

3.4 Cultural and Paleontological Resources

The majority of this section's contextual summarizations are based upon the Lake Perris Dam Remediation Project Archaeological Survey report, a comprehensive archaeological assessment of the project area performed by DWR employees, Janis K. Offermann and Tiffany A. Schmid. This section will discuss the overall setting for the proposed project, which includes a summarization of the prehistoric, ethnographic, historic, and paleontological contexts. This section will also define and explain all applicable regulatory frameworks. The methodology used as part of the assessment of cultural resources within the Area of Potential Effect (APE) will be defined. Cultural resources found to be within the Perris Dam Remediation Program APE will be assessed, and potential impacts will be identified. Recommended mitigation measures for the preservation or protection of any potentially impacted cultural resources are also included.

A cultural resource is defined as any prehistoric archaeological, historic archaeological, or historic architectural resource. Paleontological resources are the petrified remains of past life commonly called fossils. Federal, State, and local guidelines have been established by which an item, object, structure, building, or any other such entity, can be considered or defined as a cultural resource (See Section 3.4.2, below). All projects that can potentially impact identified cultural resources must be assessed in order to ascertain the extent of the impact and mitigation measures, preferably avoidance, that must be proposed so as to preserve those resources. The assessment of project impacts on cultural resources under CEQA (*CEQA Guidelines*, Section 15064.5) is a two-step process: (1) determine whether the project site contains significant cultural resources then, (2) if the site is found to contain a cultural resource, determine whether the project would cause a substantial adverse change to the resource.

3.4.1 Setting

General Setting

The Lake Perris Remediation Program is located within the Lake Perris SRA in the Perris Valley region of the San Jacinto Plain. The Lake Perris SRA is situated to the south of Moreno Valley and to the east of the City of Perris, with the lake and associated recreational area bounded on the southeast by the Bernasconi Hills and on the north-northeast by the Russell Mountains.

Vegetation in this area is a mixture of California Coastal Sage Scrub, Chaparral, and non-native grasslands, situated within the Southern California Mountains and Valleys ecological section (M262B, U.S. Forestry Service), Perris Valley and Hills Sub-section (M262Bk). Primary plant communities include, but are not limited to, California sagebrush, buckwheat, chamise and scrub oak.

Prehistoric Context

The chronological breakdown of the prehistory of the project area and its surrounding region is continually being debated and revised. Several different chronological systems have been proposed, each with their own unique terminology and chronological division. Warren (2004)

provides a concise discussion of current scholarship pertaining to the chronology of the history of the deserts of Southern California and proposes a single chronological system for the California Desert Region, which includes four primary prehistoric periods: the Pinto, the Gypsum, the Saratoga Springs, and the Protohistoric.

The Pinto Period (circa [c.] 5,000 to 2,000 B.C.)

Small, un-developed surface deposits dating from the Pinto Period suggest that Pinto settlement patterns consisted of temporary or seasonal occupation by small, migratory groups that were dependent upon a combination of big and small-game hunting and collection strategies which could include the exploitation of stream or water resources. Typically, sites of this period are found along lake shores and streams or springs, some of which are now dry. Material culture representative of this period in California prehistory include roughly formed projectile points, “heavy-keeled” scrapers, choppers, and the occasional use of flat millingsstones and manos (Warren 2004:411).

Gypsum Period (c. 2,000 B.C. to A.D. 500)

It is during this time that we see archaeological evidence suggestive of inter-tribal trade, particularly between the desert and the coast. The artifact assemblage associated with this period includes an increase in the prevalence of millingsstones and manos, and it is believed that it was during this period that the pestle and mortar were introduced. These technological developments may point to the increased consumption of seeds and mesquite. Other artifacts associated with the Gypsum Period include Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched projectile points. Towards the end of the Gypsum period, there is evidence for the use of the bow and arrow (Warren 2004:415).

Saratoga Springs Period (c. A.D. 500 to 1,200)

The general cultural pattern for this period is a continuation of that of the preceding Gypsum Period. The increase in cultural complexity continued into this period and the archaeological record attests to established trade routes between desert and coastal populations by way of shell beads and steatite, as well as an introduction of Anasazi influence from the eastern Great Plains as evidenced by the appearance of turquoise and pottery. Material culture related to this period includes Rose Spring and Eastgate projectile points, millingsstones, manos, mortars and pestles, slate pendants, and incised stones (Warren 2004:422).

