Edison Company (SCE). Construction and maintenance activities associated with the Project have the potential to affect currently unknown sites that are on federal lands administered by the BLM and on Morongo Tribal Lands. This POA applies to federal lands administered by the BLM and Morongo Tribal Lands.

While compliance with NAGPRA may be related at times to compliance with Section 106 of the National Historic Preservation Act (NHPA), there is no requirement to consult with State Historic Preservation Offices (SHPO) or the Advisory Council on Historic Preservation (ACHP) on NAGPRA-related matters.

Per 43 CFR §10.2(f)(1) Federal lands means any land other than tribal lands that are controlled or owned by the United States Government.

Per 43 CFR §10.2(f)(2) Tribal lands means all lands which: (i) Are within the exterior boundaries of any Indian reservation including, but not limited to, allotments held in trust or subject to a restriction on alienation by the United States.

2.0 Kinds of Objects to be considered as NAGPRA Items

For all discoveries, the kinds of objects to be considered and referred to herein as ***NAGPRA items***, as defined in 43 CFR §10.2(d) include:

- A. *Human remains* means the physical remains of the body of a person of Native American ancestry. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets. For the purposes of determining cultural affiliation, human remains incorporated into a funerary object, sacred object, or object of cultural patrimony, as defined below, must be considered as part of that item.
- B. *Funerary objects* means items that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains. Funerary objects must be identified by a preponderance of the evidence as having been removed from a specific burial site of an

individual affiliated with a particular Indian tribe or Native Hawaiian organization or as being related to specific individuals or families or to known human remains. The term *burial site* means any natural or prepared physical location, whether originally below, on, or above the surface of the earth, into which, as part of the death rite or ceremony of a culture, individual human remains were deposited, and includes rock cairns or pyres which do not fall within the ordinary definition of gravesite. For purposes of completing the summary requirements in §10.8 and the inventory requirements of §10.9:

1. Associated funerary objects means those funerary objects for which the human remains with which they were placed intentionally are also in the possession or control of a museum or Federal agency. Associated funerary objects also includes those funerary objects that were made exclusively for burial purposes or to contain human remains.
 2. *Unassociated funerary objects* means those funerary objects for which the human remains with which they were placed intentionally are not in the possession or control of a museum or Federal agency. Objects that were displayed with individual human remains as part of a death rite or ceremony of a culture and subsequently returned or distributed according to traditional custom to living descendants or other individuals are not considered unassociated funerary objects.
- C. *Sacred objects* means items that are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents. While many items, from ancient pottery sherds to arrowheads, might be imbued with sacredness in the eyes of an individual, these regulations are specifically limited to objects that were devoted to a traditional Native American religious ceremony or ritual and which have religious significance or function in the continued observance or renewal of such ceremony. The term *traditional religious leader* means a person who is recognized by members of an Indian tribe or Native Hawaiian organization as:
1. Being responsible for performing cultural duties relating to the ceremonial or religious traditions of that Indian tribe or Native Hawaiian organization, or
 2. Exercising a leadership role in an Indian tribe or Native Hawaiian organization based on the tribe or organization's cultural, ceremonial, or religious practices.
- D. *Objects of cultural patrimony* means items having ongoing historical, traditional, or cultural importance central to the Indian tribe or Native Hawaiian organization itself, rather than property owned by an individual tribal or organization member. These objects are of such central importance that they may not be alienated, appropriated, or conveyed by any individual tribal or organization member. Such objects must have been considered inalienable by the culturally affiliated Indian tribe or Native Hawaiian organization at the time the object was separated from the group. Objects of cultural patrimony include items such as Zuni War Gods, the Confederacy Wampum Belts of the Iroquois, and other objects of similar character and significance to the Indian tribe or Native Hawaiian organization as a whole.

