

3.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section provides a background assessment of cultural and paleontological resources in the vicinity of the Madera and North Fork sites. A cultural resources survey for the Madera and North Fork sites was prepared by Analytical Environmental Services (AES) in February 2005 and is summarized below. The cultural resources survey is presented as a confidential appendix to this EIS and is available to authorized parties under a separate cover.

A preliminary assessment of paleontologic sensitivity for the Madera and North Fork sites was also prepared by AES in February and April 2005 and is summarized below.

3.6.1 SETTING – MADERA COUNTY REGION

PREHISTORY

Madera Site Vicinity

The Madera site is located in the Central Valley archaeological region (San Joaquin Valley sub-region) of California (Moratto, 1984). South of Stockton, the Central Valley remains one of the least-known archaeological areas of the State due in part to the fact that large-scale excavations have been limited to early reservoir projects at the Buchanan, San Luis, Los Banos, and Little Panoche reservoirs (Moratto, 1984). Other work has included a few salvage archaeological projects around the Central Valley and at Buena Vista Lake. In addition to the paucity of archaeological research in the area, the depositional history of the central valley has likely caused archaeological evidence to be deeply buried under alluvium, particularly in the lower reaches of the San Joaquin and Sacramento river drainages and the Delta area where up to 10 meters of sediments have accumulated during the past 5,000 to 6,000 years (Moratto, 1984).

According to Fredrickson (1974) human history in California can be divided into three broad periods: the Paleoindian period, the Archaic period, and the Emergent period. This scheme used sociopolitical complexity, trade networks, population, and the introduction and variations of artifact types to differentiate between cultural units; the scheme remains the dominant framework for the prehistoric archaeological research in this region.

The Paleoindian period (12,000 to 8000 B.C.) was characterized by small, highly mobile groups occupying broad geographic areas. During the Archaic period, consisting of the Lower Archaic period (8000 to 5000 B.C.), Middle Archaic period (5000 to 3000 B.C.), and Upper Archaic period (3000 B.C. to A.D. 500), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The addition of milling tools, obsidian and chert concave-base points, and the occurrence of sites in a wider range of environments suggest that the economic base was more

diverse. By the Upper Archaic, mobility was being replaced by a more sedentary adaptation in the development of numerous small villages, and the beginnings of a more complex society and economy began to emerge. During the Emergent period (A.D. 500 to historic contact), social complexity developed toward the ethnographic pattern of large, central villages where political leaders resided, with associated hamlets and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched points, mortars and pestles, and a diversity of beads and ornaments (Gerike et al., 1996:3.11-3.17).

North Fork Site Vicinity

The North Fork site is located in the Sierra Nevada archaeological region. The earliest residents in the general vicinity of the study area are represented by the Fluted Point and Western Pluvial Lakes Traditions, which date from about 11,500 to 7,500 years ago (Moratto, 1984). These early peoples are thought to have subsisted using a combination of generalized hunting and exploitation of plants and animals in nearby lakes (Moratto, 1984).

Early cultural assemblages were followed by an increase in Native population density approximately 7,500 years ago. In the Central Valley of California in the general vicinity of the North Fork site, aboriginal populations continued to expand between 6,500 and 4,500 years ago, with the possibility that Macro-Penutian-speaking arrivals (including Miwok, Yokuts and Nisenan) introduced more extensive use of bulbs and other plant foods, animal and fishing products more intensively processed with mortars and pestles, and perhaps the bow and arrow and associated small-stemmed and corner-notched projectile points. The peoples occupying the North Fork site area at the time of initial contact with European American populations were the Western Mono.

ETHNOGRAPHY

At the time of European contact, typical Native American occupation throughout the state was characterized by separate and politically autonomous nations first referred to by ethnologist A.L. Kroeber as “tribelets” (Kroeber, 1925; Moratto, 1984). Tribelets were typically governed by a chief and tended to have one or more permanent village sites with smaller seasonal/temporary camps scattered throughout the tribelet territory for food procurement. Tribelets sharing similar cultural elements and linguistic traits comprised “nonpolitical ethnic groups” and have been grouped by ethnologists into the language families we are familiar with today. It is understood today that the “boundaries” between language families were temporally and spatially fluid, with different groups occupying the same areas over time. Many distinctions made by the early ethnographers were more an exercise in organization than a real reflection socio-political identity.

