

CULTURAL RESOURCES STUDY FOR THE WATSON APPLE VALLEY PROJECT

TOWN OF APPLE VALLEY, SAN BERNARDINO COUNTY, CALIFORNIA

APNs 0463-231-62, 0463-232-02 through -06, -55 through -56, and -73

Lead Agency:

Town of Apple Valley
14955 Dale Evans Parkway
Apple Valley, California 92307

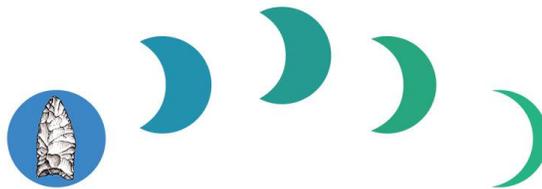
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April 3, 2024



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Archaeological Database Information

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Report Date: April 3, 2024

Report Title: Cultural Resources Study for the Watson Apple Valley Project,
Apple Valley, San Bernardino County, California

Type of Study: Phase I Cultural Resources Study

USGS Quadrangle: Sections 22 and 23, Township 6 North, Range 3 West of the
Apple Valley North, California (7.5-minute) USGS Quadrangle

Acreage: Approximately 200 acres

Key Words: Survey; *Apple Valley North, California* USGS Quadrangle;
Previously recorded Site P-36-006839 and Isolate P-36-012855
not relocated; Sites Temp-1 through Temp-4 identified; Temp-1
(historic foundation, trash scatter and well); Temp-2 (historic
well); Temp-3 (historic trash scatter); Temp-4 (historic trash
scatter); no CRHR-eligible resources within project;
archaeological monitoring of project-related ground disturbances
recommended.

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MANAGEMENT SUMMARY/ABSTRACT

At the direction of the applicant, a cultural resources study was conducted by BFSA Environmental Services, a Perennial Company (BFSA), for the proposed Watson Apple Valley Project. The project includes two proposed, non-contiguous, development locations (East Property and West Property) collectively measuring approximately 200 acres, within the town of Apple Valley, San Bernardino County, California. The approximately 48-acre West Property (Assessor's Parcel Number [APN] 0463-231-62) is located northwest of the intersection of Navajo and Los Padres roads and the larger, approximately 153-acre East Property (APNs 0463-232-02 through -06, -55, -56, and -73) is situated between Navajo Road, Johnson Road, Central Road, and Kensington Street. The project can be found within Sections 21 and 22, Township 6 North, Range 3 West as shown on the United States Geological Survey (USGS) *Apple Valley North, California* topographic quadrangle map. The project proposes to construct industrial warehouse developments, along with associated infrastructure with the subject properties.

The purpose of this investigation was to locate and record any cultural resources within the project and subsequently evaluate any resources as part of the Town of Apple Valley environmental review process conducted in compliance with the California Environmental Quality Act (CEQA). The archaeological investigation of the project includes an archaeological records search conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton (CSU Fullerton) in order to assess previous archaeological studies and identify any previously recorded archaeological sites within the project, or in the immediate vicinity. The records search identified 19 resources (six prehistoric, one multicomponent, and 12 historic) within one mile of the project. Two of the recorded resources, P-36-006839 and P-36-012855, are within the subject property. Site P-36-006839 is recorded as a historic wood lined pit filled with sand while isolate P-36-012855 is a historic metal bucket. Neither previously recorded resource would qualify as eligible for the California Register of Historical Resources (CRHR). The SCCIC records search results also identified seven previous studies within one mile, three of which overlap the subject property (Sunberg and Desautels 1991; Dice 2002; Tang et al. 2007). A Sacred Lands File (SLF) search was also requested from the Native American Heritage Commission (NAHC). The NAHC SLF search results are negative for the presence of any recorded Native American sacred sites or locations of religious or ceremonial importance within one mile of the project.

Principal Investigator Tracy A. Stropes, M.A., RPA, directed the archaeological survey with assistance from staff archaeologists David Grabski and Alexander Brill on March 12 and 13, 2024. The archaeological study included an intensive reconnaissance survey consisting of a series of transects conducted across the project. Visibility was characterized as good to excellent. Noted impacts to the property consisted of dirt access/off-highway (OHW) vehicle roads and modern trash found throughout the project. The survey did not identify any prehistoric resources within the subject property and neither Site P-36-006839 nor isolate P-36-012855 could be relocated. However, the survey did identify four previously unrecorded historic-age resources (Temp-1

through Temp-4) within the project. Sites Temp-1 and Temp-2 are within the West Property, and Temp-3 and Temp-4 are located within the East Property. Site Temp-1 consists of a foundation, trash scatter, and a metal pipe extruding from the ground that is likely associated with a wellhead. This site corresponds with structures which were visible within the West Property between 1957 and 1980. Site Temp-2 is another metal pipe extruding from the ground and likely associated with a wellhead. Sites Temp-3 and Temp-4 are both trash scatters. No potential for significant subsurface deposits were observed at sites Temp-1 through Temp-4. Furthermore, the resources do not possess integrity, cannot be associated with any significant individuals/events, and do not possess any research potential. Therefore, sites Temp-1 through Temp-4 are evaluated as not eligible for the CRHR.

As the resources within the subject property are evaluated as not CRHR eligible, potential project-related impacts to them are not considered significant. Therefore, no site-specific mitigation measures are recommended. However, given the presence of known resources within the subject property coupled with the records search results, there still remains the potential for inadvertent discoveries of undocumented cultural resources. As such, archaeological monitoring of all ground-disturbing activities is recommended. A copy of this report will be permanently filed with the SCCIC at CSU Fullerton. All notes, photographs, and other materials related to this project will be curated at the archaeological laboratory of BFSA in Poway, California.

1.0 INTRODUCTION

1.1 Project Description

The archaeological survey program for the Watson Apple Valley Project was conducted in order to comply with CEQA and Town of Apple Valley environmental requirements. The project includes two proposed, non-contiguous development locations (East Property and West Property), collectively measuring approximately 200 acres, within the Town of Apple Valley, San Bernardino County, California (Figure 1.1–1). The approximately 48-acre West Property (Assessor’s Parcel Number [APN] 0463-231-62) is located northwest of the intersection of Navajo and Los Padres roads and the larger, approximately 153-acre East Property (APNs 0463-232-02 through -06, -55, -56, and -73) is situated between Navajo Road, Johnson Road, Central Road, and Kensington Street. The project can be found within Sections 21 and 22, Township 6 North, Range 3 West as shown on the USGS *Apple Valley North, California* topographic quadrangle map (Figure 1.1–2). The project proposes to construct industrial warehouse developments, along with infrastructure associated with the subject property (Figures 1.1–3 and 1.1–4).

The decision to request this investigation was based upon the cultural resource sensitivity of the locality as suggested by known site density and predictive modeling. Sensitivity for cultural resources in a given area is usually indicated by known settlement patterns which, in southwestern San Bernardino County, were focused around freshwater resources and a food supply.

1.2 Environmental Setting

The project is north of the Apple Valley County Airport, northeast of Bell Mountain, and northwest of Fairview Mountain within the Town of Apple Valley. According to the Town of Apple Valley’s website:

The Town of Apple Valley is located in the heart of the Victor Valley in the County of San Bernardino, at an elevation of 3,000 feet. Known as the “High Desert”, Apple Valley is strategically located 95 miles northeast of the Los Angeles metropolitan area, 140 miles north of San Diego, and 185 miles south of Las Vegas. The Town has 78 square miles in its incorporated boundaries, and a sphere of influence encompassing 200 square miles...

Apple Valley experiences an average of 350 days of sunshine per year with winter temperatures dipping into the low 20s to high 70s, and summer temperatures ranging from the low 40s through 110 degrees Fahrenheit. Prevailing winds range from 5-10 knots/hour from the south/southwest to the northeast. The combination of weather and geography unveils the hidden treasures of the High Desert’s dramatic landscapes and exquisite sunsets. (Town of Apple Valley 2021)

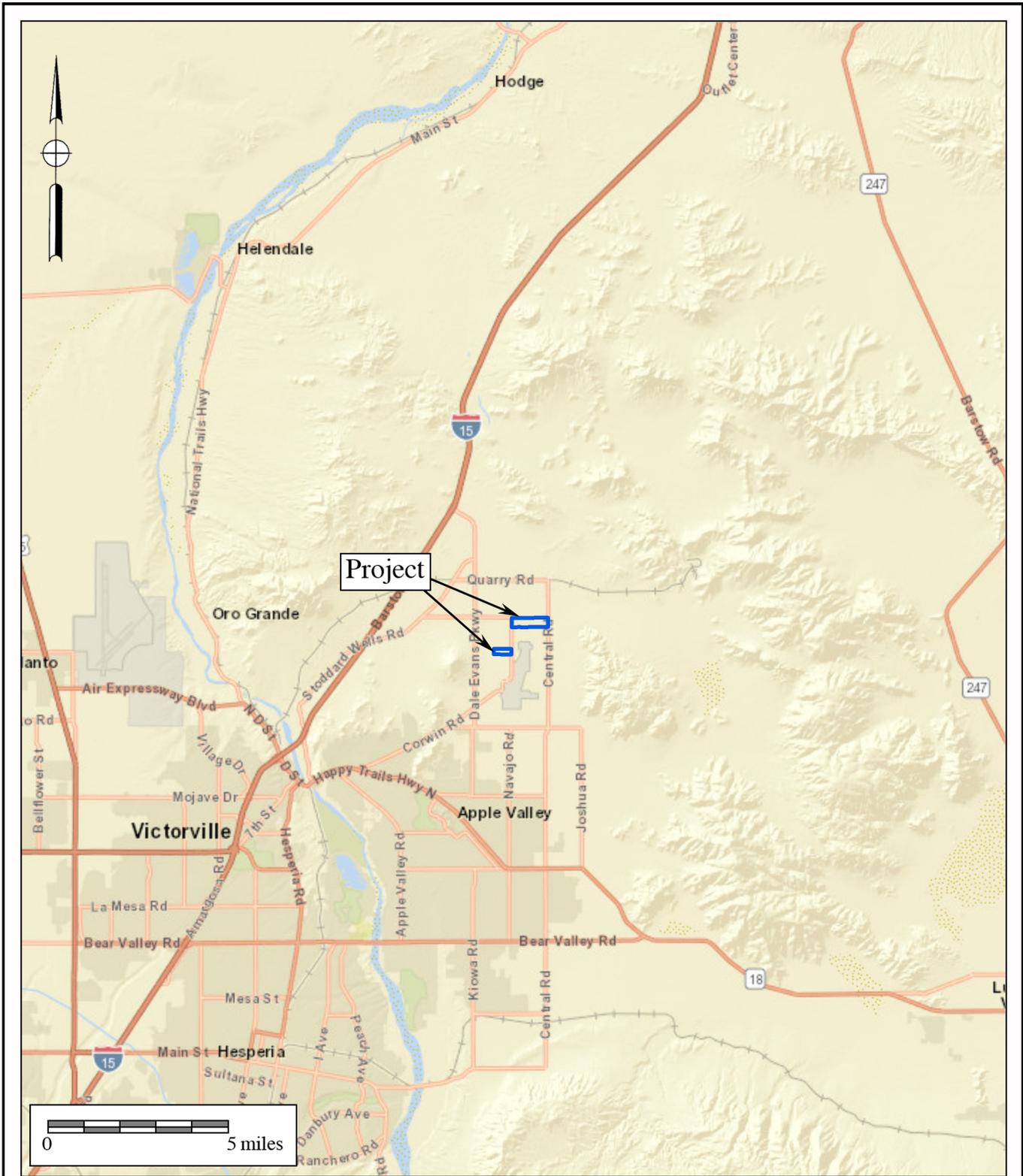


Figure 1.0-1
General Location Map

The Watson Apple Valley Project
 DeLorme (1:250,000 series)

