

# Cultural Resources

## **Cultural Resources: Appendix B (g) (1)**

### **Information Required:**

Please include explicit discussions of how each proposed mitigation measure would effectively help to avoid, minimize, or mitigate particular significant effects that the proposed project would have on historical resources.

### **Response:**

Incorporation of each proposed mitigation measure would reduce potential impacts on historical resources to less than significant. Since the Project avoids all identified cultural resources, these mitigations are focused on avoiding, minimizing, and mitigating impacts to potential and unanticipated historical resources that may be encountered during construction through archaeological monitoring efforts. Archaeological sites are typically considered CRHR-eligible based on data potential (Criterion 4). Therefore, mitigation measures are focused on retaining that data potential in any historical resources that may be encountered during the construction phase of the Project. Table 1, below, specifically describes how each measure either removes or reduces the potential to adversely affect unanticipated historical resources. Revised mitigation measures CUL-2, CUL-3, CUL-4, and CUL-5 are presented here (see responses to Appendix B (g) (2) (E) (i) and Appendix B (g) (2) (E) (iii)).

**Table 1: Efficacy of Mitigation Measures**

Proposed Mitigation Measure	Effect of Measure
<p><b>CUL-1. Continue Native American Consultations—</b> On behalf of the CEC, Quail Brush Genco, LLC will continue to consult with Native Americans identified by the NAHC in order to identify potentially sacred sites and/or resources that may be impacted by the Project as well as to identify appropriate Native American monitors. Additionally, Quail Brush Genco, LLC will determine if additional Native Americans require consultation based on the City’s requirements and initiate contact with individuals not already contacted.</p>	<p>This mitigation measure is intended to avoid or minimize impacts on Native American resources, including traditional resources, religious sites, and Native American archaeological sites. Although no such resources have been identified within or adjacent to the APE, potential impacts on the data potential (CRHR Criterion 4) of unanticipated resources may occur during construction. Incorporation of this mitigation measure would reduce the potential impact level on those cultural resources to less than significant by ensuring that Native American’s who have an interest in any unanticipated historic resources discovered during project construction would have an opportunity to help identify how any such resource would be addressed.</p> <p>Although no additional input has been provided by consulted Native Americans since submittal of the AFC, continuing consultations will allow Quail Brush Genco, LLC to quickly identify and resolve potential impacts that may be identified at a later date by these represented communities. Maintaining these open lines of communication will better facilitate consultations should Native American-related historical resources be identified later in the planning process or during construction, and require avoidance, special treatment, or recovery. Successfully reaching an agreement with the Native American community as to</p>

Proposed Mitigation Measure	Effect of Measure
	how such resources should be handled would help ensure that there are no significant impacts to historical resources.
<p><b>CUL-2. Education/Training</b>—Prior to Project implementation, all non-archaeological Project personnel will be briefed by a trained archaeologist on the prehistoric and historic use of the Project area and the results of the Project’s cultural resources survey. Further, personnel will be briefed on the importance of, and the legal basis for, the protection of significant archaeological resources and how these resources contribute to modern society, which personnel participate in. All archaeological and Native American monitors will be introduced and their roles explained.</p> <p>Personnel will be instructed on the identification of archaeological materials, particularly materials indicative of the site types considered likely to occur within the APE (lithic deposits, habitation sites, milling sites, temporary camps, military-related items or features, refuse deposits, homestead remnants, rock cairns or alignments, foundations, and prehistoric and historic isolates). In addition to a pocket brochure regarding identification of cultural resources and how to report finds, the training will include photographs of artifact classes likely to occur within the APE and, when possible, artifact samples that the personnel may handle and become more familiar with.</p>	<p>This mitigation measure is intended to avoid and minimize potential impacts on unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Educating Project personnel as to the importance of prehistoric and historic cultural resources and training them how to identify such resources and the proper protocols to follow in the event of an unanticipated discovery will minimize the likelihood of a worker unknowingly or purposefully disturbing these resources. Educating workers as to the importance of cultural resources instills a sense of the significance of these resources to the Native American and scientific communities. Further, workers will come to understand how these resources contribute to our modern society and our understanding of history. With an understanding of these issues as well as the legal protections afforded historical resources, workers will develop an appreciation for cultural resources, thereby reducing the potential for workers to loot or damage the resources in the Project area. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>
<p><b>CUL-3. Monitoring</b>—It has been requested by interested Native American tribes that a Native American monitor be present during ground-disturbing activities associated with the Project. Additionally, the APE is considered to have low to moderate archaeological sensitivity for unidentified surface resources and none to low subsurface archaeological sensitivity. Therefore, an archaeological monitor meeting the Secretary of the Interior’s Professional Qualification Standards for Archaeology as well as a Native American Consultant will be present onsite during initial ground disturbing activities. Given the geoarchaeological context of the proposed Project site and the proximity of the Stadium Conglomerate bedrock to the surface, cultural resource monitors will only be present during disturbance of the upper 20 cm. The monitors will be allowed to conduct a cursory survey of the proposed Project site following any initial mowing of vegetation. If any cultural resources are identified by the monitors during vegetation removal associated with construction, the resource will be treated as an unanticipated discovery and the protocols outlined in CUL-4 will be followed.</p>	<p>Similar to CUL-2, This mitigation measure is intended to avoid and minimize potential impacts to unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Archaeological monitoring insures that previously unidentified cultural resources are identified, recorded, and sufficiently treated or avoided during construction, thus minimizing the potential loss of data regarding historical resources. Further, monitoring acts as a deterrent in the event that education and training regarding cultural resources are not as effective as intended. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>

