Appendix E:
Cultural Resources Assessment
E.1 - Section 106 Cultural Resources Assessment
DRAFT
Section 106 Cultural Resources Assessment
Knife River Corporation Mine Expansion
San Joaquin and Calaveras Counties, California
Clements and Wallace, California, USGS 7.5-minute Topographic Quadrangle Maps
Township 4 North, Range 9 East, Sections 21, 22, 28, 29, 31, 32, and 33

Prepared for:
San Joaquin County
Community Development Department
1810 E. Hazelton Avenue
Stockton, CA 95205
Contact: Rick Griffin, Senior Planner

Prepared by:
Michael Brandman Associates
2000 “O” Street, Suite 200
Sacramento, CA 95811
916.447.1100
Contact: Carrie D. Wills, M.A., RPA, Senior Project Archaeologist

April 21, 2010
Keywords: Mokelumne Aqueduct, Clements and Wallace USGS topographic maps
TABLE OF CONTENTS

Management Summary........................................................................................................................................... 1

Section 1: Introduction ........................................................................................................................................ 5
  1.1 - Project Location ........................................................................................................................................ 6
  1.2 - Project Description ..................................................................................................................................... 6
    1.2.1 - Project Background .......................................................................................................................... 6
    1.2.2 - Existing Conditions .......................................................................................................................... 7
  1.3 - Project Area of Potential Effects ........................................................................................................... 11
  1.4 - Assessment Team ...................................................................................................................................... 11

Section 2: Cultural Setting .............................................................................................................................. 12
  2.1 - Prehistoric Background ......................................................................................................................... 12
    2.1.1 - Windmiller Pattern or Early Horizon (3000 to 1000 B.C.) ............................................................... 13
    2.1.2 - Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500) ......................................................... 13
    2.1.3 - Augustine Pattern or Late Horizon (A.D. 500 to Historic Period) ................................................. 14
  2.2 - Native American Background .............................................................................................................. 14
  2.3 - Historic Background ............................................................................................................................. 15
    2.3.1 - Spanish Period ................................................................................................................................... 15
    2.3.2 - Mexican Period .................................................................................................................................. 16
    2.3.3 - European Expansion ......................................................................................................................... 16
  2.4 - History of San Joaquin County ................................................................................................................ 16

Section 3: Methodology and Research Goals ................................................................................................. 18
  3.1 - Research Goals ....................................................................................................................................... 18
  3.2 - Sites and Isolates ..................................................................................................................................... 18

Section 4: Results .............................................................................................................................................. 19
  4.1 - Records Search ....................................................................................................................................... 19
    4.1.1 - Central Information Center Record Search ....................................................................................... 19
    4.1.2 - Native American Heritage Commission Record Search ............................................................... 28
    4.1.3 - Paleontological Record Search ......................................................................................................... 28
  4.2 - Pedestrian Survey ................................................................................................................................... 29
    4.2.1 - Historic Resource Within Project Area of Potential Effects ........................................................... 31

Section 5: Summary .......................................................................................................................................... 32
  5.1 - Summary .................................................................................................................................................. 32
  5.2 - Recommendations ................................................................................................................................... 32
  5.3 - Inadvertent Discoveries .......................................................................................................................... 33
    5.3.1 - Accidental Discovery of Human Remains ......................................................................................... 33
    5.3.2 - Accidental Discovery of Cultural Resources .................................................................................... 34
    5.3.3 - Accidental Discovery of Paleontological Resources ....................................................................... 35

Section 6: References ...................................................................................................................................... 36
  A.1 - Information Center Records Search Response ......................................................................................... 40
  A.2 - Native American Heritage Commission Response and Representative Letters ................................. 41
  A.3 - Paleontological Record Search Response .............................................................................................. 42

Appendix A: Cultural Resources Correspondence
  A.1 - Information Center Records Search Response
A.2 - Native American Heritage Commission Response and Representative Letters
A.3 - Paleontological Record Search Response

Appendix B: Personnel Qualifications
Appendix C: Regulatory Framework
Appendix D: Project Area Photographs
Appendix E: CCIC Primary Record for the Southern Pacific Railroad Line

LIST OF EXHIBITS

Exhibit 1: Project Area of Potential Effects (APE) ................................................................. 3
Exhibit 2: Regional Location Map .......................................................................................... 8
Exhibit 3: Local Vicinity Map Topographic Base ................................................................. 9
Exhibit 4: Local Vicinity Map Aerial Base ........................................................................... 10
Exhibit 5: 1879 Thompson and West Map ........................................................................ 21
Exhibit 6: 1939 USGS Bellota Quad Map .......................................................................... 22
Exhibit 7: 1952 USGS Clements Quad Map ...................................................................... 23
Exhibit 8: 1956 USGS Valley Springs Quad Map ............................................................... 24
Exhibit 9: 1962 USGS Wallace Quad Map ....................................................................... 25
Exhibit 10: 1852-1869 GLO Plat Map ............................................................................. 26
Exhibit 11: 1852-1883 GLO Plat Map ............................................................................. 27
MANAGEMENT SUMMARY

At the request of the San Joaquin County Community Development Department, Michael Brandman Associates (MBA) conducted a cultural resource evaluation for the Knife River Corporation (KRC) Mine Expansion (project) Area of Potential Effects (APE). This evaluation included review of record searches at the Central California Information Center (CCIC), the Native American Heritage Commission (NAHC), and the University of California Museum of Paleontology (UCMP), as well as a field survey that was conducted within the project APE.

The project consists of a large study area, approximately 2,107 acres, of which, 1,048 acres are within the existing permitted site, and 1,059 acres are within the quarry expansion area. Within the quarry expansion area, aggregate resource extraction would occur within eight separate Resource Management Areas (RMAs) totaling 259.9 acres. Haul roads to access the RMAs within the quarry expansion area would disturb an additional 10 acres. The total disturbed area includes the extraction areas and roadways estimated to be a total of 269.9 acres. Approximately 75 percent of the land surface in the quarry expansion area would remain undisturbed by mining activities.

The APE was determined to consist of the eight RMAs and the areas immediately adjacent as well as all haul roads and the 20 to 30 feet along the sides of the roads (Exhibit 1). Areas within the existing permitted site are not analyzed in this report as they have been previously analyzed under the existing mining permit.

The purpose of the pedestrian survey was to identify the presence or absence of potentially significant cultural resources within the project APE, and, if affected by the proposed development, propose recommendations protecting the resources, which might include a Memorandum of Agreement (MOA) or other protective measures. Completion of this investigation fulfills the requirements of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the California Environmental Quality Act (CEQA). This report closely follows the California Office of Historic Preservation (OHP) procedures for cultural resource surveys and the OHP’s Archaeological Resource Management Report (ARMR) reporting format for archaeological reports.

On February 22, 2008, staff at the CCIC in Turlock conducted a records search for the project APE and a 0.25-mile radius. To identify any historic properties or resources, the current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI) were reviewed to determine the existence of previously documented, local historical resources.

Results of the CCIC records review indicated that one historical resource, the Southern Pacific Railroad Line, has been previously recorded at the northeast edge of the project area, outside any of the areas subject to project effects. The railroad was determined ineligible for listing on the NRHP by
consensus through the Section 106 process in 2003. No prehistoric resources have been recorded within the project area. Four historic resources have been recorded within a 0.25-mile radius of the project area but none would be affected by project activities. No prehistoric resources have been recorded within a 0.25-mile radius of the project area.
Exhibit 1
Project Area of Potential Effects (APE)


Legend:
- Proposed Haul Routes (APE)
- Proposed Mine Areas (APE)
- Existing Phase V
- Existing Permit Boundary
- Study Area
  * SA and NA indicates Resource Management Areas

COUNTY OF SAN JOAQUIN • KRC MINE EXPANSION
SECTION 106 COMPLIANCE
On February 21, 2008, a request was sent to the NAHC requesting a search of its Sacred Lands File. The results of the search, which were received on February 25, 2008, failed to indicate the presence of Native American cultural resources in the immediate project area. Included with the response letter was a list of seven Native American representatives who may have additional knowledge of resources within the project vicinity. To ensure protection of prehistoric resources, on March 26, 2008, MBA sent letters to the seven representatives on the list. As of the date of this report, no responses had been received.

On February 4, 2009, MBA requested a paleontological record search of the UCMP to determine if paleontological resources were present within the project study area. The response, received on February 8, 2009 from Dr. Kenneth Finger, Ph.D., stated the project site consists mostly, if not entirely, of sedimentary rocks that were deposited within the Eocene-Pleistocene interval. Although the geologic units present have high paleontological sensitivities, their potential to yield significant paleontological resources is low. The proposed relatively deep excavations will increase the likelihood of encountering significant fossils. Thus, project excavations will probably need some degree of paleontological monitoring. A paleontological field survey of the site prior to project-related excavations is therefore recommended in order to better assess the site for future paleontological mitigation.

On December 16, 17, and 18, 2008, Senior Project Archaeologist Carrie D. Wills conducted a pedestrian survey of the project APE to identify the presence or absence of potentially significant cultural resources within the project APE. If significant cultural resources could potentially be adversely affected by project development, measures designed to protect the resources would be proposed. Approximately 75 to 80 percent of the project study area was surveyed using 20-meter transects walked in a zigzag pattern. The remaining 20 to 25 percent were surveyed using random transect distances because of steep slopes, vegetation, and other obstructions.

Since the majority of the project APE consists of rolling hills primarily used for cattle grazing, and since the project would not impact any existing structures and does not propose the construction of buildings or structures, the project would not result in any visual impacts to historic resources. In addition, no significant historic or prehistoric resources were discovered during the course of the survey; therefore, no historic properties will be affected by the proposed undertaking for the purposes of Section 106 of the NHPA. As no new cultural resources were discovered during the course of the field survey, and no new prehistoric resources have been identified in previous surveys in the 0.25-mile record search radius, archaeological monitoring during project development is not recommended.
SECTION 1: INTRODUCTION

At the request of San Joaquin County Community Development Department, MBA conducted a cultural resource assessment for the Knife River Corporation (KRC) Mine Expansion (project) Area of Potential Effects (APE). The purpose of the assessment was to determine the presence or absence of potentially significant cultural and paleontological resources that might be affected by project development.

Numerous federal laws and regulations have been developed to protect cultural resources. The most important is the National Historic Preservation Act (NHPA) of 1966 (as amended). The Act established the Advisory Council on Historic Preservation and the National Register of Historic Places (NRHP). Section 106 of the NHPA requires that any undertaking located on federal land, or that involves federal funds, or that requires federal permits, take into account the effect of the undertaking on all potentially historic properties, and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment about the undertaking. An inventory must be conducted of all potentially historic properties within the undertaking’s APE. Properties judged significant in the context of the criteria in the NRHP must be avoided or subject to programs that mitigate adverse effects. The Federal Lead Agency would initiate consultation with the State Historic Preservation Officer (SHPO) if the undertaking affects a historical property.

As implementation of the project will require that a Section 404 Permit be issued by the United States Army Corps of Engineers (USACE), it will be necessary to comply with Section 106 of the NHPA. As the lead federal agency for compliance with the NHPA, it is USACE’s responsibility to consult with the SHPO before granting permits, funding, or other authorization of the undertaking. The Section 106 review process normally involves a four-step procedure described in detail in the regulations implementing Section 106 of the NHPA (36 CFR Part 800). Following is a brief summary of the basic tenets of the process:

- Identify an Area of Potential Effects (APE) in consultation with the federally responsible agency.
- Identify and evaluate historic properties in consultation with the SHPO and interested parties.
- Assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP.
- Consult with the SHPO, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation.
- Proceed with the project according to the conditions of the agreement.
1.1 - Project Location

The project is located east of the towns of the Clements and Lockeford within the northeastern portion of San Joaquin County, California. The 2,107-acre study area is located at the terminus of Brandt Road and bisected by the East Bay Municipal Utility District’s (EBMUD) Mokelumne Aqueduct (Exhibit 2). The study area is within portions of Sections 21, 22, 28, 29, 30, and 31 of Township 4 North, Range 9 East, of the Clements and Wallace, California USGS 7.5-minute topographic quadrangle maps (Exhibit 3).