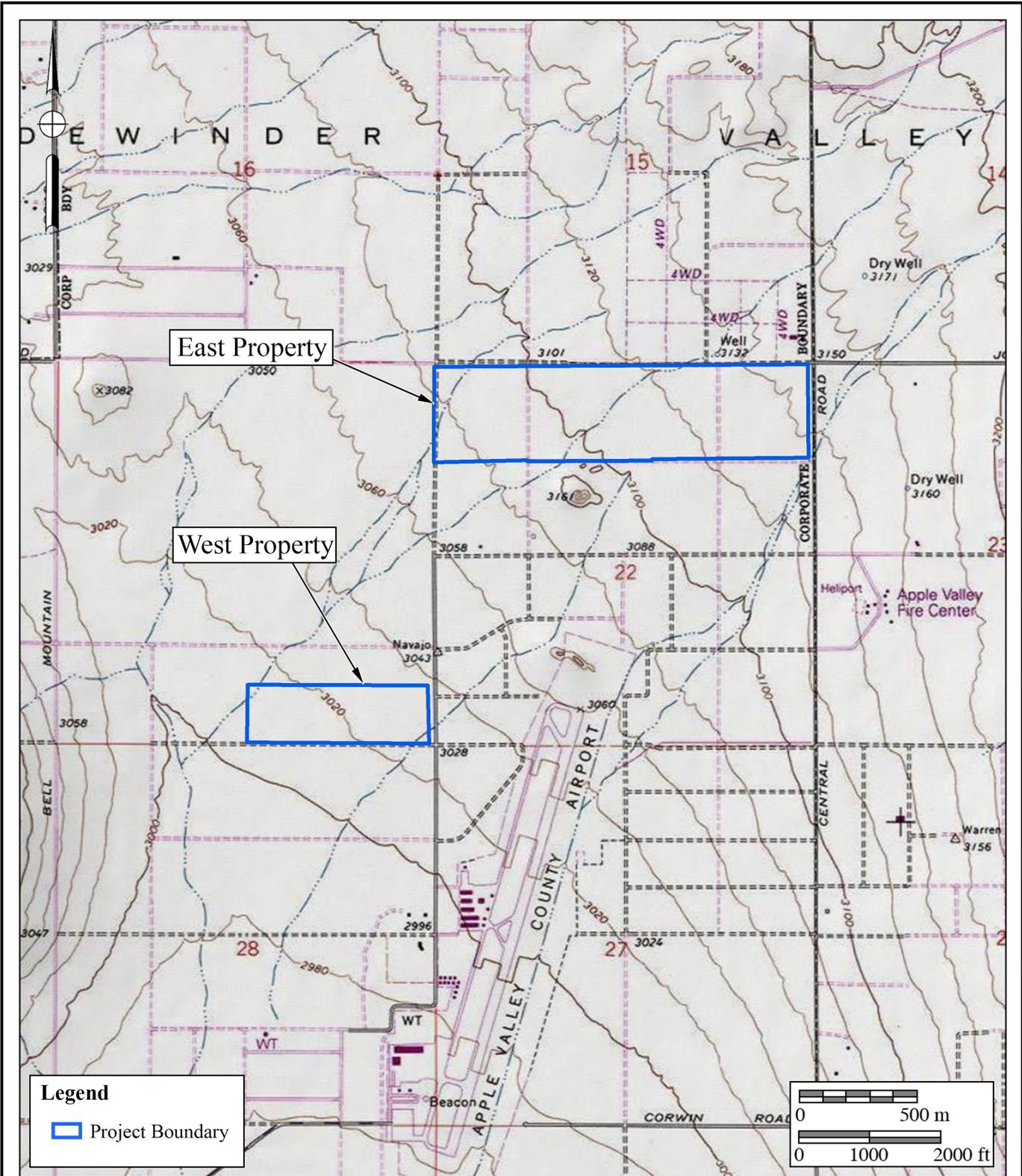
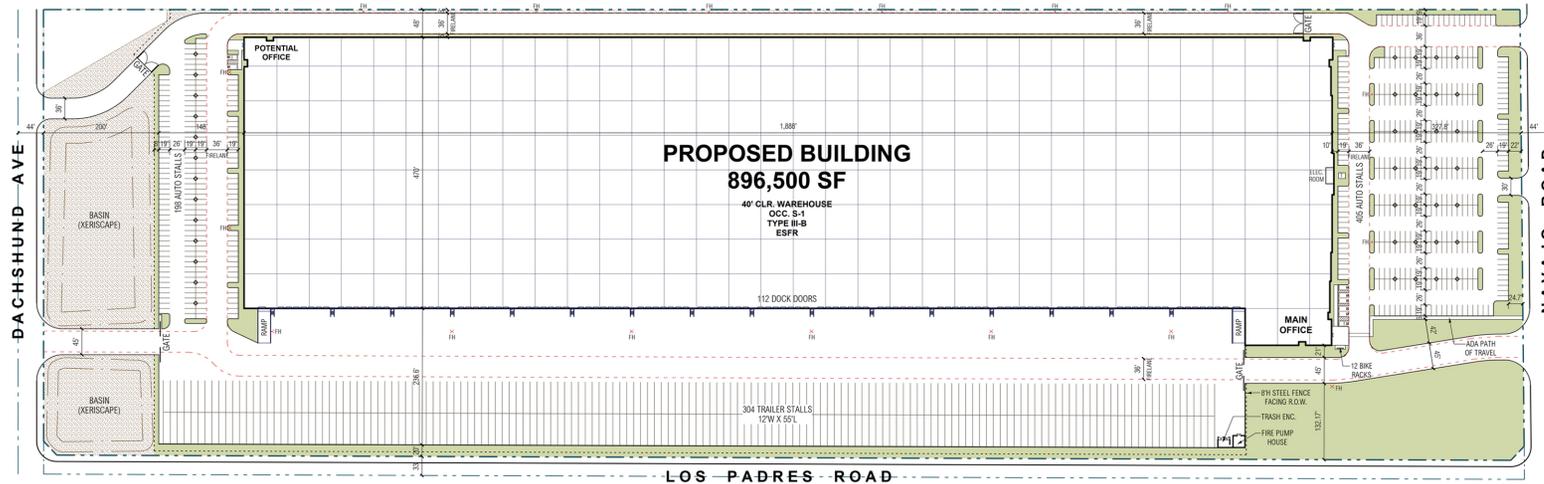


Figure 1.0–2
Project Location Map

The Watson Apple Valley Project
 USGS *Apple Valley North Quadrangle (7.5-minute series)*





VICINITY MAP:



SITE LEGEND:

- PROPERTY / ROW LINE
- - - ADA PATH OF TRAVEL
- 6"X BLACK TUBE STEEL FENCE
- 6"X CHAIN LINK FENCE
- LANDSCAPE AREA
- XERISCAPE AREA
- ⊗ FIRE HYDRANT
- PAD-MOUNT UTILITY TRANSFORMER
- ▤ TYPICAL PARKING STALLS - 9' X 19' STRIPED PER CITY STANDARDS
- ▤ TYPICAL TRAILER PARKING STALLS 12'W X 55'L - 6" WIDE PAINT STRIPE

PROJECT INFORMATION:

APN: 0463-231-02-0000
 ZONE: SPECIFIC PLAN
 USE: WAREHOUSE (S-1)
 CONSTRUCTION TYPE: II-B
 MAX. ROOF DECK HEIGHT: 47'
 MAX. BLDG HEIGHT AT ARCHITECTURAL FEATURES: 52'

SHEET INDEX

ARCHITECTURAL
 A1-1-P OVERALL SITE PLAN
 A1-2-P SITE PLAN DETAILS
 A2-1-P FLOOR PLAN
 A2-2-P ROOF PLAN
 A3-1-P ELEVATIONS
 A3-2-P ELEVATIONS
 CIVIL
 1-2 CONCEPTUAL GRADING PLAN
 3 SECTIONS
 4-5 CONCEPTUAL UTILITY PLAN
 LANDSCAPE
 1 OF 1 CONCEPTUAL PLANTING PLAN

PROJECT DATA:

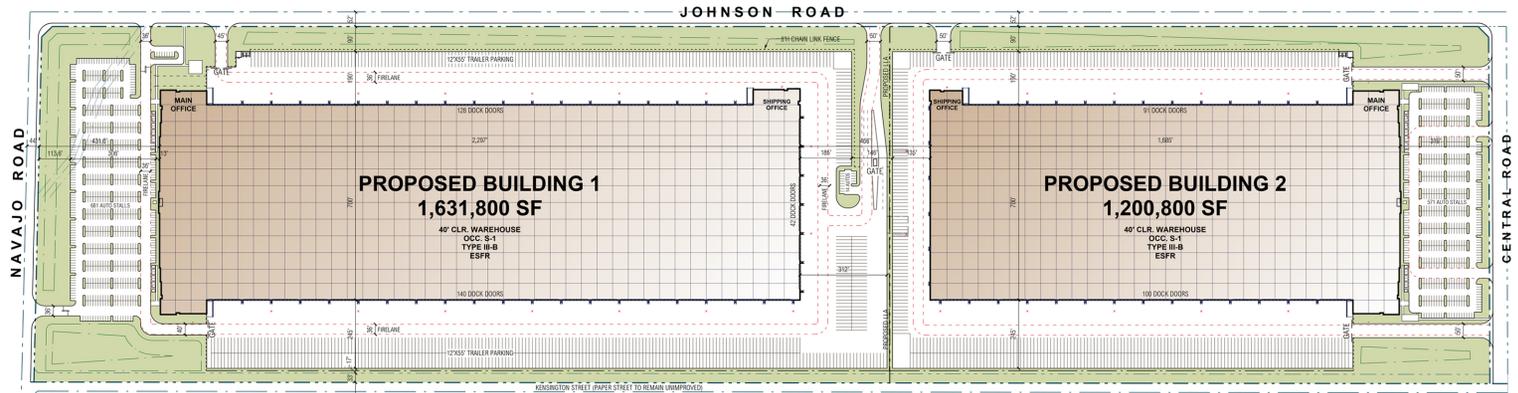
GROSS SITE AREA: 2,077,935 SF / 47.70 AC
 LOS PADRES STREET DEDICATION: 80,348 SF
 NET SITE AREA: 1,992,586 SF / 45.76 AC
 BUILDING AREA: 896,500 SF
 F.A.R. 440
 PARKING REQUIRED:
 1ST 10,000 SF @ 1/500 SF 20 STALLS
 > 10,000 SF @ 1/1000 SF 867 STALLS
 TOTAL REQUIRED: 907 STALLS
 PARKING PROVIDED:
 AUTO STALLS 603 STALLS
 TRAILER STALLS 304 STALLS
 TOTAL PROVIDED: 907 STALLS
 DOCK LOADING POSITIONS: 112 DOCKS
 NET LANDSCAPE AREA:
 LANDSCAPE REQUIRED: 10% / 199,314 SF
 LANDSCAPE PROVIDED: 14.3% / 285,000 SF



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Figure 1.0-3
Project Development Map (West Property)

The Watson Apple Valley Project



SITE LEGEND:

- PROPERTY / ROW LINE
- - - ADA PATH OF TRAVEL
- 8" CHAIN LINK FENCE
- 8" CHAIN LINK FENCE
- LANDSCAPE AREA
- MERCAPTE AREA
- FIRE HYDRANT
- PAD-MOUNT UTILITY TRANSFORMER
- TYPICAL PARKING STALLS: 8' X 12' STRIPED PER UTILITY STANDARDS
- TYPICAL PARKING STALLS: 12'W X 55'L - 6" WIDE PAINT STRIPE

