CHAPTER 11

CULTURAL RESOURCES

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The section provides an overview of the cultural history of the Palmdale area, a description of known cultural resources within and around the project area, regulatory requirements, and an analysis of potential impacts to cultural resources that would result from implementation of the project.

ENVIRONMENTAL SETTING

This setting description provides a brief overview of the prehistory, ethnography, and history of the project area and the surrounding region.

Prehistory

A framework of the timeline and cultural history of the Antelope Valley has been developed by several scholars, including Warren, 1984; Norwood, 1987; Robinson, 1987a; and McIntyre, 1990. Prehistoric chronology in the Antelope Valley can be divided into four broad time periods: Early (8,000 years ago), Middle (8,000-2,000 years ago), Late (2,000 years ago – 1770 A.D.), and Post Contact (1770 A.D. - Present). The following desert chronology illustrates Warren's chronological sequence of Pinto, Gypsum, Saratoga Springs, and Protohistoric periods.

Pinto Period

Pinto Period (5,000 B.C. - 2,000 B.C.) sites are found mostly near ephemeral lakes and now-dry streams and springs suggesting a wetter climate than today. Projectile points associated with the Pinto Period are characterized as larger atlatl dart points, as opposed to arrowhead points, which were introduced later. This period has been described as a highly mobile desert economy, with an emphasis on hunting, supplemented by the use of processed seeds. Pinto Period artifacts have been interpreted as indications of temporary or seasonal occupations by small groups of people.

Gypsum Period

The Gypsum Period (2,000 B.C. – 500 A.D.) reflects a more intensive desert occupation. Indications of trade with coastal populations are evidenced by the shell beads in the archaeological record. An increase in milling stones and manos has been found in association with this period, which indicates an increased use of hard seeds. Several scholars associate this period with the division of the Uto-Aztecan language, approximately 3,000 - 2,500 years ago. The major language groups which emerged from this division are Numic, spoken by the Kawaiisu and Piute; Takic, spoken by the Kitanemuk, Serrano, Gabrielino, and other southern California Shoshonean speakers; Hopic, spoken in the southwest; and Tubatulabalic, spoken by the Tubatulabal in the southern Sierra Nevada Mountains. A shift in settlement patterns toward a more sedentary lifestyle occurred during this period, characterized by the emergence of large permanent or semi-permanent village sites and associated cemeteries.

Saratoga Springs Period

The Saratoga Springs Period (A.D. 500 – 1200 A.D.) is characterized by a transition from larger dart points to smaller arrow points. This, combined with evidence from rock art motifs, leads scholars to argue for a shift from atlatls to bow and arrow during the end of the Gypsum period or the beginning of the Saratoga Springs Period. This period saw an increase in trade with Arizona and other areas of the Southwest. Evidence in the archaeological record show that Brown and Buff wares (pottery styles), characteristic of Arizona, made their way across to the California desert by 900 A.D. It is also believed that the Anasazi mined turquoise in the eastern California desert about this time. Many archaeological sites in the Antelope Valley appear to date from the Saratoga Springs Period.

Protohistoric Period

The Protohistoric Period (A.D. 1200 - 1769) is seen as a continuation of the previous period, while also containing characteristics of the historic period. This period is artifactually characterized by Desert Side Notch Points (arrowhead), Cottonwood Points (arrowhead), Tizon Brown Ware Pottery, and Owen's Valley Brown Ware Pottery. This period saw a major decline in the population of the Antelope Valley. Some suggested factors for this decline include disease, the drying up of Lake Cahuilla and the drying up of the lakes in the Cronise Basin, missionization, and the collapse of the trade network.

Ethnographic Background

Several Native American groups lived in the Antelope Valley at the time of European contact. All of the Native American groups presented here were organized in hunter/gatherer societies who were semi-nomadic throughout the Antelope Valley. Generally, they did not establish permanent villages, but rather occupied various regions and set up camp seasonally. Much of what is now known about these Native American groups prior to European contact is derived from the archaeological record. This is due in large part to the decimation the Native American groups experienced as a result of missionization, disease, conflict, and intermarriage. Although early Spanish explorers and mission clergy recorded information about the local Native American populations, professional anthropological studies were not begun until the end of the 19th century after virtually all of the Southern California Indian groups had been either totally assimilated by Spanish, Mexican, and American cultures, or sent to reservations. Several of these indigenous groups are now extinct, and there is little historic ethnographic documentation about their way of life. Some information that is known through ethnographic accounts has been provided here.