The project area is located in the lowest western foothills of the Sierra Nevada, where the local topography is characterized by rolling hills with elevations ranging from 250 feet to 360 feet above mean sea level (msl).

1.2 - Project Description

The project consists of a large study area, approximately 2,107 acres, of which, 1,048 acres are within the existing permitted site, and 1,059 acres are within the quarry expansion area. Within the quarry expansion area, aggregate resource extraction would occur within eight separate Resource Management Areas (RMAs) totaling 259.9 acres. Haul roads to access the RMAs within the quarry expansion area would disturb an additional 10 acres. The areas that would be impacted include the RMAs and haul roads totaling 269.9 acres. These 269.9 acres with a roughly 100-foot buffer around the impacted areas constitute the APE. Areas within the existing permitted site are not analyzed in this report as they have been previously analyzed under the existing mining permit. Approximately 75 percent of the land surface in the quarry expansion area would remain undisturbed by mining activities.

1.2.1 - Project Background

In 1995, San Joaquin County approved a 25-year quarry excavation permit (QX-94-2) for KRC Aggregates. Previous and ongoing mining activities include aggregate excavation from areas west of the project study area, access road construction, truck scales, equipment maintenance building, and onsite aggregate processing facilities. The current permitted area is illustrated in Exhibit 1: Area of Potential Effects. Excavation is currently occurring within Phase IV of the existing permitted site and is anticipated to be mined out by mid to late 2010. Excavation will begin in 2010 or 2011 in Phase V, the final mining phase permitted under the existing excavation permit (QX 94-02).

In anticipation of reserve depletion at the existing site, the Applicant is proposing to extend existing mining operations to adjacent areas while continuing to use the existing aggregate processing facilities onsite. The Applicant drilled exploratory holes down to depths of 25 feet at several locations within the proposed expansion area to verify the quality and quantity of sand and aggregate material. The borings indicate the presence of large fractions of sand and gravel.
1.2.2 - Existing Conditions

The study area is predominantly rural and agricultural with low, rolling terrain (Exhibit 4). To the east, the landscape is composed predominantly of agricultural lands interspersed with residential lots. Hill slopes to the east are open space and/or rangeland, and the Sierra Nevada Mountains can be seen in the background. The small community of Wallace lies approximately 0.25 mile northeast of the study area, between Camanche Reservoir and the study area boundary. Fields, orchards, and vineyards fill the valley to west, and the typical features include commercial agricultural operations, scattered single-family residences, and irrigation systems.

The existing KRC processing plant is a prominent feature in the local area. KRC’s processing facility is the only visible structural feature near the project site entrance at the terminus of Brandt Road and from along Acampo Road at the intersection of Cord Road.

The majority of the quarry expansion area is rangeland used for cattle grazing. An existing poultry facility, a commercial fish farm, and scattered rural residences are located in the southwestern portion of the quarry expansion area. An abandoned poultry facility (concrete bunker-type construction) and associated excavation pits are located on approximately 5 acres between the two quarry expansion areas.
1.3 - Project Area of Potential Effects

The APE for the proposed project was determined to be the areas and resources that could potentially be directly or indirectly affected by the proposed project. As mentioned previously, the project study area encompasses a much larger area than the portions that would be subject to project disturbance or excavation efforts. Therefore, the APE was defined on Exhibit 3 as the eight RMAs, labeled SA-1-3 and NA-1-5, and the haul roads. At each of the eight RMAs, an additional 50- to 100-foot radius was surveyed to ensure protection of any previously undiscovered resources. Along the haul roads, an additional 20 to 30 feet were surveyed on each side of the proposed roads to provide a buffer zone that might be needed if slight alterations in the road configuration were required (Exhibit 1).

The record searches—CCI C, NAHC, and UCMP—conducted for the project included the entire study area and not just the project impact areas.

As the majority of the project APE consists of open rangeland and the project does not propose the construction of any buildings or structures, the project would not result in visual impacts to any historic structures.

1.4 - Assessment Team

MBA Senior Project Archaeologist Carrie D. Wills conducted the pedestrian survey and authored this report. Professional qualifications for Ms. Wills can be found in Appendix B.
SECTION 2: CULTURAL SETTING

The following is a brief overview of the prehistoric and historic background that provides a context in which to understand the background and relevance of sites found in the general vicinity of the project area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview. Descriptions that are more detailed can be found in ethnographic studies, mission records, and major published sources, including Kroeber (1925), Wallace (1955), Warren (1968), Heizer (1978), Moratto (1984), Chartkoff and Chartkoff (1984), and Jones and Klar (2007).

2.1 - Prehistoric Background

Early archaeological investigations in central California were conducted at sites located in the Sacramento-San Joaquin Delta region. The first published account documents investigations in the Lodi and Stockton area (Schenck and Dawson 1929). The initial archaeological reports typically contained descriptive narratives, with more systematic approaches sponsored by Sacramento Junior College in the 1930s. At the same time, University of California at Berkeley excavated several sites in the lower Sacramento Valley and Delta region that resulted in recognizing archaeological site patterns based on variations of inter-site assemblages. Research during the 1930s identified temporal periods in central California prehistory and provided an initial chronological sequence (Lillard and Purves 1936; Lillard, et al. 1939). In 1939, Lillard noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in central California (Lillard, et al. 1939). In the late 1940s and early 1950s, Beardsley documented similarities in artifacts between sites in the San Francisco Bay region and the Delta and refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession (Beardsley 1948 and 1954). The CCTS system was challenged by Gerow, whose work looked at radiocarbon dating to show that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous (1954; 1974; Gerow with Force 1968).

To address some of the flaws in the CCTS system, Fredrickson (1973) introduced a revision that incorporated a system of spatial and cultural integrative units. Fredrickson separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (10000 to 6000 B.C.); Lower, Middle and Upper Archaic (6000 B.C. to A.D. 500) and Emergent (Upper and Lower, A.D. 500 to 1800). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence (Moratto 1984). In addition, Fredrickson defined several patterns, which are a general way of life shared within a specific geographical region. These patterns include:
Brief descriptions of these temporal ranges and their unique characteristics follow.

2.1.1 - Windmiller Pattern or Early Horizon (3000 to 1000 B.C.)

Characterized by the Windmiller Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests exploitation of numerous types of terrestrial and aquatic species (Bennyhoff 1950; Ragir 1972). Burials occurred in cemeteries and intra-village graves. These burials typically were ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicates an extensive trade network that may represent the arrival of Utian populations into central California. Also indicative of this period are rectangular Haliotis and Olivella shell beads, and charmstones that usually were perforated.

2.1.2 - Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Fredrickson (1973) suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. In comparison to the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. As noted by Lillard, the practice of spreading ground ochre over the burial was common at this time (Lillard, et al. 1939). Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects, such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual (Hughes 1994). During this period, larger populations are suggested by the number and depth of sites compared with the Windmiller Pattern. According to Fredrickson (1973), the Berkeley Pattern reflects gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.
2.1.3 - Augustine Pattern or Late Horizon (A.D. 500 to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology; and most importantly, acorns become the predominant food resource. Trade systems expanded to include raw resources as well as finished products. There are more baked clay artifacts and extensive use of *Halioitis* ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation (Moratto 1984). Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for higher status individuals, whereas other individuals were buried in flexed positions. Johnson (1976) suggests that the Augustine Pattern represents expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations (Dickel, et al. 1984). Although debate continues over a single model or sequence for central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

2.2 - Native American Background

At the time of European contact, most of the San Joaquin Valley and the foothills of the western slope of the Sierra Nevada were occupied by the Yokuts, who are generally recognized as having three major subgroups: the Northern Valley, the Foothill, and the Southern Valley. Each of these ethnolinguistic groups was made up of autonomous, culturally and linguistically related tribes or tribelets. Native American territories have fluid boundaries; however, the project area appears to be within the Northern Valley Yokuts territory. Ethnographically, the Northern Valley Yokuts territory spanned north of the town of Mendota, south of the area near Bear Creek and the Mokelumne River, and east of the Diablo Range to the juncture of the San Joaquin plains with the Sierra Nevada foothills.

The Northern Valley Yokuts occupied an environment rich with abundant water resources from the nearby sloughs, lake basins, and river systems. Swamps and tule marshes surrounded the waterways and teemed with wildlife including aquatic mammals, fish, and abundant waterfowl. Adjacent grasslands provided food for herds of elk, antelope, and—in the winter—deer. The regional flora was equally, if not more, diverse and was utilized as a staple of the Yokuts diet. The Northern Valley Yokuts dietary base included a mixed strategy of fishing, waterfowl hunting, shellfish, and plant collecting, with less emphasis on large game hunting. Important vegetal resources included cattail
roots, grasses, nuts, seeds, tule, and bulbs (Wallace 1978). The resource-rich environment allowed for permanent village sites, which typically were occupied throughout the year.

Items not found in the local environment were obtained through an extensive trade network. Quality stone and wood were lacking in the Valley environment and often were acquired through trade with nearby tribelets. Imported items included baskets and bows and arrows, and mussel and abalone shells, which were exchanged for dog pups and other local resources (Wallace 1978).

The Northern Valley Yokuts material culture included structures, watercraft, basketry, weapons, and tools fashioned primarily from local resources. The ubiquitous tule was the primary component utilized for house construction and other fiber crafts, such as basketry, mats, and cradles. Rafts were central to the economy base, due to the abundance of waterways, which made watercraft the preferred mode of transportation. Wood, stone, and bone were commonly used to manufacture a variety of tools and weapons. Sweathouses were common; often villages had more than one, and were typically earth-covered (Wallace 1978).

The Northern Valley Yokuts tribes typically consisted of approximately 300 people with a headman guiding each tribe. The chief’s duties included decisions that affected the well-being of the entire tribelet: sanctioning trade, entertaining guests, and arbitrating intra-tribal disputes (Wallace 1978). Marriage typically was informal, and patrilocality was the accepted practice following marriage. Thus, if a family had numerous sons, a circle of extended family members would inhabit the area immediately adjacent to the patriarch’s home. There is scant evidence that the Northern Valley Yokuts participated in two organized rituals: the datura ritual and the Kuksu. The datura ritual consisted of ingesting datura roots that produced visions and reportedly offered various supernatural benefits (Wallace 1978). The Kuksu was a god-impersonating cult that included dancing, rituals for young male initiates, bear antics, and more dancing (Wallace 1978).

2.3 - Historic Background

The history of the northern Central Valley can be divided into several periods of influence; pertinent historic periods are briefly summarized below.

2.3.1 - Spanish Period

The most drastic and permanent change came to the local Northern Valley Yokuts way of life with the establishment of the Spanish Mission system. By the early 1800s, the mission fathers began a process of cultural change that brought the majority of the local Native Americans into the missions. At the expense of traditional skills, the neophytes were taught the pastoral and horticultural skills of the Hispanic tradition. Spanish missionaries traveled into the interior valley regions to recapture escaped neophytes and recruit inland Native Americans for the coastal missions. In 1834, the Mission system was officially secularized, and the majority of the mission Native American population dispersed to local ranches, villages, or nearby pueblos. Following the collapse of the
mission system, many of the local Native Americans returned to the homelands, bringing with them language and agricultural practices learned from the Spanish. During the later half of the 19th century, the size of all Yokuts populations dwindled dramatically because of the spread of European settlements and the diseases the Europeans brought with them (Kroeber 1925; Wallace 1978).

