Cultural Resources Inventory

Mojave Booster Station Project

San Bernardino County, California

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January 7, 2019

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Citation: ECORP Consulting, Inc. 2019. Cultural Resources Inventory Report, Mojave Booster Station Project, San Bernardino County, Prepared for the Golden State Water Company, Apple Valley, California.

MANAGEMENT SUMMARY

A cultural resources investigation was conducted for a 0.923-acre Project Area in San Bernardino County, California. The study was conducted at the request of Golden State Water Company for the Mojave Booster Station Project. The study was completed by ECORP Consulting, Inc. (ECORP) in compliance with the California Environmental Quality Act (CEQA).

The inventory included a records search, literature review, and field survey. In January 2019, a cultural resources records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; in addition, a search of the Sacred Lands File was requested from the Native American Heritage Commission (NAHC). The records search results indicated that no previous cultural resources studies have been conducted within the Project Area. As a result, no sites have previously been recorded within the Project Area. The results of the search of the Sacred Lands File by the NAHC did not indicate the presence of any Native American cultural resources within one mile of the Project Area. In addition to the search of the Sacred Lands File, the NAHC identified 18 Native American groups and individuals with historical and traditional ties to the Project Area.

As a result of the field survey, two historic-period isolates were recorded within the Project Area: MV-001-I (isolated bottle base and coffee can) and MV-002-I (isolated crushed flat top beverage can). Neither of these isolates are individually eligible for inclusion in the National Register of Historic Places or California Register of Historical Resources, and neither contributes to any known or suspected historic district. Therefore, the proposed Project would not result in any significant impacts to known Historical Resources under CEQA. The archaeological sensitivity of the Project Area is believed to be low; however, there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Recommendations for the management of unanticipated discoveries are provided.

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LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AMSL	Above mean sea level
APE	Area of Potential Effects
BLM	Bureau of Land Management
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
GLO	General Land Office
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
Project	0.923-Acre Mojave Booster Station Project
RPA	Registered Professional Archaeologist
SB	Senate Bill
SCCIC	South Central Coastal Information Center
SHPO	State Historic Preservation Officer
USC	U.S. Code
USGS	U.S. Geological Survey

1.0 INTRODUCTION

In 2018, ECORP Consulting, Inc. (ECORP) conducted a cultural resources investigation of a 0.923-acre Project Area in Morongo Valley, San Bernardino County, California (Figure 1). The study was conducted at the request of Golden State Water Company for the Mojave Booster Station Project (Project). The purpose of the study was to identify cultural resources that could be affected by the proposed Project, pursuant to the terms of the California Environmental Quality Act (CEQA). An archaeological records search and field survey were completed to identify cultural resources that could be impacted by development. This study also includes a Native American Heritage Commission Sacred Lands File search, and the evaluation of two newly recorded isolates for eligibility for the California Register of Historical Resources (CRHR). This report presents the methods and results of these studies, along with management recommendations.

1.1 Project Location

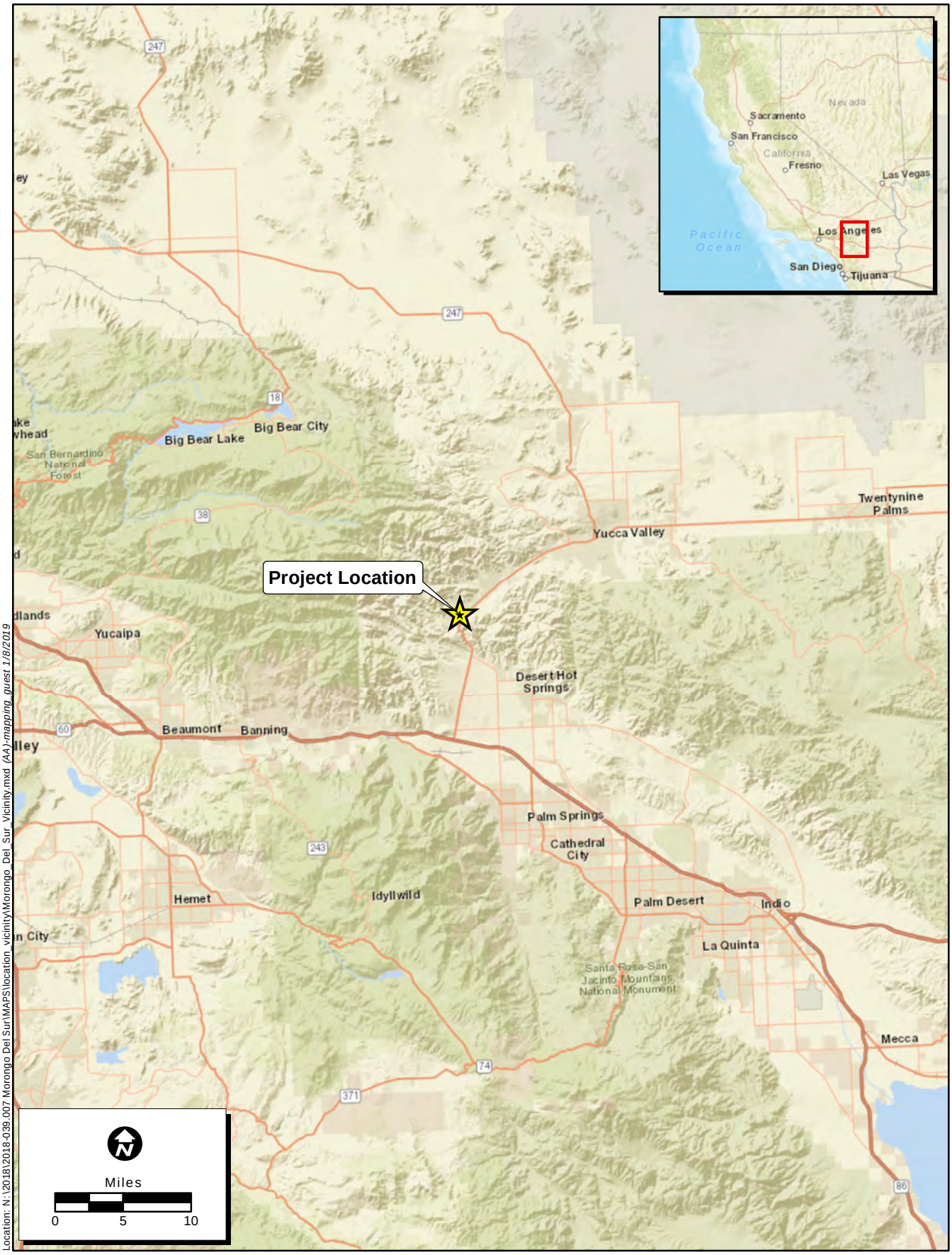
The Project Area consists of approximately 0.923 acres of property located in Morongo Valley (Figure 1). The Project Area is located in the southern half of Section 29 of Township 1 South, Range 4 East, San Bernardino Base and Meridian as depicted on the 1997 Morongo Valley, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figures 1 and 2). The Project Area (APN 058-318-104) is located on an undeveloped property within a rural residential neighborhood bounded by Mojave Drive to the north, Juniper Avenue to the west, a municipal water tank and residential property to the east, and undeveloped desert to the south in Morongo Valley, California.

The elevation of the Project Area ranges from 2,690 feet above mean sea level (AMSL) to 2,700 feet AMSL. The Project Area is relatively level, consisting of mostly sandy soils. Geologic maps show that the Project Area contains Holocene alluvial sediments that are concurrent with human occupation of the area (Dibblee 1967).

1.2 Area of Potential Effects

The Area of Potential Effects (APE) consists of the horizontal and vertical limits of the Project and includes the area within which significant impacts or adverse effects to Historical Resources or Historic Properties could occur as a result of the Project. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to CEQA, the term Project Area is used rather than APE. For the purpose of this document, the terms Project Area and APE are interchangeable.

The horizontal APE consists of all areas where activities associated with the Project are proposed and, in the case of the current Project, equals the Project Area subject to environmental review under CEQA. This includes areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, paving, and other elements described in the official Project description. The horizontal APE is illustrated in Figure 2 and also represents the survey coverage area. It measures approximately 0.923 acres in size.