Proposed Mitigation Measure	Effect of Measure
<p><b>CUL-4. Unanticipated and Inadvertent Discoveries</b>—If the archaeological monitors, construction staff, or others observe previously unidentified archaeological resources during construction, they will halt work in the vicinity of the find(s) and immediately notify the Project Archaeologist so that the resource value may be assessed as soon as possible and appropriate next steps determined in coordination with the CEC as the lead CEQA agency. Such finds will be formally recorded and evaluated for CRHR eligibility. The resource will be protected from further disturbance or looting pending evaluation and agreement from the CEC regarding the recommended CRHR eligibility status. Should the unanticipated discovery be determined to be a historical resource and cannot be avoided, Quail Brush Genco, LLC will provide justification as to why the resource cannot be avoided and recommend treatment options (i.e. data recovery) to the CEC and consulted Native American tribes and historical societies for agreement.</p> <p>If human remains and/or cultural items defined by the Health and Safety Code, Section 7050.5 are inadvertently discovered during construction activities, all work in the vicinity of the find will cease and the San Diego County Coroner will be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, work may be delayed in the vicinity of the find up to 30 days.</p>	<p>This mitigation measure is intended to avoid, minimize, or mitigate impacts on unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Stopping construction work in the vicinity of a find and allowing time to assess and evaluate an unanticipated or inadvertent discovery reduces the potential of data loss from a potential historical resource. Additionally, this time allows for all parties involved in the Project (Quail Brush Genco, LLC, CEC, consulted parties) to consult and determine if the resource can be avoided and, if not, appropriate treatments that would recover the data that will be destroyed. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>
<p><b>CUL-5. Additional Field Survey</b>—If the finalized Project engineering design falls outside or beyond the current survey area, Quail Brush Genco, LLC will, in coordination with the CEC and City of San Diego, complete a cultural resources survey of those areas (including any CEC-required buffers). The survey methodology will be agreed upon by Quail Brush Genco, LLC, the CEC, and City of San Diego. Consulted Native Americans will be invited to participate in the survey. One paid Native American monitor will participate in the survey if interest is shown. Other interested Native Americans may participate in the survey on a voluntary basis. All cultural resources identified by the survey will be recorded on California DPR forms and mapped using a GPS unit with sub-meter accuracy. Results of the survey will be provided in a technical report conforming to the Archaeological Resource Management Report format (OHP 1990). The report will include maps of finalized engineering design and surveyed areas and any additional recommended mitigation measures will be provided to the CEC and the City of San Diego for comment and approval. If any resource identified by the survey cannot be avoided, it will be evaluated for CRHR eligibility and, if necessary to avoid significant impacts on the resource, additional treatments recommended. These recommendations will be submitted as a Historic Preservation Treatment Plan to the CEC, City of San Diego, and relevant consulting</p>	<p>This mitigation measure is intended to avoid and minimize impacts on cultural resources that may be located in areas outside of the survey area, should the final Project design result in the placement of Project components in these unsurveyed areas. Conducting additional field survey of any Project areas that fall outside of the original survey area allows opportunity to identify cultural resources within those areas, their recordation, evaluation for CRHR eligibility, and consideration for avoidance or appropriate treatment. Should any cultural resources in any additional survey area be determined to be historical resources, it would likely be under Criterion 4 (data potential). This mitigation measure will insure that the Project will not proceed unless and until an Historic Treatment Plan is developed, approved and implemented, insuring that any eligible resource would be avoided or mitigated. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>

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Proposed Mitigation Measure	Effect of Measure
parties for agreement. Any recommended treatments will occur prior to the initiation of Project activities within the vicinity of the historical resource. Project construction may occur elsewhere within the APE during this period and with applicable archaeological monitoring efforts.	

### Additional References

California Office of Historic Preservation (OHP). 1990. *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*. February 1990. Sacramento, California.

### Cultural Resources: Appendix B (g) (2) (A)

#### Information Required:

The synthesis of the general prehistory of the San Diego region as a whole is sufficient as a broad introduction to the archaeology of the project area, but is insufficient to underpin the development of any research model for the pedestrian survey of the project area or as a useful context to facilitate the interpretation of the survey results. Using the San Diego region prehistory as a springboard and using the cultural resources technical reports and site forms that were gathered for the appendices of the AFC, please develop a discussion of the prehistoric archaeology of the project area vicinity. Explain what the archaeology looks like on the ground in the vicinity of the project area. Similarly, while the synthesis of the ethnography of the Kumeyaay, as a conceptual anthropological construct, provides a broad introduction to the Native American use of landscapes in the region, it does not relate how Kumeyaay bands did use or may have used the landscape in a 5-mile radius of the project area. Please provide an explicit discussion of whether such ethnographic information is available, and, if so, what that information has to say about local Native American land use.

#### Response:

The cultural setting of the technical report has been revised below. The prehistoric and historic contexts are intended to describe the chronology of the San Diego region applicable to the five-mile area surrounding the Project. The ethnohistoric context describes the cultural practices of the Kumeyaay within Southern California and the likely role of the Project area and surrounding five miles within the larger cultural patterns. No ethnographic study specific to the Project and surrounding five miles has been conducted. An archaeological context has been added at the end of the discussion to describe the archaeological resources and patterns within the five-mile radius surrounding the Project area.

#### 2.2.1 Prehistoric Context

For purposes of this report, "prehistory" is considered the period of human occupation prior to Spanish contact (AD 1542). The prehistoric cultural chronology developed for Southern California has been extensively detailed in numerous previous investigations (Basgall and True 1985; Moratto 1984; Erlandson and Colton 1991). Archaeological complexes within the San Diego region are focused upon here, although they are discussed chronologically. Prehistorically, the San Diego region, including the five-mile area surrounding the Project,

sustained varying sequences of population densities and utilization. Current California archaeological theory characterizes prehistoric human occupation of the region as one that evolved through adaptation of settlement and subsistence strategies to the environment and available resources.

### ***Pleistocene Period***

Pleistocene occupation prior to ca. 10,000 years before present (BP) in the region has been debated, although less so recently, and remains an unsettled topic. None have been identified within the five miles surrounding the Project area. Some have argued that assemblages consisting of “crude” cobble artifacts represent a very early human presence. However without formal artifacts such as projectile points or ornamental items, or even human remains, this argument continues to be contested. Many believe the cobble artifacts to be of a natural origin. Laylander (2011) suggests that future archaeological investigations in the San Diego region, including observations of geological processes and materials, may be able to contribute additional information regarding the natural or cultural origin of such cobble assemblages.