Soon after establishment of the mission system, a process of granting large parcels of land to prominent individuals began. Within a few years, ranchos occupied large tracts in the vicinity of the missions, and a pastoral economy involving the missions, the ranchos, and native inhabitants was established (Kyle et al. 1990).

### 2.3.2 - Mexican Period

With the declaration of Mexican independence in 1821, Spanish control of Alta California ended, although little change actually occurred. Political change did not take place until mission secularization in 1834 when Native Americans were released from missionary control and the mission lands were granted to private individuals. Shoup and Milliken (1999) state that mission secularization removed the social protection and support on which Native Americans had come to rely. It exposed them to further exploitation by outside interests, often forcing them into a marginal existence as laborers for large ranchos. Following mission secularization, the Mexican population grew as the native population continued to decline. Anglo-American settlers began to arrive in Alta California during this period and often married into Mexican families, becoming Mexican citizens, which made them eligible to receive land grants. In 1846, on the eve of the U.S.-Mexican War (1846 to 1848), the estimated population of Alta California was 8,000 non-natives and 10,000 natives. However, these estimates have been debated. Cook (1976) suggests the Native American population was 100,000 in 1850; the U.S. Census of 1880 reports the Native American population as 20,385.

### 2.3.3 - European Expansion

Jedediah Smith was the first to explore the Central Valley in 1828, but other fur-trapping expeditions soon followed. In 1848, as a result of the Treaty of Guadalupe Hidalgo, California became a United States territory. Also in 1848, John Marshall discovered gold at Sutter’s Mill, which marked the start of the Gold Rush. The influx of miners and entrepreneurs increased the population of California, not including Native Californians, from 14,000 to 224,000 in just four years. This, in turn, stimulated commercial growth in the Central Valley as eager entrepreneurs set up businesses to support the miners and mining operations. When the Gold Rush was over, many miners settled in the Central Valley and established farms, ranches, and lumber mills (Bailey 1984).

### 2.4 - History of San Joaquin County

San Joaquin County was one of the original 27 counties created in 1850 when California became a state. The City of Stockton was named the county seat and soon became an important supply and transportation center in the late 1800s, thanks in part to the efforts of Captain Charles M. Weber, who founded the City in 1849. Like many others, Captain Weber originally intended to make his fortune
by gold mining but soon realized that greater wealth could be achieved by supplying gold miners with provisions and established a town to serve that purpose. He built the first permanent residence in the Central Valley in the area now known as Weber Point in downtown Stockton. The project site is approximately 17 miles northeast of Stockton (City of Stockton 2007, San Joaquin County 2009).

Closer to the project site are the communities of Clements and Lockeford. Clements was established in 1882 when the San Joaquin-Sierra Nevada Railroad extended service from the Lodi area, and was named after Thomas Clements, the major landowner in the community. Grain, livestock, and other agricultural products were the prominent economic resources in the area and the railroad provided regional access for local farmers who also stored grain in warehouses near the railroad tracks. The railroad provided daily passenger service until the depot and freight office were closed in 1938, which contributed to the community’s decline. Many businesses closed and Clements became a less significant supply center for agricultural operations. Today, Clements is a relatively quiet community except in April during the annual Clements Stampede, the largest, one-day rodeo in California. Clements is approximately 3.5 miles west of the project site (San Joaquin County 1992b).

Lockeford was named after a ford in the Mokelumne River that was located on a ranch belonging to Dr. Dean J. Locke, who settled in the area in 1851. In 1862, some local entrepreneurs formed the Mokelumne Steam Navigation Company in the hopes of establishing a competitive steam shipping industry; however, in 1865, the introduction of the Southern Pacific Railroad to the region prevented the industry from ever taking hold. People turned to the rich bottomlands of the Mokelumne River to raise dairy cattle, beef cattle, hogs, and produce, and the community prospered as an agricultural processing center. Recent agricultural trends have inclined toward development of permanent irrigated pastures of Ladino clover, alfalfa, and rye grass. The first railroad to serve the local community was the San Joaquin and Sierra Nevada Railroad in 1882, which brought business and commerce to the town; growth was slow but steadily increased through the 1970s and 1980s. Significant residential growth occurred in the 1990s because of the town’s proximity to Stockton. Lockeford is approximately 7.5 miles from the project site (San Joaquin County 1992b).

In addition to its agricultural resources, San Joaquin County has significant areas of sand and gravel aggregate resources, which are used primarily for construction materials such as concrete and asphalt (San Joaquin County 1992a). The project site is one of these resource areas.
SECTION 3: METHODOLOGY AND RESEARCH GOALS

The cultural resource assessment for the project included record searches at the CCIC, the NAHC, the UCMP, and a pedestrian survey to determine the presence or absence of previously unknown cultural resources within the project APE and to determine whether any resources would be affected by project development.

3.1 - Research Goals

The goals of this study are to determine whether cultural resources are located within the project APE (Exhibit 1), to determine whether any previously recorded or newly discovered cultural resources should be considered significant resources, and to develop specific measures that will address potential effects to existing or potential resources. The major components include:

1. An NAHC Sacred Lands File record search review and subsequent letters to appropriate tribal groups and individuals.
2. Paleontological record search for the area.
3. Review of previous cultural resource site records and studies in the project study area.
4. Pedestrian survey of the project APE areas.
5. Development of recommendations for adversely affected historic resources, if applicable.

3.2 - Sites and Isolates

Prehistoric and historic cultural resources can vary from area to area. Prehistoric and historic cultural resources are defined as three or more items that are not from a single source or material found within a 10-square-meter area. Historic items must be more than 45 years old to be considered for listing on the NRHP or the CR or be of exceptional importance. Isolates, by definition, lack immediate cultural context and therefore lack the data potential that would be required to be considered eligible for NRHP or CRHR inclusion. As a result, project effects to isolates would not be considered adverse under NHPA, nor would they constitute significant impacts under CEQA.
SECTION 4: RESULTS

4.1 - Records Search

4.1.1 - Central Information Center Record Search

On February 22, 2008, an archival records search was conducted by staff at the Central California Information Center (CCIC) California State University, Stanislaus, Turlock, California (CCIC File #1478.0009; Appendix A). The record search included the project study area and a 0.25-mile radius outside the study area boundaries. The CCIC record search included current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CR), the California Inventory of Historical Resources, the Caltrans Bridge Inventory (1987 and 2000), California State Historic Landmarks, and the California Points of Historical Interest. Five historic maps were included with the record search results:

- Map Number One from History of San Joaquin County, California with Illustrations (Thompson and West 1879: 1968 reprint) (Exhibit 5).
- 1952 Clements USGS 7.5-minute Quad Map (Exhibit 7).
- 1956 Valley Springs USGS 15-minute Quad Map (Exhibit 8).
- 1962 Wallace USGS 7.5-minute Quad Map (Exhibit 9).

Review of the maps indicates that P. L. Magerle owned a structure in the southwestern quarter of Section 21, according to the 1879 Thompson and West map. The 1939 Bellota map illustrates some structures within the general project area, but the map is at such a small scale that it is nearly impossible to match their locations on the current maps. The 1952 Clements map shows no structures within the project study area other than the Mokelumne Aqueduct. The 1956 Valley Springs 15-minute map depicts three structures in the extreme northeastern corner of Section 21, but these are not within the project area. In addition, there are two dirt roads and the Mokelumne Aqueduct depicted within portions of the project APE. The 1962 Wallace 7.5-minute map depicts the same dirt roads and the aqueduct.

In addition, two GLO Plat maps were included with the record search results. The GLO Plat map for Township 4 North/Range 9 East (Exhibit 10: sheet #41-299, dated 1852-1869) shows a road immediately adjacent in Section 22, a possible fence immediately adjacent in Sections 22 and 27 (possibly the end of a slough?), and 3 fences within 0.25 mile in Sections 16 and 21. No cultural features or references were noted for the project area. The second GLO Plat map for Township 3 North/Range 9 East (Exhibit 11: sheet #41-206, dated 1852-1883) does not show any cultural
references or features for the search radius, except to show the subdivision that occurred in the northern quarter of Sections 4, 5, and 6—a substantial distance north of the project.
Results of the CCIC records review indicated that one historical resource, the Southern Pacific Railroad Line, has been previously recorded at the northeastern edge of the project area, outside any of the areas subject to project effects. The railroad was determined ineligible for listing on the NRHP by consensus through the Section 106 process in 2003. A copy of the Primary Record (P-05-001757) is included in Appendix E.

Four previous investigations have been conducted within a 0.25-mile radius of the project study area: CA SJ-142, CA SJ-1970, SJ-2569, and CA-5739. None of the previous investigations resulted in recordation of cultural resources within the project APE.

4.1.2 - Native American Heritage Commission Record Search

On February 21, 2008, MBA sent a letter to the NAHC in Sacramento in an effort to determine whether any of the sacred sites listed on its Sacred Lands File occur within the project vicinity. The response from the NAHC was received on February 25, 2008, stating that a search of its Sacred Lands File failed to indicate the presence of Native American cultural resources in the project vicinity.

Included with the response was a list of seven Native American representatives who may have further knowledge of the project APE. To ensure that all Native American concerns are adequately addressed, letters were sent to each of the seven listed tribal contacts on March 26, 2008, requesting any input about the project area that these individuals may have (Appendix A). As of this date, no responses to either of the letter requests have been received.

4.1.3 - Paleontological Record Search

On February 5, 2009, MBA requested a paleontological record search of the UCMP to determine if paleontological resources were present within the project study area. On February 8, 2009, a response was received from Dr. Kenneth Finger, Ph.D., stating that the surface of the project site consists mostly, if not entirely, of sedimentary rocks that were deposited within the Eocene-Pleistocene interval.

The University of California Museum of Paleontology (UCMP) localities database was searched for the Eocene, Oligocene, Miocene, Pliocene, and Pleistocene epochs in both San Joaquin and Calaveras counties, and for the above-named units throughout California. The Ione Formation has no vertebrate localities, and it has 54 plant localities, none of which are in either county. Of 56 vertebrate localities in the Mehrten Formation, none are in San Joaquin County and only one is in Calaveras County, which yielded a molar of the Miocene horse (*Nannippus cf. N. tehonensis*). There are 39 other relevant localities within the two counties, all having yielded late Pleistocene (*Rancholabrean*) vertebrates: San Joaquin County has 15 vertebrate localities, each represented by a single specimen; in Calaveras County, a total of 24 specimens were recovered from four cave localities, and a horse (*Equus*) tooth fragment of the same age was found elsewhere.
The results of this investigation indicate that the project study area includes geologic units that have many significant fossil localities; excluding caves, there are 15 in San Joaquin County and one in Calaveras County, none of which are in its vicinity. Although the geologic units present have high paleontological sensitivities, their potential to yield significant paleontological resources is low. The relatively deep and voluminous planned excavations will increase the likelihood of encountering significant fossils. Thus, project excavations will probably need some degree of paleontological monitoring. A paleontological field survey of the site prior to project-related excavations is therefore recommended in order to better assess the site for future paleontological mitigation (Appendix A.3).

4.2 - Pedestrian Survey

MBA’s Senior Project Archaeologist Carrie D. Wills surveyed the project study area on December 16, 17, and 18, 2008. Approximately 75 to 80 percent of the project study area were surveyed using 20-meter transects walked in a zigzag pattern. The remaining 20 to 25 percent were surveyed using random transect distances because of steep slopes, vegetation, and other obstructions.

The eight mining areas are referred to as Resource Management Areas (RMA). Following are brief descriptions and photos for each of the eight RMAs and the haul roads. In general, the terrain of the eight RMAs varied from oak tree-covered grassy rolling hills with elevation ranging from approximately 250 to 360 feet, to steep ravines marked by steep, sparsely vegetated slopes that at many locations exceed 50 percent slope. The haul roads terrain was very similar to the RMAs although the haul road locations typically were in flatter areas.