The North Fork site is located in a larger transitional area between the Foothill and Northern Valley Yokuts language groups (Spier, 1978:471; Wallace, 1978:463) on the western side of the Sierra Nevada foothills as it transitions into the Great Central Valley. The area around the present city of Madera, three miles southeast of the Madera project site, was characterized as a hub of intertribal activity, including social, ceremonial, political, and economic exchange and interaction between the Yokuts and their neighbors. The Foothill Yokuts were a group of about 15 named tribelets that occupied the eastern Central Valley and surrounding Sierra Nevada foothills. Though loosely connected through trade and marriage, like their Monache neighbors to the east, there was no Yokuts nation or overarching political unity. The distinctions between groups were most obviously linguistic and territorial (Spier, 1978:426, 471; Wallace, 1978:462).

It has been estimated that at the time of European contact, the foothills of the Sierra Nevada were the most densely inhabited area in California. The Native American population of the region, comprised primarily of the Yokuts within the Valley and eastern Sierra foothills, Miwok to the north, and Monache to the east, was estimated to have exceeded 180 persons per square mile (Kroeber in Spier, 1978) with a total population of about 4,000 in 1770. Foothill Yokuts villages, like their neighbors, were small and loosely organized with no principal village site. Each village typically averaged approximately 13 individuals in anywhere from three to eight huts.

After AD 1770, Spanish colonial expeditions, along with the mission system and the Euroamerican invasion, caused great disruptions both in settlement patterns and population for the native Californians. Exposure to illnesses brought by the Spaniards, the Mexicans, and later the Americans, led to significant attrition rates due to diseases for which they had little or no immunity. The most significant impact came from the epidemic of 1833 (most likely malaria), which claimed an estimated 75% of the Central Valley's native inhabitants by 1846 (Moratto, 1984). Although some Foothill Yokuts became residents of the Tule River Indian Reservation, most settled in hamlets or isolated dwellings scattered throughout their traditional territory. Picayune, one such community near Oakhurst, had an estimated population 112 persons in 1950 (Spier, 1978:483). Early explorers and 20th century ethnographers have documented what remained of the Foothill Yokut culture post contact. Particulars of their material culture and society relevant to the identification of artifacts and features at the project site are described below.

Hunting, fishing, and gathering of plant foods comprised the subsistence strategy of the Yokuts. Seasonal movements to various elevations on the Sierra Nevada foothills were common to maximize the exploitation of resources. Deer were the primary game staple, hunted by stalking in disguise, driving into ambush, tracking, or trapping with a spring-pole device that caught the animal by the leg. Animals were also dispatched by the bow and arrow (Spier, 1978). Bears were hunted, being driven from their caves in the spring into hunting parties lead by a bowman.

Ground squirrels and rabbits were commonly smoked from their holes or pulled out by twisting long flexible sticks into their fur.

Acorns and pinenuts, after gathering, were stored in elevated granaries located near the dwellings. Manzanita berries were mashed and strained with water to create a beverage. Insects, grubs, seeds, and yucca roots were also eaten and honey was favored when it could be found (Spier 1978).

Obsidian was the principal material used for making stone tools, particularly for knives, scrapers, and projectile points. Bows were fashioned from California laurel or juniper wood. Steatite was a common material used in the making of cooking vessels. Most basketry produced by the Yokuts was similar in style to that of their immediate neighbors, the Monache. Baskets included twined burden-baskets, seed beaters, sieves, fan-shaped winnowers, coiled mush, storage or washing baskets, winnowing trays, and gambling trays. Woven textiles were not produced and although potsherds sporadically appear in archaeological contexts, Yokuts apparently did not make earthenware vessels, obtaining them instead through trade (Wallace, 1978:465).

Yokuts dwellings took any one of three forms; 1) a conical grass and willow twig-thatched house with excavated floor, 2) an oval grass-thatched house with a center ridgepole, or 3) an open, flat shade grass structure used as a shaded outdoor living and work place during the hot weather. Sweathouses, when present, constituted the other major structure of a village and were similar in construction to the oval house with a center ridgepole. The floor of the sweathouse was usually excavated several feet below grade and the roof was made saplings held under brush and covered with earth.

HISTORICAL CONTEXT

Madera County is located in the exact center of California, in the heart of the Central Valley and the Central Sierras (Madera, County of, 2004). It is one of the fastest growing counties in California. Fresno County borders on the south, Mariposa and Merced Counties on the north, and Mono County on the east.