A Late Pleistocene presence is generally more accepted due to the somewhat scarce occurrence of fluted points characteristic of the Clovis Pattern. However, even the temporal association of these is contested in the San Diego region due to their early use and potential to be traded through time periods. Of the three fluted points identified in the San Diego region (Laylander 2011), two have been reported as found in Cuyumaca State Park and Ocotillo Wells, 25 miles and 55 miles east of the Project respectively. The third, made of obsidian, is the only one to be collected from a controlled archaeological excavation conducted in a mountain Valley near Shingle Spring, approximately 44 miles northeast of the Project (Kline and Kline 2007). However, when the material was sourced it was found to be from the Casa Diablo source in Mono County of Northern California. The expansive distance between this material source and the artifact’s final deposition suggests a comparable amount of time passed before it was brought into the San Diego region by a more recent, post-Pleistocene population. However, Kline and Kline (2007:58) argue that if this were the case “it would more likely have been intermingled with later artifacts closer to the surface levels.” Thus, even with the rare presence of fluted points, the degree of Late Pleistocene occupation of San Diego, particularly along the coast and western mountains, remains debatable.

### ***Early Period/Archaic Period***

During this period between 10,000 and 1300 BP, people were highly mobile and their subsistence strategy focused on hunting large and small game and gathering seasonally available plants. A paucity of ground stone tools has led some to conclude that vegetal resources were not heavily utilized during this period (Rogers 1966; Warren 1967; Moratto 1984).

Two cultural complexes, San Dieguito and La Jolla, have been identified in the San Diego region, including the five-mile area surrounding the Project. Distinguishing between these two complexes has presented much fodder for debate. Crescents, bifaces, and scrapers are believed to be more common in San Dieguito site assemblages. Further San Dieguito lithic technology appears to be based on a combination of percussion and pressure flaking techniques, with a material preference of fine-grained felsitic (fine-grained igneous rock consisting essentially of quartz and feldspar) rock. San Dieguito sites are typically found on mesas, ancient desert terraces, inland dry lakes, and near river valleys and coastal lagoons

(Warren 1966). La Jolla assemblages on the other hand are dominated by more “crude” hammers/choppers, cores, and manos. Tools in this complex are considered inferior to San Dieguito tools and are typically made of water-worn cobbles (Laylander 2011). The La Jolla complex has been identified primarily in coastal settings, transverse valleys, sheltered canyons, benches, and knolls (Wallace 1955, Moriarty 1966).

The traditional view has placed La Jolla sites as later temporally than San Dieguito sites, but more recently this view has been challenged by new theories that propose the complexes are representations of different functions rather than cultural/population or temporal differences.

### ***Archaic-Late Prehistoric Transition***

There is also debate regarding the transition from Archaic to Late Prehistoric populations. In general, four theories have been postulated and have been summarized by Laylander (2011):

- Archaic populations persisted into the Late Prehistoric, their culture evolving independently and in place;
- Populations were influenced by neighboring groups and possibly by immigration of those groups into the San Diego region;
- Neighboring groups migrated into the San Diego area, displacing earlier populations; or
- An occupational hiatus occurred in the San Diego area as Archaic populations moved or died out and Late Prehistoric populations later migrated in.

In any case, there is a demonstrated scarcity of radiocarbon dates in the region surrounding the Project between 1300 BC and AD 200. Linguistic studies have identified a separation or transition of local, ethnographically-known languages at approximately the same time.

### ***Late Prehistoric Period***

The Late Prehistoric Period in southern San Diego County spanned between 1300 BP and Spanish Contact and is the most well-represented chronological period in the 5-mile region surrounding the Project. In this region, the period is represented by the Cuyamaca complex. Cuyamaca populations are regarded as the ancestors of the ethnohistorically documented Kumeyaay culture. This complex is defined by the use of the bow and arrow, smaller projectile points, presence of obsidian and pottery, changes in mortuary practices from inhumations to cremations, and an emphasis on inland/upland food gathering (e.g. acorns, piñon nuts) and processing. Settlement patterns in the San Diego and Project area range from permanent villages along or near water courses, or semi-permanent seasonal village sites, to temporary camps. Artifact assemblages include small, triangular pressure-flaked projectile points (Cottonwood and Desert Side Notched series), serrated projectile points, Butte obsidian, portable milling implements, bedrock milling features, buff and brownware pottery, bone awls, *Olivella* shell beads, and other stone and shell ornaments and cremations. Pictographs, petroglyphs, and geoglyphs are also associated with this complex (Meighan 1954, Moratto 1984).

During this period, numerous trail systems developed for short- and long-range travel as people continued to diversify their resource base by accessing nearby habitats and acquiring goods through long distance trading networks. One was noted by Gallegos (2002:Figure 3.2) as along the southern bank of the San Diego River, south of the Project. The numerous canyons and drainages of the five miles surrounding the Project were likely also used as travel routes between the more coastal environments west of the Project and the more mountainous, higher

elevation environments to the east. Commodities such as obsidian, marine shell, fish, and salt were traded and purchased. Late Prehistoric sites are generally associated with water sources, aquatic resource areas, trails, pictographs, petroglyphs, bedrock grinding surfaces, permanent and temporary camps, caches, and rock shelters (Moratto 1984).

### 2.2.2 Ethnohistoric Context

The Project falls within the territory ethnographically inhabited by the Kumeyaay, a Yuman-speaking group of the Hokan language stock. The Kumeyaay occupied territory extending from the Batiquitos Lagoon in the north, south past Ensenada, Mexico, west to the Pacific Ocean, and east to near the Colorado River. They have typically been lumped with Diegueño groups and, as a result, are not specifically described in ethnohistoric documents (see Hedges 1975, Kroeber 1925, Luomala 1978). In the 20th century, the Yuman-speaking bands of southern California and northern Baja California acquired the tribal name of Kumeyaay. They are also referred to as the Ipai (northern region), Tipai (southern region) and the Kamia (eastern desert region) (Luomala 1978). Research efforts for this Project did not encounter an ethnographic study focused on the Project area and the surrounding five miles. Therefore, the following discussion is based upon ethnographic information known from within the general San Diego region and traditional Kumeyaay territory.