In some areas, dense vegetation, steep sides of hills, highly vegetated areas, and steep ravines could not be surveyed using uniformly spaced transects. In highly vegetated areas, transect intervals were kept as close as possible, ensuring the best possible coverage while maintaining personal safety. Survey areas along the haul road locations were surveyed using zigzag transects that encompassed not only the haul road areas but an additional 20 to 30 feet on each side of the proposed roads, to provide a buffer zone which might be needed if slight alterations in the road configurations were required. At each of the eight RMAs, an additional 50- to 100-foot radius was surveyed to ensure protection of any previously undiscovered resources.

Following are brief descriptions and photos for each of the eight RMAs.

**RMA NA-1**

This 49.9-acre RMA will lower the existing ridgeline elevation by about 24 feet to create a broad flat ridge above several small drainages (Photographs 1 and 2).

**RMA NA-2**

RMA NA-2 is the southern extension of RMA NA-1 and is 52.7 acres situated along a low, northwest-trending ridge. Its southernmost extent is approximately 200 feet north of the Mokelumne
Aqueduct (aqueduct) and its northern extent is the section line delineating Sections 21 and 28. RMA NA-2 mining activities will reduce the existing land surface elevation by approximately 12 feet and will create a low, broad, and relatively flat topographic feature north of the aqueduct (Photographs 3 and 4).

RMA NA-3
RMA NA-3 totals 56.7 acres in the northeastern most portion of the project study area near the San Joaquin/Calaveras County line; it is located on a north-south-trending ridge and includes two short, east-west-trending ridges that separate two small drainages. Mined land will be reclaimed as annual grassland (upland) habitat (Photographs 5 and 6).

RMA NA-3 will be accessed by a new haul road constructed as shown in Exhibit 1. The haul road will serve RMA NA-3 and will be used as access to other RMAs north of the aqueduct. The road will be used to monitor reclamation north of the aqueduct and will be reclaimed after all mining and monitoring have been completed.

RMA NA-4
RMA NA-4 is located in the northwestern portion of the project study area on two broad ridges above four drainages. RMA NA-4 is contiguous to RMA NA-1 on the east and is connected by a narrow ridge separating two drainages. This 31.1-acre RMA will lower the existing ridgeline elevation by an average of about 10 feet to create a broad, flat ridge above several small drainages (Photograph 7).

RMA NA-5
RMA NA-5 is a 10.4-acre hillock in the eastern portion of the project study area located on the main haul road. The hillock will be excavated, resulting in a nearly flat, post-mining topography. The RMA will be reclaimed as annual grassland (Photograph 8).

RMA SA-1
RMA SA-1 is a 21.9-acre hill in the southwestern portion of the project study area. The hill will be excavated, resulting in post-mining topography that will be a relatively flat feature to be reclaimed as annual grassland. RMA SA-1 is located west of the existing egg farm (Photographs 9 and 10).

RMA SA-2
RMAs SA-2 is an 8.4 acre, isolated, table like topographic feature along the southern edge of Section 28, south of the aqueduct, that will be excavated to a depth of about 8 feet below the existing ground surface. The resulting post-mining topography will be a flat surface and will be reclaimed as annual grassland (Photographs 11 and 12).
RMA SA-3

RMA SA-3 is approximately 18.8 acres and will be excavated to a depth of about 9 feet below the existing ground surface. The resulting post-mining topography will be a flat to gently rolling feature that will be reclaimed as annual grassland (Photographs 13 and 14).

4.2.1 - Historic Resource Within Project Area of Potential Effects

KRC-1

One wood fence and corral area was found in NA-2 and was evaluated for eligibility for listing on the NRHP and the CR. The corral area measured approximately 220 feet by 400 feet and consisted of wood board fences, a wood loading ramp, board corrals, and a small concrete platform whose use is unknown (Photograph 15). The components of the corral area did not appear to be over 50 years of age. Some of the boards were weather-worn, but the majority of the fences and the fence posts had been recently replaced, probably within the last 5 years (Photograph 16). Another component adjacent to, but undoubtedly associated with, the corral area is an overturned water tank that also did not appear to be over 50 years old (Photograph 17).

In addition to the corral area not meeting the generally accepted age minimum of 50 years, it did not appear to meet any of the criteria for listing on the NRHP or the CR, as it was not associated with significant events in California history, was not associated with an important person from the past, was not of a distinctive style or method of construction, and would not yield information important in prehistory or history.

Therefore, the corral area is not considered a historic property for the purposes of Section 106 of the NHPA. As the corral area is not considered a significant resource and does not appear to meet any of the four criteria for listing on the NRHP, there will be no effect on a historic resource for purposes of Section 106 of the NHPA.
SECTION 5: SUMMARY

5.1 - Summary

In accordance with the NHPA, MBA assessed the effects of development of the proposed project APE. On February 25, 2008, a request was sent to the NAHC requesting a search of its Sacred Lands File. The search failed to indicate the presence of Native American cultural resources in the immediate project area. Included with the response letter was a list of seven Native American representatives who were sent letters to request their input about the project. As of the date of this report, no responses have been received from any of the Native American representatives.

The results of the vertebrate paleontology database search at the UCMP indicated that the proposed, relatively deep excavations will increase the likelihood of encountering significant fossils within the APE. Thus, project excavations will probably need some degree of paleontological monitoring. A paleontological field survey of the site prior to project-related excavations is therefore recommended in order to better assess the site for future paleontological mitigation.

Senior Project Archaeologist, Carrie D. Wills, conducted a pedestrian survey of the project APE to determine the presence or absence of historic properties that could be considered eligible for listing on the NRHP or the CR. No significant historic or prehistoric resources were discovered during the course of the survey; therefore, no historic properties will be affected by the proposed undertaking for the purposes of Section 106 of the NHPA. As no new cultural resources were discovered during the course of the field survey and no previously recorded resources when identified within the 0.25-mile search radius, archaeological monitoring during project development is not recommended.

Results of the CCIC records review indicated that one historical resource, the Southern Pacific Railroad Line, has been previously recorded at the northeastern edge of the project area, outside any of the areas subject to project effects. The railroad was determined ineligible for listing on the NRHP by consensus through the Section 106 process in 2003. No prehistoric resources have been recorded within the project area. Four historic resources have been recorded within a 0.25-mile radius of the project area, but none would be affected by project activities. No prehistoric resources have been recorded within a 0.25-mile of the project area.

5.2 - Recommendations

Since the project APE does not contain any resources that meet any of the four NHPA criteria for listing on the NRHP, and since no significant cultural resources that would meet the eligibility requirements for listing on the NRHP or the CR were discovered during the field survey, no further archaeological work is anticipated and construction monitoring during project development is not recommended.
Since relatively deep excavations will increase the likelihood of encountering significant fossils within the APE, a paleontological field survey of the site prior to project-related excavations is recommended to better assess the site for future paleontological mitigation.

The following inadvertent discovery procedures should be followed if previously unknown resources are discovered during the course of project development.

**5.3 - Inadvertent Discoveries**

**5.3.1 - Accidental Discovery of Human Remains**

There is always the possibility that ground-disturbing activities may uncover previously unknown human remains. Should this occur, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed.

In the event of an accidental discovery or recognition of any human remains, Public Resource Code (PRC) Section 5097.98 must be followed. In this instance, once Project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the Project in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;
   - The descendent identified fails to make a recommendation; or
The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

5.3.2 - Accidental Discovery of Cultural Resources

As mandated by Section 106 of the NHPA, federal agencies must take into account the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate adverse effects on such properties [36 CFR 800.1(a)]. Likewise, CEQA regulations state, “a Project that may cause a substantial adverse change in the significance of a historical resource is a Project that may have a significant effect on the environment” (PRC Section 21084.1). “Substantial adverse change” means “demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired” [PRC Section 5020.1(q)].

If an archaeological site qualifies for listing on the NRHP or CR, the provisions of Section 106 and CEQA mandate that the lead agencies further determine whether the proposed undertaking will have an “effect” and “adverse effect” upon the site [36 CFR 800.4(d)(1)]. According to federal regulations, “Effect means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register” [36 CFR 800.16(i)]. The criteria of adverse effect are:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative [36 CFR 800.5(a)(1)].

In accordance with PRC Section 21082 and Section 15064.5 of the CEQA Guidelines and [36 CFR 800] of Section 106 of the NHPA, if buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The archaeologist shall make recommendations to the lead agency concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds, consistent with Section 15064.5 of the CEQA Guidelines and 36 CFR 800. Cultural resources could consist of, but are not limited to, stone, bone, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. In accordance with PRC Section 21082 and Section 15064.5 of the
CEQA Guidelines, no further grading or construction activity shall occur within 50 feet of the discovery until the lead agency approves the measures to protect these resources.

In addition, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property will be taken and the State Historic Preservation Officer (SHPO) and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation (Council) will be notified within 48 hours in compliance with 36 CFR 800.13 (b) (3).

5.3.3 - Accidental Discovery of Paleontological Resources

If previously unknown paleontological resources are discovered during excavation activities, operations shall stop in the immediate vicinity of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study.
SECTION 6: REFERENCES


Appendix A:
Cultural Resources Correspondence
A.1 - Information Center Records Search Response
Dear Ms. Wills,

We have conducted a records search as per your request for the above-referenced project area located on the Clements and Wallace USGS 7.5-minute quadrangle maps in Calaveras and San Joaquin Counties.

Search of our files includes review of our maps for the specific project area and a one-quarter-mile radius of the project area (as specified by the client), and review of the National Register of Historic Places, the California Register of Historical Resources, the California Inventory of Historic Resources (1976), the California Historical Landmarks (1996), and the California Points of Historical Interest listing (May 1992 and updates), the Historic Property Data File (HPDF) and the Archaeological Determinations of Eligibility (ADOE) (Office of Historic Preservation current computer lists dated 12/04/2007 and 12/03/2007), the GLO Plats, and other historic maps available at the CCIC for the search area.

The following details the results of the records search:

**Prehistoric or historic resources within the project area:**

No prehistoric resources have been reported to the CCIC.

Historic resources; results:

1. A segment of the Southern Pacific Railroad Line (Lodi to Valley Springs Branch) has been recorded at the edge of the project area; copy of the one-page record by ASI attached for P-05-001757 (CA-CAL-001451H).

   There is a listing for an evaluation of this railroad line on the attached page 22 of the ADOE for Calaveras County, but it is probably not based on this recorded segment. Not eligible for the NRHP.

2. A check of the Historic Property Data File for both counties was "negative" for the project area.
(3) No recordings have been received at the CCIC for the Mokelumne Aqueduct in these counties, except for one record for the Holt and Woodward Island USGS quads in San Joaquin County; file available—P-39-004399 (CA-SJO-000286H).

(4) The following historic maps are attached; see for details—

- Map Number One from *History of San Joaquin County, California with Illustrations* (Thompson and West 1879; 1968 reprint).
- 1939 Bellota 15’; 1941 U.S. Army Corps of Engineers version (1:62500).
- 1952 Clements USGS 7.5’
- 1956 Valley Springs USGS 15’
- 1962 Wallace USGS 7.5’

(The GLO Plats are discussed later in this letter)

**Prehistoric or historic resources within a one-quarter-mile radius of the project area:**

No prehistoric resources have been reported to the CCIC.