Early Euro-American Exploration

The early Spanish expeditions into Alta California avoided the Madera area, hence no Spanish settlements existed there (Hoover, 1990). The geography of the County is largely responsible for its early isolation. “It was practically impossible to penetrate the tulares from the west or to cross the sloughs that covered the whole central portion of the San Joaquin Valley at high water” (Hoover, 1990). Early American explorers began cutting trails through Madera County as early as 1827 when Jedediah Strong Smith and later Kit Carson, as well as the Hudson Bay Company,

passed through the area in pursuit of beaver pelts (Hoover, 1990). However, the first record of the County was not made until John C. Fremont camped along the San Joaquin River on April 4 through 6, 1844, at a point near where State Route 145 crosses the river today (Hoover, 1990).

American Settlement

An early leader in the Madera area, James D. Savage arrived in California to work the southern mines and opened four trading posts, three in Madera County and one in Mariposa County, between 1848 and 1852 (Hoover, 1990). Savage is known to have employed Chinese to work the San Joaquin River for him and was at first involved in fighting the local Indians, but later befriended them, marrying at least five Indian girls, one from each of the neighboring tribes (Madera, County of, 2004).

In addition to Savage, other local ranchers hired Chinese laborers to clear their fields of rocks and to use them for boundary fences (Madera, County of, 2004). These dry-laid fences remain today and can still be seen in many areas across the County.

The town of Madera was laid out by the California Lumber Company in 1876 to take advantage of a settlement that had arisen where the Central Pacific Railroad Station met the terminus of a 63-mile flume descending from the wooded highlands (Hoover, 1990). When Madera County was created from a portion of Fresno County in 1893, the town of Madera was made the county seat; it continues to serve as the county seat today.

Mining Industry

With the discovery of gold in 1849, mines and mining settlements began springing up along the San Joaquin and Fresno rivers (Hoover, 1990). Mines were located around Coarsegold Gulch and Grub Gulch, along the Fresno River and Gold Creek near Hildreth (southeast of Oakhurst), and around Fine Gold Gulch (Madera, County of, 2004). Coarsegold, also known as Texas Flat for the five Texans that founded it, was the largest placer mining camp in Madera County. The name was changed to Coarsegold because the sand yielded extremely coarse particles of gold. This distinguished it from Fine Gold Gulch, 6 miles to the southeast (Hoover, 1990). The California Journal credits what is now Madera County with the production of \$1,350,000 in gold between 1880 and 1892 (Madera, County of, 2004). Today, little trace remains of the many mining camps that at one time made up this district.

Madera County also produced quartz and copper mines in the mid to late 1800s, and, until the end of World War II (Hoover, 1990).

3.6.2 REGULATORY BACKGROUND

NATIONAL REGISTER OF HISTORIC PLACES ELIGIBILITY

The National Historic Preservation Act of 1966 (as amended through 2000) authorizes the National Register of Historic Places (NRHP), a program for the preservation of historic properties (“cultural resources”) throughout the Nation. The eligibility of a resource for NRHP listing is determined by evaluating the resource using criteria defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and

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

Unless a site is of exceptional importance, it is not eligible for listing in the NRHP until 50 years after it was constructed.

All properties change over time. Therefore, it is not necessary for a property to retain all its historic physical features or characteristics in order to be eligible for listing on the NRHP. The property must, however, retain enough integrity to enable it to convey its historic identity; in other words, to be recognizable to a historical contemporary. The National Register recognizes seven aspects or qualities that, in various combinations, define integrity:

1. **Location** – the place where the historic property was constructed or the place where the historic event occurred.
2. **Design** – the combination of elements that create the form, plan, space, structure, and style of a property.
3. **Setting** – the physical environment of a historic property.
4. **Materials** – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

5. **Workmanship** – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. **Feeling** – a property’s expression of the aesthetic or historic sense of a particular period of time.
7. **Association** – the direct link between an important historic event or person and a historic property (National Park Service 1990).

To retain historic integrity a property will always possess several, and usually most, of these aspects. In order to properly assess integrity, however, significance (why, where, and when a property is important) must first be fully established. Therefore, the issues of significance and integrity must always be considered together when evaluating a historic property.

3.6.3 PREHISTORIC AND HISTORIC RESOURCES – MADERA SITE

RECORDS AND LITERATURE SEARCH

Methodology

A record search was completed at the Southern San Joaquin Valley Information Center (SSJVIC), of the California Historical Resources Information System (CHRIS) located at California State University, Bakersfield, by SSJVIC staff (SSJVIC File No. 04-026). Archaeological site base maps and records, survey reports, and other pertinent materials were reviewed. Sources of information included, but were not limited to, the listings of properties on the National Register of Historic Places (NRHP), California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the Office of Historic Preservation’s Historic Property Directory for Madera County (OHP, 2004).