The Protohistoric Period (A.D. 1,200 to European Contact)

By the Protohistoric period, an extensive network of established trade routes wound their way through the desert, shuffling quality goods to populations throughout the Mojave Region. It is also believed that these trade routes encouraged or were the motivating factors for the development of an “increasingly complex socioeconomic and sociopolitical organization” within Protohistoric peoples in the Southern California area. Housepit village sites are prevalent during this period, as are the presence of Desert Side-notched and Cottonwood projectile points, pottery, steatite shaft straighteners, painted millingsstones, and to a lesser degree, coastal shell beads. By

the end of this period, however, a decline in trade occurred and well-established village sites were abandoned (Warren 2004:425).

Ethnographic Background

Two primary ethnographic populations, the Luiseño and the Cahuilla, were present within the project area and the immediate surrounding area. The Luiseño were regionally centered along the coastal areas of Southern California, particularly along those sections of Northern San Diego County, Orange County and Los Angeles County proper, stretching inland into the present western end of Riverside and San Bernardino Counties. Cahuilla traditional areas extended east of the easternmost flank of the Luiseño, dominating the Peninsular and Transverse Mountain Ranges and the San Jacinto Plain, east into the Colorado Desert regions and south into areas beyond the now present Salton Sea (Bean & Shipek 1978:550; 575).

Although these two populations lived simultaneously and shared traditional lands, both were governed by distinct sociopolitical and socioeconomic systems. Little is known of the Luiseño political structure, but it appears that villages were centered on clans, and that each village was headed by a chief (Bean and Shipek 1978:555). It is estimated that there may have been around 50 Luiseno villages with a population of about 200 each at the time of the first Spanish contact (Bean & Shipek 1978:557).

Villages were strategically placed in locations that were defensible and that offered a reliable supply of water, such as sheltered coves or canyons or on the side slopes near warm thermal zones. Most houses in Luiseño villages were thatched, partially subterranean conical structures (Bean & Shipek 1978:553).

Luiseño material culture was characterized by the bow and arrow, curved throwing sticks and a variety of other hunting-specific tools, war clubs, slings, canoes, basketry, nets, hooks, metates and manos, pestles and mortars, and pottery. Also present are a variety of beads and other ornaments made of a variety of source materials such as bone, stone, and shell.

Situated to the east of the traditional areas of the Luiseño, the Cahuilla dominated the territory of Southern California's vast deserts, the Peninsular, and Transverse mountainous areas. This village society occupied high-altitude locations as well as low desert lands, with villages positioned in close proximity to canyons with high precipitation levels or plentiful water sources (mountainous locations), near fresh water sources or at the termini of alluvial fans where the high water table provided abundant mesquite and shallow wells could be dug. House structures of the Cahuilla ranged from "brush shelters to dome-shaped or rectangular structures 15-20 feet long" (Altschul et al. 1984; Bean 1978; Warren 2004). The Cahuilla social structure revolved around clans and exogamous moieties (components connected through inter-marriage). Hunting, in conjunction with the exploitation of a variety of available resources governed the Cahuilla subsistence strategy in much the same way as the Luiseño. The primary difference between the subsistence strategies of these two groups rested in the fact that the Cahuilla did not have access to marine resources, as those resources fell within the territory of the Luiseño. Another difference between

these two groups is the rise of agricultural techniques within the Cahuilla, particularly among those tribes around the Colorado River.

The material culture of the Cahuilla was extensive and varied, and included pottery, ornamental items, charmstones, and a number of knapped stone tools. Unlike other Native American populations in Southern California, the Cahuilla were able to retain their autonomy even after the arrival and increasing control of European explorers and the settling governments that followed. It was not until 1891 that the Cahuilla culture and its population began to succumb to the pressure of European and, later, United States governing bodies (Altschul et al. 1984; Bean 1978; Bean & Smith 1978; Warren 2004).

Historical Background

The historical setting for the project area under discussion is summarized into three primary periods: The Mission Period (A.D. 1769 – A.D. 1822), the Mexican or Rancho Period (A.D. 1822 – A.D. 1848), and from A.D. 1848 to the present.