**Historic resources, results:**

(1) Recorded sites or structures; summary as follows:

<table>
<thead>
<tr>
<th>P-05-</th>
<th>CA-CAL-</th>
</tr>
</thead>
<tbody>
<tr>
<td>003076</td>
<td>---</td>
</tr>
<tr>
<td>003078</td>
<td>---</td>
</tr>
<tr>
<td>003080</td>
<td>---</td>
</tr>
</tbody>
</table>

Edwards residence at 7582 Highway 12, ca. 1950.
Concrete box culvert, built 1958
Area of placer mining (tailings piles)

<table>
<thead>
<tr>
<th>P-39-</th>
<th>CA-SJO-</th>
</tr>
</thead>
<tbody>
<tr>
<td>000060</td>
<td>---</td>
</tr>
</tbody>
</table>

Late 1930’s to early 1940’s wood and concrete cistern or spring house with more recent metal tank added.

(none of the above were found in the ADOE printouts)

(2) The HPDF for Calaveras County (p. 12 attached) shows an evaluated S.P. railroad bridge at Wallace (not eligible for the NRHP), but we have no records for it. The associated report (SJ CA-3379) has photos but does not contain the location maps. We do not know if it is definitely in the search radius. The HPDF for San Joaquin County (no copy attached) shows 8 evaluated railroad bridges in the Clements area, of various construction dates, but all determined ineligible for the NRHP. Photos are available, but no maps (but they may not be in the search radius).

(The HPDF was otherwise “negative” for the search radius, in both counties).

(3) The attached GLO Plat map for T4N/R9E (sheet #41-299, dated 1852-1869) shows a road immediately adjacent in section 22, a possible fence immediately adjacent in sections 22 and 27 (possibly the end of a slough?), and 3 fences within ¼-mile in sections 16 and 21. No cultural features or references were noted for the project area.

(4) The attached GLO Plat map for T3N/R9E (sheet #41-206, dated 1852-1883) does not show any cultural references or features for the search radius, except to show the subdivision that has occurred in the N ½ of sections 4, 5, and 6.
Resources known to have value to local cultural groups:

None have been formally reported to the CCIC for either county.

Previous investigations within the project area:

None have been reported to the CCIC that show to have included survey in the project area. However, the following report is on file regarding abandonment of the railroad at the edge of the project area; title page attached—

**CCIC report #**
CA SJ-3379 Southern Pacific Transportation Co. (1994)

Previous investigations within a one-quarter-mile radius of the project area:

Title pages attached for the following—

**CCIC report #**
CA SJ-142 Derr (1981) (Along south and west side SR 12)
SI-2569 Scott (1995)
CA-5739 Hampson, Werner, and Crow (2003) (Along both sides SR 12, but not directly adjacent to project, according to the survey map; but associated with the recorded RR segment).

We have not received the survey reports for the following projects on the north and east sides of SR 12 (which overlap the search area)—

- Wallace CSD Subdivision (report by Werner/ASI?)
- Mokelumne Oaks Subdivision (Byars and Werner 1992 and Marvin 1992)
- Mokelumne Oaks II Tentative Subdivision (Werner/ASI?)

Recommendations/Comments:

Please be advised that a historical resource is defined as a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old. There may be unidentified features 45 years or older within your project that are considered as historical resources requiring further study and evaluation by a qualified professional of the appropriate discipline.

In accordance with State law, if any historical resources are found during construction, work is to stop and the lead agency and a qualified professional are to be consulted to determine the importance and appropriate treatment of the find.

We understand that you will be conducting an archaeological survey of the proposed project that is the subject of this records search. We look forward to receiving one copy of your report of findings which should include two copies each complete site record for all historical resources discovered as a result of the survey.
We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service. Please sign and return the attached Agreement of Confidentiality form. Billing is attached, payable within 60 days of receipt of the invoice.

Sincerely,

[Signature]

Robin Hards, Assistant Research Technician
Central California Information Center
California Historical Resources Information System
A.2 - Native American Heritage Commission Response and Representative Letters
February 25, 2008

Carrie D. Wills
Senior Project Archaeologist
Michael Brandman Associates
2633 Camino Ramon, Ste. 460
San Ramon, CA 94583

Sent by Fax: 925-830-2715
Number of Pages: 2

Re: Proposed KRC Aggregate Quarry Project #1479.0009, Sacramento County.

Dear Mr. Wills:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III
Native American Contacts
Sacramento County
February 25, 2008

Randy Yonemura
4305 - 39th Avenue
Sacramento, CA 95824
honortaltraditions@mail.com
(916) 421-1600

Sierra Native American Council
Dwight Dutschke, Chairperson
Box 12045
Ione, CA 95640
(209) 274-2357

Kenneth Cowell
4209 V Street
Sacramento, CA 95817
mrken@sonic.net
916-457-7144 - Home
916-213-3934 - cell

Wilton Rancheria
Mary Daniels-Tarango, Chairperson
7916 Farnell Way
Sacramento, CA 95823
(916) 427-2909 Home

Ione Band of Miwok Indians
Matthew Franklin, Chairperson
PO Box 1190
Ione, CA 95640
matt@ionemiwok.org
(209) 274-6753
(209) 274-6636 Fax

Wilton Rancheria
Leland Daniels, Cultural Resources Rep
7531 Maple Leaf Lane
Sacramento, CA 95828
(916) 689-7330

Ione Band of Miwok Indians
Heritage Cultural Committee
PO Box 1190
Ione, CA 95640
billie@ionemiwok.org
(209) 274-6753
(209) 274-6636 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.54 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed KRC Aggregate Quarry project #1479.9809, Sacramento County.
March 26, 2008

Wilton Rancheria
Leland Daniels, Cultural Resources Representative
7531 Maple Leaf Lane
Sacramento, CA 95828

Subject: Proposed KRC Aggregates Quarry Project, San Joaquin County

Dear Leland Daniels:

Our client, Knife River Corporation, has retained Michael Brandman Associates (MBA) to conduct a cultural resource investigation for a 1,182-acre site depicted in portions of Sections 21, 22, 28, 29, 31, 32, and 33 of Township 4 North, Range 9 East on the Clements and Wallace USGS topographic maps.

A record search conducted at the Central California Information Center (CCIC) on February 22, 2008, indicated that no previous studies have been conducted within the project area and that four were conducted within a 0.25-mile radius (CCIC File#6977 JL). No prehistoric or historic sites have been previously recorded within the project area. No prehistoric resources have been recorded within a 0.25-mile radius. One historic site, a segment of the Southern Pacific Railroad, was previously recorded and marks the current project’s northeast boundary and four other historic resources have been recorded within a 0.25-mile radius. A pedestrian field survey, conducted by MBA Archaeologists, is slated for the second week of April.

Consultation

The California Environmental Quality Act (CEQA) requires the City to consider the effect this project may have on historic properties. The definition of "historic properties" includes, in some cases, properties of traditional religious and cultural significance to Native American tribes. To determine whether any historic properties may be affected by the project, MBA has reviewed archival maps and historic documents and consulted with the Native American Heritage Commission (NAHC). The NAHC response letter indicated that there may be additional information to be gained from individual tribal members and/or tribal organizations. MBA is sending this letter to give you the opportunity to provide any additional knowledge you may have about the project area. Because public involvement is a key ingredient in successful CEQA consultation, we are soliciting your input as part of this process.

Please review this letter and the enclosed map and indicate whether you have any information concerning historic properties that may be affected by the proposed Project, as indicated below:

______ No, I am not aware of any Native American resources or sacred sites located within or near the Project Area.

______ Yes, I am aware of Native American resources or sacred sites located within or near the Project Area.

Describe, if possible, the resources using additional sheets of paper, if required:
In addition, please indicate whether you would like a copy of the Final Cultural Resource Report sent to you for your review:

_____ No, I do not need to have a copy of the report sent to me for review.

_____ Yes, I would like a copy of the report sent to me for review.

MBA is contacting you to determine if you have any concerns regarding this project. Your response would be greatly appreciated. If we do not receive a response from you within 15 calendar days, we will assume that to your knowledge, the project area is not located within any Native American religious or sensitive sites.

Please feel free to contact me at 925.830.2733 if you have any questions. Address and mail your response or any correspondence to my attention at the address below or via email at cwills@brandman.com

Sincerely,

Carrie D. Wills, MA, RPA
Senior Project Archaeologist

**Michael Brandman Associates**
**Bishop Ranch 3**
2633 Camino Ramon, Suite 460
San Ramon, CA 94583
925.830.2733  FAX 925.830.2715

Enclosures: USGS Clements and Wallace Topo Maps of Project Area
A.3 - Paleontological Record Search Response
February 8, 2009
Carrie Wills
Michael Brandman Associates
2633 Camino Ramon, Ste. 460
San Ramon, CA 94583

Dear Carrie:

Re: Paleontological Records Search for KFC Aggregates Quarry Expansion Project (MBA #1478.0009), San Joaquin County, California

Dear Carrie:

As per your request, I have conducted a thorough search of the University of California Museum of Paleontology (UCMP) paleontology database for the proposed KFC Aggregates Quarry Expansion Project in Linden, San Joaquin County, California. The designated area in which 12 new quarries are planned is along the Mokleumne Aqueduct and includes parts of Sections 22, 21, 28, 29, 31, 32 and 33, T4N, R9E, Clements (1968) and Wallace (1975) USGS 7.5-series topographic quadrangle maps. This land is in the western foothills of the Sierra Nevada, and has a topographic relief of approximately 180 feet. Satellite images suggest that most of the terrain is relatively undisturbed.

The proposed quarries are within an area that ranges from approximately 3.75 miles to 100 feet west of Calaveras County; all five northern area quarries are within two miles of the county line. Because geologic units are not restricted by political boundaries, it is vital that geological and paleontological information on both San Joaquin and Calaveras counties are included in this assessment.

Geologic mapping of San Joaquin County (California Division of Mines and Geology, 1955) indicates that the southern sector of the project site consists of Pliocene-Pleistocene sediments (TQ) for which the Victor Formation (Pleistocene sand, silt, and gravel), the Arroyo Seco Formation (Pleistocene gravel), and the Laguna Formation (late Pliocene to Pleistocene sand, silt, gravel, and clay) are not differentiated. The northern sector of the project site is predominately Miocene-Pliocene deposits (Tmv) for which the Mehrten Formation (Miocene-Pliocene water-lain andesite, volcanic debris and mudflows, massive andesite, some sand and gravel) and the Valley Springs Formation (Oligocene to Miocene rhyolitic tuff, pumice, and ash; some clay, silt, sand, and gravel) are not differentiated. The geologic map of Calaveras County (Clark and Lydon, 1962) indicates three units within the same township and range as the project site and along the shared county line. These are Quaternary alluvium (Qal), Miocene-Pleistocene gravels (Tqg), the Mehrten Formation (Tm), and the Eocene Ione Formation (Ti). The discontinuity between
the two maps is problematic, particularly at the county line where most of what is mapped as the Mehrten Formation in San Joaquin County aligns with the Ione Formation in Calaveras County. It is likely that the older San Joaquin County map needs to be revised with recognition of the Ione Formation. Regardless, the surface of the project site consists mostly, if not entirely, of sedimentary rocks that were deposited within the Eocene-Pleistocene interval.

The University of California Museum of Paleontology (UCMP) localities database was searched for the Eocene, Oligocene, Miocene, Pliocene, and Pleistocene epochs in both San Joaquin and Calaveras counties, and for the above named units throughout California. The Ione Formation has no vertebrate and 54 plant localities, none of which are in either county. Of 56 vertebrate localities in the Mehrten Formation, none are in San Joaquin County and only one is in Calaveras County, which yielded a molar of the Miocene horse Nannippus cf. N. tehonensis. There are 39 other relevant localities within the two counties, all having yielded late Pleistocene (Rancholabrean) vertebrates: San Joaquin County has 15 vertebrate localities, each represented by a single specimen; in Calaveras County, a total of 24 specimens were recovered from four cave localities, and a horse (Equus) tooth fragment of the same age was found elsewhere.