Location: N:\2018\2018-039.007 Morongo Del Sur\MAPS\location_vicinity\Morongo_Del_Sur_Vicinity.mxd *(AA)-mapping_guest 1/8/2019*

Map Date: 1/8/2019

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

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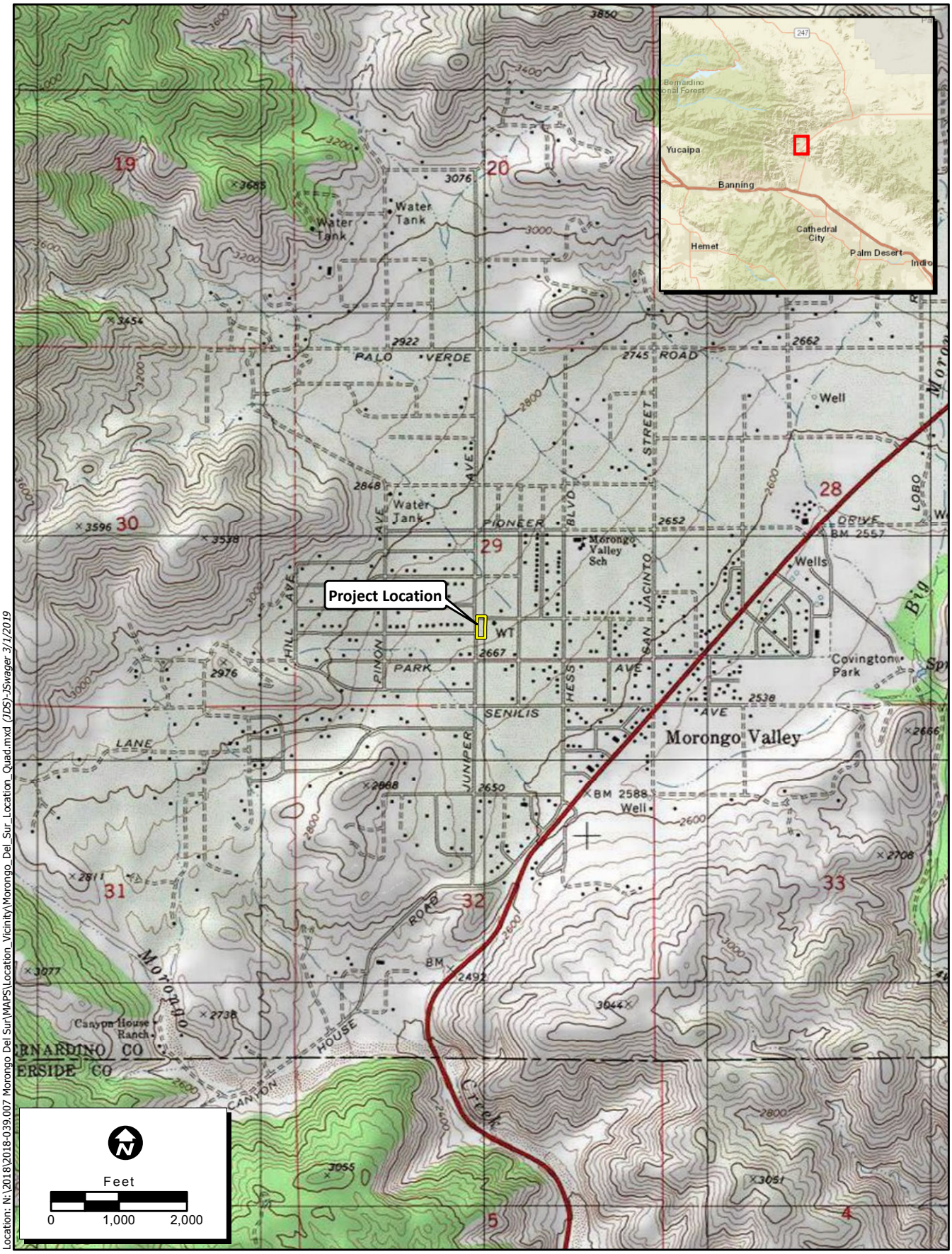
Figure 1. Project Vicinity

2018-039.007 Mojave Booster Station



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Map Date: 3/1/2019

USGS 7.5' Topographic Quadrangle: Morongo Valley (1997, NAD27)

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Figure 2. Project Location

2018-039.007 Mojave Booster Station

The vertical APE is described as the maximum depth below the surface to which excavations for Project facilities will extend. Therefore, the vertical APE includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project, but it could extend as deep as 20 feet below the current surface and, therefore, review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For the current Project, the above-surface vertical APE is up to 50 feet above the surface, which is the maximum height any proposed buildings or above-ground facilities.

1.3 Regulatory Context

To meet the regulatory requirements of this Project, this cultural resources investigation was conducted pursuant to the provisions for the treatment of cultural resources contained in CEQA (Public Resources Code [PRC] § 21000 et seq.) The goal of CEQA is to develop and maintain a high-quality environment that serves to identify the significant environmental effects of the actions of a proposed project and to either avoid or mitigate those significant effects where feasible. CEQA pertains to all proposed projects that require state or local government agency approval, including the enactment of zoning ordinances, the issuance of conditional use permits, and the approval of development project maps.

CEQA (Title 14, California Code of Regulations [CCR], Article 5, § 15064.5) applies to cultural resources of the historical and prehistoric periods. Any project with an effect that may cause a substantial adverse change in the significance of a cultural resource, either directly or indirectly, is a project that may have a significant effect on the environment. As a result, such a project would require avoidance or mitigation of impacts to those affected resources. Significant cultural resources must meet at least one of four criteria that define eligibility for listing on the CRHR (PRC § 5024.1, Title 14 CCR, § 4852). Resources listed on or eligible for inclusion in the CRHR are considered Historical Resources under CEQA.

1.4 Report Organization

This report documents the study and its findings and was prepared in conformance with the California Office of Historic Preservation's (OHP) *Archaeological Resource Management Reports: Recommended Contents and Format.* Attachment A includes a confirmation of the records search with the California Historical Resources Information System (CHRIS). Attachment B contains documentation of a search of the Sacred Lands File. Attachment C presents photographs of the Project Area and Attachment D contains confidential cultural resource isolate locations and site records.

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code § 6250 et seq.) and California's open meeting laws (The Brown Act, Government Code § 54950 et seq.) protect the confidentiality of Native American cultural place information. Under Exemption 3 of the federal Freedom of Information Act (5 U.S. Code 5 [USC]), because the disclosure of cultural resources location information is prohibited by the Archaeological Resources Protection Act of 1979 (16 USC 470hh) and Section 304 of the National Historic Preservation Act (NHPA),

it is also exempted from disclosure under the Freedom of Information Act. Likewise, the Information Centers of the CHRIS maintained by the OHP prohibit public dissemination of records search information. In compliance with these requirements, the results of this cultural resource investigation were prepared as a confidential document, which is not intended for public distribution in either paper or electronic format.

2.0 CULTURAL CONTEXT

2.1 Regional Prehistory

The Mojave Desert chronology is based on studies by Earle et al. 1997, Sutton et al. 2007, and Warren 1984. The temporal units used by Sutton et al. (2007) for the Mojave Desert were termed complexes because it was thought each complex represented a specific cultural adaptation or even a cultural group. However, cultural characteristics may vary within a temporal unit, both temporally and spatially. In the greater Mojave Desert region, the juxtaposition of different foothill- and desert-based adaptive systems and, apparently, of different cultural groups, makes the identification of a single complex as being characteristic of a temporal unit problematic. The temporal units used here are periods based on shifts in projectile point types. Such projectile point changes are used to mark temporal units, since this class of artifacts is the only one that can definitely be said to be characteristic of each temporal unit (period) from the Pleistocene to Spanish contact (Sutton 2017:4). Dates for the periods are from Sutton (2016:267-268). The Mojave Desert chronology is shown in Table 1, and each period is discussed below.

Table 1. Mojave Desert Chronology

Period	Years
Clovis Period	12,000 to 9500 BC
Lake Mojave Period	9500 to 7000 BC
Pinto Period	8250 to 2500 BC
Gypsum Period	2500 BC to AD 225
Rose Spring Period	AD 225 to 1100
Late Prehistoric Period	AD 1100 to AD 1769
Mission Period	AD 1769 to AD 1835

Although there is archaeological evidence for human occupation before 12,000 BC elsewhere in the Americas, no cultural material dating to the time before the Clovis Period has been found in the Mojave Desert.