The Mission Period (A.D. 1769 – A.D. 1822)

Upon the arrival of Spanish explorers to the area, a network of missions was constructed along the Pacific Coast of Baja California and, later, Alta California, which encompasses modern-day California. It was the aim of these missions to repeat a strategy employed by the Spanish in the area now known as Mexico (Brower 1996: 12). This strategy was to encourage, by any means necessary, the assimilation of Native populations to adopt the Spanish custom, language, and religion. The mission strategy relied upon an agricultural economy and as such, locations selected for the construction of a mission depended upon three factors: “arable soil for crops, an adequate supply of fresh water, and a large local Indian population” for labor (Rolle 2003: 41). Because of this, no missions were constructed in the immediate vicinity of the current project area, but it has been documented that the San Gabriel Mission utilized the fertile grasslands of the inland valleys as pasture for their cattle.

Juan Bautista de Anza was the first recorded European visitor to the area. He is credited with the discovery of an inland route from Sonora to the northern coast of California in 1774, bringing him through much of what is now known as Riverside County (Rolle 2003: 45) via the San Jacinto Mountains. With de Anza, the colonization of Alta California began in earnest. With the opening of the overland route, Spanish pueblos were established, evolving into the Spanish system of governance. In 1810, the population of New Spain revolted against high taxes and unfair laws. In 1821, the war was over and New Spain won its independence, becoming the Republic of Mexico; the lands of Alta California were included as part of the newly formed Republic (Brower 1996: 53).

The Mexican Period (A.D. 1822 – A.D. 1848)

With the late entry of Alta California into the fold of the Mexican-controlled territories, the years that followed involved the establishment and expansion of Mexican governorships throughout

California. In the 1830s, the missions began to be desecularized. Large expanses of mission land became ranchos or land grants that were given to prominent individuals (Brower 1996: 54). The following years were dominated by strategic attempts of wealthy and politically significant persons to gain control of more lands for cattle. Despite these struggles, as well as sporadic Native American uprisings by local bands, trade and agriculture continued to flourish. It was towards the later term of this period that the slow infiltration of Americans into California began. Unrest amongst the population of California increased and with it, a growing disdain for Mexican governorship and an ever-growing foreign population (principally American, French, and Russian) that would eventually compete for ultimate control over the region.

As the number of foreign elements within the boundaries of present-day California increased, so too did foreign interest in the acquisition of the region. The United States made a bold move towards the acquisition of western territories by positioning military forces to actively engage the Mexican military, thus beginning the Mexican-American War (A.D. 1846 – A.D. 1848). With the success of U.S. forces against the Mexicans, the Treaty of Guadalupe Hidalgo was drafted and signed, bringing an end to the conflict and giving control over Alta California, along with other regions in the present-day American Southwest, to the American government.

A.D. 1848 – Present

In 1850, two years after the discovery of gold in the mountains of eastern California, California entered into the Union as the 31st state of the United State of America. As a result of the discovery of gold and the mass migration of fortune-hunters to both southern and northern California, the population of the region exploded and development of urban areas grew. The transcontinental railroad came to the region in 1869, bringing industry and settlers to the area; the city of Riverside became the first of these colonized areas in what is now Riverside County. Cattle ranches were slowly replaced by citrus farming and agriculture, industries of major importance to the populace of the area.

The city of Perris, California, came into its own with the construction of the Santa Fe Railway, which required the routing of the line through Perris en route to San Diego in 1881. With this new access channel, settlers amassed in the area and by 1885, the city of Perris was under construction. When the rail system left the area, the region's development of an agriculturally-based economy kept Perris afloat. Due to the construction of the Colorado River Aqueduct during the 1930s and other efforts to bring water to the region by the Eastern Municipal Water District in the 1950s, agriculture in the area shifted from dry farming crops to a more diverse collection of crops including alfalfa, the King potato, and sugar beets (City of Perris History, 2007).

The State Water Project was approved by the California Legislature in 1951, with construction beginning in 1957 and continuing into the present day. The terminus of this approximately 600-mile-long water delivery and storage system is Lake Perris, which was constructed in the later part of the 1960s and the early 1970s.

At present, the region surrounding the project area includes a combination of agricultural land that is slowly being encroached upon by urban residential development, particularly in the plain to the west of the Lake Perris earthen dam.