The results of this investigation indicate that the project site includes geologic units that have many significant fossil localities; excluding caves, there are 15 in San Joaquin County and 1 in Calaveras County, none of which are in its vicinity. Although the geologic units present have high paleontological sensitivities, their potential of yielding significant paleontological resources is low. The relatively deep and voluminous excavations planned will increase the likelihood of encountering significant fossils. Thus, project excavations will probably need some degree of paleontological monitoring. A paleontological field survey of the site prior to project-related excavations is therefore recommended in order to better assess the site for future paleontological mitigation.

If I can be of further assistance on this project, please do not hesitate to contact me.

Sincerely,

Ken Jungren

References

California Division of Mines and Geology, 1955. Geologic map of San Joaquin County showing mines, gas fields and holes drilled for gas, aggregate pits and clay product plants. California Division of Mines and Geology, Journal, vol. 51, no. 1, pl. 1. (Scale ca. 1:180,000)

Appendix B:
Personnel Qualifications
Carrie D. Wills, RPA, M.A.
Senior Project Archaeologist

Overview

- 17 Years Experience
- Master’s degree, Anthropology – California State University, Hayward
- Bachelor’s degree, Anthropology – California State University, Hayward
- Registered Professional Archaeologist #11138

Carrie Wills, RPA, possesses 17 years of experience in the area of prehistoric and historic archaeology. Her expertise includes conducting pre-field assessments, archival research, pedestrian field surveys, site evaluation and testing, and data recovery and analysis. She has extensive experience preparing documents that comply with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) and evaluating and assessing historic structures located on mining, ranching, and military facilities for inclusion on the National Register of Historic Places and California Register of Historical Resources.

Related Experience

Historical, Archaeological, and Paleontological Resources

**KB Home Monte Vista, Historic American Buildings Survey, City of San Jose.** Served as project manager for the KB Home Monte Vista Project. Conducted Historic American Buildings Survey Level III documentation for a large multi-structure canning facility, Del Monte Plant #3, in San Jose. Tasks included producing over 200 large-format, black and white photographs of exterior and interior views of the existing structures. The MBA historic report augments the photographic documentation by placing the structures within the appropriate historic context and addressing both the architectural and historical aspects of the site’s significance. Specifically, the historical report focused on the Plant’s contribution to the growth of the canning industry in San José. The plant was also assessed for historic significance and was found to meet the criteria for listing on the National Register of Historic Places as a District along with two other local Del Monte canneries. MBA coordinated with state, federal, and city agencies, including but not limited to City of San Jose Department of Planning and the National Park Service HABS/Historic American Engineering Record coordinator.

**Costco’s Warehouse Project, City of San Francisco.** Served as project manager for Costco’s Warehouse Project. Surveyed, excavated, and monitored the proposed site, located in downtown San Francisco, for a new Costco store. Supervised lab procedures and analysis of over 1,400 artifacts.

**Montezuma Wetlands Project, County of Solano.** Served as project manager for Solano County’s Montezuma Wetlands Project. Provided technical direction of a 4,700-acre archaeological survey in Solano County, resulting in recording and subsurface testing of 12 sites. Co-authored the technical report that included extensive impacts and mitigation measures.

**Lake Solano Regional Park Visitor’s Center Project, County of Solano.** As project archaeologist, conducted a cultural resource investigation that included record search reviews and a pedestrian field survey. The record searches included records at the Northwest Information Center, Rohnert Park, and at the Native American Heritage Commission in Sacramento.

**Off-road Vehicle Park, City of Bakersfield.** As senior project archaeologist, conducted an intensive field survey of 2,500 acres outside the City of Bakersfield. The project area included rolling hills, large flat valleys, and steep ravines. The survey resulted in discovery of over 150 prehistoric resources including bedrock mortars,
grinding slicks, and rock art. The resources were recorded and evaluated for eligibility for listing on the National Register of Historic Places and the California Register of Historical Resources. Following the evaluation, a comprehensive report detailing the findings was produced.

**Bel Lago Project, City of Moreno Valley.** As senior project archaeologist, conducted a site-specific field assessment of the Kerr Ranch and recorded all extant buildings and structures on Department of Parks and Recreation forms; both Primary and Building, Structure and Object forms. Detailed descriptions and measurements were taken as part of the assessment process, and each building and structure was evaluated individually for listing to the California Register of Historical Places or local registers or landmarks.

**Westlake Shopping Center, City of Daly City.** As senior project archaeologist for this major refurbishing effort for a shopping center located in Daly City, assessed the shopping center for historic significance under CEQA Section 15064 by reviewing historic maps, photos, and record and archival search results obtained from the Northwest Information Center and the Daly City Planning Department. Scope included conducting a visual appraisal of the existing buildings, structures, and signage.

**San Demas Project, City of Sacramento.** As senior project archaeologist, conducted a record search and field investigation for a built environment covering one city block in downtown Sacramento. As this was a built environment, there was no native ground surface to be surveyed; the investigation consisted of comprehensive research to determine the possibility of historic structures.

**Cabrillo Corners Commercial Project, City of Half Moon Bay.** As cultural resources specialist, conducted a record search at the Northwest Information Center and a pedestrian field survey of the proposed project area that borders Pilarcitos Creek in Half Moon Bay to determine the presence or absence of cultural resources prior to project development.

**Gustine Municipal Airport Project, County of Merced.** As senior project archaeologist, conducted a record search and pedestrian field survey of a 45-acre parcel located in Merced County to determine the presence or absence of cultural resources prior to improvements to the Airport.

**Scheiber/White Projects, County of El Dorado.** As senior project archaeologist, conducted record searches and field investigations for a 226-acre parcel and a 286-acre parcel of undeveloped land with gentle to steep rolling hills and open valleys.

**Protzel Project, County of El Dorado.** As senior project archaeologist, conducted a record search and field investigation for a 35-acre parcel of land. The field survey resulted in discovery of a site that contained both prehistoric and historic components located adjacent to one another.

**Miller Ranch Property, City of Lincoln.** As senior project archaeologist for this 130-acre residential development, reviewed record search results from the North Central Information Center, Sacramento and conducted a pedestrian field survey. The record search results indicated no cultural resources had been previously recorded within a 0.25-mile radius of the project area nor were any discovered during the field survey. A negative survey report was prepared detailing the record search and survey results to meet CEQA requirements.

**Fahren’s Creek Development Project, County of Merced.** As senior project archaeologist, conducted a record search and field investigation on a parcel of undeveloped land, a portion of which was immediately adjacent to Fahren’s Creek.
McBride R.V. and Self Storage Project, City of Chino. As senior project archaeologist, conducted a record search and pedestrian field survey of a 21.15-acre parcel of land to determine the presence or absence of cultural resources prior to project development. Prepared a negative survey report detailing the record search and survey results to meet CEQA requirements.

Brehm Communities, City of Chino. As senior project archaeologist for this 35-acre residential development, conducted a record search at the San Bernardino Archaeological Information Center and a modified field survey. Performed a visual assessment from various vantage points rather than a typical pedestrian survey and prepared a negative survey report detailing the record search and survey results to meet CEQA requirements.

Albers Barnes & Kohler LLP’s Palm Ranch Dairy Project, County of Kern. As senior project archaeologist, was responsible for CEQA compliance issues related to cultural resources on a 120-acre parcel. Conducted a Phase I survey to determine the presence or absence of cultural resources within the project area, resulting in the discovery of artifactual material on the ground surface. Conducted a Phase II testing program to determine the presence or absence of subsurface cultural resources, resulting in inconclusive findings. Provided mitigation measures to protect any previously undiscovered resources during project excavation activities.

Albers Barnes & Kohler LLP’s Bonanza Farm Dairy Project, County of Kern. As cultural resources specialist, conducted a record search and pedestrian field survey of two 200-acre parcels to determine the presence or absence of cultural resources prior to project development. Prepared a negative survey report detailing the record search and survey results to meet CEQA requirements.

Cypress Lakes Project, County of Contra Costa. As project manager, performed archival and records review, subsurface testing, and technical direction of an 850-acre archaeological survey that included two well-known and significant prehistoric burial mounds.

Mills Associates’ Tassajara Valley Project, County of Solano. As project manager, provided technical direction of a 2,500-acre archaeological survey that resulted in recording and subsurface testing of 14 historic and one prehistoric archaeological site. Analyzed artifacts and prepared technical reports.

Future Urban Areas, Mundie and Associates, County of Contra Costa. As field director, conducted a 4,500-acre archaeological survey that resulted in recording of 11 historic archaeological sites, including the previously unrecorded historic town sites of West Hartley, Empire, and Star Mine associated with the Mount Diablo coalfield developments of 1850-1885. Recorded features including foundations, privies, cisterns, basements, and dumps. Hundreds of surface artifacts were examined. Also directed artifact analysis and prepared technical reports.

Energy, Utilities & Pipelines

Santa Cruz Water District’s Pipeline Project, County of Santa Cruz. Served as resource team leader for this project that proposed modifications to the current operation and maintenance of an existing pipeline through implementation of the Santa Cruz North Coast Pipeline Rehabilitation Project. Reviewed compliance issues related to cultural resources found along four major waterways in Santa Cruz County and prepared a CEQA Initial Study to determine environmental impact associated with project implementation. Also provided necessary details to aid in the decision-making process for the project’s next phase.

Federal Energy Regulatory Commission (FERC) Relicensing Project, County of Kern. As resource team leader, reviewed cultural resources to meet the requirements of Section 106 of the National Historic Preservation Act in preparation of a new FERC license application. Directed the Section 106 review and
prepared the preliminary draft of the license application, evaluated project impacts, and authored the Historic Properties Management Plan and a Programmatic Agreement.

**Federal Energy Regulatory Commission (FERC) Relicensing Project, Kilarc-Cow Creek.** As resource team leader, provided NHPA Section 106 compliance review in preparation of a new FERC license application. Following the survey effort, prepared the preliminary draft of the license application, evaluated the project impacts, prepared a comprehensive report, and finalized the Historic Properties Management Plan and a Programmatic Agreement.

**Calypso Project Environmental Impact Statement, Fort Lauderdale, Florida.** Served as resource team leader for Tractebel North America, Inc.’s Calypso Project Environmental Impact Statement (EIS) for a new natural gas pipeline extending from the Exclusive Economic Zone in the Atlantic Ocean to Port Everglades. Conducted the NHPA Section 106 review of both offshore and onshore cultural resources and prepared the preliminary drafts of the third-party EIS for the jurisdictional portion of the pipeline.

**Rock Creek Hydroelectric Project, Oregon.** Served as project archaeologist for Oregon Trail Electric Consumer Cooperative’s Rock Creek Hydroelectric Project. Conducted a reconnaissance survey and evaluation of archaeological and historic resources to meet the requirements of NHPA Section 106.

**Patriot Natural Gas Pipeline Project, Tennessee, Virginia, and North Carolina.** Served as resource team leader for a project consisting of the Mainline Expansion and Patriot Extension three states. The Mainline Expansion involved improvement along East Tennessee Natural Gas Company’s existing pipeline in Tennessee and Virginia, including approximately 187 miles of new pipeline, replacement of old pipeline, additional compression at existing facilities, and five new compressor stations. The Patriot Extension involves approximately 100 miles of new pipeline in Virginia and North Carolina, including three new meter stations. Provided third-party review of cultural resources reports and prepared third-party EIS.

**Northwest Transmission Line Project, Oregon and Washington.** Served as project archaeologist for Wallula Generation, LLC’s Northwest Transmission Line Project. Conducted a 28-mile reconnaissance survey in Oregon and Washington along the Columbia River, evaluated and recorded archaeological sites, and completed appropriate forms for submittal to Washington.

**El Paso Energy’s and Broadwing Communications’ Fiber Optic Line, Texas and California.** Served as resource team leader for a proposed fiber-optic transmission line reaching from El Paso, Texas, to Los Angeles, California. Prepared a Proponent’s Environmental Assessment demonstrating CEQA compliance that was submitted with an application to the California Public Utilities Commission.