2.1.1 Late Pleistocene/Early Holocene

Clovis Period (Fluted Point Complex) (12,000 to 9500 BC)

The Clovis Period was an era of environmental transition between the late Pleistocene and early Holocene. The Clovis Period within the Mojave Desert is represented by fluted projectile points that were used by big game hunters. Fluted projectile points, including both Clovis points and Great Basin Corner-Notched

points, were hafted to the end of a throwing spear. Fluted points have been discovered along the shores of former pluvial lakes at China Lake Naval Weapons Station and Edwards Air Force Base. There are two sites at China Lake with Clovis points, as well as Lake Mojave points. Thus, it is not known if other artifacts at these sites are associated with Clovis Period or Lake Mojave Period, or both. All other Clovis points in the Mojave Desert occur as isolated surface finds (Sutton 2018). It is thought that the Clovis groups consisted of small bands of hunters who followed big game herds.

Early and Middle Holocene

The people who occupied the Mojave Desert during the Early and Middle Holocene are thought to be descended from the Clovis megafauna hunters, who adapted to warming and drying conditions after the ice age ended. During the Early Holocene, the focus was on hunting artiodactyls around the remnant lakes. During the warm arid conditions of the Middle Holocene, these groups became more generalized foragers, who hunted and trapped large, medium, and small mammals and added plant foods to the diet.

Lake Mojave Period (9500 to 7000 BC)

During the Early Holocene the climate became warmer and drier, resulting in a changing distribution of floral and faunal communities. However, there were still remnant pluvial lakes at this time. Lake Mojave Period sites are typically (but not exclusively) found around the margins of ancient lakes. The Lake Mojave tool assemblages include Great Basin Stemmed series projectile points, including Lake Mojave and Silver Lake points. The shift from fluted points to stemmed points may indicate a shift from hunting megafauna to hunting artiodactyls (deer and mountain sheep). Sutton (2018) says that the fluted points were used on thrusting spears in an intercept hunting strategy, while the stemmed points of the Lake Mojave period were likely used on smaller spears launched with a spear-thrower (atlatl). Other flaked-stone tools include crescents (eccentrics), leaf-shaped bifaces (cutting and piercing tools), formed unifaces including large-domed scrapers and small beaked engravers, and cores from which flakes could be removed as needed. The cores were also used as tools (Sutton 2018). Ground stone implements occur in small numbers during this time (Warren 2002) and indicate the addition of hard seeds in the diet. It appears that Lake Mojave groups gradually adapted to a desiccating environment, resulting in shifts in technology and subsistence, with exploitation of additional ecozones.

Pinto Period (8250 to 2500 BC)

Pinto points first appear about 8250 BC The Pinto Period overlaps in time with the Lake Mojave Period because both Great Basin Stemmed points and Pinto points occur during the overlapping period of time (8250 to 7000 BC). The Pinto Period was a time of increasing aridity culminating in the Mid-Holocene Warm Period, circa 5500-2500 BC. The disappearance of lakes was followed by a great reduction in streams and springs. By the end of the period, water could be obtained only at a small number of springs. The desert vegetation community similar to that of today developed during this period. Sites associated with this era are usually found in open settings, in relatively well-watered locales representing isolated oases of high productivity, such as fossil stream channels and springs. Increasing amounts of ground stone tools suggest increasing use of small seeds. Artiodactyl hunting continued, but increasing aridity reduced the number of deer available. Small animals such as rabbit, rodent, reptile, and fresh water mussel resources are present in significant quantities. The artifact assemblage is similar to the Lake

Mojave assemblage. Pinto projectile points replaced Lake Mojave points and Silver Lake points, and crescents and engravers were no longer used. Drills were added to the assemblage and the number of ground stone tools increased (Warren 2002). Warren (2002:139) sees the shift in projectile point types and the increasing use of plant foods during the Pinto Complex as resulting from decreasing numbers of artiodactyls (deer and mountain sheep) during this warm, dry period. Pinto points may have been more efficient in taking artiodactyls because the shouldered Pinto points stayed inside the animal after it was shot (Warren 2010).

Late Holocene

Annual rainfall increased, and resource productivity improved significantly at the beginning of the Late Holocene after about 4,500 BP (circa 2500 BC). During the Late Holocene there is an increase in population, along with increasing sedentism and intensification of resource use in and around the Mojave Desert. Three periods were defined within the Late Holocene in the Mojave Desert: the Gypsum Period (ca. 2500 BC to AD 225), the Rose Spring Period (roughly equivalent to Warren's Saratoga Springs Period, ca. AD 225 to 1100), and the Late Prehistoric Period (ca. AD 1100 to 1769) (Sutton 2016; Sutton et al. 2007; Warren 1984). Each period has characteristic projectile point types. The settlement system seen in the Mission Period with permanent villages, especially along the valley margins, and temporary camps for collecting resources within the village's territory likely began to develop during the Gypsum Period.

Gypsum Period (ca. 2500 BC to AD 225)

During the Gypsum Period, the artifact assemblage included Elko and Gypsum dart points and bifaces. Ground stone milling tools become relatively commonplace. The subsistence pattern, based on material found in temporary camps in the desert, included generalized hunting activities (large, medium, and small mammals and desert tortoise), and seed processing, indicated by more numerous milling stones than in previous periods. Mesquite, located in high water table areas, may have been an important resource during Gypsum times. Quartz crystals, paint, and rock art indicate ritual activities (Sutton 2017:9).

Rose Spring Period (ca. AD 225 to 1100)

The Rose Spring Period is also known as the Saratoga Spring Period. The bow and arrow were introduced in the Mojave Desert at the beginning of the Rose Spring Period circa AD 225. Rose Spring and Eastgate arrow points were used, along with Cottonwood Triangular points beginning around AD 900. Other artifacts include stone knives and drills, bone awls, and ground stone tools.

Late Prehistoric Period (ca. AD 1100 to AD 1769)

Desert Side-Notched and Cottonwood Triangular arrow points were used during the Late Prehistoric Period. The rest of the Rose Spring artifact assemblage continued into the Late Prehistoric period with the addition of pottery. Bedrock mortars, indicating intensive acorn use, may have been used earlier in the late Holocene, but were numerous in the residential bases and villages in the desert margin. Some desert floor sites also featured bedrock mortars or portable mortars and pestles.

Mission Period (AD 1769 to AD 1835)

The Mission Period begins with the Portolá Expedition in AD 1769, which established the first permanent Spanish presence in California. Franciscan friars established missions at San Gabriel (AD 1771) and San Fernando (AD 1797) (Castillo 1978). The first written historical information about Native Americans in the Mojave Desert region dates from the 1770s, during the Mission Period. Ethnohistorical documentation from this period includes mission records and the accounts of Spanish friars and soldiers.

Other Temporal Units

Sutton (2018) recently proposed new temporal units consisting of patterns and phases with dating based on BP, rather than BC, for the Late Pleistocene through the Middle Holocene. In Sutton's new scheme, the Clovis Period is now the Lakebed Pattern, which is divided into Lakebed I (11,600 to 11,000 BP) Phase and Lakebed II (11,000 to 10,200 BP) Phase. The Lake Mojave Period is the Lake Mojave Pattern with Lake Mojave I (10,200 to 9,300 BP) and Lake Mojave II (9,300 to 8,500 BP) Phases. The Pinto Period is the Pinto Pattern with Pinto I (8,500 to 7,500 BP), Pinto II (7,500 to 5,000 BP), and Pinto III (5,000 to 4,000 BP) Phases. Note that in this new chronology, the Lake Mojave Pattern does not overlap in time with the Pinto Pattern. Sutton's new chronology is not used in this research design since it has not yet been evaluated by other archaeologists who specialize in the Late Pleistocene and Early Holocene of the Mojave Desert.

2.2 Ethnohistory

The Project Area is located within the territory known to have been used by both the Serrano and Cahuilla groups of Native Americans at the time of contact with Europeans, around AD 1769.

2.2.1 Serrano

The Serrano occupied an area in and around the San Bernardino Mountains and northward into the Mojave Desert. Their territory also extended west along the north slope of the San Gabriel Mountains, east as far as Twentynine Palms, north into the Victorville and Lucerne Valley areas, and south to the Yucaipa Valley and San Jacinto Valley (Cultural Systems Research 2005). The Serrano speakers in the Mojave Desert who lived along the Mojave River were known as Vanyume. Serrano is a language within the Takic family of the Uto-Aztecan language stock.

The Serrano were mainly hunters and gatherers who occasionally fished. Game that was hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, pinyon nuts, bulbs and tubers, shoots and roots, juniper berries, mesquite, barrel cacti, and Joshua tree (Bean and Smith 1978).

A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, bone, stone, plant materials, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978).