VICINITY MAP:



PROJECT INFORMATION:

APR: 0463-232-02, 03, 04, 05, 06
0463-232-03, 04, 55, 58
0463-232-73

ZONE: SPECIFIC PLAN
USE: WAREHOUSE (S-1)
CONSTRUCTION TYPE: III-B
MAX. ROOF DECK HEIGHT: 4F
MAX. BLDG HEIGHT AT ARCHITECTURAL FEATURES: 52'

SHEET INDEX

- ARCHITECTURAL
 - A1-0-P OVERALL SITE PLAN
 - A1-1-P BUILDING 1 SITE PLAN
 - A1-2-P BUILDING 2 SITE PLAN
 - A1-3-P SITE PLAN DETAILS
 - A2-1-P BUILDING 1 FLOOR PLAN
 - A2-2-P BUILDING 2 FLOOR PLAN
 - A2-3-P BUILDING 1 ROOF PLAN
 - A2-4-P BUILDING 2 ROOF PLAN
 - A3-1-P BUILDING 1 ELEVATIONS
 - A3-2-P BUILDING 2 ELEVATIONS
- TENTATIVE MAP 2008B
 - 1 OF 2 COVER SHEET
 - 2 OF 2 MAP
- CIVIL
 - 1-2 CONCEPTUAL GRADING PLAN
 - 3 SECTIONS
 - 4-5 CONCEPTUAL UTILITY PLAN
- LANDSCAPE
 - 1 OF 2 CONCEPTUAL PLANTING PLAN
 - 2 OF 2 CONCEPTUAL PLANTING PLAN

PROJECT DATA

	BUILDING 1	BUILDING 2	TOTAL
SITE AREA	3,896,940 SF	2,747,000 SF	6,643,940 SF
	89.46 AC	63.00 AC	152.46 AC
BUILDING AREA			
FOOTPRINT	1,631,800 SF	1,200,800 SF	2,832,600 SF
MEZZANINE	0 SF	0 SF	0 SF
TOTAL	1,631,800 SF	1,200,800 SF	2,832,600 SF
FLOOR AREA BY USE			
OFFICE	30,000 SF	25,000 SF	55,000 SF
WAREHOUSE	1,601,800 SF	1,175,800 SF	2,777,600 SF
TOTAL	1,631,800 SF	1,200,800 SF	2,832,600 SF
COVERAGE	41.87%	43.70%	42.87%
F.A.R.	0.478	0.437	0.428
PARKING PROVIDED			
OFFICE (8' x 20')	0	0	0
WAREHOUSE @ 1500' x 10' SF	20	20	40
WAREHOUSE @ 11000' x 10' SF	1,022	1,161	2,183
TOTAL	1,042	1,211	2,253
PARKING PROVIDED			
STANDARD AUTO STALLS	681	568	1,249
ADA-AUTO STALLS	14	12	26
TRAILER PARKING STALLS	637	461	1,098
TOTAL	1,332	1,052	2,384
LANDSCAPE AREA	725,000 SF	465,000 SF	1,190,000 SF
LANDSCAPE %	18.80%	16.90%	17.87%
DOCK LOADING SPACES REQUIRED	82	80	162
DOCK LOADING SPACES PROVIDED	370	191	561



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Figure 1.0-4
Project Development Map (East Property)

The Watson Apple Valley Project

Geologically, the project is located within the Mojave Desert, in the tectonically active Mojave Desert Block. The path of the intermittent Mojave River lies approximately six miles west of the project. Geologically, the parcels are mapped as late Pleistocene-aged old alluvial deposits, characterized as fine- to medium-grained sand and fine- to medium-sized gravel of inactive alluvial fans. Surfaces are described as smooth, slightly varnished pavements composed of sand and angular gravel clasts (Hernandez and Tan 2007).

The primary soil type found within the property is Helendale-Bryman Loamy Sands (NRCS 2019). The subject property consists of gently undulating topography with elevations ranging between approximately 3,150 feet above mean sea level (AMSL) near the intersection of Central and Johnson roads and approximately 3,020 feet AMSL within the west property at the southwestern corner at Los Padres Road. Vegetation within the project consists of Creosote Bush Scrub community plants.

1.3 Cultural Setting

1.3.1 Prehistoric Period

The subject property straddles the traditional territory of multiple Native American groups, including the Serrano and the Vanyume, south of the Kawaiisu and Chemehuev. Although their range of cultural variation should be taken into consideration, the study area was traditionally inhabited by several tribes who spoke Shoshonean languages of the Uto-Aztecan language stock. At the same time, although they may have held differing worldviews and maintained variations in their social structures, how they exploited the natural resources of their territories remained similar. Although the Mojave Desert is an area believed to have had limited prehistoric subsistence resources, it has historically supported a long and occasionally dense population. Evidence of villages and camps, burials, quarries, rock features, and bedrock mortars has been documented at archaeological sites across the desert, some of which contain evidence of a lengthy prehistoric time span. Although early archaeological remains are not found frequently, when they are found they are generally located along the margins of former pluvial lakes or in areas of dune deflation. In contrast, artifacts on the desert floor may be sparse, widely scattered, and mixed with the desert pavements. Archaeologists have reached a broad consensus regarding the general cultural chronology in the region. The identified sequence includes the Paleo Indian Period, the Lake Mojave Period, the Pinto Period, the Gypsum Period, the Saratoga Springs Period, and the Ethnohistoric Period.

Paleo Indian Period (12,000 to circa 10,000 YBP)

Archaeologically, the Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 years before the present [YBP]). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene

megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983).

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation that utilized a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995).

Lake Mojave Period (Late Pleistocene: 10,000 to 7,000 YBP)

The earliest documented evidence of human occupation in the Mojave Desert and surrounding areas comes from the Paleo Indian Period, a cultural expression referred to as the Western Pluvial Lakes Tradition (WPLT). The WPLT occurred in the western Great Basin and covered an area that stretched from the now arid lands of southern California to Oregon. A cultural adaptation to pluvial conditions (*e.g.*, lakes, marshes, and grasslands) flourished for thousands of years after approximately 9000 B.C., but disappeared in response to the warming and drying trends of the Altithermal climatic period (Moratto 1984). One of the most well known expressions of the WPLT is the Lake Mojave Complex, which is thought to have covered a vast area including parts of the southwestern Great Basin and the Mojave Desert, and may have reached as far south as the San Diego area. Artifacts indicative of the Lake Mojave Complex include foliated points and knives, Lake Mojave points, Silver Lake points, and flaked-stone crescents. Similar artifacts have been subsequently recorded along the shoreline of many other pluvial lakes in the Mojave Desert. Archaeological studies by Mark Sutton (1988) suggested that, at the time of the Lake Mojave Complex, much of Antelope and Fremont valleys may have been covered by Pleistocene Lake Thompson. In her 1978 work, Davis (1978) argues that the wetlands generated as a result of such Pleistocene lakes would have been a great attraction to the region's early occupants. This would have resulted in an adaptive strategy that was more generalized, focusing on hunting and the overall exploitation of wetland resources. In general, it is clear that cultures across California adapted to wetland environments generated by pluvial lake ecological systems (Moratto 1984).

Pinto Period (7,000 to 4,000 YBP)

The Pinto Period dates to the end of the Pleistocene, when the severe and dramatic environmental change from pluvial to arid conditions began (Moratto 1984). Pinto Period sites are found mostly near ephemeral lakes and now dry streams and springs, suggesting that as the region began to dry, new subsistence adaptations were necessary. Projectile points associated with the Pinto Period are characterized as larger atlatl dart points, as opposed to arrowhead points, which were introduced later. This period has been described as a highly mobile desert economy, with an emphasis on hunting, supplemented by consumption of processed seeds (Moratto 1984). However, the collections believed to represent the Pinto Period are largely lacking in well-developed milling technologies, according to Moratto (1984). Pinto Period artifacts have been

interpreted as indications of temporary or seasonal occupations by small groups of people. Sites of this period are generally small in scale and are typically absent of a developed midden. More recent studies (Sutton et al. 2007) suggest that the Pinto Period may have actually started in the early Holocene, overlapping the Lake Mojave Period. A series of radiocarbon dates from Little Lake, Pinto Basin, Twentynine Palms, and Fort Irwin suggests Pinto sites show antiquity of upwards of 9,000 years (Sutton et al. 2007), indicating these sites may be of greater antiquity than previously suggested.

Gypsum Period (4,000 to 1,500 YBP)

The presence of Humboldt Concave Base, Gypsum Cave, Elko Eared, or Elko corner-notched points are believed to be indicative of the Gypsum Period (radiocarbon dated from 4,000 to 1,500 YBP). The Gypsum Period reflects a more intensive desert occupation as temperatures began to regulate during the First Neoglacial episode at the beginning of the late Holocene (Warren 1984; Sutton et al. 2007). During this time, indications of trade with coastal populations are evidenced by the presence of shell beads in the archaeological record. An increase in milling stones and manos has been found in association with this period, which indicates an increased use of hard seeds (Moratto 1984; Warren 1984; Sutton et al. 2007). In comparison with sites from the preceding periods, Gypsum Period sites are generally smaller, higher in frequency, and distributed across a range of environments. Furthermore, Gypsum Period sites also display evidence of exploitation of *artiodactyls*, rabbits, and rodents, as well as a wide range of seeds. Adaptations resulting from better adapted technologies combined with what was likely a more complex social organization likely facilitated ease of adaptation to the warming and drying conditions that began circa 2,000 years ago. The continued use of the region during the Gypsum Period indicates an overall more successful adaptation to the warm and dry conditions during this period (Warren 1984; Sutton et al. 2007).

Several scholars associate this period with the division of the Uto-Aztecan language, approximately 3,000 to 2,500 years ago (Moratto 1984; Warren 1984; Sutton et al. 2007). The major language groups that emerged from this division are Numic, spoken by the Kawaiisu and Piute; Takic, spoken by the Kitanemuk, Serrano, Gabrielino, and other southern California Shoshonean speakers; Hopic, spoken in the southwest; and Tubatulabalic, spoken by the Tubatulabal in the southern Sierra Nevada Mountains. A shift in settlement patterns toward a more sedentary lifestyle occurred during this period, characterized by the emergence of large permanent or semi-permanent village sites and associated cemeteries.

Saratoga Springs Period (1,500 to 800 YBP)

The Saratoga Springs Period is characterized by a transition from larger dart points to smaller arrow points. The presence of arrow points suggest that the bow and arrow were introduced to the Mojave Desert during the Saratoga Springs Period. This, combined with evidence from rock art motifs, leads scholars to argue for a shift from atlatls to use of the bow and arrow either during the end of the Gypsum Period or the beginning of the Saratoga Springs Period.

This technological advancement likely improved overall hunting efficiency and possibly the carrying capacity for the local population (Warren 1984). This in turn may have resulted in a significant increase in population as suggested by archaeological data. During this period, the development of large village sites with cemeteries and well-developed middens indicates long-term occupations in comparison to previous periods. This period saw an increase in trade with tribes in Arizona and other areas of the southwest. Evidence in the archaeological record shows that Brown and Buff wares (pottery styles), characteristic of Arizona, made their way to the California desert by 900 A.D. It is also believed that the Anasazi mined turquoise in the eastern California desert about this time. While the presence of Hakataya influence may have extended as far north and west as the eastern Antelope Valley (Warren 1984), influence in the western Mojave appears to have been minimal. During the second half of the Saratoga Springs Period, the rise in temperatures and return to xeric conditions around A.D. 700 likely led to population decline and eventually the terminus of the Saratoga Springs complex circa A.D. 1100 (Sutton et al. 2007).