**Fiber Optic Project, Cities of San Jose, San Francisco, and Los Angeles.** Served as project manager for a Level Three Communications Fiber Optic Project. Conducted cultural resources studies and supervised construction monitoring to address CPUC mitigation measures during the “city build” portions of the project in San Jose, San Francisco, and the Los Angeles Basin. Prepared workbooks for each construction spread in each city to address potential cultural resources impacts and necessary mitigation required to preclude significant impacts.

**Fiber Network Project, Northern and Southern California.** Served as project manager for 360 Networks’ Fiber Network Project. Responsible for all aspects of project management for this linear project spanning the length of California, including coordination, budget, consultation, and compliance issues.

**Santa Fe Pacific Pipeline, State of California.** As field supervisor for Santa Fe Pacific Pipeline’s Concord-to-Colton Project, performed records search and intensive archaeological survey of a corridor stretching from
Fresno, through Bakersfield and Mojave, to San Bernardino. Recorded and evaluated for eligibility for listing on National Register of Historic Places more than 150 historic properties.

**CPUC Alturas Transmission Line Project, California and Nevada.** As archaeological monitor, documented compliance with mandated mitigation measures during the construction of this high-voltage power line reaching from Alturas, California, to Reno, Nevada.

**Environmental Impact Reports for General Plan Updates**

**General Plan Update, County of Monterey.** As senior project archaeologist, assisted in updating the General Plan with new policies including archaeological, historical, and paleontological resources. Tasks included a review of existing policies and suggestions for alternatives and updates relevant to current trends. Worked closely with Monterey County staff, agency personnel, and sub-consultants to ensure a high quality, timely Plan Update.

**Trails Specific Plan Project, City of Livermore.** As senior project archaeologist, conducted archival and record searches, including review of the 2000 North Livermore Specific Plan Draft Environmental Impact Report and the 2003 City of Livermore General Plan Update Master Environmental Assessment that specifically focuses on cultural resources within the proposed project area. Conducted a 235-acre pedestrian survey to determine the significance of previously recorded cultural resources and the presence or absence of previously unknown cultural resources, resulting in the recording of five historic resources using California Department of Parks and Recreation forms with context analysis and detailed maps. Prepared a comprehensive report including a detailed setting section with impacts and mitigation measures to ensure protection of significant cultural resources.

**Educational Facility Environmental Analysis**

**Delta View and Kit Carson Schools Project, Kings County Office of Education.** As senior project archaeologist, conducted archaeological and historical resource assessment at two proposed telecommunication tower sites located at two school sites. Conducted a record search at the Southern San Joaquin Valley Information Center and pedestrian surveys at both schools to determine the presence or absence of cultural resources. Determined negative survey results, and prepared a report detailing the record search and survey results that was presented to the Kings County Office of Education.

**Mine Reclamation Plans and Environmental Analysis**

**Abandoned Mine Inventory Project, Washington Bureau of Land Management.** As project manager, managed a five-person survey crew who conducted an intensive archaeological survey of 1,700 acres of difficult terrain and conditions in the City of Spokane. Recorded mining features and archaeological properties on appropriate State of Washington forms and prepared Determination of Eligibility forms for submittal to Washington’s State Historic Preservation Officer.

**High Desert Power Plant Project, County of San Bernardino.** As project manager, conducted an approximately 2,000-acre field inventory of block and linear project areas located near the City of Victorville. Recorded and evaluated more than 30 historic and prehistoric sites.

**Military Projects**

**Cultural Resources Overview Project, Concord Naval Weapons Station.** As project manager, tasks included review of archival records and record search results for previously recorded sites within the Station. In addition, more than 500 World War II buildings and structures were evaluated for National Register of Historical Places eligibility and documented on appropriate Department of Parks and Recreation forms. An archaeological site
prediction model was developed to determine the likelihood of the presence of cultural resources within specific areas of the Station. An extensive context document was prepared to facilitate a comprehensive understanding of the Naval Weapons Station in terms of its historic presence within Contra Costa County and the City of Concord. Following assessment of the Station and its historic components, a Cultural Resource Overview Report for the 13,000-acre facility was developed.

**NAVFAC Centerville Beach and Point Sur Projects, Humboldt and Monterey Counties.** As project archaeologist, responsibilities included reviewing archival and site records prior to pedestrian field surveys at each of the locations. Following the surveys, documentation on Department of Parks and Recreation forms was prepared for each of the World War II buildings/structures located within the Station boundaries. Subsequent efforts included development and submittal of a historic context report and structural assessments of the buildings to determine National Register of Historic Places eligibility status. Prepared a preliminary Historic and Archeological Resource Protection Plan evaluating known archaeological site locations and preparing maps depicting areas of archaeological sensitivity.

**Civil Engineering Laboratory Archaeological and Historic Resources Assessment Project, Port Hueneme.** As project manager, scope included reviewing archival records and historic Port Hueneme documents at the base, reviewing previously recorded sites records from the South Central Coastal Information Center, CSU, Fullerton, and researching at Ventura Historical Society. Architectural documentation was prepared for nine World War II buildings on appropriate Department of Parks and Recreation forms and a single prehistoric site located within the base was assessed. A historic context report was developed and each of the buildings/structures was individually evaluated for National Register of Historic Places eligibility. Following assessment and documentation, an EIR/EIS technical report including a detailed historic setting, an overview of each of the types of buildings within the project area, an impacts assessment section, and appropriate mitigation for the impacts was prepared.

**Navy Construction Battalion Center Historic and Archaeological Resources Protection Plan Project, Port Hueneme.** As project manager, tasks included archival research of Battalion Center documents a record search review at the South Central Coastal Information Center, CSU, Fullerton, and a pedestrian field survey. Subsequent to the archival research, architectural documentation of 130 World War II buildings/structures was completed on appropriate Department of Parks and Recreation (DPR) forms. The forms typically included DPR Primary forms for each building or structure although in some instances, e.g., for large non-descript warehouse structures, a representative building was documented and identical buildings were listed on the form as having identical attributes. In addition to the Primary forms, a Building, Structure, Object (BSO) form providing additional descriptive and evaluative information was completed when appropriate. Following the archival research for previously recorded cultural resource sites and the field survey, an archaeological site prediction model was developed for the Battalion Center. Following documentation, a historic context for the Battalion Center was prepared. In addition, each building was assessed for National Register of Historic Places (NRHP) eligibility and a Historic and Archaeological Resources Protection (HARP) Plan was prepared.

**H Street Extension Project, Lockheed Missiles and Space Company Property.** The project consisted of an extension of H Street within the western portion of the Lockheed Missiles and Space Company facilities. Archaeological efforts were part of mitigation for construction within a National Register listed prehistoric shell mound. As project archaeologist, the work included pre-construction site testing using various means including shovel and backhoe investigations, surface collection for the entire project area, and a Phase III data recovery program in coordination with the Most Likely Descendant (MLD). Disposition of human remains found within the site was decided upon an agreement with the MLD. A construction-monitoring program was conducted during initial grading activities at the site to ensure protection of previously unknown cultural resources and/or additional human remains.
Naval Fuel Depot Point Molate Historic Resources Assessment Project, City of Rohnert Park. As project manager, conducted an archival records review at various repositories as well as a record search at the Northwest Information Center in Rohnert Park for previously recorded cultural resource sites. Conducted a field survey and general site reconnaissance of the project area. Subsequent to the archival research and survey, documentation of ten World War II buildings/structures was completed on appropriate Department of Parks and Recreation forms. The buildings and structures were evaluated for eligibility for listing on the National Register of Historic Places. In addition, one prehistoric archaeological site was assessed within the project area. A preliminary Historic and Archeological Resource Protection Plan was prepared evaluating known archaeological site locations with maps depicting areas of archaeological sensitivity. A historic context was prepared for the project area and a technical report detailing all of the research, field survey, building and structure evaluations, and the assessment of the prehistoric site was provided to the client.

Maya Caves Project, Punta Gorda, Belize, Central America. As excavation team member, worked two field seasons examining prehistoric cave deposits. Conducted surveys and excavations, analyzed and cataloged artifacts, and prepared technical report sections.

Professional Affiliations
- Society for Historical Archaeology
- Society for California Archaeology
- Register of Professional Archaeologists
Appendix C: Regulatory Framework
REGULATORY FRAMEWORK

Government agencies, including federal, state, and local agencies, have developed laws and regulations designed to protect significant cultural resources that may be affected by Projects regulated, funded, or undertaken by the agency. Federal and state laws that govern the preservation of historic and archaeological resources of national, state, regional, and local significance include the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA). In addition, laws specific to work conducted on federal lands includes the Archaeological Resources Protection Act (ARPA), the American Antiquities Act, and the Native American Graves Protection and Repatriation Act (NAGPRA).

The following federal or CEQA criteria were used to evaluate the significance of potential impacts on cultural resources for the proposed Project. An impact would be considered significant if it would affect a resource eligible for listing to the National Register of Historic Places (NRHP), the California Register of Historical Resources (CR), or if it is identified as a unique archaeological resource.

Federal-Level Evaluations

Federal agencies are required to consider the effects of their actions on historic properties and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings under NEPA Section 106. Federal agencies are responsible for initiating NEPA Section 106 review and completing the steps in the process that are outlined in the regulations. They must determine if NHPA Section 106 applies to a given Project and, if so, initiate review in consultation with the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO). Federal agencies are also responsible for involving the public and other interested parties. Furthermore, NHPA S106 requires that any federal or federally assisted undertaking, or any undertaking requiring federal licensing or permitting, consider the effect of the action on historic properties listed in or eligible for the NRHP. Under the Code of Federal Regulations (CFR), 36 CFR Part 800.8, federal agencies are specifically encouraged to coordinate compliance with NEPA Section 106 and the NEPA process. The implementing regulations “Protection of Historic Properties” are found in 36 CFR Part 800. Resource eligibility for listing on the NRHP is detailed in 36 CFR Part 63 and the criteria for resource evaluation are found in 36 CFR Part 60.4 [a-d].

The NHPA established the NRHP as the official federal list for cultural resources that are considered important for their historical significance at the local, state, or national level. To be determined eligible for listing in the NRHP, properties must meet specific criteria for historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, a resource must meet one or all of these eligibility criteria:
A. Is associated with events that have made a significant contribution to the broad patterns of our history

B. Is associated with the lives of persons significant in our past

C. Embodies the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction

D. That have yielded, or may be likely to yield, information important in prehistory or history

Criterion D is usually reserved for archaeological resources. Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

**Criteria Considerations**

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, buildings that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance

B. A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event

C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life

D. A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events

E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived

F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance

G. A property achieving significance within the past 50 years if it is of exceptional importance
Thresholds of Significance

In consultation with the SHPO/THPO and other entities that attach religious and cultural significance to identified historic properties, the Agency shall apply the criteria of adverse effect to historic properties within the Area of Potential Effects (APE). The Agency official shall consider the views of consulting parties and the public when considering adverse effects.

Federal Criteria of Adverse Effects

Under federal regulations, 36 Code of Federal Regulations (CFR) Part 800.5, an adverse effect is found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualifies the property for inclusion in the NRHP in a manner that diminishes the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Consideration will be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for listing in the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Pursuant to 36 CFR Part 800.5, adverse effects on historic properties include, but are not limited to, those listed below:

- Physical destruction of or damage to all or part of the property
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the U.S. Secretary of the Interior’s Standards for the Treatment of Historic Properties in accordance with 36 CFR Part 68 and applicable guidelines
- 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, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long term preservation of the property’s historic significance
If Adverse Effects Are Found

If adverse effects are found, the agency official shall continue consultation as stipulated at 36 CFR Part 800.6. The agency official shall consult with the SHPO/THPO and other consulting parties to develop alternatives to the undertaking that could avoid, minimize, or mitigate adverse effects to historic resources. Pursuant to 36 CFR Part 800.14(d), if adverse effects cannot be avoided then standard treatments established by the ACHP maybe used as a basis for Memorandum of Agreement (MOA).