Settlement locations were determined by water availability, and most Serranos lived in villages near water sources. Houses and ramadas were round and constructed of poles covered with bark and tule mats

(Kroeber 1925). Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might include granaries and sweathouses (Bean and Smith 1978).

Serrano social and political units were clans, patrilineal exogamous territorial groups. Each clan was led by a chief who had both political and ceremonial roles. The chief lived in a principal village within the clan's territory. The clans were part of a moiety system such that each clan was either a wildcat or coyote clan and marriages could only occur between members of opposite moieties (Earle 2004). On the north side of the San Bernardino Mountains, clan villages were located along the desert-mountain interface on Deep Creek, on the upper Mojave River, in Summit Valley, and in Cajon Pass. The principal plant food available near these villages was juniper berries. These villages also had access to mountain resources, such as acorns and pinyon nuts.

Desert Serrano villages were located along the Mojave River from south of Victorville to Soda Lake. These river villages had populations of 40 to 80 people. Marriage ties between the Serrano foothill villages and Desert Serrano villages facilitated access to mountain resources, such as acorns and pinyon nuts, by the desert villages. The principal desert resources were mesquite beans, screw beans, tule reed roots, and carrizo grass sugar (produced by aphids that lived on the Carrizo grass). Animal resources were rabbits, jackrabbits, desert bighorn sheep, pronghorn, and desert tortoise (Earle 2005:10). The Desert Serrano also collected salt from Soda Lake and from the Barstow-Daggett area to exchange for acorns and other resources from the mountains (Earle 2005:11).

Partly due to their mountainous and desert inland territory, contact between Serrano and European-Americans was minimal prior to the early 1800s. In 1819, an asistencia (mission outpost) was established near present-day Redlands and was used to help relocate many Serrano to Mission San Gabriel. However, small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (Bean and Smith 1978).

2.2.2 Cahuilla

Ethnographic accounts of Native Americans indicate that the Project Area and land to the south lies predominantly within the original territory of the Cahuilla. The Cahuilla spoke a Takic language. The Takic group of languages is part of the Uto-Aztecan language family. The Cahuilla occupied a territory ranging from the San Bernardino Mountains in the north to the Chocolate Mountains and Borrego Springs in the south, and from the Colorado Desert in the east to Palomar Mountain in the west. They engaged in trade, marriage, shared rituals, and war with other groups of Native Americans whose territories they overlapped, primarily the Serrano and Gabrielino (Bean 1978, 1972; Kroeber 1925).

Cahuilla subsistence consisted of hunting, gathering, and fishing. Villages were often located near water sources, most commonly in canyons or near drainages on alluvial fans. Major villages were fully occupied during the winter, but during other seasons task groups made periodic forays to collect various plant foods, with larger groupings from several villages organizing for the annual acorn harvest (Bean and Saubel 1972). Bean and Saubel (1972) have recorded the use of several hundred species of plants used for food, building/artifact materials, and medicines. The major plant foods included acorns, pinyon nuts, and

various seed-producing legumes. These were complemented by agave, wild fruits and berries, tubers, cactus bulbs, roots and greens, and seeds.

Hunting focused on both small to medium-sized mammals, such as rodents and rabbits, and large mammals, such as pronghorn sheep, mountain sheep, and mule deer. Hunting was accomplished using the throwing stick or the bow and arrow, though nets and traps were also used for small animals (Bean 1972).

Cahuilla buildings consisted of dome-shaped or rectangular houses, constructed of poles covered with brush and above-ground granaries (Bean 1978; Strong 1929). Other material culture included baskets, pottery, and grinding implements; stone tools, arrow shaft straighteners and bows; clothing (loincloths, blankets, rope, sandals, skirts, and diapers); and various ceremonial objects made from mineral, plant, and animal substances (Bean 1972).

As many as 10,000 Cahuilla may have existed at the time of European contact in the eighteenth century (Bean 1978). Circa 1900, Cahuilla lived in the settlements of La Mesa, Toro, and Martinez on the Augustin and Toro Indian Reservations east and southeast of the Project Area (USGS Indio Quad 1904). As of 1974, approximately 900 people claimed Cahuilla ancestry (Bean 1978).

There was no substantial Euro-American settlement in the Coachella Valley until the Southern Pacific Railroad completed its line from Los Angeles to Indio (then known as Indian Wells) in 1876. The railroad was completed to Yuma in 1877, linking southern California with Arizona and points east. Wells to supply water for the steam locomotives were dug at Indio, Coachella (originally named Woodspur), Thermal (originally named Kokell), and Mecca (originally named Walters). Settlement began around these wells and railroad stations, forming the nucleus of today's Coachella Valley towns.

2.3 History

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when a chain of missions and presidios was established between San Diego and Sonoma. Although located primarily near the coast, the missions dominated economic and political life over the majority of the region west of the great mountain ranges during this period (Castillo 1978; Harshman 1992). The Mexican Period (1821 to 1848) began when Mexico became independent of Spain in 1821. When the Mexican government closed the missions in the early 1830s, their vast land holdings were divided into large land grants called ranchos. The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers (Castillo 1978; Cleland 1941). While Spanish explorers and Mexican soldiers made numerous traverses of San Gorgonio Pass, few, if any, turned north and entered the Morongo Basin. A small number of Spanish or Mexican prospectors might have made incursions into the surrounding foothills in search of gold or silver (Clark and Couzens 1966; Evans 1965), but interest in the desert was minimal during the pre-American years.

In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The first European-American to cross the Morongo Basin was Pauline Weaver, a rancher who drove cattle over Cajon Pass, then eastward through the basin, and on to the Colorado River. Weaver reportedly made several such trips during the early 1850s (Clark and Couzens

1966; Evans 1965). In 1855, Colonel Henry Washington and a small party of men made the first formally recorded traverse of the Morongo Basin while surveying the San Bernardino Base Line, the parallel from which all townships and sections in southern California are measured (City of Twentynine Palms 2009; Clark and Couzens 1966; Evans 1965; GlobalSecurity.org 2009). Washington found a palm oasis, called "Mara" by the local Indians, and later called "Twentynine Palms Oasis" by white miners and settlers (City of Twentynine Palms 2009; Evans 1965; GlobalSecurity.org 2009).

Members of the deCrevecoeur family, who homesteaded a cattle ranch in Morongo Valley in 1873, were among the first settlers in the Morongo Basin, but most of the earliest pioneers were prospectors. Gold was discovered at the Blue Jay mine in the Bullion Mountains, now part of the Marine Corps Air Ground Combat Center, in the early 1870s. In 1884, Charley Wilson and Tom Lyons established the Virginia Dale Mine, the largest in the area. Within a year the Virginia Dale Mining District had been formed, with some 3,000 miners working ore veins in the vicinity. Intensive mining took place in the mountains surrounding the basin throughout the 1800s. In addition to the Virginia Dale District, the Gold Park, Rattlesnake, and Washington Districts became centers of mining activity. By the turn of the twentieth century, several million dollars in gold had been extracted. Mining continued sporadically until around 1918, by which time most of the gold-bearing ore had been extracted, and the price of gold had fallen too low to justify the expense of continuing to mine in the remote desert locale (Clark and Couzens 1966; Evans 1965; GlobalSecurity.org 2009; Pollack 1988a; Wharff n.d.).

More ranchers followed the miners into the Morongo Basin in the 1870s and 1880s. The deCrevecoeur ranch in Morongo Valley was bought by Mark Warren. Warren's ranch became a stage stop on the road to Twentynine Palms, and he established another ranch and stage stop in Yucca Valley. The well he and his sons dug there became instrumental in the development of the dry desert area. The Warrens also discovered water while gold mining south of Morongo Valley. This supply, called "The Tunnel", became another important water source for the basin. By providing two reliable water supplies, Warren opened up the Morongo Basin to other ranchers and homesteaders (Clark and Couzens 1966; Evans 1965).

Homesteads of 160 acres were offered by the government to those who could live on the land for five years. After the turn of the twentieth century, veterans of the Spanish-American War were given preference by only having to live on their homesteads for three years. Most of the homesteaders depended on Warren's well in Yucca Valley or The Tunnel for water, travelling to one or the other of these resources periodically to wash clothes and refill tanks. Life was difficult under these conditions, and many homesteads were abandoned. In 1910, a Mr. Percy began drilling wells and promoting land sales around Yucca Valley. Although only one of Percy's wells struck water, interest in the Morongo Basin was stimulated and homesteading increased (Clark and Couzens 1966; Evans 1965).