Ethnohistoric Period (800 YPB to the Time of European Contact)

During the Ethnohistoric Period, the Vanyume and potentially the Serrano occupied the project area. The territory of the Vanyume was covered by small and relatively sparse populations focused primarily along the Mojave River, north of the Serrano and southeast of the Kawaiisu. It is believed that the southwestern extent of their territory went as far as Cajon Pass and portions of Hesperia. Bean and Smith (1978) noted it was uncertain if the Vanyume spoke a dialect of Serrano or a separate Takic-based language. However, King and Blackburn (1978) suggest that the Vanyume and other Kitanemuk speakers once occupied most of Antelope Valley. In contrast to the Serrano, the Vanyume maintained friendly social relations with the Mohave and Chemehuevi to the east and northeast (Kroeber 1976). As with the majority of California native populations, Vanyume populations were decimated around the 1820s by placement in Spanish missions and *asistencias*. It is believed that, by 1900, the Vanyume had become extinct (Bean and Smith 1978). However, given the settlement patterns reported for the Vanyume, it is more probable that the population was dispersed rather than completely wiped out.

The Serrano and Vanyume were primarily hunters and gatherers. Individual family dwellings were likely circular, domed structures. Vegetal staples varied with locality; acorns and piñon nuts were found in the foothills, and mesquite, yucca roots, cacti fruits, and piñon nuts were found in or near the desert regions. Diets were supplemented with other roots, bulbs, shoots, and seeds (Heizer 1978). Deer, mountain sheep, antelopes, rabbits, and other small rodents were among the principal food packages. Various game birds, especially quail, were also hunted. A bow and arrows were used for large game, while smaller game and birds were killed with curved throwing sticks, traps, and snares. Occasionally, game was hunted communally, often during mourning ceremonies (Benedict 1924; Drucker 1937; Heizer 1978). In general, manufactured goods included baskets, some pottery, rabbit-skin blankets, awls, arrow straighteners, sinew-backed bows, arrows, fire drills, stone pipes, musical instruments (rattles, rasps, whistles, bull-roarers, and flutes), feathered costumes, mats, bags, storage pouches, and nets (Heizer 1978). Food

acquisition and processing required the manufacture of additional items such as knives, stone or bone scrapers, pottery trays and bowls, bone or horn spoons, and stirrers. Mortars, made of either stone or wood, and metates were also manufactured (Strong 1971; Drucker 1937; Benedict 1924).

1.3.2 Historic Period

Traditionally, the history of the state of California has been divided into three general periods: the Spanish Period (1769 to 1821), the Mexican Period (1822 to 1846), and the American Period (1848 to present) (Caughey 1970). The American Period is often further subdivided into additional phases: the nineteenth century (1848 to 1900), the early twentieth century (1900 to 1950), and the Modern Period (1950 to present). From an archaeological standpoint, all of these phases can be referred to together as the Ethnohistoric Period. This provides a valuable tool for archaeologists, as ethnohistory is directly concerned with the study of indigenous or non-Western peoples from a combined historical/anthropological viewpoint, which employs written documents, oral narrative, material culture, and ethnographic data for analysis.

European exploration along the California coast began in 1542 with the landing of Juan Rodríguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastián Vizcaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Vizcaíno had the most lasting effect upon the nomenclature of the coast. Many of his place names have survived, whereas practically every one of the names created by Cabrillo have faded from use. For instance, Cabrillo named the first now-United States' port he stopped at "San Miguel"; 60 years later, Vizcaíno changed it to "San Diego" (Rolle 1969). The early European voyagers observed Native Americans living in villages along the coast but did not make any substantial, long-lasting impact. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals (Bean and Shipek 1978; Kroeber 1976).

The historic background of the project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region (Brigandi 1998). As a result, by the late eighteenth century, a large portion of southern California was overseen by Mission San Luis Rey (San Diego County), Mission San Juan Capistrano (Orange County), and Mission San Gabriel (Los Angeles County), which began colonizing the region and surrounding areas (Chapman 1921).

Native Californians may have first coalesced with Europeans around 1769 when the first Spanish mission was established in San Diego. In 1771, Father Francisco Garcés first searched the Californian desert for potential mission sites. Interactions between local tribes and Franciscan priests occurred by 1774 when Juan Bautista de Anza made an exploration of Alta California.

Serrano contact with the Europeans may have occurred as early as 1771 or 1772, but it was not until approximately 1819 that the Spanish directly influenced the culture. The Spanish established *asistencias* in San Bernardino, Pala, and Santa Ysabel. Between the founding of the *asistencias* and secularization in 1834, most of the Serranos in the San Bernardino Mountains were

removed to the nearby missions (Beattie and Beattie 1951:366) while the Cahuilla maintained a high level of autonomy from Spain (Bean 1978).

Each mission gained power through the support of a large, subjugated Native American workforce. As the missions grew, livestock holdings increased and became increasingly vulnerable to theft. To protect their interests, the southern California missions began to expand inland to try and establish additional security (Beattie and Beattie 1951; Caughey 1970). In order to meet their needs, the Spaniards embarked upon a formal expedition in 1806 to find potential locations within what is now the San Bernardino Valley. As a result, by 1810, Father Francisco Dumetz of Mission San Gabriel had succeeded in establishing a religious site, or capilla, at a Cahuilla rancheria called Guachama (Beattie and Beattie 1951). The San Bernardino Valley received its name from this site, which was dedicated to San Bernardino de Siena by Father Dumetz. The Guachama rancheria was located in present-day Bryn Mawr in San Bernardino County.

These early colonization efforts were followed by the establishment of estancias at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama (Beattie and Beattie 1951). These efforts were soon mirrored by the Spaniards from Mission San Luis Rey who, in turn, established a presence in what is now Lake Elsinore, Temecula, and Murrieta (Chapman 1921). The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1961). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to introduction of an entirely new social order (Cook 1976).

Mexico achieved independence from Spain in 1822 and became a federal republic in 1824. As a result, both Baja and Alta California became classified as territories (Rolle 1969). Shortly thereafter, the Mexican Republic sought to grant large tracts of private land to its citizens to begin to encourage immigration to California and to establish its presence in the region. Part of the establishment of power and control included desecularization of the missions circa 1832. These same missions were also located on some of the most fertile land in California and, as a result, were considered highly valuable. The resulting land grants, known as “ranchos,” covered expansive portions of California and, by 1846, more than 600 land grants had been issued by the Mexican government. Rancho Jurupa was the first rancho to be established and was issued to Juan Bandini in 1838. Although Bandini primarily resided in San Diego, Rancho Jurupa was located in what is now Riverside County (Pourade 1963). A review of Riverside County place names quickly illustrates that many of the ranchos in Riverside County lent their names to present-day locations, including Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo (Gunther 1984). As was typical of many ranchos, these were all located in the valley environments within western Riverside County.

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off their land or put to work on the now privately-owned ranchos, most often as slave labor. Considering the brutality of the ranchos, the degree to which Native

Americans had become dependent upon the mission system is evident when, in 1838, a group of Native Americans from Mission San Luis Rey petitioned government officials in San Diego to relieve suffering at the hands of the rancheros:

We have suffered incalculable losses, for some of which we are in part to be blamed for because many of us have abandoned the Mission ... We plead and beseech you ... to grant us a Rev. Father for this place. We have been accustomed to the Rev. Fathers and to their manner of managing the duties. We labored under their intelligent directions, and we were obedient to the Fathers according to the regulations, because we considered it as good for us. (Brigandi 1998:21)

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans as compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The ranchers, both Mexican and American, did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated (Cook 1976).

In 1846, war erupted between Mexico and the United States. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the region was annexed as a territory of the United States and, in 1850, California became a state. These events generated a steady flow of settlers into the area, including gold miners, entrepreneurs, health-seekers, speculators, politicians, adventurers, seekers of religious freedom, and individuals desiring to create utopian colonies. As the non-native population increased through immigration, the indigenous population rapidly declined from the high morbidity of European diseases, low birth rates, and conflict and violence. California became a state in 1850 and was divided into 21 counties. The dwindling native populations were eventually displaced into reservations after California became a state.

By 1846, tensions between the United States and Mexico had escalated to the point of war (Rolle 1969). In order to reach a peaceful agreement, the Treaty of Guadalupe Hidalgo was put into effect in 1848, which resulted in the annexation of California to the United States. Once California opened to the United States, waves of settlers moved in searching for gold mines, business opportunities, political opportunities, religious freedom, and adventure (Rolle 1969; Caughey 1970). By 1850, California had become a state and was eventually divided into 27 separate counties. A much larger population was now settling in California, primarily in the central valley, San Francisco, and the Gold Rush region of the Sierra Nevada mountain range (Rolle 1969; Caughey 1970). During this time, southern California grew at a much slower pace than northern California and was still dominated by the cattle industry that was established during the earlier rancho period.

By the late 1880s and early 1890s, there was growing discontent between San Bernardino and Riverside, its neighbor 10 miles to the south, due to differences in opinion concerning religion, morality, the Civil War, and politics, and there was fierce competition to attract settlers. After a series of instances in which charges were claimed about unfair use of tax monies to the benefit of only the city of San Bernardino, several people from Riverside decided to investigate the possibility of a new county. In May 1893, voters living within portions of San Bernardino County (to the north) and San Diego County (to the south) approved the formation of Riverside County. Early business opportunities were linked to the agriculture industry, but commerce, construction, manufacturing, transportation, and tourism also provided a healthy local economy.

A Brief History of the Project Vicinity

The project vicinity is tied to the history of the Mojave Desert and the Victor Valley. Scholars often suggest Father Francisco Garcés was the first known European to travel through the Western Mojave in the late 1770s. However, Pedro Fages, the first governor of Alta California, traversed the Western Mojave nearly 10 years before Garcés in pursuit of military deserters (Stickel et al. 1980). Nevertheless, little is actually known about Fages's expedition across the desert, and Garcés, a Jesuit priest, is the first European visitor to have documented visiting the area (Stickel et al. 1980). Garcés acted as a guide to Juan Bautista de Anza in 1774 on an expedition to establish shorter and quicker routes from the Colorado River to the coastal Spanish missions. Garcés further explored the Mojave Desert in 1775 on his own expedition under the orders of Anza to better acquaint himself with the Mojave Desert (Stickel et al. 1980). Garcés traveled from present-day Needles through the Western Mojave with Native Americans from the Colorado River region as his guides, eventually reaching Mission San Gabriel in March of 1776 (Stickel et al. 1980).

Jedediah Strong Smith, a trapper, was selected to investigate trapping possibilities west of the Mississippi. In 1826, he crossed the Colorado River into California. He is believed to have been the "first white man to travel from the Mississippi to the Pacific on a transcontinental route" (Stickel et al. 1980). Smith's route extended through present-day Needles and the Cajon Pass. He followed already established portions of old Indian trading routes, later known as the Mojave River Trail, which is recorded with the SCCIC as SBR-330/H. The path Smith traveled became known as the Old Spanish Trail. Smith was killed on the trail in 1831 (Stickel et al. 1980).

The Old Spanish Trail split where the Mojave River forks in the Mojave Desert. The southern fork followed the route established by Smith and extended to Santa Fe, New Mexico, while the northern fork extended to Salt Lake City, Utah (Stickel et al. 1980). Although both forks of the trail were initially known as the Old Spanish Trail, the northern route later became known as the Mormon Road because of its use by Mormon converts and freighting companies traveling to and from Salt Lake City in the middle of the nineteenth century (Warren and Roske 1981). In addition, the northern portion of the trail was used by John C. Fremont and Kit Carson on an expedition to explore the west; during this expedition, Fremont named the Mojave River the "Mohahave River" (Stickel et al. 1980).