The Office of Historic Preservation has determined that structures in excess of 45 years of age should be considered potentially important historical resources, and former building and structure locations could be potentially important historic archaeological sites. Therefore, archival research included an examination of old maps to gain insight into the nature and extent of historical development in the general vicinity, and especially on the Madera site.

In addition, ethnographic literature that describes appropriate Native American groups, county histories, and other primary and secondary sources were reviewed.

Results

The results of the record search indicate that no portions of the Madera site have previously been surveyed. However, there has been one survey conducted adjacent to the Madera site (Hatoff, et al., 1995), and one survey conducted within one mile (Wadell Engineering Corporation, 1996).

No cultural resources have been recorded within the Madera site, or within one mile of the Madera site.

NATIVE AMERICAN CONSULTATION

A letter requesting a check of the sacred lands file for the Madera site was sent to the Native American Heritage Commission (NAHC) in February 2004. The NAHC responded indicating that they have no record of sacred lands within or near the Madera site. The NAHC also supplied the name of one Native American individual who may have knowledge of cultural resources in the project area. A letter requesting information about potential cultural resources on both the Madera and North Fork sites was sent to this individual on February 23, 2004. No responses were received. Copies of correspondence are located in **Appendices J and Q**.

FIELD SURVEY

Methodology

A reconnaissance level survey of the Madera site was conducted in March 2004 and an intensive level cultural resources survey was completed by AES cultural resources specialists Kelly Heidecker and Gary Arnold on February 9 through 10, 2005. The Madera site was examined by walking zigzag transects spaced approximately 25 meters apart; thick ground cover and standing water conditions prevented closer transects.

Based on archival review, it was anticipated that prehistoric resources were not likely to be encountered during a walkover survey of the site, and historic-period cultural resources would be present in the form of a ranching complex. Prehistoric archaeological site indicators include, but are not limited to: flakes and chipped stone tools; grinding and mashing implements such as slabs and handstones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire-affected stones. Historic period site indicators generally include: standing structures, fragments of glass, ceramic and metal objects, milled and split lumber, and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

Department of Parks and Recreation (DPR) site recordation forms (DPR 523 forms) were prepared for each site located during the survey.

Results

One historical site was identified and recorded (AES-05-1 (Daulton Ranch)) during the field survey on February 10, 2005. Although the majority of the Madera site is now agricultural fields, remnants of Schmidt Creek, now channelized through the site, and standing water in many locations towards the south side of the property, indicate that the area retains much of its original

drainage patterns. Oral interviews with the current land tenant, who has lived on site for 10 years, indicated that the Madera site floods often during the winter months (Flower, pers. comm., 2005).

AES-05-1 (Daulton Ranch)

The site consists of the remnants of a farm complex intermixed with a modern prefab residential dwelling, Quonset hut, and ranching features in their original agricultural setting. The primary structures related to the historical period of the site include a barn and shed, both built circa 1953 (**Figure 3.6-1**). Personal communication with the current tenant indicated the farm was once owned by the Daulton family, who were early prominent local citizens (Flower, pers. Communication, 2005). This claim is further evidenced by the faint remains of the ranch name painted on the side of the shed, as can be seen **Figure 3.6-1, Photograph 2**.

Extant features of the historical farm complex include a large, gabled barn, a shed, and associated cattle-related features such as rail fencing that forms a corral and loading chute, and a large round water trough made of poured concrete. County records indicate that his barn was constructed in 1953, and field observations concur with that date.

The remnants of this historic farm complex were identified, recorded, and evaluated for its eligibility to the National Register of Historic Places (NRHP). The evaluation found that though the remains of the Daulton Farm are a resource representative of the theme of early ranching/agricultural development within the Central Valley (Criterion A), the integrity of the setting, association, and feeling, however, have been altered by the removal of the original residence and the introduction of a modern prefab dwelling and large Quonset hut being used as a workshop. While the remaining structures may appear to meet criterion A because of their association with the theme of early California farming, they do not portray the importance of this theme as well as might a farm where the original residence has not been replaced by a modern dwelling, etc. Moreover, the barn itself is not architecturally distinctive and has no intrinsic characteristics that set it apart from other vernacular barns in this area. Therefore, the evaluation of the historical and architectural significance of the Daulton Farm found that it does not meet the criteria for inclusion on the NRHP. This site is also located outside the developed area of the Madera site. Therefore, the proposed project would not affect known historic properties.