After the United States' involvement in World War I (1917-1918), many veterans returned home suffering from the effects of poison gas used as a weapon by the German army. A Pasadena physician, James Luckie, specialized in treating gas victims. Dr. Luckie's search for a healthy climate with clean air in which to build a sanitarium led him to Twentynine Palms. As a result, many veterans began moving their families and homesteading in the Morongo Basin. The population of the region continued to grow steadily throughout the 1920s and 1930s, more wells were dug, and settlements and small schools were

established. In 1938, the Small Tract Act, or "Baby Homestead" Act was passed, enabling homesteaders to file on 2.5- and 5-acre tracts. This did not, however, have an immediate effect on settlement in the basin, due to the impact of the Great Depression (City of Twentynine Palms 2009; Clark and Couzens 1966; Evans 1965; Long 2009).

Nearing the second half of the twentieth century, the region began to grow significantly. In the late 1940s, after World War II, the economy was thriving, and many people took advantage of the Small Tract Act to acquire vacation and retirement property in the Morongo Basin. Developers and builders discovered the area, and small settlements began to grow into towns. A remote World War II army glider training base near Twentynine Palms became a major Marine Corps training center, and thousands of tourists came every year to visit Joshua Tree National Monument, both of which contributed to the area's economy. The main road through the basin from San Gorgonio Pass to Twentynine Palms, a rough dirt wagon road in the early years, was oiled as far east as Yucca Valley in 1937, and all the way to Twentynine Palms two years later. By 1951, the population and traffic into and out of the basin had increased to the point that the Twentynine Palms Highway (State Route [SR-] 62) was finally paved for its entire length (Clark and Couzens 1966; Evans 1965; Long 2009).

The four main population centers of the Morongo Basin are, from east to west, Twentynine Palms, Joshua Tree, Yucca Valley, and Morongo Valley. The history of Morongo Valley is discussed below.

Morongo Valley was first homesteaded by the deCrevecoeurs, who built a small adobe house and started their cattle ranch there in 1873. Mark Warren purchased the deCrevecoeur ranch in the 1880s, and the Warren house served as a stage stop for settlers and prospectors on the road through the Morongo Basin to Twentynine Palms. Several homesteads had been established in Morongo Valley by 1915. In 1916, these settlers joined together as the Morongo Water Company and raised $15,000 to lay a pipeline four miles from Big Morongo Canyon into the valley. The reliable water supply provided irrigation for orchards, vegetable crops, and alfalfa (Pollack 1988a).

In 1937 Harry Hess, a former miner, surveyed a subdivision in Morongo Valley and began promoting land sales. The economy of the Great Depression, however, kept sales low at first, and it was not until 1944 that the community began to grow (Pollack 1988a). Morongo Valley got its first electric substation in 1945, the same year Charlie Butterbaugh opened a café next to the Twentynine Palms Highway. In 1946, Valentine McCracken began operating what would today be called a convenience store at her home alongside the highway, serving travelers who had just come up the steep Morongo Grade from Whitewater. An ice cream parlor opened the next year, and Morongo Valley got its first post office in 1948. Valentine McCracken, who seems to have been the community's leading entrepreneur, was the first post mistress, running the post office from a converted bedroom at her home (Kelly 1988). Just before the post office opened, Morongo Valley residents, among them Ms. McCracken, established a chamber of commerce that published a small newspaper called The Desert Rat (Pollack 1988b). Much like Yucca Valley, Joshua Tree, and Twentynine Palms, Morongo Valley continued its gradual growth during the second half of the twentieth century with an economy stimulated largely by the nearby presence of the Marine Corps Air Ground Combat Center and Joshua Tree National Park. By the 1980s, Morongo Valley had a Lions Club, a

Women's Club, a library, and its own fire department (Pollack 1988b). The unincorporated community currently has a population of approximately 2,300.

3.0 METHODS

3.1 Personnel Qualifications

All phases of the cultural resources investigation were conducted or supervised by Registered Professional Archaeologist (RPA) Dr. Roger Mason, who meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeologist. Fieldwork was conducted by Staff Archaeologist Robert Cunningham. This technical report was prepared by Senior Archaeologist Wendy Blumel, RPA and Associate Archaeologist Megan Webb.

Dr. Mason has been professionally involved with cultural resources management in California since 1983. Dr. Mason is the author of hundreds of reports dealing with cultural resource surveys, evaluations, and mitigation programs in California. He has extensive project experience with the cultural resources requirements of CEQA and Section 106 of the NHPA.

Ms. Blumel is a Senior Archaeologist who has 10 years of experience in cultural resource management. She holds an M.A. in Anthropology and meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeologist. She is experienced in the organization and execution of field projects in compliance with Section 106 of the NHPA and CEQA. She has contributed to and authored numerous cultural resources technical reports, research designs, and cultural resource management plans, and has contributed to a variety of environmental compliance documents.

Mr. Cunningham is a Staff Archaeologist for ECORP and has more than 10 years of experience in cultural resources management, primarily in southern California. He holds a B.A. degree in Anthropology and has participated in and supervised numerous survey, testing, and data recovery excavations for both prehistoric and historical sites, and has cataloged, identified, and curated thousands of artifacts. He has conducted evaluations of cultural resources for eligibility for the National Register of Historic Places (NRHP) and CRHR.

Megan Webb is an Associate Archaeologist for ECORP and has more than three years of experience in cultural resources management, primarily in California. She holds a B.A. degree in Anthropology and has participated in all aspects of archaeological fieldwork, including survey, test excavation, and data recovery, in addition to months of archaeological lab experience.

3.2 Records Search Methods

A records search for the property was completed at the South Central Coastal Information Center (SCCIC), of the CHRIS at California State University, Fullerton on January 8, 2019. The purpose of the records search was to determine the extent of previous cultural resources investigations and the presence of previously-recorded archaeological sites or historic-period (i.e., over 50 years in age) resources within a one-mile (1,600-meter) radius of the Project Area. Materials reviewed included reports of previous cultural resources investigations, archaeological site records, historical maps, and listings of resources on the

NRHP, CRHR, California Points of Historical Interest, California Landmarks, and National Historic Landmarks.

In addition to the official records and maps for archaeological sites and surveys in San Bernardino County, the following historic references were also reviewed: Historic Property Data File for San Bernardino County (OHP 2012); *The National Register Information System websit*e (National Park Service [NPS] 2019); *Office of Historic Preservation, California Historical Landmarks* website (OHP 2019); *California Historical Landmarks* (OHP 1996 and updates); *California Points of Historical Interest* (OHP 1992 and updates); *Directory of Properties in the Historical Resources Inventory* (OHP 1999); *Caltrans Local Bridge Survey* (Caltrans 2018a); *Caltrans State Bridge Survey* (Caltrans 2018b); and *Historic Spots in California* (Kyle 2002).

Other references examined include a RealQuest Property Search and historic General Land Office (GLO) land patent records (Bureau of Land Management [BLM] 2019). Historic maps reviewed include:

- 1901 USGS Southern California (1:250,000-scale)
- 1902 USGS San Gorgonio, California (30-minute scale)
- 1953 USGS San Bernardino, California (1:250,000-scale)
- 1955 USGS Morongo Valley, California (15-minute scale)
- 1958 USGS San Bernardino, California (1:250,000-scale)
- 1972 USGS Morongo Valley, California (7.5-minute scale)
- 1997 USGS Morongo Valley, California (7.5-minute scale)

Historic aerial photos taken in 1970, 1996, 2002, 2005, 2009, and 2010 to present were also reviewed for any indications of property usage and built environment (Nationwide Environmental Research [NETROnline] 2019).

3.3 Sacred Lands File Coordination Methods

A search of the Sacred Lands File by the NAHC in Sacramento, California, was requested by ECORP in December 2018. This search was requested to determine whether there are sensitive or sacred Native American resources in the vicinity of the Project Area that could be affected by the proposed Project. The NAHC was also asked to provide a list of Native American groups that have historic or traditional ties to the Project Area who may have knowledge about the Project Area. It should be noted that this does not constitute consultation in compliance with Senate Bill (SB) 18 or Assembly Bill (AB) 52.

3.4 Field Methods

Archaeological field work was conducted by an ECORP archaeologist on December 19, 2018 and consisted of an intensive systematic pedestrian survey under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* (NPS 1983) using parallel north-south transects at 15-meter intervals (Figure 3). The Project Area was examined for the presence of cultural artifacts and features by walking the entire Project area. Notes and photographs were taken on the environmental setting and disturbances within the Project Area. Whenever possible, the locations of subsurface

exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey.