In the early 1860s, as gold mining in the Sierra Nevada mountains began to decline, many miners looked to the Mojave Desert. However, it was not until the discovery of silver in Calico, northwest of the project, and the construction of the Southern Pacific Railroad from Mojave to Daggett in 1882, that the region became a mining center. This gave rise to the now-famous 20-mule teams. Ten teams were hitched together with two wagons and a water wagon to haul ore from Daggett to the town of Calico. The rich silver deposits gave birth to Calico Mines, Waterman Mines, and Daggett Mills (Kyle 1990). Ore was hauled on the Calico Railroad from Calico to the Oro Grande Milling Company, which was across the river from Daggett, around 1888.

Due to the presence of rich soils and an abundance of water from the Mojave River, agriculture became vital to the early development of the Victor Valley and what would become Apple Valley. The Town of Apple Valley’s website traces the development of the town and how it got its name.

According to the late Mary Hampton, local historian, the name arose from the abundance of apple orchards that existed here in the 1920s. Some say the name “Apple Valley” originated from The Appleton Land Company that was based in this area in the early 1900s. Ursula Poates, one of the first settlers in the area, is credited with saying, “There were some apples being raised along the river in those early days, but not by the ton, so I just cut it down and called it Apple Valley!” By 1920, apples were being grown by the ton at award-winning orchards. Unfortunately, with the Great Depression and the cost of pumping water for irrigation, the orchards died off in the 1930s.

With a pleasant climate and lots of land, many types of ranches were built in the area. They touted the dry desert air as a cure for ailments of all sorts, including tuberculosis and asthma. Other ranches provided a haven for shell-shock victims of World War I, while still others developed into guest ranches. People would come to Apple Valley to enjoy the western lifestyle where they could ride horses, attend rodeos, and just get away from the big city.

The modern founders of Apple Valley were Newton T. Bass and B.J. “Bud” Westlund, who were partners in the oil and gas industry in Long Beach, CA. Westlund and Bass formed the Apple Valley Ranchos Land Co. in 1946 and marketed the area as a destination resort and quality residential community – “The Golden Land of Apple Valley”. They built the Apple Valley Inn and Hilltop House and invited famous celebrities of Hollywood to come visit. Within ten years there were banks, churches, and a school, along with a golf course, hospital and 180 businesses. (Town of Apple Valley 2021)

The Town of Apple Valley was incorporated in 1988 and by 2017, 73,077 residents lived in Apple Valley while the population of the entire Victor Valley region was more than 443,000 (Town of Apple Valley 2021).

1.4 Results of the Archaeological Records Search

An SCCIC records search (Appendix C) identified 19 resources (six prehistoric, one multicomponent, and 12 historic) within one mile of the project, of which two (P-36-006839 and P-36-012855) are within the subject property. Site P-36-006839 is recorded as a wood lined pit filled with sand, while P-36-012855 is a historic isolate. Both resources are recorded within the smaller Western property. Detailed information about the resources within the project is below, and descriptions of all resources identified during the records search are presented in Table 1.4–1.

- Site P-36-006839 was recorded by Scientific Resource Survey, Inc. (SRS) in 1991 as part of a study for the Apple Valley Airport Master Plan. SRS probed the sand filled pit but did not identify any buried archaeological materials (Sunberg and Desautels). The site was located again in 2002 by Michael Brandman Associates (MBA) for a sewer project along Navajo Road (Dice 2002). Dice did not update the site form for the resource at that time. However, Jennifer Sanka of MBA updated the site form in 2006, noting that the wood lining was no longer visible (Sanka 2006a). The 2006 site form references a Phase I study by Sanka, however, this report is not on file with the SCCIC. Previous documentation of the resource does not include a formal evaluation; however, as a pit that has been filled in and does not contain any archaeological deposits, the resource is not CRHR eligible.
- Isolate P-36-012855 was recorded in 2006 by Jennifer Sanka of MBA (Sanka 2006b). The isolate is a post-1963, five-gallon Pennzoil metal bucket. The 2006 site form references a Phase I study by Sanka, however, this report is not on file with the SCCIC. As an isolate, the resource is not eligible for the CRHR.

Table 1.4–1

Cultural Resources Located Within One Mile of the Watson Apple Valley Project

Site(s)	Description
P-36-006838	Historic “U” shaped rock alignment
P-36-006839* and P-36-006840	Historic wood lined pit filled with sand
P-36-006842, P-36-020981, and P-36-024894	Historic trash scatter
P-36-010860, P-36-020978, P-36-020979	Prehistoric lithic scatter
P-36-012355, P-36-061206, and 36-061207	Prehistoric isolate
P-36-012855*, P-36-012856, P-36-012857	Historic isolate
P-36-013314	Historic foundations with associated trash scatter
P-36-020982	Multicomponent site, Prehistoric isolate, Historic foundations
P-36-020983; 36-020984	Historic well

*Recorded within the project.

The SCCIC records search results also identified seven previous studies within one mile, three of which overlap the subject property (Sunberg and Desautels 1991; Dice 2002; Tang et al. 2007). The Sunberg and Desautels study only covered the southern portion of the Western Property while the Dice 2002 study primarily focused on the alignment of Navajo Road. Relevant information from both of these studies is discussed in the review of Site P-36-006839, above. The Tang et al. 2007 study is a large overview prepared in support of the North Apple Valley Specific Plan Environmental Impact Report (EIR). This study primarily consists of an inventory and assessment of the area's sensitivity for cultural resources while field work consisted entirely of a windshield survey.

BFSA also reviewed the following sources to facilitate a better understanding of the historic use of the property:

- The National Register of Historic Places (NRHP) Index
- The Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility
- The OHP, Directory of Properties in the Historic Property Data File
- Bureau of Land Management (BLM) General Land Office (GLO) Records
- The 1934 *Barstow* 30-minute series topographic map
- The 1957 *Apple Valley* 15-minute series topographic map
- The 1974 *Apple Valley North* 7.5-minute series topographic map
- Aerial photographs (1952 through 2022)

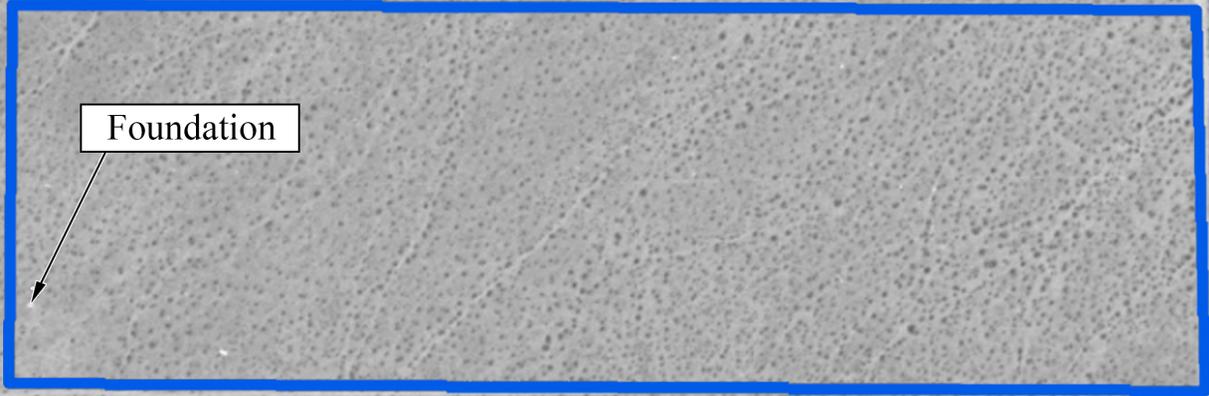
The BLM GLO records include a 1915 patent to Ellison Louder and a 1937 patent to Carrie Kyles for the West Property. For the East Property, BLM GLO records include a 1914 patent to Samuel Bell for the western half and a 1922 patent to Victoria Francis for the eastern half. The 1934 *Barstow* 30-minute series topographic map shows one structure within the East Property. However, by 1957, the *Apple Valley* 15-minute series topographic map does not show this structure and subsequent maps and aerial photographs do not show any other historic structures ever existed within the East Property. Conversely, the 1957 map shows a structure in the southwestern corner of the West Property. Aerial photographs of the area indicate the structure on the 1957 map was not present in 1952, suggesting it was constructed between 1952 and 1957. That structure is visible on the 1959 aerial and appears to be a shack or small residence (Figure 1.4–1). By 1968, aerial photographs appear to show an additional, smaller, ancillary structure, rectangular in shape, located approximately 70 feet northeast of the 1957 structure. As the imagery is blurry, it is difficult to discern what this rectangular structure may have been utilized for. The 1974 *Apple Valley North* 7.5-minute series topographic map still shows a structure in this location. However, the next available aerial photograph, taken in 1980, shows only the square cement foundation where the circa 1968 ancillary structure stood was still visible at that time (Figure 1.4–2). Subsequent photographs do not show any other development within the West Property.

1.0-17



Figure 1.4-1
1959 Aerial Photograph Showing Western Property
The Watson Apple Valley Project

81-01
1.0-18



Legend

 Project Boundary



BFSA Environmental Services
A Perennial Company

Figure 1.4-2
1980 Aerial Photograph Showing Western Property
The Watson Apple Valley Project

1.4.1 Sacred Lands File Search

BFSA also requested a SLF search from the NAHC. The NAHC SLF search results are negative for the presence of any recorded Native American sacred sites or locations of religious or ceremonial importance within one mile of the project. All correspondence is in Appendix D.

1.5 Applicable Regulations

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Bernardino County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, the criteria outlined in CEQA, provide guidance for making such a determination. The following sections detail the criteria that a resource must meet in order to be determined important.

1.5.1 California Environmental Quality Act

According to CEQA (§ 15064.5a), the term “historical resource” includes the following:

- 1) A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the CRHR (Public Resources Code SS5024.1, Title 14 CCR, Section 4850 et seq.).
- 2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (Public Resources Code SS5024.1, Title 14, Section 4852) including the following:
 - a) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - b) Is associated with the lives of persons important in our past;
 - c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

- d) Has yielded, or may be likely to yield, information important in prehistory or history.
- 4) The fact that a resource is not listed in, or determined eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

According to CEQA (§ 15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

- 1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- 2) The significance of an historical resource is materially impaired when a project:
 - a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the CRHR; or
 - b) 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 an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or,
 - c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

- 1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).

- 2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, Section 15126.4 of the guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- 3) If an archaeological site does not meet the criteria defined in subsection (a) but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- 4) If an archaeological resource is neither a unique archaeological nor historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5(d) and (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) states:

- (d) When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:
 - 1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
 - 2) The requirements of CEQA and the Coastal Act.

2.0 RESEARCH DESIGN

The primary goal of the research design is to attempt to understand the way in which humans have used the land and resources within the project through time, as well as to aid in the determination of resource significance. For the current project, the study area under investigation is the Apple Valley area of San Bernardino County, in the western Mojave region. The scope of work for the cultural resources study conducted for the Watson Apple Valley Project included a survey of the approximately 200-acre study area. Given the area involved and the presence of archaeological sites within the project vicinity, the research design for this project was focused upon realistic study options. Since the main objective of the investigation was to identify the presence of and potential impacts to cultural resources, the goal here was not necessarily to answer wide-reaching theories regarding the development of early southern California, but to investigate the role and importance of identified resources. Nevertheless, an assessment of the significance of a resource must take into consideration a variety of factors, as well as the ability of a resource to address regional research topics and issues.