Kawaiisu

The Kawaiisu[1] lived in regions of the Antelope Valley prior to European contact. As with other Native American groups in Southern California, the Kawaiisu were a hunter/gatherer society, relying heavily on game, which included deer, birds, rodents, insects, and rabbits. An ethnobotanical study of this group listed over 112 plants considered suitable for food and beverage. According to one estimate, the population of this group may have been 500 people (undated). By 1984, less than 30 documented members of this group were living in Southern California.

Kitanemuk

The Kitanemuk[2] were a small group located principally in the Tehachapi Mountains, extending eastward into the Mojave Desert around Rosamond Dry Lake. They also shared the western Antelope Valley with the neighboring Tataviam. Late 18th century explorers may have visited the area, but little historical information is available. Most members of the group were assimilated into the Missions San Fernando, San Gabriel, and possibly San Buenaventura. A few may have been present at Fort Tejon during the 1850s relocation of Native Americans from the Antelope Valley. No population estimates are available for this group.

The subsistence technology of the Kitanemuk must have been similar to their neighbors, that is, a hunter/gatherer society relying on available resources and migrating yearly to exploit these resources.

Serrano

Most researchers place the Serrano[3] in the San Bernardino Mountains east of Cajon Pass, at the base and north of the mountains in the desert near Victorville, eastward as far as Twenty-nine Palms, then

[1] *Zigmond, Maurice L., Kawaiisu, Handbook of North American Indians, Great Basin, Volume 11, 1981.*

[2] *Blackburn, Thomas C. and Lowell, John Bean, Kitanemuk, Handbook of North American Indians, California, 1978.*

[3] *Bean, Lowell John and Charles R. Smith, Serrano, Handbook of North American Indians, California, 1978.*

south into the Yucaipa Valley. The Serrano were gatherers and hunters. Women conducted most of the gathering while the men performed all of the hunting. Food preferences varied from locality to locality. Acorns and pine nuts were the staple foods for those living in the foothills. Yucca roots, mesquite and cacti fruits were the principal foods of those in and near the desert.

The location of Serrano settlements was determined by accessibility to fresh water. Families lived in circular, domed structures built of willow frames covered with tulle thatching. In addition to the family dwellings, each village had a large ceremonial house where the lineage leader lived. Other structures included storage and sweathouses.

Because the Serrano were located inland, European influence was not significant until after 1819 when a mission was established at present day Redlands. Between 1819 and 1834, most of the Western Serrano were forced into the mission system. Serrano traditions survived in locations more distant from Spanish influence, such as northeast of the San Gorgonio Pass. Population estimates for the Serrano range between 1,500 and 2,500 at the time of first contact with the Spanish.

Tataviam

The Tataviam[4] group lived primarily on the upper reaches of the Santa Clara River drainage system east of Piru Creek. Their territory may also have extended over the Sawmill Mountains to include at least the southwestern fringes of the Antelope Valley, which they apparently shared with the Kitanemuk. Kitanemuk speakers occupied the greater portion of the Antelope Valley. The Tataviam were hunters and gatherers who prepared their foodstuffs in much the same way as their neighbors. Their primary foods included yucca, acorns, juniper berries, sage seeds, deer, the occasional antelope, and smaller game such as rabbits and ground squirrels.

There is no information regarding Tataviam social organization, though information from neighboring groups show similarities among Tataviam, Chumash, and Gabrielino ritual practices. Like their Chumash neighbors, the Tataviam practiced an annual mourning ceremony in late summer or early fall that would have been conducted in a circular structure made of reeds or branches. At first contact with the Spanish in the late 18th century, the population of this group was estimated at less than 1,000 persons.