Newly-discovered cultural resources were assigned a unique temporary number based on the project name and the order in which they were found (i.e., MV-001). As appropriate, the site boundary, features, and artifacts were mapped using Collector for ArcGIS, a cloud-based geospatial software with 2- to 5-meter accuracy, with data later post-processed for submeter accuracy. Digital photographs were taken of select artifacts and features as well as general site overviews showing the general environment and the presence, if any, of human or naturally-occurring impacts. Following fieldwork, Department of Parks and Recreation (DPR) 523 records were prepared for resources identified and location and sketch maps created using data collected with the Collector ArcGIS application used in the field.

4.0 RESULTS

4.1 Records Search

The records search consisted of a review of previous research and literature, records on file with the SCCIC for previously recorded resources, and historical aerial photographs and maps of the vicinity.

4.1.1 Previous Research

The records search indicated that the Project Area has not been previously surveyed for cultural resources. However, 12 cultural resources investigations were conducted within a one-mile radius of the Project Area between 1971 and 2016. The results of the records search indicate that none of the property has been previously surveyed for cultural resources, and therefore, a pedestrian survey of the APE was warranted. Details of all 12 investigations are presented below in Table 2.

Table 2. Previous Cultural Studies In or Within One Mile of the Project Area

Report Number	Author(s)	Report Title	Year	Includes Portion of the APE?
SB-00108	King, Thomas F.	M-Yuc: An Archaeological Survey of the Proposed Right-Of-Way of the Morongo-Yucca-Upper Coachella Valley Pipeline	1971	No
SB-00155	Smith, Gerald A.	Big Morongo Regional Park Archaeological Survey	1973	No
SB-01108	San Bernardino County Museum Association	Cultural Resources Assessment: A.P. NO. 583-331-01, Covington Park Area, Morongo Valley	1981	No
SB-02448	Lerch, Michael K.	Cultural Resources Assessment of Serene Homes Tentative Tract 13845, Morongo Valley, San Bernardino County, California	1991	No
SB-03375	Love, Bruce	AT&T Wireless Site C761, Morongo Valley, CA.	2000	No
SB-04771	Horne, Stephen	Burned Area Rehabilitation: Paradise Fire	2005	No
SB-04775	Kind, Aaron S.	A Class 111, Cultural Resources Inventory for the Maccele Road-2006	2006	No

Table 2. Previous Cultural Studies In or Within One Mile of the Project Area

Report Number	Author(s)	Report Title	Year	Includes Portion of the APE?
SB-04776	Thompson, Joyce	An Archaeological Study Pit, Big Morongo Wildlife Reserve	1978	No
SB-05317	Schmidt, James J.	Southern California Edison, Devers-Carodean-High Desert Yucca 115 KV Transmission Line Deteriorated Pole Replacement Project	2005	No
SB-06878	Wlodarski, Robert J.	Cultural Resources Record Search and Archaeological Survey Results for the Proposed Royal Street Communications, California, LLC, Site 4041A (Palo Verde Drive) located at Twenty-Nine Palms Highway & East Drive, Morongo Valley, San Bernardino County, California 92556	2010	No
SB-07278	Jones, Gary A.	Archaeological Survey Report for Southern California Edison's Deteriorated Pole Project on the Campanula 25 kV, Chollita 12 kV, Meloday 20 kV, Mockingbird 12 kV, and Pioneertown 12 kV Transmission Lines in San Bernardino County, California	2009	No
SB-08265	George, Joan and John Eddy	Class III Cultural Resource Survey for the Morongo Canyon Communication Site, Morongo Valley, San Bernardino County, California	2016	No

The records search indicated that no previously recorded resources are located within or adjacent to the Project Area. The records search also revealed that an additional 10 previously recorded resources are located within one mile of the Project Area. These include one large pre-contact occupation site, and nine historic-age road segments. The pre-contact site is located approximately 0.9 mile away from the Project Area. Details of all 10 previously recorded resources are presented below in Table 3.

Table 3. Previously Recorded Cultural Resources In or Within One Mile of the Project Area

Site Number CA-SBR-	Primary Number P-36-	Recorder and Year	Age/ Period	Site Description	Within Project Area?
561	000561	Wilke (1971); Dougan (1994)	Pre-Contact	Occupation Site	No
15758H	024717	Stanton (2011)	Historic	East Drive and Pioneer Drive	No
15769H	024728	Lev-Tov (2011)	Historic	Vale Drive	No
15778H	024737	Lev-Tov (2011)	Historic	Coronado Avenue	No
15779H	024738	Lev-Tov (2011)	Historic	West Drive	No
15780H	024739	Lev-Tov (2011)	Historic	Park Avenue	No
15781H	024740	Lev-Tov (2011)	Historic	Mountain View Drive	No
15782H	024741	Lev-Tov (2011)	Historic	Paradise Avenue	No
15783H	024742	Kremkau (2011)	Historic	Rosella Drive	No
15784H	024743	Lev-Tov (2011)	Historic	Adeline Way	No

4.1.2 Records

The *Office of Historic Preservation's Directory of Properties, Historic Property Data File for San Bernardino County* (dated April 5, 2012) did not include any resources within 0.5 mile of the Project Area (OHP 2012).

The National Register Information System (NPS 2019) failed to reveal any eligible or listed properties within the Project Area. The nearest National Register-listed properties are located 25 miles west of the Project Area in Yucaipa.

Resources listed as *California Historical Landmarks* (OHP 1996) and by the OHP (OHP 2019) were reviewed on February 26, 2019. The nearest listed landmarks are located in Yucaipa Valley, approximately 25 miles west of the Project Area.

Historic Spots in California (Kyle 2002) mentions that San Bernardino County was organized in 1853 and the name comes from Spanish for St. Bernardine of Siena. Kyle also mentions that the Morongo Indian Reservation is located in Banning, Riverside County, California.

Historic GLO land patent records from the BLM's patent information database (BLM 2019) revealed that Upton C. Wertz received a homestead land patent on March 19, 1913 for the southern half of the southeastern quarter of Section 29 which includes the Project Area, as well as land in Section 28 for a total of 160 acres.

Table 4. GLO Land Patent Records

Patentee	Patent Date	Serial Number	Patent Type/Authority	Location
Wertz, Upton C	5/19/1913	CALA 0013580	May 20, 1862: Homestead Entry Original (12 Stat. 392)	S½ of SE¼ of Section 29 and W½ of SW¼ of Section 28

A RealQuest online property search for APN 0583-181-04 revealed the property consists of 0.95 acres of vacant land owned by the Golden State Water Company. No other property history information was on record with RealQuest.

The Caltrans Bridge Local and State Inventories (Caltrans 2018a, 2018b) did not list any historic bridges in or within 0.5 mile of the Project Area.

The *Handbook of North American Indians* (Bean 1978) shows that the nearest Native American Cahuilla village is near Cabazon, approximately 14 miles southwest of the Project Area. The Serrano territory map does not show any villages (Bean and Smith 1978).

4.1.3 Map Review and Aerial Photographs

A review of historic-period maps indicates the Project Area was undeveloped property from the early 1900s to the present. The earliest USGS Southern California Sheet No. 1 Quadrangle map from 1901 shows a road passing through Morongo Valley following a similar alignment to present-day SR-62. No structures are depicted within Morongo Valley. The 1902 USGS 30-minute San Gorgonio Quadrangle map shows a cluster of buildings along the unnamed road passing through Morongo Valley. The 1953 USGS 1:250,000-scale San Bernardino Quadrangle map shows that the road passing through the area now follows the same alignment as SR-62. The road is depicted as a hard surface, medium duty road. The map also shows the location of the Morongo Lodge, and Joshua Tree National Monument is shown to the east. The 1955 USGS 15-minute Morongo Valley, California map shows several residential streets and buildings in Morongo Valley. Unnamed streets following the same alignment as Mojave Drive and Juniper Avenue

are depicted as light duty roads, and the water tank east of the property is also depicted. The road passing through Morongo Valley is identified as Twentynine Palms Highway. The 1972 USGS 7.5-minute Morongo Valley Quadrangle map shows that residential development has increased throughout Morongo Valley, with rural residential properties depicted in the vicinity of the Project Area. Twentynine Palms Highway is now also identified as SR-62. There is no change depicted on the 1997 USGS 7.5-minute Morongo Valley, California Quadrangle map. All of the USGS maps reviewed show the Project Area as an undeveloped property.