Although elementary resource evaluation programs are limited in terms of the amount of information available, several specific research questions were developed that could be used to guide an initial investigation of any observed cultural resources. The following research questions consider the small size and location of the project discussed above.

Research Questions:

- Can located cultural resources be associated with a specific time period, population, or individual?
- Do the types of any located cultural resources allow a site activity/function to be determined from a preliminary investigation? What are the site activities? What is the site function? What resources were exploited?
- How do located sites compare to others reported from different surveys conducted in the area?
- How do located sites fit existing models of settlement and subsistence for mountainous environments of the region?

Data Needs

At the survey level, the principal research objective is a generalized investigation of changing settlement patterns in both the prehistoric and historic periods within the study area. The overall goal is to understand settlement and resource procurement patterns of the project occupants. Therefore, adequate information on site function, context, and chronology from an archaeological perspective is essential for the investigation. The fieldwork and archival research were undertaken with the following primary research goals in mind:

- 1) To identify cultural resources occurring within the project;
- 2) To determine, if possible, site type and function, context of the resource(s), and chronological placement of each cultural resource identified;
- 3) To place each cultural resource identified within a regional perspective; and
- 4) To provide recommendations for the treatment of each cultural resource identified.

3.0 ANALYSIS OF PROJECT EFFECTS

The Phase I archaeological study of the project area consisted of an institutional records search, archival research, and an intensive cultural resource survey of the entire approximately 200-acre study area, followed by preparation of this technical report. This study was conducted in conformance with Section 21083.2 of the California Public Resources Code and CEQA. Statutory requirements of CEQA (Section 15064.5) were followed for the identification and evaluation of resources. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO 1995).

3.1 Survey Methods

The survey methodology employed during the current investigation followed standard archaeological field procedures and was sufficient to accomplish a thorough assessment of the entire project. The field methodology employed for the project included walking evenly spaced survey transects set approximately 15 to 20 meters apart while visually inspecting the ground surface. All potentially sensitive areas where cultural resources might be located were closely inspected. Photographs documenting survey areas and overall survey conditions were taken frequently.

3.2 Results of the Field Survey

Principal Investigator Tracy A. Stropes, M.A., RPA, directed the archaeological survey with assistance from staff archaeologists David Grabski and Alexander Brill on March 12, and 13, 2024. The archaeological study included an intensive reconnaissance survey consisting of a series of transects conducted across the two project locations. The survey found the project to consist primarily of vacant desert terrain. The sparse vegetation found within the property is primarily comprised of Creosote bush scrub community plants (Plates 3.2–1 and 3.2–2). Visibility was characterized as good to excellent. Noted impacts to the property consisted of dirt access/off-highway (OHV) vehicle roads and modern trash found throughout the project.

The survey did not identify any prehistoric resources within the subject properties and neither Site P-36-006839 or isolate P-36-012855 could be relocated. However, the survey did identify four previously unrecorded historic-age resources, Temp-1 through Temp-4, within the project. Sites Temp-1 and Temp-2 are located within the West Property, while Temp-3 and Temp-4 are located within the East Property. Site Temp-1 consists of a foundation, trash scatter, and metal pipe extruding from the ground and likely associated with a well-head. Site Temp-2 is another metal pipe extruding from the ground and likely associated with a well-head. Sites Temp-3 and Temp-4 are both trash scatters. The location of Sites Temp-1 through Temp-4 are illustrated in Figures 3.2–1 through 3.2–3. Detailed information for each site is presented below and all identified resources have been recorded on the appropriate California Department of Parks and Recreation forms (DPR 523 series) in accordance with the State Historic Preservation Office's manual, *Instructions for Recording Historical Resources* (SHPO 1995) (Appendix B).



Plate 3.2-1: Overview of the West Property, facing southeast.



Plate 3.2-2: Overview of the East Property, facing northwest.

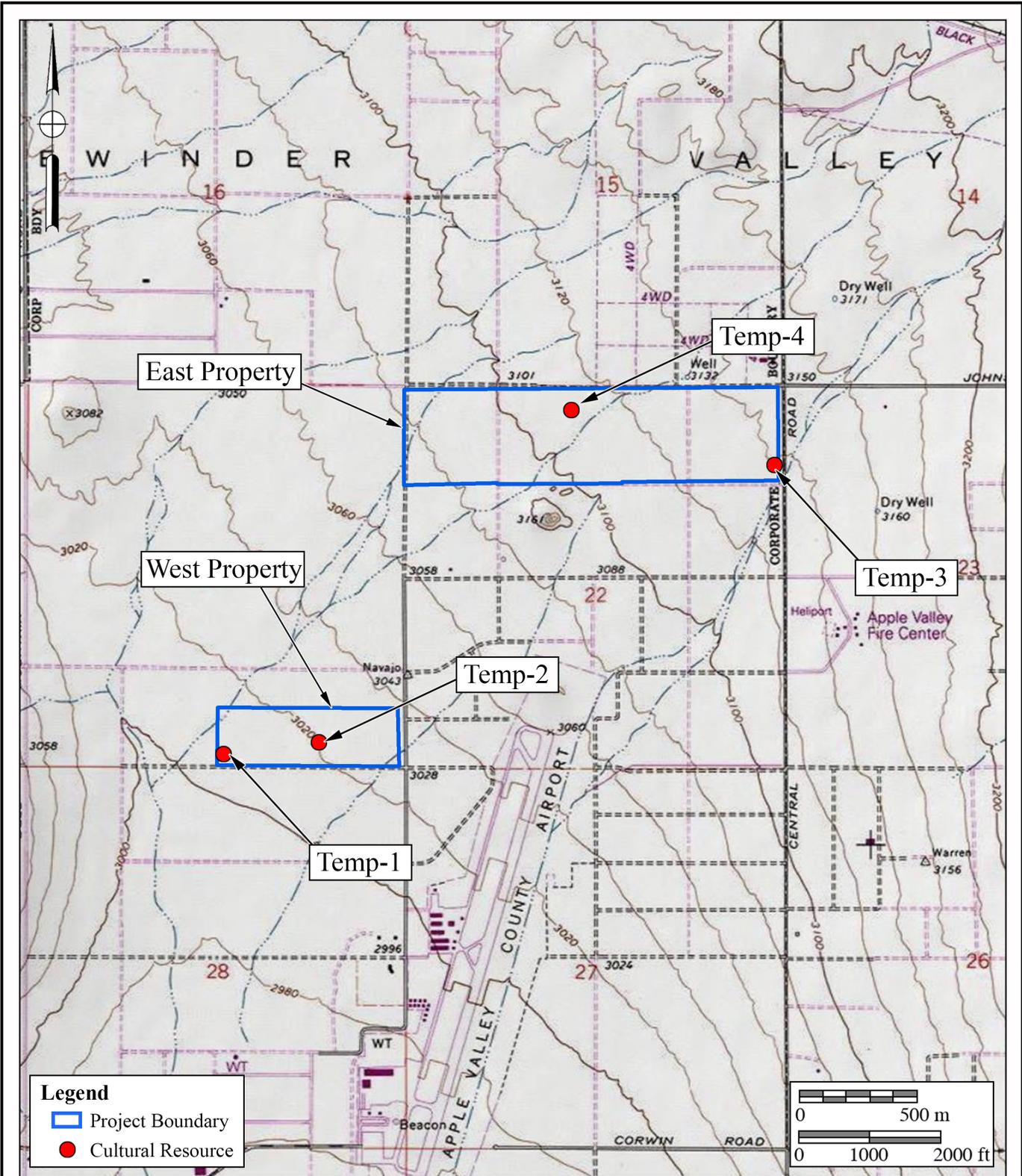
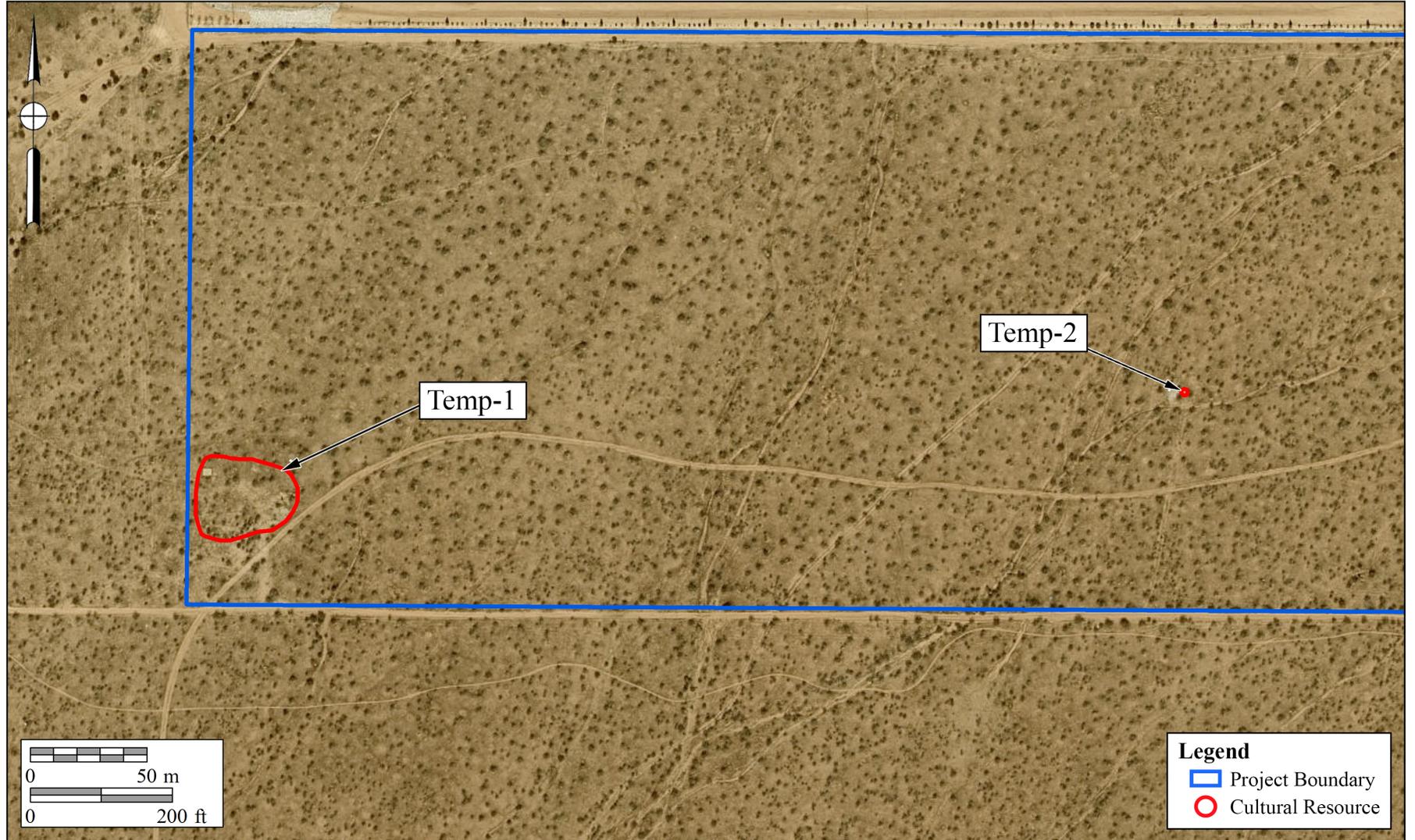


Figure 3.2-1
Cultural Resource Location Map

The Watson Apple Valley Project
 USGS Apple Valley North Quadrangle (7.5-minute series)





BFS Environmental Services
A Perennial Company

Figure 3.2-2
Cultural Resource Location within the West Property as Shown on Aerial

The Watson Apple Valley Project



BFSA Environmental Services
A Perennial Company

Figure 3.2-3
Cultural Resource Location within the East Property as Shown on Aerial

The Watson Apple Valley Project

3.2.1 Site Temp-1

Site Temp-1 is located in the southwestern corner of the West Property. The site measures 115 feet north to south and 150 feet east to west. The site includes a cement foundation with an anchored, partially intact wood bottom plate, associated trash scatter, and an 18-inch diameter metal pipe extruding from the ground, likely associated with a wellhead (Plates 3.2–3 and 3.2–4). This site is situated where a structure and ancillary structure were visible on historic maps and aerial photographs through 1980. The cement foundation at Temp-1 measures 9'8" by 12'1" and corresponds with the rectangular ancillary structure visible between 1968 and 1980 (Plate 3.2–5). The associated trash scatter is sparse consisting of pull-tab soft-top beer can fragments, ceramic tableware fragments, and glass bottle fragments (Plate 3.2–6). The most temporally diagnostic of artifacts found at Site Temp-1 are the soft-top beer cans attributed to the late 1950s through mid-1970s (Maxwell 1993), which corresponds with structures visible in aerial photographs at this location. No potential for significant subsurface deposits were observed at Site Temp-1. Further, the resource does not possess integrity, is not associated with any significant individuals/events, and does not possess any research potential. As such, Site Temp-1 is not eligible for the CRHR.