Historic Setting

Prior to the last part of the 19th century, activity in the Antelope Valley was limited to cattle grazing, miner prospecting, and hunting expeditions. In 1776, Father Francisco Garces, a Franciscan priest, documented his account of the Antelope Valley and his meeting the indigenous peoples of the Antelope Valley as he made his way to Monterey, California, by way of the Mojave Desert. Father Garces' account is the first complete documentation of the Antelope Valley and its original inhabitants. For a few years after initial contact, Spanish influence in the Antelope Valley was sporadic and benign. As European populations in the valley grew, the Spanish began to enforce missionization of the indigenous peoples and in 1808, the Spanish sent a military expedition into the Antelope Valley in order to relocate the Native Americans of the Antelope Valley to the San Fernando Mission. The European and American population in the Antelope Valley grew throughout the Spanish and Mexican periods until California was won by the United States in 1848. In 1853, the United States government established an Indian reservation at Fort Tejon, located in the mountains at the western edge of the Antelope Valley (near present day Castaic) and relocated at least 1,000 Native Americans from the Antelope Valley to the Fort Tejon reservation. A decade later, many Native Americans attempted to flee Fort Tejon in hopes of returning to their ancestral lands in the Tehachapi

[4] *King, Chester and Thomas C. Blackburn, Tatviam, Handbook of North American Indians, California, Volume 8, 1978.*

Mountains and the Antelope Valley, but their attempts were futile as the U.S. government returned them to Fort Tejon.

Historic development of the Antelope Valley increased after the 1876 establishment of the Southern Pacific Railroad, which linked Los Angeles with the San Joaquin Valley. In the early 1880s, a settler named M.L. Wicks founded a Scottish agricultural colony of about 150 people near present day Lancaster. These settlers had high agricultural expectations, due in large part to the discovery of artesian wells in the area.

Two small communities, Harold and Palmenthal, established in the late 1880s, are considered to be foundations of what would become Palmdale. Harold was established at the crossroads of the Southern Pacific Railroad and Fort Tejon Road and was primarily inhabited by railroad employees. Harold was located at the current intersection of Sierra Highway and Barrel Springs Road. Palmenthal, located about 3 miles southeast of the Palmdale Civic Center, was established by immigrant farmers and fruit growers and was officially named in 1888 when a post office was opened in the general store. By 1899 both communities were largely abandoned and relocated to the present location of Palmdale, where the railroad had established a new station (Palmdale City Library, 2004).

The late 1920s and 1930s marked the beginning of a large-scale military presence in the area. Muroc Army Air Base (now EAFB) was founded at Rogers Dry Lake, which had a positive economic effect on the Antelope Valley. Muroc Army Air Base acted as a remote bombing range built at Muroc Dry Lake (now called Rogers Dry Lake). During World War II, it was a major bomber-training base. In 1947, after taking off from the base, Captain Chuck Yeager broke the sound barrier in a Bell XI aircraft while flying over the Antelope Valley. The base's name was changed in 1950 to honor Captain Glen W. Edwards, who died while test-piloting the experimental YB-49 aircraft there on June 5, 1948.

Existing Cultural Resource Conditions

Methods

The effort to identify cultural resources in the project area and surrounding region included a record search and review of existing documents and reference materials.

A cultural resources records search of all pertinent survey and site data was conducted at the South Central Coastal Information Center on January 11, 2005. The records were accessed by utilizing the Lancaster East, Alpine Butte, Palmdale, and Little Rock USGS 7.5-minute quadrangle maps, which include the LAWA property and Initial Study Area. In addition to Information Center maps and site record forms, other sources that were reviewed included the California Points of Historical Interest, California Historical Landmarks, the California State Historic Resources Inventory, and the City of Los Angeles Cultural Monuments listings in addition to other standard reference sources used by the Information Center.

Results

The records search resulted in the finding that the entire LAWA area, including the existing PWRP area as well as the proposed effluent management site, has been previously surveyed for the presence of cultural resources as part of the environmental investigations for the PMD study.

No cultural resources have been identified within the LAWA property west of Little Rock Wash. Two cultural resource sites (CA-LAN-2193H and 2195H), which include historic period concrete pipes and historic period concrete slabs and wells, have been recorded within ½ miles of the lease area, but would not be affected by the proposed project.

Although the majority of Initial Study Area was not subjected to a cultural resources records search, the LAWA area east of Little Rock Wash was included in the records search. Two prehistoric archaeological sites

have previously been identified in this area (CA-LAN-1062 and 19-120055) that include flaked and ground stone scatters. Based on the records search results, it is likely that the remainder of the Initial Study Area has moderate sensitivity for the presence of prehistoric archaeological sites.