3.0 Planned Treatment Care and Handling of NAGPRA Items

NAGPRA items, particularly human remains and funerary objects, could be found during earth disturbing SCE construction and maintenance activities throughout the Project. The planned treatment, care, and handling of NAGPRA items recovered will be carried out in a respectful manner. If human remains or other NAGPRA items, as described in Section 1.0, are discovered inadvertently during archaeological survey or excavation, or during construction or maintenance of the Project, the following procedures will be implemented.

A. ON-SITE DISCOVERY

1. Stop all project activity within at least 200 foot radius of any discovery. If human remains are encountered, they will be treated with the dignity and respect.
2. Contact the SCE Lead Archaeologist immediately by phone:

Audry Williams

Cell:

- a. Provide the following information:
 1. Location
 2. Nature of NAGPRA items discovered
 3. Activity underway when discovery was made
 4. Actions taken to secure the site
 5. Your name and contact information
3. Secure the area. The "area" includes any place where ground disturbance could affect the discovery including any area in which NAGPRA items may have been dispersed. The area to be secured will be initially determined by the senior on-site archaeologist. The area secured may be expanded or contracted at the direction of the BLM or BIA. At a minimum, "securing the area" will include:
 - a. Flagging off the area of potential discovery to preclude vehicle access and pedestrian access by non-authorized persons; and,
 - b. If necessary, posting an individual on-site to guard the remains at SCE expense (see Note); and
 - c. Cover any human remains in a careful manner to protect them from the elements (e.g., rain, wind).
4. The SCE Lead Archeologist will provide immediate telephone notification, with written confirmation, to the BLM, Morongo Tribal Official, and the BIA.
5. If the discovery is possibly human remains, the SCE Lead Archaeologist will contact the County Coroner to make a determination and determine whether there is a forensic requirement.
6. When the finds have been confirmed as NAGPRA items, the BLM, BIA and/or Morongo will:

- a. Take immediate steps, if necessary, to further secure and protect inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony, including, as appropriate, stabilization;
- b. Will notify the appropriate people as outlined in 3.0 (C) below

B. SITE VISITATION AND DOCUMENTATION

1. Business hours: the BLM, BIA and/or Morongo as appropriate will attempt to visit the site on the same day as the discovery.
2. Non-business hours: the SCE Lead Archaeologist will attempt to visit the site as soon as possible.
3. The BLM, BIA and/or Morongo as appropriate and SCE Lead Archaeologist will coordinate with on-site archaeologists to document the area of discovery. At a minimum, documentation will include: a map pinpointing the location of the discovery, sketches or tracings of the items, amount and description of the items, pertinent physical and/or man-made features (roads, trails, erosion, etc.) and a description of the surrounding environment.
 - a. The SCE Lead Archaeologist will interview the person(s) who made the discovery and determine the following information at a minimum: name(s), affiliation, and contact information; description of the circumstances under which the discovery was made; description of what was found and why it was considered a NAGPRA issue; actions taken to protect the discovery and to report it by those making the

C. NOTIFICATION

1. Upon encountering cultural item(s) the procedures at 3.0(A) and (B), above, will be followed.
2. The BLM, BIA and/or Morongo Tribal Official as appropriate will notify by telephone, with written confirmation, the Morongo and other Indian tribes likely to be culturally affiliated with the inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony, other Indian tribes means-Indian tribe which aboriginally occupied the area, and any other Indian tribe that is reasonably known to have a cultural relationship to the human remains, funerary objects, sacred objects, or objects of cultural patrimony.
 - a. The BLM, BIA and/or Morongo Tribal Official will notify the Tribal Chair (or their designee) by phone within 48 hours of the potential discovery. If the discovery occurs over the weekend or on a holiday, the BLM, BIA and/or Morongo Tribal Official will notify the Tribal Chair (or their designee) by phone on the first regular business day following the discovery.
 - i. This notification must include pertinent information as to kinds of human remains, funerary objects, sacred objects, or objects of cultural patrimony discovered inadvertently, their condition, and the circumstances of their inadvertent discovery.