Plate 3.2–3: Overview of Site Temp-1, facing east.



Plate 3.2-4: Overview of metal pipe at Site Temp-1, facing north.



Plate 3.2-5: Close-up of foundation at Site Temp-1, facing north.



Plate 3.2–6: Representative artifacts at Site Temp-1, facing south.

3.2.2 Site Temp-2

Site Temp-2 consists of another 18-inch diameter metal pipe extruding from the ground in the relative center of the West Property (Plate 3.2–7). This site likely represents another wellhead location, does not possess integrity, is not associated with any significant individuals / events, and does not possess any research potential. As such, Site Temp-1 is not eligible for the CRHR.



Plate 3.2-7: Overview of metal pipe at Site Temp-2, facing north.

3.2.3 Site Temp-3

Site Temp-3 is a sparse historic trash scatter situated in the southeast corner of the East Property, approximately 200 feet northwest of the intersection of Kensington Street and Central Road. The site measures approximately 140 feet north to south by 60 feet east to west and contains approximately 40 cans interspersed with non-diagnostic ceramic fragments (Plate 3.2-8). Cans identified at the site include hole-in-cap, vent hole/hole-in-top, and sanitary cans (Plate 3.2-9).

The hole-in-cap and vent hole/hole-in-top, sometimes referred to as solder-dot or matchstick filler cans, allowed excess moisture to be heated off filled containers through the small hole (Rock 1984). Hole-in-cap cans were primarily produced from the 1840s through the 1920s but were still produced past the late 1930s (Reno 2012; Merritt 2014). Vent hole/hole-in-top cans became popular in the 1920s when condensed milk was sold almost exclusively in that type of can. By the mid-1930s, many manufacturers had switched over to sanitary cans for most uses (Rock 1984; Reno 2012; Merritt 2014) but vent hole/hole-in-top cans continued to be utilized through the mid-1980s. Sanitary cans, first produced around 1904, became prevalent around the 1920s and replaced the hole-in-cap and the vent hole/hole-in-top design for most applications by the mid-1930s (Rock 1984; Merritt 2014). One Penzoil oil can was also noted.

Given the manufacturing date of the artifact assemblage, the site likely represents a single episode of roadside dumping occurring between the 1920s and 1940s. However, the trash scatter is sparse and no potential for significant subsurface deposits were observed. As such, the site does not possess integrity, cannot be associated with any significant individuals/events, and does not possess any research potential. Therefore, Site Temp-3 is not eligible for the CRHR.



Plate 3.2-8: Overview of Site Temp-3, facing north.



Plate 3.2-9: Overview of representative artifacts at Site Temp-3, facing south.

3.2.4 Site Temp-4

Site Temp-4 is a sparse historic trash scatter situated in the center of the northern portion of the East Property approximately 270 feet south of Johnson Road (Plate 3.2–10). The site measures approximately 110 feet north-to-south by 35 feet east-to-west. The artifact assemblage contains approximately 11 metal vent hole/hole-in-top cans, one Kerr Glass Manufacturing Company (Kerr) mason jar with lid, and one amber glass Owens-Illinois bottle base (Plates 3.2–11 and 3.2–12). The Owens-Illinois bottle base contains a date code of 1945; the Kerr mason jar was produced between 1946 and the early-1980s; and the vent hole/hole-in-top cans are typically associated with condensed milk cans produced between 1920 and 1980 (Rock 1984; Reno 2012; Merritt 2014; Lockhart et al. 2017; Lockhart and Hoenig 2016). Given the manufacturing date of the artifact assemblage the site likely represents a single episode of roadside dumping occurring in 1946. However, the trash scatter is sparse and no potential for significant subsurface deposits were observed. As such, the site does not possess integrity, cannot be associated with any significant individuals/events, and does not possess any research potential. Therefore, Site Temp-4 is not eligible for the CRHR.



Plate 3.2–10: Overview of Site Temp-4, facing north.



Plate 3.2–11: Overview of representative artifacts at Site Temp-4.



Plate 3.2–12: Close-up of 1945 Owens-Illinois bottle base at Site Temp-4.

4.0 RECOMMENDATIONS

The proposed development of the property will not adversely impact any significant cultural resources. Although the records search identified Site P-36-006839 and Isolate P-36-012855 recorded within the property, neither could be located during the current survey nor would they qualify for the CRHR. The survey did identify four previously unrecorded historic-era resources (Temp-1 through Temp-4) which may be impacted by the proposed project. However, Temp-1 through Temp-4 are evaluated as not eligible for the CRHR and, therefore, are not considered Historical Resources.

Since none of the resources within the subject property were evaluated as CRHR-eligible, potential project-related impacts to them are not considered significant. Therefore, no site-specific mitigation measures are recommended. However, given the presence of known resources within the subject property coupled with the records search results, there is still potential for inadvertent discoveries of undocumented cultural resources. As such, archaeological monitoring of all ground-disturbing activities tied to the development of the property is recommended.

5.0 LIST OF PREPARERS AND ORGANIZATIONS CONTACTED

The archaeological survey program for the Watson Apple Valley Project was directed by Principal Investigator Tracy A. Stropes, M.A., RPA. The archaeological fieldwork was conducted by staff archaeologists David Grabski and Alexander Brill. The report text was prepared by Andrew J. Garrison, M.A., RPA. Technical editing and report production was conducted by Jessica Brodtkin Webb. The archaeological records search was conducted at the SCCIC at CSU Fullerton by Emily T. Soong, who also prepared the report graphics.

6.0 REFERENCES CITED

Bean, Lowell John

- 1978 Cahuilla. In *California*, edited by R.F. Heizer, pp. 575-587. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Charles R. Smith

- 1978 Serrano. In *California*, edited by R.F. Heizer, pp. 570-574. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Florence C. Shipek

- 1978 Luiseño. In *California*, edited by Robert F. Heizer, pp. 550-563. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Beattie, George W. and Helen P. Beattie

- 1951 *Heritage of the Valley: San Bernardino's First Century*. Biobooks, Oakland, California.

Benedict, Ruth Fulton

- 1924 A Brief Sketch of Serrano Culture. *American Anthropologist* 26(3).

Brigandi, Phil

- 1998 *Temecula: At the Crossroads of History*. Heritage Media Corporation, Encinitas, California.

Bureau of Land Management (BLM)

- 2022 *Old Spanish National Historic Trail, Your Recreation Destination, Barstow Field Office*. Electronic document, U.S. Department of the Interior, Bureau of Land Management, Washington, D.C. Electronic document, https://www.blm.gov/sites/default/files/docs/2022-10/Public_Room_CA_OldSpanishNationalHistoricTrail.pdf, accessed August 2023.

Caughey, John W.

- 1970 *California: A Remarkable State's Life History*. 3rd ed. Prentice-Hall, Englewood Cliffs, New Jersey.

Chapman, Charles E.

- 1921 *A History of California: The Spanish Period*. The Macmillan Company, New York.

City of Barstow

- N.d. History of Barstow. Electronic document, <https://www.barstowca.org/residents/about-barstow/history>, accessed June 2023.

Cook, Sherburne F.

- 1976 *The Conflict Between the California Indian and White Civilization*. University of California Press, Berkeley and Los Angeles, California.

Davis, Emma Lou

- 1978 *The Ancient Californians: Rancholabrean Hunters of the Mohave Lakes Country*. Natural History Museum of Los Angeles County, Science Series No. 29.

Dibble, Stephen D.

- 2006 An Evaluation of the Cultural Resources Potential of Three Parcels for Proposed Annexation by the City of Barstow, San Bernardino County, California. Prepared for and on file with Advanced Planning Research, Pasadena, California.

Dibblee, T.W., Jr.

- 2008 Geologic map of the Barstow & Daggett 15-minute quadrangles, San Bernardino County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-393, J.A. Minch, ed., scale: 1:62,500.

Dice, Michael

- 2002 *An Archaeological and Paleontological Resource Assessment of the 13,700 Foot Navajo Road Sewer Project*. Michael Brandman Associates. Not for Publication.

Drucker, Philip

- 1937 Culture Element Distributions: V. Southern California. *Anthropological Records* 1(1):1-52. University of California, Berkeley.

Erlandson, John M. and Roger H. Colten (editors)

- 1991 An Archaeological Context for Archaeological Sites on the California Coast. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by J.M. Erlandson and R.H. Colten. Perspectives in California Archaeology, Volume 1, Institute of Archaeology, University of California, Los Angeles.

Fagan, Brian M.

- 1991 *Ancient North America: The Archaeology of a Continent*. Thames and Hudson, London.

Gunther, Jane Davies

- 1984 *Riverside County, California, Place Names: Their Origins and Their Stories*. Rubidoux Printing, Riverside, California.

Heizer, Robert F.

- 1978 Trade and Trails. In *California*, edited by Robert F. Heizer, pp. 690-693. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Hernandez, J.L., and Tan, S.S.

- 2007 Geologic Map of the Apple Valley North 7.5' Quadrangle, San Bernardino County, California: A Digital Database, v. 1.0, California Department of Conservation, California Geological Survey.

King, Chester DeWitt and Thomas C. Blackburn

- 1978 *Tataviam*. In *California*, edited by Robert F. Heizer. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Kroeber, Alfred L.

- 1976 *Handbook of the Indians of California*. Reprinted. Dover Editions, Dover Publications, Inc., New York. Originally published 1925, Bulletin No. 78, U.S. Government Printing Office, Washington, D.C.

Kyle, Douglas E.

- 1990 *Historic Spots in California*. Stanford University Press, Palo Alto, California.

Lerch, Michael K.

- 1982 Cultural Resources Assessment of Tract 12170, Lenwood Area, San Bernardino, California. Prepared for and on file with the San Bernardino County Museum, Redlands, California.

Lockhart, Bill and Hoenig, R.

- 2016 *Owens-Illinois Glass Company: The Bewildering Array of Owens-Illinois Glass Co. Logos and Codes*. Society for Historical Archaeology.
<https://sha.org/bottle/pdf/OwensIllinois2018Part2.pdf>. Accessed March 25, 2024.

Bill Lockhart, Schriever, B, Lindsey, B and Serr, C.