Traditionally the Kumeyaay were mobile hunters and gathers that existed in autonomous bands, exploiting a variety of coastal, mountain, and desert environments, with occasional use of the Imperial Valley for agriculture (Hedges 1975:81). Ethnographic accounts identify four Kumeyaay groups: coastal, hill, mountain, and desert. Given the wide traditional Kumeyaay territory their available resource base and economy were equally as varied and could be based on maritime or terrestrial resources, depending on a village location (Gallegos 2002:31). Settlements were scattered although valley areas have been identified as the preferred setting for settlements, providing the widest range of available resources. Band size varied as people moved through a seasonal gathering round for available water, plant, and animal resources. Western and eastern Kumeyaay groups would meet in autumn in the mountainous regions to harvest acorns, trade, and conduct ceremonies (Hedges 1975, Luomala 1978, Gallegos 2002). In fact, Gallegos (2002:Figure 3.2) indicates a major trail leading from the coast, along the southern bank of the San Diego River past the Project area, and east into the mountains. Late Period settlements included multiple loci of activity. Most would have incorporated at least two permanent base camps and special-purpose sites, such as quarries or milling stations (Luomala 1978; Gallegos 2002:31).

As with most Native American groups, little is known regarding the religious practices of the Kumeyaay. Several peaks within their territory though are known to have sacred qualities. These include Kuuchamaa (Tecate Peak), Table Mountain, Mount Signal (Eagle Mountain), Jacumba Peak, Mount Woodson, Viejas Mountain, and Otay Mountain (Shipek 1985:67, 69, 71). Most of these are along the United States and Mexico border south of the Project or in the Imperial Valley or Colorado Desert, well east of the Project. Mount Woodson and Viejas Mountain are the nearest to the Project, approximately 11 miles north and 18 miles east, respectively.

Dwellings varied from windbreaks, caves and rock shelters, and sunken, dome thatched structures with wooden pole framework (Luomala 1978). The selected structure type depended on need, the season, locality, and available raw materials. Kroeber describes structures as earth-covered with three posts in a row and connected by a short log balanced across the top.

Additional poles were then leaned against the sides and covered with brush. The design of these structures has been attributed to an interaction sphere with Luiseno, Cahuilla, and the Colorado River tribes (Kroeber 1925:721).

Many of the technological changes seen in the ethnographically documented Late Period, including improvements in hunting technology and food storage, can be attributed to innovation and diffusion. These include several ethnographically documented features such as the brush-covered dwellings described above, sweat houses, small cooking hearths, roasting pits, heating platforms, granary bases, milling slicks, bedrock mortars, and pictographs (Gallegos 2002:37). Also during this time the bow and arrow were introduced, as evidenced by accounts that three of Cabrillo's sailors were wounded by such at San Diego Bay. The source of obsidian, obtained by trade and apparently rare in the Project and surrounding five-mile region, also changed in the Late Period from the Coso source to the closer Obsidian Butte source, though access to Obsidian Butte varied with the water level in Lake Cahuilla. Burial practices were also altered, switching from burial to cremation, presumably for the purposes of public health (Gallegos 2002:35-36). Evidence of burial practices is present within the large sites of the San Diego River Valley south of the Project.

Hunting resources consisted of small game such as rabbit, rodents, and birds, and occasional bighorn sheep and deer. A wide variety of seeds and plants were gathered including acorns, rice grass, piñon nuts, wild plums, mesquite pods, yucca, agave (mescal), and cacti (Luomala 1978, Spier 1923). Being within proximity to the San Diego River (one mile), Pacific coast (14.5 miles), and San Diego Bay (13 miles), the Kumeyaay of the Project area likely also made use of fish, shellfish, marine mammals, and aquatic plants for subsistence as well as tools, cordage, and adornments (Moratto 1984). Cultural use of resources, particularly coastal resources, would have been affected by the Medieval Climatic Anomaly during the Middle to Late Holocene (AD 900-1350) (Jones, et al. 1999; Gallegos 2002:27). The warming and arid climate during this time resulted in sedimentation of coastal lagoons, subsequently shifting settlement and subsistence patterns into canyons where resources were more dependable. Interpretations of San Diego's ethnographic record with respect to systems of settlement have varied based on location. As Laylander (2011) notes some studies suggest that eastern Kumeyaay groups moved seasonally through a range of habitats as groups combined and divided along the way. Other Kumeyaay communities are reported to have been distributed between permanent central villages and outlying, more temporary "homesteads." Laylander (2011) also describes regional debate that field camps would have been located within proximity to a few specific resources, while residential bases would have been located within proximity to a wide range of resources. Overall, however, it appears that most efforts to interpret the ethnographically documented Late Prehistoric settlement system focused on northern San Diego County. In general, it appears that the Kumeyaay had a relatively flexible system of nonpermanent settlements. Nevertheless, Gallegos notes that settlement of the San Diego River Valley has been continuous for the past 7,000 years (Gallegos 2002:27, 35). Little study regarding early settlement systems in San Diego has been conducted, including studies that would have covered the Project and surrounding five miles.

Today, the descendants of the Kumeyaay bands are divided among 12 reservations in the southern portion of San Diego County, and the Luiseño bands are divided among five reservations in the northern portion of the county. The traditional origin belief of the Kumeyaay people is expressed through the oral tradition of ceremonial song cycles, known as the Bird Songs. These songs describe how the Kumeyaay people were created within the region and

have been there from the beginning of time. They believe there is continuity between the ancestral coastal, mountain, and desert people of the region and the Native descendants of today (Wilson 2001, Russell et. al 2007).

### 2.2.3 Historic Context

Written history in the area begins with early Spanish mission settlement and exploration, Euro-American settlement, railroad and mining development, and the military. The first Spanish mission and presidio was founded in 1769 at present day San Diego, followed by San Luis Rey (1798), the San Luis Rey Mission at Pala (1816), and Chapels of the San Diego Mission at Santa Ysabel (1818). Local Native American tribes were indoctrinated into the mission system as a source of forced labor under the auspices of religious conversion. One of the first Spanish expeditions through the region was Don Gaspar de Portola in 1769, headed north to Monterey. Portola's route remained along the coast however, away from the Project area (Carrico 1977). Juan Bautista de Anza led another expedition in 1774 through what is now San Diego County to establish an overland route. This route remained well east of the Project, running through the western edge of the Colorado Desert (NPS 2011), but once established served as a route for supplies and personnel moving north from Mexico to the missions in California. Explorers such as Portola and de Anza introduced horses, cattle, agricultural tools and products, and new architectural and construction styles to the San Diego region, including the Project area and surrounding five miles. In 1821, Mexico successfully revolted against Spain, achieving independence and shifting control of southern California to Mexico. During this time, cattle ranching dominated agricultural activities in the region. After the signing of the Treaty of Guadalupe Hidalgo, California became a territory of the United States and in 1850 achieved statehood (Robinson 1948).