Historic aerial photographs from 1970 to the present show the Project Area as undeveloped property in a rural residential area. In 1970 aerial photographs, Juniper Avenue and Mojave Drive are visible. The water tanks east of the Project Area are shown, and residential structures are visible west and northwest of the Project Area. Areas to the north and south are undeveloped. With the exception of the water tank, the area immediately east of the Project Area is undeveloped. By 1996, a house is present east of the Project Area and south of the water tank. The areas west and northwest of the Project Area show several residential structures north and south of the roadway. Dense vegetation is visible along the path of San Timoteo Wash. The general vicinity contains several citrus groves. The area north of the Project Area now contains a residential property, and additional residential properties are present to the east, southeast, and northeast. The property to the south remains undeveloped. These conditions remain unchanged in aerial photographs from 2002, 2005, 2009, 2010, and 2012 (NETROnline 2019).

4.2 Sacred Lands File Results

The results of the search of the Sacred Lands File by the NAHC did not indicate the presence of any Native American cultural resources within one mile of the Project Area. The NAHC also provided a list of 18 Native American groups that have historic or traditional ties to the Project Area who may have knowledge about the Project Area. It should be noted that this does not constitute consultation in compliance with SB 18 or AB 52. A copy of all correspondence between ECORP and the NAHC is provided as Attachment A.

4.3 Field Survey Results

At the time of the field survey, the Project Area was an undeveloped property within a rural residential neighborhood. The property is bounded to the north by Mojave Drive, and to the west by Juniper Avenue. Residential properties are located north of Mojave Drive and west of Juniper Avenue. The property to the east contains a municipal water tank and a residential property. The property to the south is undeveloped desert. At the time of the cultural resources field survey, ground visibility was good (75 to 80 percent visibility).

The property contains cholla, yucca, ephedra, and bursage. An area near the northeast corner of the property contains dumped red brick and concrete fragments. A sparse scatter of modern refuse is present across the property consisting of plastic, bottle glass, paper, cloth, cans, and non-diagnostic fragments of metal.

Two historic-period isolated finds were identified during the field survey. No pre-contact or historic-period sites, and no pre-contact isolated finds were identified as a result of the field survey. Photos of the Project Area can be found in Attachment B.

4.3.1 Newly Identified Resources

As a result of ECORP's pedestrian field survey, two historic-period isolates were newly recorded within the Project Area. They are briefly described here, and confidential DPR 523 records are provided in Attachment C. Neither isolate was collected during the field survey.

MV-001-I is a historic-period isolated find consisting of one bottle base and coffee can. The bottle base is made from aqua glass and contains a Maywood Glass Company maker's mark used from 1944-1961. The coffee can is a key wind coffee can with a partial lithograph reading MJB/coffee.

MV-002-I is a historic-period isolated find consisting of one crushed flat top beverage can. The can has been church-key opened.

5.0 EVALUATION OF ELIGIBILITY

The two newly identified isolates were evaluated for eligibility for the CRHR and NRHP.

5.1 Federal Evaluation Criteria

Under federal regulations implementing Section 106 of the NHPA (36 CFR 800), cultural resources identified in the Project APE must be evaluated using NRHP and eligibility criteria. The eligibility criteria for the NRHP are as follows (36 CFR 60.4):

"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 aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

(a) is associated with events that have made a significant contribution to the broad patterns of our history;

(b) is associated with the lives of a person or persons significance in our past;

(c) embodies the distinctive characteristics of a type, period or method of construction, or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction; or

(d) has yielded or may be likely to yield information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances (36 CFR 60.4).

Historical buildings, structures, and objects are usually eligible under Criteria A, B, and C based on historical research and architectural or engineering characteristics. Archaeological sites are usually eligible under Criterion D, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The lead federal agency, in this case, the USACE, makes the determination of eligibility based on the results of the test program and seeks concurrence from the State Historic Preservation Officer (SHPO).

Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics of an historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

5.2 State Evaluation Criteria

Under state law (CEQA) cultural resources are evaluated using CRHR eligibility criteria in order to determine whether any of the sites are Historical Resources, as defined by CEQA. CEQA requires that impacts to Historical Resources be identified and, if the impacts would be significant, that mitigation measures to reduce the impacts be applied.

A Historical Resource is a resource that is:

1) listed in or has been determined eligible for listing in the CRHR by the State Historical Resources Commission;

2 included in a local register of historical resources, as defined in PRC 5020.1(k);

3) has been identified as significant in an historical resources survey, as defined in PRC 5024.1(g); or

4) is determined to be historically significant by the CEQA lead agency [CCR Title 14, Section 15064.5(a)]. In making this determination, the CEQA lead agency usually applies the CRHR eligibility criteria.

For this Project, only the fourth definition of a Historical Resource is applicable because there are no resources previously determined eligible or listed on the CRHR, there are no resources included in a local register of historical resources, and no resources identified as significant in a qualified historical resources survey.

The eligibility criteria for the CRHR are as follows [CCR Title 14, Section 4852(b)]:

(1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;

(2) It is associated with the lives of persons important to local, California, or national history.

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

(4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, Section 4852(c)].

Historical buildings, structures, and objects are usually eligible under Criteria 1, 2, and 3 based on historical research and architectural or engineering characteristics. Archaeological sites are usually eligible

under Criterion 4, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The CEQA lead agency makes the determination of eligibility based on the results of the test program. Cultural resources determined eligible for the NRHP by a federal agency are automatically eligible for the CRHR.

Impacts to a Historical Resource (as defined by CEQA) are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)].

5.2.1 Evaluation

Isolates are artifacts that are not associated with other artifacts or features and are not connected with the human activity that produced them. Isolates do not individually contribute to the broad patterns of history because they cannot be connected to a particular historical event (NRHP Criterion A / CRHR Criterion 1). Isolates are similarly difficult to associate with specific individuals due to their lack of association with archaeological or historical sites, and generally no information exists in the archival record to associate isolates with important individuals in history (NRHP Criterion B / CRHR Criterion 2). Isolates do not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values (NRHP Criterion C / CRHR Criterion 3). Finally, isolates in general have no context or associations and therefore cannot provide important information in history or prehistory (NRHP Criterion D / CRHR Criterion 4). Isolated finds do not meet the eligibility criteria for inclusion in the NRHP or CRHR as individual resources, and therefore, are not Historical Resources under CEQA. Development of the Project area would not result in any significant impacts to known Historical Resources under CEQA.

6.0 SUMMARY AND RECOMMENDATIONS

A cultural resources investigation was conducted for a 0.923-acre Project Area in the Morongo Valley, San Bernardino County, California. If the CEQA lead agency determines that the isolates are ineligible for the CRHR and, therefore, are not Historical Resources for the purpose of CEQA, then no mitigation measures will be necessary under CEQA. Until the lead agencies concur with the identification and evaluation of eligibility of cultural resources, including archaeological sites, standing structures, no ground-disturbing activity should occur.

Although the archaeological sensitivity is low, there always is a potential for ground-disturbing activities to expose previously unrecorded cultural resources. CEQA requires the lead agency to address any unanticipated cultural resources discoveries during Project construction. Therefore, ECORP recommends the following mitigation measures be adopted and implemented by the Lead Agency to reduce potential adverse impacts to Less than Significant.

If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to

modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the CEQA lead agency, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP or CRHR. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the San Bernardino County Coroner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

The lead agency is responsible for ensuring compliance with these mitigation measures because damage to significant cultural resources is in violation of CEQA. Section 15097 of Title 14, Chapter 3, Article 7 of CEQA, *Mitigation Monitoring or Reporting*, "the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program."

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LIST OF ATTACHMENTS

ATTACHMENT A

Sacred Lands File Coordination

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Golden State Water Company Morongo Del Sur Project

County: San Bernardino County

USGS Quadrangle Name: Morongo Valley (1997)

Township: 1S **Range:** 4E **Section(s):** 29

Company/Firm/Agency: ECORP Consulting, Inc.