3.6.4 PALEONTOLOGICAL RESOURCES – MADERA SITE

INTRODUCTION

This section presents documentation on reported paleontological deposits on the Madera site and surrounding region, as well as an analysis on the potential for unreported paleontological

Figure 3.6.1

resources to be present on the Madera site. Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints or endocasts, and reside in sedimentary rock layers.

TYOLOGIES AND FORMATION PROCESSES

The processes involved in the preservation of paleontological resources result in several types of remains. Factors affecting the persistence of paleontological resources vary between species, and broadly include geological formation processes (**Section 3.2**), climate, soil and rock chemistry, and organism morphology. Paleontological resources are discussed here as fossil remains, although other types of remains occur elsewhere.

Fossils are the remains of plants and animals embedded in layers of rock, which have retained some degree of their original characteristics over a long period of time. Remains are buried under layers of sediment, which under building pressure become sedimentary rock. Paleontological remains can be those of organism structure, such as skeletal parts, shell, tree trunks, pollen, endocasts or imprints, or they can be remnants of activity, such as footprints or tunnels of burrowing organisms. Soft tissues are less frequently fossilized, because they usually decay before fossilization processes take place. Since fossil remains occur in sedimentary rock formations, they tend to persist unless the rock has undergone significant changes. Fossils do not occur in metamorphic rock formations.

Fossils of considerable age may be subject to varying degrees of mineralization, at times resulting in the total replacement of original, organic matter by minerals. The agents of mineralization are most commonly composed of calcium carbonates, such as calcite and aragonite, and silicates, such as quartz, opal and chalcedony. Less common materials are iron disulfides, such as pyrite and marcasite, limonite, sulphates, such as gypsum, phosphates, such as calcium phosphate and vivianite, and glauconite. These minerals are typically transported in minute quantities by seeping water, with aggregation over time.

REGULATORY BACKGROUND

The Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et seq.; 34 Stat. 225) calls for the protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on Federal land. Additional provisions appear in the Archaeological and Historic Data Preservation Act of 1974, as amended, for the survey, recovery, and preservation of significant scientific, prehistoric, historic, archaeological, or paleontological data, in such cases wherein this type of data might be otherwise destroyed or irrecoverably lost as a result of Federal projects.

REGIONAL CHARACTERISTICS

The Madera site lies within the Great Valley Geomorphic Province discussed in **Section 3.2**. The floor of this Province, younger in age than the upland areas of the Sierra Nevada Province, is comprised of alluvial sediments, which at varying depths throughout the County has compacted into sedimentary rock formations. While the formation of the Great Valley Province began in the late Jurassic period, the landmass that eventually became the valley was under seawater until approximately 5 million years ago, when deposition and uplifting transformed it into habitat area for Pliocene and latter-epoch flora and fauna.

DATABASE SEARCH

Evidence for the age range of the valley portion of Madera County appeared in findings during a database search of the University of California Museum of Paleontology (UCMP) in April of 2005. Late Cretaceous period documentation for the County's valley portion is limited to several species of bivalves, related to clams, scallops and oysters. Fossils of Tertiary age (approximately 65 million years ago to 1.5 million years ago), when larger mammals became prevalent on land, are limited to *Trochocyathus californianus*, a type of fossil corralite.

Records for terrestrial mammals and other fossil specimens of Quaternary age (1.5 million years ago to present) appear within 6 miles of the Madera site at the Fairmead Landfill. The Fairmead Landfill has produced an abundance of Pleistocene-epoch mammals, reptiles and birds. To date over 15,000 specimens have been discovered at depths of 10 to 60 feet over a 14-acre area. Only 190 entries for this site appeared in the UCMP online database at the time the records search was conducted. The full extent of the site is not yet known.

FIELD SURVEY

No evidence of fossils on the Madera site was observed during the Cultural Resources survey conducted on February 9 and 10, 2005. However, surface and subsurface sandstone and hardpan clumps of various sizes were observed to be fairly ubiquitous. Subsurface probing with hand trowels revealed that hardpan layers are present in some places to within 10 centimeters below ground surface. The hardpan observed was reddish in color, and as such likely originated in the mafic rock formations in the Sierra Nevadas to the east.

POTENTIAL FOR FOSSIL DISCOVERY

Based on the age range of the Great Valley formation, and on the extent of paleontological discovery in the vicinity of the Madera site, there is potential for subsurface Pleistocene-epoch fossils to be present on the Madera site. Such fossils would be present below the levels that have been disturbed by grading and tilling.