The 1849 California Gold Rush brought thousands of diverse immigrants to the state. By 1854, the San Diego Trail (formally Pedro Fages' Oriflamme Canyon route) became the main route for travelers coming from the east. In 1865, the San Diego to Fort Yuma Wagon Road was opened. This access road later became the basis of the Old Highway 80 alignment (Bates 1970, Rensch 1957).

During the 1860s through the 1870s, settlers were drawn yet again to the San Diego region due to the discovery of gold near Cuyamaca and Julian. The first lode was discovered in 1870 at the Julian Mine. The mines were worked by individuals and by corporations such as the Chariot Mining and Milling Corporation. Production for mining peaked between 1872 and 1873 and was only practiced at a small scale level after the rush (Cook and Fulmer 1981). The increase in population and migration created the need for efficient transportation corridors in the region. Several trails, stage roads, and eventually rail lines and automobile roads crossed the area, providing a means of travel and transportation of supplies for people.

Homesteading was also encouraged in the region in the late 1800s. The historic community of Linda Vista was established in 1886 as a dispersed settlement of farmsteads centered northwest of the Project area in San Clemente Canyon. However, the community was considered to cover farmsteads scattered across the immediate area practicing mixed farming, including cattle and chicken ranching and growing wheat. Residents constructed wells in canyons and pumped water up to the mesas to supplement the limited water supply in the area. Earthen dams were also constructed across drainages and cisterns were used to store rainwater for household use. The community declined and eventually ceased when the community school closed in 1912 and devastating flooding occurred in 1916. The establishment

of military facilities in the area displaced any remaining community members (Hector et al 2004:18-20).

Several military facilities have existed within the boundaries of what is now Marine Corps Air Station (MCAS) Miramar, north and west of the proposed Project. These included Camp Kearny (National Guard, 1917-1920), Camp Holcomb/Camp Elliot (1934-1960), Naval Auxiliary Air Station, Camp Kearny (1943-1946), and Miramar (1946-present) (Hector et al 2004:20-23). The activities of all of these bases were focused to the east and west of the Project Area in Sycamore and San Clemente Canyons, respectively.

#### **2.2.4 Archaeological Context**

The neighboring mesas and especially the valley to the south, known in Mission records as the Valle de San Luis (Robbins-Wade 2001:2), are rich in archaeological resources. Indeed several of the best known sites and sites with extensive time depth (CA-SDI-204, CA-SDI-8594, CA-SDI-9242, CA-SDI-9243, CA-SDI-10148) are in this area as well as further upstream along the San Diego River. However, as several previous surveys have noted much of the archaeological record along the San Diego River has been destroyed by development (Robbins-Wade 2001).

Based on the literature review for the Project, archaeology in the five-mile region surrounding the Project is dominated by prehistoric archaeological sites, specifically lithic scatters and bedrock milling sites. Both site types make use of the abundant naturally occurring and lithic resources of the Project area and surrounding five miles, including numerous eroding cobbles and rock outcrops. Further, sites in the environmental context of the Project do not appear to extend much below the surface (see Hector, et al. 2004 and Smith and Burke 1994). Within the one-mile radius records search conducted 53 prehistoric isolated artifacts (less than five within 50 meter radius) were identified, including at least 31 flakes, 19 cores, six tested cobbles, one hammerstone, one scraper, and one biface. Within the same radius 56 prehistoric sites (28 lithic scatters, 15 bedrock milling sites, five habitation sites, four temporary camps, and four lithic scatters and with groundstone), two historic sites (a cistern and the San Diego Mission Dam), and one multicomponent site (prehistoric lithic scatter with historic refuse) were recorded.

Bischoff, et al. (1995) notes that MCAS Miramar, the eastern boundary of which is approximately 1.5 miles west of the Project, has conducted several large surveys that have documented numerous archaeological sites within the Station's approximately 23,314 acres. At the time of Bischoff, et al.'s reporting 135 archaeological sites (93 prehistoric and 42 historic) and nine isolates (all prehistoric) had been recorded on base. Prehistoric resources include 78 lithic scatters, five bedrock milling sites, and five habitation sites. Historic resources include 19 refuse deposits and 20 structures/features (foundations, stone concentrations, dams, military use areas, a farmstead, a cemetery, a well, and narrow gauge railroad tracks). A post brush-fire of 9,635 acres of the Station in 2004 following the 2003 Cedar Fire identified only 13 new archaeological sites and two isolates. These newly recorded sites consisted of three prehistoric bedrock milling sites, one prehistoric concentration of stone artifacts, a 1929-1930 pick-up truck, historic-era well, a homestead, a refuse deposit, military refuse, and military structures/features (Giacomini and Caudell 2004). A survey of a large portion of the base conducted by Gallegos and Associates in 1992 developed a sensitivity model for the area that indicates ridgelines, which dominate the topography of the region, have the highest resource density, with one site per 64 acres. As a result of the study the Station assigns a higher priority to ridgelines and drainages in reconnaissance level investigations (Bischoff, et al. 1995:18).

The best known site in the region is in the Valle de San Luis along the San Diego River, approximately 0.75 mile south of the Project. CA-SDI-203 was originally recorded by Malcolm Rogers as a permanent village site with deposits ranging from the Early Archaic to Protohistoric Period, when, Rogers asserts, the Native American occupants were used to construct the Mission Dam. Notably, the site included numerous cremations, some inhumations, bedrock mortars, a paucity of shellfish, glass beads, bow pipes, projectile points (Robbins-Wade 2001).