- b. The BLM and/or BIA will request a meeting with the Tribe(s) to review objects and records and schedule a field trip to the area if requested by the Tribe(s).
3. If any human remains are determined to be Native American or if the Tribe identifies the cultural objects found as funerary objects, sacred objects, or objects of cultural patrimony, the BLM and/or BIA will continue to comply with NAGPRA and implementing regulations at 43 CFR Part 10.
 - a. For human remains, the remains shall be subject to the Tribal Policies contained within Tribal Historic Preservation Organization and Policies (June 8, 2004) particularly in chapter 4 titles "Treatment of Disturbed Human Remains Policy".

D. OFF-SITE DISCOVERY

If NAGPRA items are discovered during archaeological laboratory analysis or at any other time after the items have been inadvertently or unknowingly removed from their original context the following steps will be followed. The BLM, BIA and/or Morongo Tribal Official will be notified verbally either on the same business day or on the next business day. The BLM, BIA and/or Morongo Tribal Official will then follow the steps above at 3.0(B) and (C). NAGPRA items will be retained in a secure environment approved by the BLM, BIA and/or Morongo Tribal Official until a decision is made by the BLM, BIA and/or Morongo Tribal Official regarding their disposition.

4.0 Planned Archeological Recording of NAGPRA Items

Inadvertently discovered NAGPRA items will be recorded in a descriptive noninvasive level including measurements, type, and morphology. The NAGPRA items should be both sketched and photographed in situ in the event that it becomes necessary to remove the items from the site. The location of the site containing the NAGPRA items shall be thoroughly described, recorded on the appropriate 7.5-minute USGS topographic quadrangle map, and a precise location determined using GPS. Additionally, if NAGPRA items are left in the ground within a site, specific locations will be mapped and recorded using the most accurate standard available. This could include a tie-in to existing transmission line drawings, corrected and calibrated GPS data, or an equivalent mapping technology. Location information shall be provided to the BLM and/or BIA and/or the appropriate land managing agency only.

5.0 Types of Analysis Planned for Each Kind of NAGPRA Item

- A. If authorized by the BLM, BIA and/or Morongo Tribal Official, and in consultation with the Morongo or other Indian tribes identified during the discovery and notification period, analysis of discovered *human remains* will consist of non-destructive, in-field visual analysis to determine age and sex of individuals, and will be conducted respectfully at all times. Human remains will not be removed from the soil matrix unless absolutely necessary to make age and sex determinations. All analysis will take place on-site. If needed, security of the site will be accomplished as set forth in Section 3.0.

1. As noted elsewhere in the plan and as authorized by the BLM, BIA and/or Morongo Tribal Official, in some circumstances it may be necessary to remove the human remains and other NAGPRA items for safekeeping. In addition, where reburial or leaving remains *in situ* is not possible, or where additional evaluation must take place to determine cultural affiliation, NAGPRA items may be removed using standard scientific methods (which may include soil sampling), in a respectful and dignified manner.
 2. If cultural affiliation cannot be determined for NAGPRA items, particularly human remains, that have been removed from the discovery location, it **may** be necessary to conduct more in-depth analysis to assist in determining cultural affiliation if an agreed upon resolution cannot be reached by all interested parties (e.g., DNA testing, radiocarbon dating, bone chemistry, or other studies to distinguish a biologically or culturally distinct population). The nature of proposed analyses will be discussed with the Morongo or other consulting tribe(s) prior to being initiated and will only be initiated with the consent of the BLM, BIA and/or Morongo Tribal Official.
- B. *Funerary objects* will be treated in the same manner as human remains. Artifacts found in association with human remains will be considered funerary objects if it can be reasonably determined, using archaeological methods, that the items were intentionally placed with the deceased as part of a funerary ritual, whether at the time of interment, cremation or other disposition, or later as part of some mourning anniversary ritual. Analysis of funerary objects authorized by BLM, BIA and/or Morongo Tribal Official may be essential in determining cultural affiliation, making it likely that archaeologists or technical specialists will need to make appropriate analyses of such items to address the question of cultural affiliation.
- C. It is unlikely that *sacred objects* or *objects of cultural patrimony* will be recognized in the archaeological record. Should interested tribes identify such items in the course of consultation, the BLM, BIA and/or Morongo Tribal Official will consult with the tribes regarding any analysis and disposition of such items.