REGULATORY BACKGROUND

City of Palmdale General Plan

The City of Palmdale General Plan addresses cultural resources through the identification of an objective and several policies designed to identify, protect, and mitigate damage to cultural resources:

Objective ER7.1: Promote the identification and preservation of historic structures, historic sites, archaeological sites, and paleontological site resources in the City.

Policy ER7.1.1: Identify and recognize historic landmarks from Palmdale's past.

Policy ER7.1.2: Promote maintenance, rehabilitation, and appropriate reuse of identified landmarks where feasible.

Policy ER7.1.3: Require that new development protect significant historic, paleontological, and archaeological resources, or provide for other appropriate mitigation.

Policy ER7.1.4: Develop and maintain a cultural sensitivity map. Require special studies/surveys to be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as identified on the sensitivity map.

Policy ER7.1.5: When human remains suspected to be of Native American origin are discovered, cooperate with the NAHC and any local Native American groups to determine the most appropriate disposition of the human remains and any associated grave goods.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This section describes the criteria used to determine if significant impacts would occur, the types of project-related actions that could result in significant impacts to important cultural resources, a description of potential impacts that would result from implementation of the project, and the identification of feasible mitigation measures that would reduce impacts and potential impacts to a less-than-significant level.

Thresholds of Significance

Under criteria based on the CEQA Guidelines, the project would be considered to have a significant impact on cultural resources if it would result in any of the following:

- A substantial adverse change in the significance of an historical resource that is either listed or eligible for listing on the NRHP, the California Register of Historic Resources, or a local register of historic resources;
- A substantial adverse change in the significance of a unique archaeological resource;
- Disturbance or destruction of a unique paleontological resource or site or unique geologic feature; or
- Disturbance of any human remains, including those interred outside of formal cemeteries.

CEQA provides that a project may cause a significant environmental effect where the project "may cause a substantial adverse change in the significance of an historical resource" (Pub. Resources Code, Section 21084.1). For the purposes of this document, District No. 20 has determined that impacts to historical resources will be significant if the project would cause a substantial adverse change in the significance of those resources. CEQA Guidelines Section 15064.5 defines a "substantial adverse change in the significance of an

historical resource" to mean "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." (CEQA Guidelines, Section 15064.5, subd. (b)(1)).

CEQA Guidelines, Section 15064.5, subdivision (b)(2), defines "materially impaired" for purposes of the definition of "substantial adverse change …" as follows:

"The significance of an historical resource is materially impaired when a project:

(A) demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources (CRHR); or

(B) demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in the CRHR pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA."

Impact 11-1: Construction of treatment facilities, pipelines, a storage tank, and storage reservoirs, and the conversion of open space to agriculture could result in damage to previously unidentified buried archaeological and/or human remains.

Although no cultural resources have been identified within the LAWA property west of Little Rock Wash, previously unidentified, buried archaeological remains could be present throughout the LAWA property and Agricultural Study Area No. 5. Buried archaeological remains such as prehistoric midden deposits, flaked and ground stone artifacts, bone, shell, building foundations and walls, and other buried cultural materials could be damaged during grading, trenching, and other construction-related activities. Buried human remains that were not identified during field investigations could be inadvertently unearthed during ground-disturbing activities, which could result in damage to the remains. Damage to significant buried archaeological and/or human remains would be a significant impact. The following mitigation measures would reduce this impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure 11-1: For areas outside the previously surveyed LAWA property, an adequate cultural resources inventory designed to identify potentially significant resources shall be conducted where activities are proposed that have the potential to impact cultural resources.

Discussion of Mitigation Measure

Minimally, a cultural resources inventory shall consist of a cultural resources records search to be conducted at the South Central Coastal Information Center of the California Historical Resources Information System; a field survey (if one has not previously been conducted); recordation of all identified archaeological sites and historic buildings and structures on California Department of Parks and Recreation 523 Site Record forms; and preparation of a cultural resources inventory report describing the project setting, methods used in the investigation, results of the investigation, and recommendations for management of identified

resources. General guidelines for treatment strategies of archaeological resources are presented in California Office of Historic Preservation Bulletin 4 (Archaeological Resource Management Reports: Recommended Contents and Format) and Bulletin 5 (Guidelines for Archaeological Research Designs).

Identified cultural resources that may be impacted by a proposed activity shall be evaluated for eligibility for listing on the CRHR. Evaluations shall be performed by qualified historians or archaeologists that meet or exceed the Secretary of Interior's Professional Qualifications Standards (36 CFR Part 61). Cultural resources that are eligible for the CRHR are considered to be significant cultural resources—significant impacts to which are considered significant impacts to the environment. Cultural resources that are identified within activity areas subject to federal approval, permits, or funding shall also be evaluated for eligibility for listing on the NRHP. Cultural resources determined to be eligible for listing on the NRHP are automatically eligible for listing on the CRHR and are considered to be significant cultural resources.

Mitigation Measure 11-2: If feasible, impacts on identified cultural resources including prehistoric and historic archaeological sites, human remains, and historical buildings and structures should be avoided. Methods of avoidance may include, but not be limited to, project re-route or re-design or identification of protection measures such as capping or fencing.

Mitigation Measure 11-3: If ground-disturbing activities that have the potential to impact archaeological remains will occur in an area that has been determined by a qualified archaeologist to be an area that is sensitive for the presence of buried archaeological remains, a qualified archaeologist shall be retained to monitor those activities. Archaeological monitoring shall be conducted in areas where there is a strong likelihood that archaeological remains may be discovered but where those remains are not visible on the surface. The archaeologist on site shall determine the course of the monitoring depending on the circumstances posed by the project. Monitoring by Native Americans may also be required if burials or sacred lands are suspected to be present. Monitoring shall not be considered a substitute for efforts to identify and evaluate cultural resources prior to the project initiation.

Mitigation Measure 11-4: If it is infeasible to avoid impacts on archaeological sites that have been determined to be eligible for listing on the CRHR or the NRHP, additional research including, but not necessarily limited to, archaeological excavation shall be conducted. This work shall be conducted by a qualified archaeologist (per 36 CFR Part 61) and shall include preparation of a research design, additional archival and historical research, archaeological excavation, analysis of artifacts, features, and other attributes of the resource, and preparation of a technical report documenting the methods and results of the investigation. The purpose of this work is to recover a sufficient quantity of data to compensate for damage to or destruction of the resource. The procedures to be employed in this data recovery program will be determined in consultation with responsible agencies and interested parties, as appropriate.

Mitigation Measure 11-5: In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project proponent and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the lead agency. All significant cultural materials

recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

Discussion of Mitigation Measure

In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, lead agency staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.

If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed.

Significance After Mitigation

Less than significant.

Impact 11-2: Construction of treatment facility pipelines, a storage tank, and storage reservoirs and the conversion of land to agricultural uses could uncover paleontological resources.

Excavations occurring in the topsoil and the uppermost few feet of Quaternary Alluvium in the proposed project area are not likely to encounter significant fossil vertebrate remains. Therefore, agricultural operations are not likely to impact paleontological resources. Deeper excavations below the upper few feet that extend into older Quaternary sediments may uncover fossil vertebrate remains. However, since the area is considered low sensitivity for paleontological resources, the impact would be less than significant.

Mitigation Measure

No mitigation measures are required.

Significance of Impact

Less than significant.

Impact 11-3: Conversion of previously developed areas could adversely affect historic architectural resources through demolition, material alteration, or significant changes to the historical setting.

Project activities in Agricultural Study Area No. 5 could result in impacts to significant historic architectural resources. Historic architectural resources may be impacted both directly by demolition, alteration, or relocation of buildings or indirectly through significant changes in the historical setting of buildings. If significant changes to the attributes that convey the significance of a historic property that has been determined to be significant would occur, this is considered a significant impact. Demolition of historically significant buildings is considered to be a significant impact. Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.

Mitigation Measure

Mitigation Measure 11-6: Prior to demolition of buildings over 45 years old, a Historic Building Survey will be conducted by a qualified architectural historian to determine whether the structures to be demolished possess significant historic qualities. District No. 20 will implement recommendations of the survey report to ensure that impacts to significant historic resources are avoided.

Significance After Mitigation

Less than significant.