### **Additional References**

- Carrico, Richard L. 1977. Portola's 1769 Expedition and Coastal Native Villages of San Diego County. *The Journal of California Anthropology*, 4(1):31-41.
- Gallegos, Dennis R. 2002. Southern California in Transition: Late Holocene Occupation of Southern San Diego County. In Jon M. Erlandson and Terry L. Jones, eds., *Catalysts to Complexity – Late Holocene Societies of the California Coast*. Perspectives in California Archaeology 6:27-40, Cotsen Institute of Archaeology, University of California, Los Angeles.
- Hedges, Ken. 1975. Notes on the Kumeyaay: A Problem of Identification. *The Journal of California Anthropology*, 2(1):71-83.
- Jones, Terry L., Gary M. Brown, L. Mark Raab, Janet L. McVickar, W. Geoffrey Spaulding, Douglas J. Kennett, Andrew York, and Phillip L. Walker. 1999. Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climatic Anomaly. *Current Anthropology*, 40(2):137-170.
- National Park Service (NPS). 2011. Juan Bautista de Anza National Historic Trail Guide: San Diego County. Electronic document, [http://www.solideas.com/DeAnza/TrailGuide/San\\_Diego/index.html](http://www.solideas.com/DeAnza/TrailGuide/San_Diego/index.html), accessed October 16, 2011.
- Shipek, Florence C. 1985. Kuuchamaa: The Kumeyaay Sacred Mountain. *Journal of California and Great Basin Anthropology*, 7(1):67-74.

### **Cultural Resources: Appendix B (g) (2) (B)**

#### **Information Required:**

Please provide copies of all California Department of Parks and Recreation (DPR) 523 forms for the cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36 CFR 60.4(g)).

#### **Response:**

Hard copies of DPR 523 forms for the cultural resources identified in records search, as well as courtesy hard copies of survey reports previously submitted electronically, were provided under confidential cover to the CEC on September 22, 2011, referencing the AFC docket number.

### **Cultural Resources: Appendix B (g) (2) (C)**

#### **Information Required:**

Page 4.1-16 notes that the portions of the survey area that have a slope  $\geq$  35 percent were not subject to survey. Where those portions are and what the size of those portions are, are

unknown to staff. Page 4.1-20 notes that the proposed project is still evolving and that “the eastern end of the North Loop overhead line portion of the gen tie route, has been preliminarily designed to extend outside of the surveyed area” and that “the SDG&E switchyard, has been preliminarily placed along the boundary of the surveyed area in Spring Canyon,” where the CEC-required 200-foot survey buffer would now extend outside of the surveyed area. The new pedestrian survey for the proposed project is therefore incomplete. Please provide either a detailed map, at a scale of 1 in. = 500 ft. or greater, that depicts accurate boundaries of the portions of the survey area that were not surveyed and a compelling, explicit rationale for the choice of  $\geq 35$  percent as a threshold to not survey sloped terrain, or the results of a survey of those same portions of the survey area. In addition, please provide the results of a survey of those portions of the reconfigured survey area that, due to the reconfiguration of the proposed project, fall outside of the original survey area.

The present technical report does not adequately conform to the ARMR format. Please provide inserts for the technical report that develop, pursuant to section VII of ARMR, a research design for the archeological resource base in the project area, and that incorporate the direction of section X of ARMR into the report’s conclusions. Such a research design would ostensibly interpolate archaeological resource distribution patterns from the archaeological synthesis that would typically be one result of background archival research to derive a model of the archaeological remains that one would anticipate finding in the project area itself. That model would then be used to validate or question, and interpret the results of any new pedestrian surveys.

**Response:**

A USGS map depicting the boundaries of the pedestrian survey and slopes  $\geq 35$  percent within that area is provided as Figures 3-4a and 3-4b (see Attachment C.1). Note that some slopes of  $\geq 35$  percent were surveyed simply as a result of accessibility to the surrounding area.

Please note that the survey methodology/protocols were described at the Quail Brush June 8<sup>th</sup> Pre-Application meeting and no concerns or issues were voiced by the CEC at that time. The 35 percent slope limit is commonly used during archaeological survey as a health and safety precaution. Moreover, slopes steeper than this typically do not contain *in situ* cultural deposits. Exceptions are made for areas such as rock outcrops or where structures may be visible from afar. No such areas were observed during the pedestrian survey in May 2011.

A new survey has been planned to account for the poor ground surface visibility experienced during the May 2011 pedestrian survey and to cover areas and buffers subsequently designed outside of the original survey area. The new design has been submitted to the City of San Diego for review and agreement (the City has planning responsibilities regarding removal of a portion of the APE from a Habitat Conservation Area). The survey design and an accompanying map can be found as Attachment C.2 to this Supplement.

In order to respond to the data request, portions of the technical report provided as a confidential attachment to the AFC have been reorganized according to Sections VII and X of ARMR. When the additional survey work is completed and the technical report is revised to include the results from that survey, this discussion will be incorporated. A newly formulated research design has been added as Section 3.4 of the technical report and is provided below.

### 3.4 Research Design

The objective of this survey investigation is to gather information to more fully evaluate the potential impact of the Project. This effort is part of Quail Brush Genco LLC's fulfillment of CEQA, requiring such an evaluation, on behalf of the CEC. Depending on the type of resource(s) encountered, a wide range of research topics could potentially be addressed by cultural resources identified by the investigation (or subsequently in the event of an unanticipated discovery). The cultural and archaeological contexts described in Chapter 2 and the results of the records search described in Chapter 3 suggest that the following site types have the highest potential of occurring in the APE: lithic scatters, habitation sites, milling sites, quarry sites, temporary camps, special use localities, historic refuse deposits, homesteads, military-related features, and isolates. The research topics discussed below are not inclusive of the full range of interests within the San Diego region, but are consistent with current and local research trends. Laylander (2011) suggests several research themes and future directions for San Diego archaeology. Similarly, past studies on MCAS Miramar have identified research questions that are more specific to the Project location. The following research themes and questions are based upon these current and nearby archaeological research efforts, but are limited to topics applicable to resources with the highest potential of being found in the APE based upon archival research conducted for the Project.

#### 3.4.1 Expected Site Types

Archival research has revealed that the Project is adjacent to areas of high archaeological site density. However, relatively very few sites and isolates have been found within the Project area despite several surveys having been conducted. The resources that have been identified are primarily prehistoric in context and are typically found atop the ridgelines and toes of the topographic features present in the Project area. The potential site types described below are based upon the cultural, natural, and archaeological context of the Project.

Prehistoric and ethnographic background context, recorded archaeological site data, the topographic features of the Project, and the proximity of the Project to the Pacific Coast, San Diego River, and other freshwater sources suggest that the following prehistoric site types could be encountered during the survey: lithic deposits, habitation sites, milling sites, temporary camps, and isolates. Given that the Project area was historically within the boundaries of MCAS Miramar and based on the few historic sites that have been recorded in the area, expected historic site types include: military sites or features, refuse deposits, homestead remnants, rock cairns or alignments, foundations, and military-related isolates.