Paleontological Resources

Paleontological resources are fossilized evidence of past life found in the geologic record. Despite the huge volume of sedimentary rock deposits preserved worldwide and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils (particularly vertebrate fossils) are considered to be nonrenewable resources. Because of their rarity and the scientific information they can provide, fossils are highly significant records of ancient life. Paleontological resource localities are sites where the fossilized remains of extinct animals and/or plants are found. According to a regional paleontological assessment performed for the County of Riverside, the project is situated within a high sensitivity (high b) area. The category high b “indicates that fossils are likely to be encountered at or below four feet of depth, and may be impacted during excavation by construction activities” (Riverside County Land Information System Report: 2008).

Methods

Archival

On May 31, 2007, an archival record search request was submitted to the Eastern Information center of the California Historical Resources Information System at the Department of Anthropology at the University of California, Riverside. The purpose of this search was to identify previous archaeological/historical investigative activity and previously recorded cultural resources within 0.5 miles of the proposed project area. This records search included an examination of previous survey coverage and reports, historic maps, and known cultural resources within a 0.5-mile radius of the project site. Other sources that were reviewed included the California Register of Historic Places (California Register), the National Register of Historic Places (National Register), the California State Historic Resources Inventory (HRI), *California Place Names* (Bright & Gudde, 1998), and *Historic Spots in California* (Kyle et al. 1990).

Field Methods

An archaeological field survey of the project area was performed by DWR Archaeologist Tiffany A. Schmid and Senior Environmental Planner Janis K. Offermann on May 09-10, 2007 and on September 20, 2007. Areas surveyed included the repair site for the present dam, the location upon which the emergency outlet extension would be constructed, all staging areas, and a borrow area plus associated haul road. The area was surveyed in 15-meter transects. The goal of the pedestrian survey conducted by the DWR team was to relocate the two sites known to exist in the project area (CA-RIV-287 and CA-RIV-490), and identify any previously unknown prehistoric or historic cultural resources present within the project APE.

Native American Correspondence

The Native American Heritage Commission (NAHC) was contacted on April 12, 2007 to request a database search for sacred lands or other cultural properties of significance to local Indian people. The Commission also provided a list of people or organizations that might have specific information regarding cultural resources in the project area, or who may have an interest in the current project.

Results

Archival

The archival search resulted in the identification of twenty-two previously recorded archaeological resources within 0.5 miles of the project area, two of which are within the proposed project area (CA-RIV-487 and CA-RIV-490), as well as two sites (CA-RIV-463 and CA-RIV-1849) located immediately adjacent to the APE. These sites are discussed below. Sixteen previous cultural resources studies were conducted within 0.5 miles of the APE, and the combined area investigated within these studies covers the majority of the current APE. Exceptions to this are the left-abutment of the dam, the borrow area, and a few isolated locations.

CA-RIV-487

CA-RIV-487 consists of a single mano that was found next to a boulder outcrop. This isolated find is adjacent to, and immediately west of, the proposed borrow area for this project.

CA-RIV-490

CA-RIV-490 is located near the southeast corner of the reservoir, adjacent and west of the proposed borrow area haul road. It consists of a single saucer-shaped bedrock mortar and an elongated, narrow, milling slick on a single, isolated granitic slab. Site dimensions are 40 m (N-S) by 25 m (E-W). Other artifacts were noted to be associated with this milling outcrop, including “three fragments of bivalve shell.

CA-RIV-463

CA-RIV-463 represents a multi-component site situated along the western slope of the Bernasconi Hills, to the north of Bernasconi Pass. The site is located within a small east-west trending canyon and is said to measure 160 m (N-S) by 100 m (E-W). This resource is described in its record as a major prehistoric habitation site, with the remnants of historic elements by way of a tailings pile, historic well located near a permanent spring, and stone walls. Prehistoric artifacts present include several milling slicks and mortars, as well as a single andesite secondary flake.

CA-RIV-1849

CA-RIV-1849 is a prehistoric archeological site consisting of four bedrock outcroppings with seven total grinding slicks and three mortars; no associated artifacts are noted. Site dimensions

are described as 60 m by 50 m and this site is located approximately 2,000 feet away from the southeast corner of the dam at the base of the adjacent Bernasconi Hills.

Native American Correspondence

The Sacred Lands Files database search performed by the NAHC did not indicate the presence of Native American sacred lands in the project area. Follow-up consultation was conducted on April 18, 2007 with those tribes and individuals indicated by the NAHC. This consisted of a letter describing the proposed project and a map indicating the project area. Recipients were requested to reply with any information they are able to share about Native American resources that might be affected by the proposed project. As of the drafting of this report, a response has been received from Erica Helms of the Soboba Band of Luiseño Indians (May 4, 2007). In her response, Ms. Helms did not indicate the presence of any sensitive areas within the project vicinity.