- 2017 *Kerr Glass Mfg. Company*. Society for Historical Archaeology.
<https://sha.org/bottle/pdf/KerrGlass.pdf>. Accessed March 25, 2024.

Martin, Paul S.

- 1967 Prehistoric Overkill. In *Pleistocene Extinctions: The Search for a Cause*, edited by Paul S. Martin and H.E. Wright. Yale University Press, New Haven, Connecticut.
- 1973 The Discovery of America. *Science* 179(4077):969-974.

Masters, Patricia M.

- 1983 Detection and Assessment of Prehistoric Artifact Sites off the Coast of Southern California. In *Quaternary Coastlines and Marine Archaeology: Towards the Prehistory of Land Bridges and Continental Shelves*, edited by Patricia M. Masters and Nicholas C. Fleming, pp. 189-213. Academic Press, London.

Maxwell, D.B.S.

- 2020 Beer Cans: A Guide for the Archaeologist. In *Historical Archaeology*, 27(1)95-113. Electronic document, <https://www.jstor.org/stable/25616219>.

Merritt, Christopher W.

- 2014 Historic Artifact Guide. Utah Division of State History, Salt Lake City, Utah.

Miller, D.M., Langenheim, V.E., and Haddon, E.K.

- 2020 Geologic Map and Borehole Stratigraphy of Hinkley Valley and Vicinity, San Bernardino County, California: U.S. Geological Survey Scientific Investigations, Map 3458, p. 23.

Moratto, Michael J.

- 1984 *California Archaeology*. Academic Press, New York.

Moss, Madonna L. and Jon M. Erlandson

- 1995 Reflections on North American Pacific Coast Prehistory. *Journal of World Prehistory* 9(1):1-46.

Natural Resources Conservation Services (NRCS)

- 2019 Electronic database, <https://nracs.usda.gov>, accessed May 3, 2023.

Pourade, Richard F.

- 1961 *Time of the Bells*. The History of San Diego Volume 2. Union-Tribune Publishing Company, San Diego, California.
- 1963 The Silver Dons. In *The History of San Diego* (Volume 3). Union-Tribune Publishing Company, San Diego, California.

Reno, Ron

- 2012 Revised Simones Can Dating Key. *In-Situ*, Vol. 16, No. 1. Nevada Archaeological Association.

Rock, James T.

- 1984 Cans in the Countryside. *Historical Archaeology* Volume 18.

Roland, Carol, Heather Goodson, Chad Moffett, and Christina Slattery

- 2011 U.S. Highway 66 in California. National Register of Historic Places Multiple Property Documentation Form. Electronic document, <https://www.parks.ca.gov/pages/1067/files/us%20highway%2066%20in%20california%20mpd%20draft%20nr.pdf>. Accessed March 21, 2015.

Rolle, Andrew F.

- 1969 *California: A History*. 2nd ed. Thomas Y. Crowell Company, New York.

Shaffer, Marguerite

2001 See America First. Washington: Smithsonian Institution Press.

State Historic Preservation Office (SHPO)

1995 *Instructions for Recording Historical Resources*. Office of Historic Preservation, Sacramento, California.

Steeple, Douglas

1999 *Treasure from the Painted Hills: A History of Calico, California, 1882-1907*. Westport, Greenwood Press.

Stickel, E. Gary, Lois W. Roberts, and Eric W. Ritter.

1980 *An overview of the cultural resources of the Western Mojave Desert*. Cultural Resources Publications. Bureau of Land Management, California Desert District. Riverside, California.

Strong, William Duncan

1971 *Aboriginal Society in Southern California*. Reprint of 1929 *Publications in American Archaeology and Ethnology* No. 26, University of California, Berkeley.

Sundberg, Frederick and Sundbert, N.

1991 *Archaeological and Paleontological Survey for the Apple Valley Airport Master Plan, San Bernardino County, California*. On file at SCCIC, CSU Fullerton.

Sutton, Mark Q.

1988 *An Introduction to the Archaeology of the Western Mojave Desert, California*. Archives of California Prehistory Number 14. Coyote Press, Salinas, California.

Sutton, Mark Q., Mark E. Basgall, Jill K. Gardner, and Mark W. Allen

2007 *Advances in Understanding Mojave Desert Prehistory*. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry Jones and Kathryn Klar, pp. 229-245. Alta Mira Press, New York.

Tang, Bai “Tom”, Hogan, M. Smallwood, J. and Shaker, L

2007 *Cultural Resources Technical Report North Apple Valley Specific Plan and EIR, Town of Apple Valley, San Bernardino County, California*. CRM Tech. Riverside, California.

Town of Apple Valley

2021 <https://www.applevalley.org/about-apple-valley/history-of-apple-valley> 2021
Accessed online March 25, 2024.

Warren, Elizabeth von Till and Ralph Joseph Roske.

1981 *Cultural Resources of the California Desert, 1776-1880: Historic Trails and Wagon Roads*. Bureau of Land Management, California Desert District. Riverside, California.

Warren, Claude N.

- 1984 The Desert Region. In *California Archaeology*, edited by Michael J. Moratto, pp. 339-430. Academic Press, Orlando.

Wilke, Phillip J. and Adella B. Schroth

- 1989 Lithic Raw Material Prospects in the Mojave Desert, California. *Journal of California and Great Basin Anthropology*, 11(2):146-174. Department of Anthropology, University of California, Riverside.

APPENDIX A

Qualifications of Key Personnel

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Project Archaeologist

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Education

Master of Arts, Public History, University of California, Riverside	2009
Bachelor of Science, Anthropology, University of California, Riverside	2005
Bachelor of Arts, History, University of California, Riverside	2005

Professional Memberships

Register of Professional Archaeologists	Society of Primitive Technology
Society for California Archaeology	Lithic Studies Society
Society for American Archaeology	California Preservation Foundation
California Council for the Promotion of History	Pacific Coast Archaeological Society

Experience

Project Archaeologist **June 2017–Present**
BFSA Environmental Services, A Perennial Company **Poway, California**

Project management of all phases of archaeological investigations for local, state, and federal agencies including National Register of Historic Places (NRHP) and California Environmental Quality Act (CEQA) level projects interacting with clients, sub-consultants, and lead agencies. Supervise and perform fieldwork including archaeological survey, monitoring, site testing, comprehensive site records checks, and historic building assessments. Perform and oversee technological analysis of prehistoric lithic assemblages. Author or co-author cultural resource management reports submitted to private clients and lead agencies.

Senior Archaeologist and GIS Specialist **2009–2017**
Scientific Resource Surveys, Inc. **Orange, California**

Served as Project Archaeologist or Principal Investigator on multiple projects, including archaeological monitoring, cultural resource surveys, test excavations, and historic building assessments. Directed projects from start to finish, including budget and personnel hours proposals, field and laboratory direction, report writing, technical editing, Native American consultation, and final report submittal. Oversaw all GIS projects including data collection, spatial analysis, and map creation.

Preservation Researcher **2009**
City of Riverside Modernism Survey **Riverside, California**

Completed DPR Primary, District, and Building, Structure and Object Forms for five sites for a grant-funded project to survey designated modern architectural resources within the City of Riverside.

Information Officer
Eastern Information Center (EIC), University of California, Riverside

2005, 2008–2009
Riverside, California

Processed and catalogued restricted and unrestricted archaeological and historical site record forms. Conducted research projects and records searches for government agencies and private cultural resource firms.

Reports/Papers

- 2019 A Class III Archaeological Study for the Tuscany Valley (TM 33725) Project National Historic Preservation Act Section 106 Compliance, Lake Elsinore, Riverside County, California. Contributing author. Brian F. Smith and Associates, Inc.
- 2019 A Phase I and II Cultural Resources Assessment for the Jack Rabbit Trail Logistics Center Project, City of Beaumont, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resources Assessment for the 10575 Foothill Boulevard Project, Rancho Cucamonga, California. Brian F. Smith and Associates, Inc.
- 2019 Cultural Resources Study for the County Road and East End Avenue Project, City of Chino, San Bernardino County, California. Brian F. Smith and Associates, Inc.
- 2019 Phase II Cultural Resource Study for the McElwain Project, City of Murrieta, California. Contributing author. Brian F. Smith and Associates, Inc.
- 2019 A Section 106 (NHPA) Historic Resources Study for the McElwain Project, City of Murrieta, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2018 Cultural Resource Monitoring Report for the Sewer Group 818 Project, City of San Diego. Brian F. Smith and Associates, Inc.
- 2018 Phase I Cultural Resource Survey for the Stone Residence Project, 1525 Buckingham Drive, La Jolla, California 92037. Brian F. Smith and Associates, Inc.
- 2018 A Phase I Cultural Resources Assessment for the Seaton Commerce Center Project, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2017 A Phase I Cultural Resources Assessment for the Marbella Villa Project, City of Desert Hot Springs, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2017 Phase I Cultural Resources Survey for TTM 37109, City of Jurupa Valley, County of Riverside. Brian F. Smith and Associates, Inc.
- 2017 A Phase I Cultural Resources Assessment for the Winchester Dollar General Store Project, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2016 John Wayne Airport Jet Fuel Pipeline and Tank Farm Archaeological Monitoring Plan. Scientific Resource Surveys, Inc. On file at the County of Orange, California.
- 2016 Historic Resource Assessment for 220 South Batavia Street, Orange, CA 92868 Assessor's Parcel Number 041-064-4. Scientific Resource Surveys, Inc. Submitted to the City of Orange as part of Mills Act application.

- 2015 Historic Resource Report: 807-813 Harvard Boulevard, Los Angeles. Scientific Resource Surveys, Inc. On file at the South Central Coastal Information Center, California State University, Fullerton.
- 2015 Exploring a Traditional Rock Cairn: Test Excavation at CA-SDI-13/RBLI-26: The Rincon Indian Reservation, San Diego County, California. Scientific Resource Surveys, Inc.
- 2014 Archaeological Monitoring Results: The New Los Angeles Federal Courthouse. Scientific Resource Surveys, Inc. On file at the South Central Coastal Information Center, California State University, Fullerton.
- 2012 Bolsa Chica Archaeological Project Volume 7, Technological Analysis of Stone Tools, Lithic Technology at Bolsa Chica: Reduction Maintenance and Experimentation. Scientific Resource Surveys, Inc.

Presentations

- 2017 "Repair and Replace: Lithic Production Behavior as Indicated by the Debitage Assemblage from CA-MRP-283 the Hackney Site." Presented at the Society for California Archaeology Annual Meeting, Fish Camp, California.
- 2016 "Bones, Stones, and Shell at Bolsa Chica: A Ceremonial Relationship?" Presented at the Society for California Archaeology Annual Meeting, Ontario, California.
- 2016 "Markers of Time: Exploring Transitions in the Bolsa Chica Assemblage." Presented at the Society for California Archaeology Annual Meeting, Ontario, California.
- 2016 "Dating Duress: Understanding Prehistoric Climate Change at Bolsa Chica." Presented at the Society for California Archaeology Annual Meeting, Ontario, California.
- 2014 "New Discoveries from an Old Collection: Comparing Recently Identified OGR Beads to Those Previously Analyzed from the Encino Village Site." Presented at the Society for California Archaeology Annual Meeting, Visalia, California.
- 2012 Bolsa Chica Archaeology: Part Seven: Culture and Chronology. Lithic demonstration of experimental manufacturing techniques at the April meeting of The Pacific Coast Archaeological Society, Irvine, California.

APPENDIX B

Site Record Forms

(Deleted for Public Review; Bound Separately)

APPENDIX C

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX D

NAHC Sacred Lands File Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX E

Confidential Maps

(Deleted for Public Review; Bound Separately)