#### 3.4.2 Prehistoric Site Research Themes and Questions

**Site Formation Processes.** A variety of post-depositional processes can affect the integrity of an archaeological site, including deposition, erosion, bioturbation, and modern disturbance (i.e. construction). Therefore, identifying a site's formation processes, natural or cultural, is key to delineating horizontal and vertical distribution of artifactual materials. This affects our understanding of the site's chronology, purpose of features, discard of refuse, and the role of the site in the larger site distribution pattern. As Hector, et al. (2004:27) note, inland sites in settings similar to the Project are typically surficial due to the lack of natural deposition along ridgelines. Further, sites are typically dominated by lithic artifacts and lack temporally diagnostic artifacts and organic materials that could be dated.

Data Needs: As assessment of formation processes requires identification of the occupied landform, depositional setting, and post-depositional disturbance factors (i.e. bioturbation, modern development).

**Chronology.** Understanding a site's chronology provides the foundation for addressing most other research themes and questions. Research questions include:

1. Is there evidence of Late Pleistocene/Early Holocene (Paleoindian/Early Archaic) use or occupation of the site?
2. Can the site provide data that would contribute to the debate regarding the San Dieguito and La Jolla complexes? Does the data suggest population replacement, acculturation, or transformation? Or does the data simply suggest the complexes represent differences in the function of the complexes, constrained seasonal use, or use based upon gender?
3. Can the site provide data that would contribute to the understanding of the Archaic/Late Prehistoric Period transition?
4. Does the site include evidence of ethnohistoric/historic use? Is there continuity with a preceding Late Prehistoric Period occupation?

Data Needs: Addressing questions of chronology require the presence of materials suitable for absolute and relative dating, such as radiocarbon samples (organic materials including shell, bone, and charcoal), obsidian (for hydration dating), and diagnostic artifacts (tools, projectile points, beads and ornaments, ceramics).

**Lithic Technology and Use.** Laylander (2011) notes that there is wide diversity in the lithic material assemblages seen in San Diego's prehistoric archaeological sites. Differences in materials recovered between sites has been attributed to chronological changes in technology, mobility, or exchange systems or to differences in accessibility to lithic sources due to geographic constraint. Research questions regarding lithic materials include:

1. Do the lithic materials and tools present suggest a preference for specific materials used in making stone tools? If so, did these preferences change with time?
2. What is the nature of the lithic assemblage present at the site (i.e. formal vs. expedient) and in the Project area? Do the assemblages change over time? What do these characteristics suggest about the prehistoric use of the Project area?
3. Does toolstone selection appear to have been affected by geographic location or constraint? Is there a preference for local materials over more distant and perhaps better quality materials?

Data Needs: Analysis of assemblages can show if there is a preference for formal or expedient tools, methods of reduction and manufacture, raw material preferences, etc. Addressing questions of lithic material use and preference requires the site to contain formal stone tools and the identification of materials present, and knowledge of the underlying and surrounding geologic formations. Chronological control using data described under the research theme of Chronology would also be required to determine changes through time.

**Milling Sites.** Bedrock mortars and portable milling stones can be numerous or scarce in San Diego County, depending on the site and location. Their contexts and forms are highly varied and several theories related to chronology, ethnicity, and function have been proposed.

Research questions pertaining to milling implements focus on chronology, ethnicity, and function.

1. Do milling implements at the site contribute to an understanding of when the mortar was introduced? Does the density of milling implements at the site change with time? Does their form change?
2. Can residue analysis be used to identify what resources the milling implement was used on?

Data Needs: A site that contains milling implements will require chronological controls such as those discussed above in order to address these research questions. Further, standardized data regarding form (i.e. diameter, depth) and material, as well as standardized data regarding extent of use (the number and configuration of used surfaces, patterns of shaping and use wear, and tool condition) would be needed. Floral, faunal, and mineral surface residues would be required to determine function.

**Inland Use of Marine Resources.** Although the Project area is considered to be within a coastal region and experiences coastal weather patterns, it is still approximately 20 miles inland from the Pacific Ocean, which would have made obtaining marine resources more difficult. Terry Jones (1992:2) suggests that a coastal foraging strategy would become infeasible at approximately 6 miles from the coast. Inland from this a more terrestrial oriented hunting and foraging strategy would have been practiced. Marine resources are mostly found at processing and habitation sites within 0.5 to 1.25 miles of the San Diego coast. However, small quantities of marine resources, particularly shell, do occur at sites farther inland. The interpretation of marine resources found at inland sites may contribute to research themes of prehistoric mobility patterns, exchange systems, and the use or function of marine resources (Laylander 2011). Applicable research questions include:

1. What types of marine resources were used by site occupants? Were they used for subsistence, decoration, or other function?
2. From what coastal locality were the marine resources collected? What does this say about the method of obtainment?

Data Needs: In order to address questions related to inland use of marine resources, data regarding shell and sea mammal species present within the archaeological matrix are required as well as a standardized description of any modifications. Additionally, determining the most likely collection location would be necessary.

**Villages and Camps.** A wide variety of habitation sites have been identified in the archaeological record of southern San Diego County, including the five miles surrounding the Project. Such variety is noted in the various site sizes and the density and diversity of cultural materials present. Such differences between sites may be attributable to group sizes, period of occupation, and the range of activities practiced there. Identifying patterns in habitation site variability can help to reconstruct prehistoric social organization and economies. Laylander (2011) identifies several signatures that can be used to distinguish a habitation site type or settlement system: site size, presence or absence of midden, the presence and density of functional elements, presence or absence of exotic materials or trade items, degree of diversity in the artifact assemblage, indicators of season (i.e. floral or faunal remains), the natural setting of the site, and the spacing between contemporaneous sites. Questions related to villages and camps would include:

1. How does the village or camp fit into the settlement pattern of the area? Is there a preference for particular biotic communities/habitats in relation to site type? Were individual settlements located primarily to maximize access to a particular resource, or to maximize the diversity of the accessible resources?
2. What types of activities were practiced at the site? Is there indication of seasonality, trade, specialization?