6.0 Specific Information Used to Determine Custody or Ownership

In the event of the removal of NAGPRA items found on federal lands within the proposed Project area, the following specific information will be used to determine custody in the order listed below, pursuant to 43 CFR §10.6(a).

- A. A *lineal descendent of the deceased individual* is an individual tracing his or her ancestry directly and without interruption by means of the traditional kinship system of the appropriate Indian tribe.
- B. On federal non-tribal lands, *cultural affiliation* will be determined, pursuant to 43 CFR §10.14(c). Cultural affiliation means a relationship of shared group identity that may be reasonably traced historically or prehistorically between a present-day Indian tribe and an identifiable earlier group.
 - a. All of the following requirements must be met to determine cultural affiliation between a present day Indian tribe and the NAGPRA items of an earlier group:

- i. Existence of an identifiable present-day Indian tribe with standing under NAGPRA;
- ii. Evidence of the existence of an identifiable earlier group. Support for this requirement may include, but is not necessarily limited to evidence sufficient to:
 - 1. establish the identity and cultural characteristics of the earlier group,
 - 2. document distinct patterns of material culture manufacture and distribution methods for the earlier group, or
 - 3. establish the existence of the earlier group as a biologically distinct population;
- iii. Evidence of the existence of a shared group identity that can be reasonably traced between the present-day Indian tribe and the earlier group. Evidence to support this requirement must establish that a present-day Indian tribe has been identified from prehistoric or historic times to the present as descending from the earlier group.
 - 1. This evidence may exist as geographical, kinship, biological, archeological, anthropological, linguistic, folklore, oral tradition, historical, or other relevant information or expert opinion. Claimants do not have to establish cultural affiliation with scientific certainty.

7.0 Notification of Interested Indian Tribes

In the absence of any additional information for making a determination of cultural affiliation, BLM, BIA and/or Morongo Tribal Official as appropriate, shall consult with the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Mission Indians, Morongo Band of Mission Indians, Pala Band of Mission Indian, Pauma-Yuima Band of Mission Indians, Pechanga Band of Mission Indians, Ramona Band of Mission Indians, Rincon Band of Mission Indians, Salt River Pima-Maricopa Indian Community, San Manuel Band of Mission Indians, Soboba Band of Luiseno Indians, Torres-Martinez Desert Cahuilla Indians, and Twenty-Nine Palms Band of Mission Indians, and the Cahuilla Inter-tribal Repatriation Committee (CITRC) upon the discovery of Native American or unidentified human remains and funerary objects, or any other materials that may be determined to be NAGPRA items.

8.0 Traditional Treatment of NAGPRA Items by Indian Tribes

The BLM, BIA and/or Morongo Tribal Official will consult with the culturally affiliated tribe prior to the removal and/or reburial of any NAGPRA items.

9.0 Nature of Reports to Be Prepared

The results of investigations at a site containing discovered NAGPRA items shall be incorporated into the overall archaeological report as a detachable, confidential appendix. Site maps within the body of the overall data recovery report should identify all features, including those features containing discovered NAGPRA items. If permission is granted by the culturally-affiliated tribes, photographs, sketches, or detailed illustrations of the NAGPRA items may be included within the confidential appendix only.

10.0 Disposition of NAGPRA Items

All attempts will be made by the BLM, BIA and/or Morongo Tribal Official as appropriate to avoid discovered NAGPRA items and leave them *in situ*. NAGPRA items left or reburied *in situ* shall remain in the custody of the BLM, BIA and/or Morongo Tribal Official as appropriate and will not be repatriated. In the event that discovered NAGPRA items must be removed, then the BLM, BIA and/or Morongo Tribal Official as appropriate will determine, pursuant to 43 CFR §10.6, which Native American tribe will receive custody of the items. The BLM, BIA and/or Morongo Tribal Official shall provide notification of intent to repatriate and subsequently return the items to the appropriate tribe within the limitations of 43 CFR §10.15.

11.0 Compliance with 43 CFR § 10.3(b)(1) and the Archeological Resources Protection Act

The intentional excavation of NAGPRA items from federal lands shall be made consistent with the Archaeological Resources Protection Act (16 U.S.C. 470aa et seq.) and the implementing regulations at 36 CFR part 296 and applicable provisions of 43 CFR § 10.3.

12.0 State Burial Laws

With respect to human remains and associated funerary objects, and in some cases, other cultural items (such as sacred objects and objects of cultural patrimony), the following state laws for California shall apply.

California Health and Safety Code

§ 7050.5 Disturbance of Human Remains

- a. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public Resources Code. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (1) of Section 5097.94 of the Public Resources Code or to any person authorized to implement Section 5097.98 of the Public Resources Code.
- b. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the

site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

- c. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

§ 7051 Removal of Human Remains

Every person who removes any part of any human remains from any place where it has been interred, or from any place where it is deposited while awaiting interment or cremation, with intent to sell it or to dissect it, without authority of law, or written permission of the person or persons having the right to control the remains under Section 7100, or with malice or wantonness, has committed a public offense that is punishable by imprisonment in the state prison.

This section shall not prohibit the removal of foreign materials, pacemakers, or prostheses from cremated remains by an employee of a licensed crematory prior to final processing of ashes. Dental gold or silver, jewelry, or mementos, to the extent that they can be identified, may be removed by the employee prior to final processing if the equipment is such that it will not process these materials. However, any dental gold and silver, jewelry, or mementos that are removed shall be returned to the urn or cremated remains container, unless otherwise directed by the person or persons having the right to control the disposition.

California Public Resources Code

§ 5097.98 - Notification of discovery of Native American human remains, descendants; disposition of human remains and associated grave goods

(a) Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 48 hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

(b) Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

(1) The descendants preferences for treatment may include the following:

(A) The nondestructive removal and analysis of human remains and items associated with Native American human remains.

(B) Preservation of Native American human remains and associated items in place.

(C) Relinquishment of Native American human remains and associated items to the descendants for treatment.

(D) Other culturally appropriate treatment.

(2) The parties may also mutually agree to extend discussions, taking into account the possibility that additional or multiple Native American human remains, as defined in this section, are located in the project area providing a basis for additional treatment measures.

(c) For the purposes of this section, "conferral" or "discuss and confer" means the meaningful and timely discussion and careful consideration of the views of each party, in a manner that is cognizant of all parties' cultural values, and where feasible, seeking agreement. Each party shall recognize the other's needs and concerns for confidentiality of information provided to the other.

§ 5097.99. Obtaining or possessing Native American artifacts or human remains taken from grave or cairn on or after January 1, 1984; prohibition

(a) No person shall obtain or possess any Native American artifacts or human remains which are taken from a Native American grave or cairn on or after January 1, 1984, except as otherwise provided by law or in accordance with an agreement reached pursuant to subdivision (l) of Section 5097.94 or pursuant to Section 5097.98.

(b) Any person who knowingly or willfully obtains or possesses any Native American artifacts or human remains which are taken from a Native American grave or cairn after January 1, 1988, except as otherwise provided by law or in accordance with an agreement reached pursuant to subdivision (l) of Section 5097.94 or pursuant to Section 5097.98, is guilty of a felony which is punishable by imprisonment in the state prison.

(c) Any person who removes, without authority of law, any Native American artifacts or human remains from a Native American grave or cairn with an intent to sell or dissect or with malice or wantonness is guilty of a felony which is punishable by imprisonment in the state prison.

§ 5097.991 Policy of the State that Native American Remains and Associated Grave Artifacts Shall be Repatriated.

It is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.

The Bureau of Land Management

By _____

Date

Palm Springs Field Office Manager

The Bureau of Indian Affairs

By _____

Date

Morongo Band of Mission Indians

By _____

Date

Morongo Tribal Official