Field Survey

The field investigation conducted by DWR was unable to relocate previously recorded cultural resource CA-RIV-487 (the mano). The location of CA-RIV-490 was confirmed and no additional artifacts were observed at the site. No new cultural resources were encountered during the pedestrian survey of the project area.

3.4.2 Regulatory Framework

Cultural Resources

Numerous laws and regulations require federal, state, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended; the California Register of Historical Resources, Public Resources Code (PRC) 5024; and CEQA are the primary federal and State laws governing and affecting preservation of cultural resources of national, State, regional, and local significance. The applicable regulations are discussed below.

Federal

National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the National Register was established by the NHPA of 1966, as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment.”¹ The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, State, and local levels. In the context of this project, which does not

¹ Code of Federal Regulations (CFR), 36 Section 60.2.

involve any historical-period structures, the following National Register criteria are given as the basis for evaluating archaeological resources.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria:²

1. Are associated with events that have made a significant contribution to the broad patterns of our history;
2. Are associated with the lives of persons significant in our past;
3. 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
4. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for National Register listing.³

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance.”⁴ The National Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.⁵ The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

State

The State implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State’s jurisdictions.

² U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Washington, DC: National Park Service, 1995).

³ Exceptional Significance as defined by National Register Criteria Consideration G: Properties That Have Achieved Significance Within the Past Fifty Years. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Washington, DC: National Park Service, 1995).

⁴ National Register Bulletin 15, p. 44.

⁵ *Ibid.*

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.”⁶ The criteria for eligibility for the California Register are based upon National Register criteria.⁷ Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.⁸

To be eligible for the California Register, a prehistoric or historical-period property must be significant at the local, state, and/or federal level under one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in our past;
- 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; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5.9
- Individual historical resources.

⁶ California Public Resources Code § 5024.1(a).

⁷ *Ibid.*, § 5024.1(b).

⁸ *Ibid.*, § 5024.1(d).

⁹ Those properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register.

- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a historic preservation overlay zone.

California Environmental Quality Act

The CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources. CEQA is codified at Public Resources Code sec. 21000 et seq. As defined in Section 21083.2 of CEQA a “unique” archaeological resource is 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 any of the following criteria:

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

In addition, the *CEQA Guidelines* recognize that certain historical resources may also have significance. The Guidelines recognize that a historical resource includes: (1) a resource in the California Register; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the *CEQA Guidelines* apply. If an archaeological site does not meet the criteria for a historical resource contained in the *CEQA Guidelines*, then the site is to be treated in accordance with the provisions of CEQA Section 21083, which is a unique archaeological resource. The *CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (*CEQA Guidelines* Section 15064.5(c)(4)).

Paleontological Resources

Federal

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally owned or managed lands or involves a

federal agency license, permit, approval, or funding. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 *et. seq.*; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands.

State

Paleontological resources are also afforded protection by environmental legislation set forth under CEQA. Appendix G of the *CEQA Guidelines* provides guidance relative to significant impacts on paleontological resources, stating that a project would normally result in a significant impact on the environment if it would "...disrupt or adversely affect a paleontologic resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

Professional Standards

The Society of Vertebrate Paleontology (SVP) has established standard guidelines that outline acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most qualified professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California state regulatory agencies accept the SVP standard guidelines as a measure of professional practice.

3.4.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR and consistent with Appendix G of the *CEQA Guidelines*, the proposed project is considered to have a significant impact if it would result in any of the following:

- A substantial adverse change in the significance of a historical resource that is either listed or eligible for listing in the National Register, the California Register, 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 could result in a substantial adverse change in the significance of a historical resource (Public Resources Code, Section 21084.1). *CEQA Guidelines* Section 15064.5 defines a "substantial

adverse change” in the significance of a historical resource to mean physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be “materially impaired” (*CEQA Guidelines*, Section 15064.5[b][1]).

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

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

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a 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
- 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 California Register as determined by a lead agency for purposes of CEQA.

In accordance with *CEQA Guidelines* Section 15064.5(b)(3), a project that follows the Secretary of the Interior’s *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* is considered to have mitigated impacts to historic resources to a less-than-significant level.