Data Needs: In order to address issues of prehistoric social organization and economies at village sites and temporary camps, standardized observations of site size and soil characteristics will be necessary. The presence of exotic materials, features associated with storage and ceremonies, and indicators of seasonality will also be necessary. The density and diversity of the artifact assemblage as well as the variety of tools will also require standardized documentation. Mapping of the site relative to surrounding sites, resources (particular prehistoric distributions of those resources), and travel routes would also be necessary.

### 3.4.3 Historic Site Research Themes and Questions

**Historic Refuse Deposits.** Historic period refuse deposits are concentrations of intentionally abandoned domestic, construction, and industrial refuse that often lack association with a known habitation, or have no identifiable spatial association with remnants of other historic activity. Research questions include:

1. What was the chronological time frame of the deposit?
2. Does the deposit represent several dumping episodes over time?
3. Which functional domains are represented (e.g., homesteading, mining, railroad, military training activities)?
4. Is the deposit associated with an historic road or trail?

Data Needs: Analysis of historic-era records and documents of the properties near the refuse can provide information on occupants and activities in the region. Standardized dating of historic refuse materials (i.e. glass, ceramics, metal, cans, etc.) using industry accepted research sources (i.e. Lehner 1988, Toulouse 1971, and Rock 1989) would be necessary to determine the deposit's associated time period and duration of use.

**Ranching and Homesteads.** Historic period homesteads and farming/ranching features could include structural remains, wells, irrigation features, corrals, and watering troughs. Research questions include:

1. How was land acquired by settlers in the region? What was their ethnicity?
2. Is there a relationship between water availability, location of habitation sites, and the duration of occupation?
3. How did ranching and agricultural technology and practices change through time?

Data Needs: Analysis of historic-era records and artifacts (faunal remains, glass, ceramics, metal, cans, etc.) can allow the archaeologist to draw conclusions about the social class and ethnicity of the site inhabitants, duration of occupation, and quality of life, compared with the remains from other sites in the region. Ranging and agricultural technologies can be identified from features or artifact material such as machinery remnants, structures, windmills, and irrigation system remains.

**Military-Related Activities.** Archaeological sites associated with historic MCAS Miramar activities have been identified on Miramar. Given that the Project area was historically within the MCAS Miramar boundaries, similar resources may be present. Historic period military features could include refuse scatters, trails, track marks, rock alignments, and military-related isolates. Research questions include:

1. What type of military training activities (tactical, strategic, and logistical) took place in this portion of historic MCAS Miramar? How did that training prepare the troops for war? Is there evidence that the activities proved successful on the war field?

Data Needs: Data needs would be similar to those identified for historic refuse deposits. Military technologies can be identified from historic-era records and features or artifact material such as machinery remnants, military remnants, structures, trails, foundations, and rock features. Research can extend to primary sources such as unit histories and personnel records. Identification of specific units and individuals can also provide opportunities for oral history studies.

### **Additional References**

Jones, Terry L. 1992 Settlement Trends along the California Coast. In: *Essays on the Prehistory of Maritime California*, ed. Terry L. Jones, pp. 1-37. Center for Archaeological Research at Davis Publication No. 10. University of California, Davis.

Lehner, Lois. 1988. *Lehner's Encyclopedia of US Marks on Pottery, Porcelain and Clay*. Collector Books, Paducah, Kentucky.

Rock, Jim. 1989. *Tin Canisters: Their Identification*. Document on file at Klamath National Forest, Yreka, California.

Toulouse, Julian Harrison. 1971. *Bottle Makers and Their Marks*. Thomas Nelson, Inc., New York.

### **Cultural Resources: Appendix B (g) (2) (C) (i)**

#### **Information Required:**

The ethnographic, prehistoric, and historic summaries in the cultural resources technical report appear to be identical to those in the cultural resources section of the AFC, and, as such, staff would refer the applicant to our comment above on the latter summaries (see Appendix B (g) (2) (A)).

#### **Response:**

Please see response to Information Required under Appendix B (g) (2) (A).

### **Cultural Resources: Appendix B (g) (2) (C) (iv)**

#### **Information Required:**

While staff can find this information parsed out over a number of separate maps, the AFC does not contain a single comprehensive map as required. Please provide the 1:24,000 scale, USGS 7.5' topographic quadrangle map depicting cultural resources.

**Response:**

A USGS 1:24,000 scale map depicting all previously recorded resources identified by the literature search as well as all cultural resources newly recorded as a result of the pedestrian survey has been submitted under confidential cover as Figure 7-12 (see Attachment C.3). This figure combines Figures 3-3 and 7-1 of the technical report (AFC Appendix C).

**Cultural Resources: Appendix B (g) (2) (E) (i)**

**Information Required:**

The proposed mitigation measures are referenced rather than discussed. Please first identify particular significant effects that the proposed project may have on significant cultural resources then explain how particular mitigation measures would mitigate such significant effects. In short, an analysis of the effectiveness of the proposed mitigation measures is not present; please provide this analysis.

**Response:**

Please note that none of the resources identified during the survey are located within the boundaries of the APE. Therefore, the Project is avoiding them and will have no impact on them, historical resources or not. If additional archaeological resources are identified within the APE during the forthcoming supplemental "shovel scrape" survey (see response to Appendix (g) (2) (c)) they will be evaluated for CRHR eligibility. If any identified resources are determined to be historical resources that cannot be avoided by the Project, Quail Brush Genco, LLC will consult with the CEC and consulted Native Americans and historical societies regarding acceptable treatment options to be completed prior to construction.

CUL-3, CUL-4, and CUL-5 have been revised to be more specific as to the CRHR evaluation of any unanticipated discoveries found during monitoring and construction: See Response to Information Required under Appendix B(g)(1) above.

**Cultural Resources: Appendix B (g) (2) (E) (ii)**

**Information Required:**

A set of contingency measures is present in the cultural resources AFC section. Staff has been unable to find any substantive analysis of the effectiveness of these measures. Please provide the analysis that resulted in the proposed contingency measures for this project.

**Response:**

Please see response to Information Required under Appendix B (g) (1).

**Cultural Resources: Appendix B (g) (2) (E) (iii)**

**Information Required:**

A provision is made for worker education, but staff has been unable to find any substantive analysis of the effectiveness of this measure. Please provide the analysis that resulted in the proposed worker education program for this project.

**Response:**

CUL-2 has been revised to be more specific as to the content of the Worker Education Program:  
Please see response to Information Required under Appendix B(g)(1) above.

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