Pursuant to 36 CFR Part 800.11(e) the filing of an approved MOA, and appropriate documentation as specified at, concludes the § 106 process. The MOA must be signed by all consulting parties and approved by the ACHP prior to construction activities. If no adverse affects are found and the SHPO/THPO or the ACHP do not object within 30 days of receipt, the agencies responsibilities under § 106 will be satisfied upon completion of report and documentation as stipulated in 36 CFR Part 800.11. The information must be made available for public review upon request, excluding information covered by confidentiality provisions.

State-Level Evaluation Processes

An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California in accordance with Public Resources Code PRC § 5020.1(j) or if it meets the criteria for listing on the CR that are consistent with California Code of Regulations (CCR) at Title 14 CCR § 4850.

The most recent amendments to the CEQA guidelines direct lead agencies to first evaluate an archaeological site to determine if it meets the criteria for listing in the CR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CR, potential adverse impacts to it must be considered, in accordance with PRC §§ 21084.1 and 21083.2(l). If an archaeological site is considered not to be a historical resource, but meets the definition of a “unique archeological resource” as defined in PRC § 21083.2, then it would be treated in accordance with the provisions of that section.

With reference to PRC § 21083.2, each site found within a Project will be evaluated to determine if it is a unique archaeological resource. A unique archaeological resource is described as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person

As used in this report, “non-unique archaeological resource” means an archaeological artifact, object, or site that does not meet the criteria for eligibility for listing on the CR, as noted in subdivision (g) of PRC § 21083.2. A non-unique archaeological resource requires no further consideration, other than simple recording of its components and features. Isolated artifacts are typically considered non-unique archaeological resources. Historic structures that have had their superstructures demolished or removed can be considered historic archaeological sites and are evaluated following the processes used for prehistoric sites. Finally, OHP recognizes an age threshold of 45 years. Cultural resources built less than 45 years ago may qualify for consideration, but only under the most extraordinary circumstances.

Title 14, CCR, Chapter 3 § 15064.5 is associated with determining the significance of impacts to archaeological and historical resources. Here, the term historical resource includes the following:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CR (PRC § 5024.1; Title 14 CCR, § 4850, et seq.).

2. A resource included in a local register of historical resources, as defined in PRC § 5020.1(k) or identified as significant in an historical resource survey meeting the PRC § 5024.1(g) requirements, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript, which 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 may be considered an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (PRC § 5024.1; Title 14 CCR § 4852) including the following:

   A. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage

   B. Is associated with the lives of persons important in our past
C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

D. Has yielded, or may be likely to yield, information important in prehistory or history

Typically, archaeological sites exhibiting significant features qualify for the CR under Criterion D because such features have information important to the prehistory of California. A lead agency may determine that a resource may be a historical resource as defined in PRC §§ 5020.1(j) or 5024.1 even if it is:

- Not listed in or determined to be eligible for listing in the CR
- Not included in a local register of historical resources pursuant to PRC § 5020.1(k)
- Identified in an historical resources survey in accordance with PRC § 5024.1(g)

Threshold of Significance

If a Project will have a significant impact on a cultural resource, several steps must be taken to determine if the cultural resource is a “unique archaeological resource” under CEQA. If analysis and/or testing determine that the resource is a unique archaeological resource and therefore subject to mitigation prior to development, a threshold of significance should be developed. The threshold of significance is a point where the qualities of significance are defined and the resource is determined to be unique under CEQA. A significant impact is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced to a point that it no longer meets the significance criteria. Should analysis indicate that Project development will destroy the unique elements of a resource; the impacts to the resource must be mitigated for under CEQA regulations. The preferred form of mitigation is to preserve the resource in-place, in an undisturbed state. However, as that is not always possible or feasible, appropriate mitigation measures may include, but are not limited to:

1. Planning construction to avoid the resource
2. Deeding conservation easements
3. Capping the site prior to construction

If a resource is determined to be a “non-unique archaeological resource,” no further consideration of the resource by the lead agency is necessary.

SB 18 Tribal Consultation

The following serves as an overview of the procedures and timeframes for the Tribal Consultation process, for the complete Tribal Consultation Guidelines, please refer to the State of California Office of Planning and Research website.
Prior to the amendment or adoption of general or specific plans, local governments must notify the appropriate tribes of the opportunity to conduct consultation for the purpose of preserving or mitigating impacts to cultural places located on land within the local government’s jurisdiction that is affected by the plan adoption or amendment. Tribal contacts for this list are maintained by the NAHC and is distinct from the Most Likely Descendent (MLD) list. It is suggested that local governments send written notice by certified mail with return receipt requested. The tribes have 90 days from the date they receive notification to request consultation. In addition, prior to adoption or amendment of a general or specific plan, local government must refer the proposed action to tribes on the NAHC list that have traditional lands located within the city or county’s jurisdiction. Notice must be sent regardless of prior consultation. The referral must allow a 45-day comment period.

In brief, notices from government to the tribes should include:

- A clear statement of purpose
- A description of the proposed General or Specific Plan, or amendment, the reason for the proposal, and the specific geographic areas affected
- Detailed maps to accompany the description
- Deadline date for the tribes to respond
- Government representative(s) contact information
- Contact information for Project proponent/applicant, if applicable

The basic schedule for this process is:

- 30 days - time NAHC has to provide tribal contact information to the local government; this is recommended not mandatory.
- 90 days - time tribe has to respond indicating whether or not they want to consult. Note: tribes can agree to a shorter timeframe. In addition, consultation does not begin until/unless requested by the tribe within 90 days of receiving notice of the opportunity to consult. The consultation period, if requested, is open-ended. The tribes and local governments can discuss issues for as long as necessary, or productive, and need not result in agreement.
- 45 days - time local government has to refer proposed action, such as adoption or amendment to General Plan or Specific Plan, to agencies, including the tribes. Referral required even if there has been prior consultation. This opens the 45-day comment period.
- 10 days - time local government has to provide tribes of notice of public hearing.
Appendix D:
Project Area Photographs
Photograph 1: Typical drainage within NA-1; facing east.

Photograph 2: Overview of NA-1; facing southeast.

Photograph 3: Overview of NA-2; facing southeast.

Photograph 4: Overview of typical terrain within NA-2; facing north.
Photograph 5: Overview of typical terrain within NA-3; facing north.

Photograph 6: Typical drainage within NA-3; facing east.
Photograph 7: Overview of NA-4; facing east.

Photograph 8: Overview of NA-5; facing southwest.
Photograph 9: Overview of SA-1; facing northeast.

Photograph 10: Drainage at west end of SA-1; facing north.
Photograph 11: Overview of SA-2; facing southwest.

Photograph 12: Overview of SA-2, abandoned chicken ranch in background; facing northwest.
Photograph 13: Overview of SA-3; facing east.

Photograph 14: Overview of SA-3; facing northeast.
Photograph 15: Overview of SA-4; facing north.

Photograph 16: View of SA-4 from top of typical hill; facing northeast.

Photograph 17: Overview of SA-5 with pipeline in background; facing northeast.

Photograph 18: Typical drainage within SA-6; facing north.
Photograph 19: Overview of cattle corrals and fence area; facing south.

Photograph 20: View of corral area; facing southwest.
Photograph 21: Overturned water tank near corral area; facing southwest.
Appendix E:
CCIC Primary Record for the
Southern Pacific Railroad Line
Other identifier:

*P2. Location: □ Not for Publication □ Unrestricted *a. County: Calaveras and (P2b abd P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad: Wallace Date: 1962 T4N; R9E; E 1/2 of N 1/4 of Sec22; M.D.B.M.
c. Address: n/a
d. UTM: ZONE: 10; 677049 mE/4228690 mN, 677176 mE/4228602 mN, 677413 mE/4228640 mN, 677634 mE/4228578 mN, 677731 mE/4228452 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) South and east of Wallace, on the south and west side of Highway 12.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The railroad line along this stretch consists of a raised bed that appears to be intact and in good condition. All rails and ties have been removed. The railroad bed follows the alignment depicted on the 1962 Wallace 7.5' Quadrangle.

*P3b. Resource Attributes: (List attributes and codes) At4 Railroad Grade

*P4. Resources Present: □ Building □ Structure □ Object □ Site □ District □ Element of District □ Other (isolate, etc.)

P5b. Description of Photo: (View, date, accession #)

*P6. Date Constructed/Age and Source: □ Historic □ Prehistoric □ Both

*P7. Owner and Address: Not known

*P8. Recorded by: (Name, affiliation, and address) Paul Hampson, ASI, 1117 Aberdeen, Stockton, CA

*P9. Date Recorded: 3/26/2003

*P10. Survey Type: (Describe) Intensive

*P11. Report Citation: (Site survey report and other sources, or enter "none.")

*Attachments: □ None □ Location Map □ Sketch Map □ Continuation Sheet □ Building, Structure, and Object Record
□ Archaeological Record □ District Record □ Linear Feature Record □ Milling Station Record □ Rock Art Record □ Artifact Record
□ Photograph Record □ Other (List):

DPR 523A (1/95)
E.2 - SHPO Concurrence
June 17, 2010

Kathleen A. Dadey, Ph.D
Chief, California South Branch
Department of the Army
U.S. Army Engineer District
Sacramento Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

Re: Section 404 of the Clean Water Act for the Knife River Corporation Mine Expansion Project, Calaveras and San Joaquin Counties, California (Regulatory Division SPK-2006-00930).

Dear Dr. Dadey:

Thank you for submitting to our office, your letter and supporting documentation regarding the project noted above. The U.S. Army Engineer District, Sacramento Corps of Engineers, is seeking my concurrence on the effects that this project will have on historic properties, pursuant to 36 CFR Part 800 (as amended 8-05-04) regulations implementing Section 106 of the National Historic Preservation Act (NHPA). The proposed undertaking, the Knife River Corporation Mine Expansion Project, will affect waters under the jurisdiction of the United States and requires authorization by the COE pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The COE has identified this action as an undertaking subject to review under Section 106 of the NHPA.

The proposed actions will consist of the expansion of an existing quarry for additional extraction of sand and aggregate. Mining operations, including both extraction sites and haul roads, will be extended to an additional 270 acres located within a 1,040 acre property owned by the applicant. The Area of Potential Effects (APE) consists of this 270 acre area. In addition to your letter of June 09, 2010, you have submitted the following report as documentation of your efforts to identify and evaluate historic properties in the APE.

- Section 106 Cultural Resources Assessment Knife River Corporation Mine Expansion San Joaquin and Calaveras Counties, California (Carrie D. Willis, Michael Brandman Associates: April 21, 2010).

Identifications efforts by the COE have concluded that there are no historic properties located in the project APE. Based on these results, the COE has concluded that a finding of No Historic Properties Affected is appropriate pursuant to 36 CFR Part 800.4(d)(1). I have no objection to this finding.
Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the COE may have additional future responsibilities for this undertaking under 36 CFR Part 800. Thank you for seeking my comments and for considering historic properties in planning your project. If you require further information, please contact William Soule, Associate State Archeologist at phone 916-654-4614 or email wsoule@parks.ca.gov.

Sincerely,

Susan H. Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

The Office of Historic Preservation will be moving to a new location as of July 14, 2010. The new address for the office will be 1725 23rd Street, Suite 100, Sacramento CA 95816. Please update your records accordingly. The entire office will also be receiving new phone numbers, and those numbers will be posted on our website at www.ohp.parks.ca.gov when they are active.