Historic resources are usually 50 years old or older and must meet at least one of the criteria for listing in the California Register (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (*CEQA Guidelines* Section 15064.5[a][3]).

Historical and Archaeological Resources

Impact 3.4-1: Project construction could adversely affect known or unknown cultural resources, including unique archaeological resources and historic resources.

A cultural resources records search indicated that two cultural resources, CA-RIV-287 and CA-RIV-490, had been previously recorded in the APE. One resource (CA-RIV-487) could not be relocated during the 2007 archaeological field survey. It was the determination of the DWR archaeologists that CA-RIV-487 was more than likely covered with silt and, therefore, was not observable during the survey. In addition, it was determined from CA-RIV-487’s site record that although the site is within the project APE, it would not be within the area of direct impact of the project. The last known location of this resource would be avoided.

CA-RIV-490, the isolated granitic slab, was relocated by the 2007 field survey. CA-RIV-490 would be avoided during construction activities and no further studies are recommended at this time.

It is possible that previously unknown archaeological or historical sites, such as shell middens, stone artifacts, and historic trash scatters, may occur within the project area. Inadvertent damage to significant buried archaeological deposits during construction would be a significant impact. Implementation of Mitigation Measure 3.4-1, however, would reduce the impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure 3.4-1: In the event that prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and DWR shall consult with a qualified archaeologist to assess the significance of the find according to *CEQA Guidelines* Section 15064.5. If any find is determined to be significant, DWR and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. DWR (as applicable) shall make the final determination. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards.

In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, DWR 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 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 being carried out.

Significance after Mitigation: Less than Significant.

Paleontological Resources

Impact 3.4-2: The proposed project could adversely affect unidentified paleontological resources.

Paleontological resources are known to occur in this area of Riverside County. Identified as an area of high sensitivity by Riverside County, the project has the potential to impact fossil resources.

If a paleontological resource is discovered, the impact to the resource could be substantial. However, implementation of Mitigation Measure 3.4-2 would minimize this impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure 3.4-2: DWR shall develop and implement a Paleontological Resource Monitoring and Mitigation Plan (PRMMP) prior to the onset of construction-related earth moving activities in order to either avoid or mitigate to a less-than-significant effect on these resources. The PRMMP should be designed by a qualified paleontologist. During earth-moving construction-related activities, additional fossil sites may be uncovered. The PRMMP must include:

- Mitigation protocol for all activities;
- Special consideration should be made to collect sediment samples for potential fossiliferous locations as per the society of Vertebrate Paleontology standards;
- Stratigraphic cross sections must be recorded;
- Mapping of the geologic units must be graphed; and
- Fossil remains must be cleaned, analyzed, and catalogued to be accepted for curation at a legal repository.

All work must be conducted by a qualified Paleontologist and a final Report of Findings must be submitted upon completion of laboratory analysis.

Significance after Mitigation: Less than Significant.

Human Remains

Impact 3.4-3: Project construction could result in damage to previously unidentified human remains.

There is no indication that any particular site in the project area has been used for human burial purposes in the recent or distant past. Therefore, it is unlikely that human remains would be encountered during construction of the proposed project. However, in the unlikely event that human remains were discovered during subsurface activities, including those interred outside of formal cemeteries, the human remains could be inadvertently damaged, which could be a significant impact. However, this impact would be minimized by implementation of Mitigation Measure 3.4-3.

Mitigation Measures

Mitigation Measure 3.4-3: If human skeletal remains are uncovered during project construction, DWR (depending upon the project component) shall immediately halt work, contact the Riverside County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the *CEQA Guidelines*. If the County coroner determines that the remains are Native American, DWR shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98,

the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Significance after Mitigation: Less than Significant.

Mitigation Measure Summary Table

Table 3.4-1 presents the impacts and mitigation summary for Cultural Resources.

**TABLE 3.4-1
CULTURAL RESOURCES IMPACTS AND MITIGATION SUMMARY**

Proposed Project Impact	Mitigation Measure	Significance after Mitigation
Historical and Archaeological Resources: Project construction could adversely affect known or unknown cultural resources, including unique archaeological resources and historic resources.	3.4-1	Less than Significant
Paleontological Resources: The proposed project could adversely affect unidentified paleontological resources.	3.4-2	Less than Significant
Human Remains: Project construction could result in damage to previously unidentified human remains.	3.4-3	Less than Significant