3.6.5 PREHISTORIC AND HISTORIC RESOURCES – NORTH FORK SITE

RECORDS AND LITERATURE SEARCH

Methodology

A records search was completed at the Southern San Joaquin Valley Information Center (SSJVIC), of the California Historical Resources Information System (CHRIS) located at California State University, Bakersfield, by SSJVIC staff (SSJVIC File No. 05-033). Archaeological site base maps and records, survey reports, and other pertinent materials were reviewed. Sources of information included, but were not limited to, the listings of properties on the National Register of Historic Places (NRHP), California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the Office of Historic Preservation's Historic Property Directory for Madera County (OHP, 2005). Historic maps, plats, and aerial photographs were also reviewed to gain insight into the nature and extent of historical development in the general vicinity, and especially on the North Fork site.

In addition, ethnographic literature that describes relevant Native American groups, county histories, and other primary and secondary sources were reviewed.

Results

The results of the records search indicate that portions of the property have been subjected to two previous cultural resources studies (Francis, 2000; Napton and Greathouse, 1995). Napton and Greathouse (1995) conducted a linear survey of a proposed fuel break project that bisected the North Fork site. No cultural resources were identified. In 2000, Francis surveyed the complete property as part of fire pre-suppression project. Seven archaeological resources were identified within the property (see **Table 3.6-1**).

TABLE 3.6-1
RESOURCES IDENTIFIED WITHIN THE NORTH FORK SITE

Resource I.D. #	Description
P-20-2353	Prehistoric bedrock mortar outcrop
P-20-2354	Prehistoric bedrock mortar outcrop, lithic scatter, midden deposit, historic-period debris scatter
P-20-2355	Historic-period water conveyance ditch
P-20-2356	Prehistoric bedrock outcrop, lithic scatter, midden deposit
P-20-2357	Possible historic-period mining feature
P-20-2358	Prehistoric bedrock mortar outcrop, lithic scatter
P-20-2359	Prehistoric bedrock mortar outcrop, lithic scatter, midden deposit, historic-period debris scatter

SOURCE: Francis, C.W. 2000.

NATIVE AMERICAN CONSULTATION

Please refer to **Section 3.6.3** for a detailed discussion of the Native American consultation process.

FIELD SURVEY

Methodology

A reconnaissance level cultural resources survey of the North Fork site was completed by AES cultural resources specialist Kelly Heidecker on February 15, 2005. At that time, the North Fork site was examined by walking zigzag transects spaced approximately 15 meters apart in areas accessible to pedestrian survey, which comprised approximately 20 acres of the 80-acre site. The remaining 60 acres were not surveyed due to steep slopes, rocky terrain, and heavy undergrowth.

Based on archival review, it was anticipated that prehistoric and historic period resources might be encountered during a walkover survey of the site. Prehistoric archaeological site indicators include, but are not limited to: flakes and chipped stone tools; grinding and mashing implements such as slabs and handstones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire affected stones. Historic period site indicators generally include: standing structures, fragments of glass, ceramic and metal objects, milled and split lumber, and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

Results

No cultural resources were identified during the survey conducted on February 15, 2005. The poor visibility due to dense vegetation and steep terrain limited the field survey to the centrally located meadow area and areas surrounding it. None of the cultural resources identified in the records search are located in the meadow area or other areas surveyed during the field visit.

3.6.6 PALEONTOLOGICAL RESOURCES – NORTH FORK SITE

REGIONAL CHARACTERISTICS

The North Fork site lies within the Sierra Nevada Geomorphic Province in **Section 3.2**. This Province is considerably older in age than the lowland areas of the Great Valley Province. It is composed primarily of granite and granitic intrusive igneous formations, which formed as a result of magma displacement caused by the subduction of the Farallon Plate in the formation of California. Subsequent erosion and Pleistocene glacial activity have stripped the older top layers from the Sierra Nevada, and regional freeze and thaw patterns have washed the matter as alluvium into the lower elevations, including the Great Valley Province.

DATABASE SEARCH

A database search of the University of California Museum of Paleontology (UCMP) was conducted by AES in April of 2005. The UCMP database did not reflect any paleontological data for the Sierra Nevada Province.

FIELD SURVEY

No paleontological resources were identified during the field survey conducted on February 15, 2005.

Potential for Fossil Discovery

Fossil discovery on the North Fork site is unlikely. Surface soil conditions are likely too young to bear materials of paleontological nature. Soil layers likely to contain fossils have already eroded into the valley below. The granite formations beneath the North Fork site would not support fossil formation.