Street Address: 215 North Fifth Street

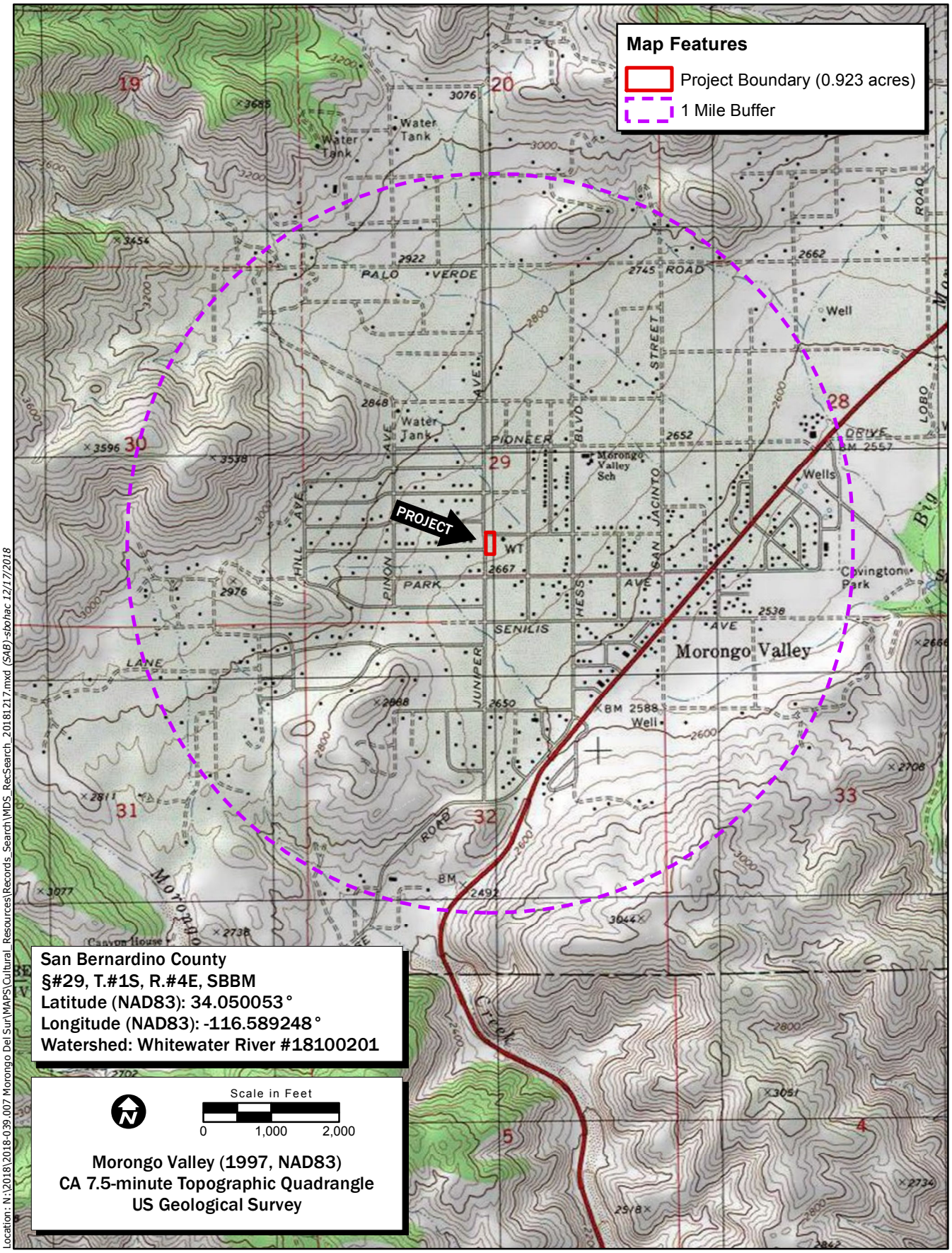
City: Redlands **Zip:** 92374

Phone: (909) 307-0046

Fax: (909) 307-0056

Email: wblumel@ecorpconsulting.com

Project Description: ECORP has been hired to conduct a constraints-level study of a one-acre parcel in the community of Morongo Valley. Golden State Water Company is considering developing a water basin on the parcel. To support this, ECORP is requesting an search of the Sacred Lands File for the project.



Location: N:\2018\2018-039.007 Morongo Del Sur\MAPS\Cultural_Resources\Records_Search\MDS_RecSearch_20181217.mxd (SAB)-sbohac 12/17/2018

Map Date: 12/17/2018

iService Layer Credits: Copyright © 2013 National Geographic Society, i-cubed

DRAFT

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Records Search

2018-039.007 Morongo Del Sur

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

January 2, 2019

Wendy Blumel
ECORP

Sent by Email to: wblumel@ecorpconuslting.com

RE: Golden State Water Company Morongo Del Sur Project, San Bernardino County

Dear Ms. Blumel:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 573-1033.

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Bernardino County
1/2/2019

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264 — Luiseno
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264 — Luiseno
Phone: (760) 699 - 6800
Fax: (760) 699-6919

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
P.O. Box 846 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Los Coyotes Band of Mission Indians
Shane Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712
Chapparosa@msn.com

Los Coyotes Band of Mission Indians
John Perada, Environmental Director
P. O. Box 189 — Cahuilla
Warner Springs, CA, 92086
Phone: (760) 782 - 0712
Fax: (760) 782-2730

Morongo Band of Mission Indians
Denisa Torres, Cultural Resources Manager
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramonatribe.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Golden State Water Company Morongo Del Sur Project, San Bernardino County.

Native American Heritage Commission
Native American Contact List
San Bernardino County
1/2/2019

Ramona Band of Cahuilla
John Gomez, Environmental Coordinator
P. O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramonatribe.com

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Serrano
Phone: (503) 539 - 0933 — Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Manuel Band of Mission Indians
Lee Clauss, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

Santa Rosa Band of Cahuilla Indians
Steven Estrada, Chairperson
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
mflaxbeard@santarosacahuilla-nsn.gov

Serrano Nation of Mission Indians
Goldie Walker, Chairperson
P.O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909) 528 - 9027

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92583 — Luiseno
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Michael Mirelez, Cultural Resource Coordinator
P.O. Box 1160 — Cahuilla
Thermal, CA, 92274
Phone: (760) 399 - 0022
Fax: (760) 397-8146
mmirelez@tmdci.org

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Golden State Water Company Morongo Del Sur Project, San Bernardino County.

ATTACHMENT B

Project Area Photographs

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Photo Log

SITE:

Camera	Photo Number	Description	Facing	Date	Initials
C12-2	1580	PROJECT AREA O.V.	S	12/19	RJC
↓	1581	" "	N	↓	↓
	1582	MV-001-I - BOTTLE BASE	GROUND		
	1583	MV-001-I KEM WIND COFFEE CAN	GROUND		
	1584	MV-002-I FLAT TOP BEVERAGE CAN	GROUND		
	1585	PROJECT AREA NORTH BOUNDARY @ MOJAVE DR	E		
	1586	" " WEST BOUNDARY @ JUNIPER	S		
↓	1587	DUMPING IN NORTHERN PROJECT AREA	N	↓	↓

Confidential Cultural Resource Isolate Locations and Isolate Records

This Attachment contains information on the specific location of cultural resources. This information is not for publication or release to the general public. It is for planning, management and research purposes only. Information on the specific location of prehistoric and historic sites is exempt from the Freedom of Information Act and California Public Records Act.

REDACTED

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

18 January 2019

ECORP Consulting, Inc.
215 North Fifth Street
Redlands, CA 92374

Attn: Wendy Blumel, Assistant Cultural Group Manager

re: Paleontological resources for the proposed Golden State Water Company Morongo del Sur Project, ECORP Project # 2018-039.007, in Morongo Valley, San Bernardino County, project area

Dear Wendy:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Golden State Water Company Morongo del Sur Project, ECORP Project # 2018-039.007, in Morongo Valley, San Bernardino County, project area as outlined on the portion of the Morongo Valley USGS topographic quadrangle map that you sent to me via e-mail on 3 January 2019. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have localities farther afield from sedimentary deposits similar to those that may occur subsurface in the proposed project area.

The entire proposed project area has surface deposits composed of soil and younger Quaternary Alluvium, derived as alluvial fan deposits from the surrounding Little San Bernardino Mountains. We have no fossil vertebrate localities nearby from these types of deposits and they are unlikely to contain significant vertebrate fossils in the uppermost layers. Nearby to the northeast, however, there are exposures of older Quaternary deposits that may also occur subsurface in the proposed project area. Our closest fossil vertebrate locality in similar older Quaternary deposits is LACM 1269, southeast of the proposed project area near Desert Hot Springs on the northwestern edge of Edom Hill in the Indio Hills, that contained specimens of fossil horse, *Equus*.

Shallow excavations in the younger Quaternary Alluvium exposed throughout the proposed project area probably will not encounter any significant vertebrate fossils. Deeper excavations that extend down into older sedimentary deposits, however, may well uncover significant vertebrate fossil remains. Any substantial excavations below the uppermost layers, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice