



Cultural Resources Technical Report for the Hesperia-Primrose Land Development Project, Hesperia, San Bernardino County, California

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PREPARED FOR
San Luis Concrete

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CULTURAL RESOURCES TECHNICAL REPORT FOR THE HESPERIA-PRIMROSE LAND DEVELOPMENT PROJECT, HESPERIA, SAN BERNARDINO COUNTY, CALIFORNIA

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INTRODUCTION

This report summarizes the results of a Phase I cultural resources assessment in support of the Hesperia-Primrose Land Development Project (project). The project is located directly west of Primrose Avenue, southwest of the intersection of Primrose Avenue and Yucca Street in Hesperia, San Bernardino County, California. San Luis Concrete retained SWCA Environmental Consultants (SWCA) to analyze potential impacts to archaeological resources within the project area pursuant to the California Environmental Quality Act (CEQA), including relevant portions of Public Resources Code (PRC) Section 5024.1, 14 California Code of Regulations (CCR) 15064.5 of the State CEQA Guidelines, and PRC Sections 21083.2 and 21084.1.

This report documents the methods and results of a confidential records search of the California Historical Resources Information System (CHRIS), a Sacred Lands File (SLF) Search by the Native American Heritage Commissions (NAHC), archival research to evaluate the presence or likelihood of archaeological resources, and an intensive archaeological survey of the project area. The project is subject to review under CEQA, and the City of Hesperia (City) is the lead CEQA agency.

SWCA Archaeologists Erica Nicolay, M.A., and Jennie Stott, M.A., prepared the report. Senior Project Manager Robbie Thomas, M.A., Registered Professional Archaeologist (RPA) provided oversight and managed the field effort, and Cultural Resource Director Kyle Knabb, Ph.D., RPA, acted as Principal Investigator. Copies of the report will be kept on file with SWCA's Pasadena office and the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton.

PROJECT DESCRIPTION AND LOCATION

The proposed project includes the construction of a 36-unit multifamily residential development, consisting of nine two-story apartment buildings. Associated site improvements include a paved access road and parking areas, a leasing office building with a recreational room, common outdoor recreation areas, a trash enclosure, a playground, a stormwater infiltration system, perimeter fencing, and other on-site improvements on a 2.28-acre property. The project would also include off-site utility improvements along the property frontages (approximately 0.26 acre). The project is directly west of Primrose Avenue, southwest of the intersection of Primrose Avenue and Yucca Street within the city of Hesperia, San Bernardino County, California (project area; Appendix A:Figure A-1 and Figure A-2). The project area is in Section 13 of Township 4 North, Range 5 West, which is plotted on the U.S. Geological Survey (USGS) Hesperia, California, 7.5-minute quadrangle (Appendix A:Figure A-3).

REGULATORY SETTING

California Environmental Quality Act

Under CEQA, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment" (PRC Section 21084.1). CEQA requires a lead agency to analyze whether historic or archaeological resources, or both, may be adversely impacted by a proposed project. Answering this question is a two-part process: first, the determination must be made as to whether the proposed project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential "substantial adverse change in the significance" of the resource.

Historical Resources

According to State CEQA Guidelines (14 CCR 15064.5), for the purposes of CEQA, historical resources are:

- A resource listed in, or formally determined eligible for the California Register of Historical Resources (PRC 5024.1, 14 CCR 4850 et seq.).
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historic resources survey meeting the requirements of Section 5024.1(g) of the PRC.
- Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for the California Register (as defined in PRC Section 5024.1, 14 CCR 4852).

Resources nominated to the California Register of Historical Resources (CRHR) must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) does not meet National Register of Historic Places (NRHP) criteria may still be eligible for the CRHR.

According to CEQA, the fact that a resource is not in or determined eligible for the CRHR or is not included in a local register or survey shall not preclude the lead agency from determining that the resource may be a historical resource (PRC Section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (State CEQA Guidelines [14 CCR 15064.5 {b}]).

SUBSTANTIAL ADVERSE CHANGE AND INDIRECT IMPACTS TO HISTORICAL RESOURCES

State CEQA Guidelines specify that a “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” (14 CCR 15064.5 [b][1]). Material impairment occurs when a project adversely alters or demolishes “those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion” (14 CCR 15064.5[b][2][A]) or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to State CEQA Guidelines Section, the “direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects” (14 CCR 15126.2[a]).

The following guides and requirements are of particular relevance to this study’s analysis of indirect impacts to historic resources. Pursuant to State CEQA Guidelines (14 CCR 15378), study of a project under CEQA requires consideration of “the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment” (14 CCR 15378[a]). State CEQA Guidelines (14 CCR 15064[d]) further define direct and indirect impacts:

- (1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project.

- (2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.
- (3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

Archaeological Resources

In terms of archaeological resources, PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

If it can be demonstrated that a proposed project will cause damage to a unique archaeological resource, the lead agency may require that reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b], and [c]). CEQA notes that, if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on those resources shall not be considered to be a significant effect on the environment (14 CCR 15064.5[c][4]).

California State Assembly Bill 52

Assembly Bill 52 of 2014 (AB 52) amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

CONSULTATION WITH NATIVE AMERICANS

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including Tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

TRIBAL CULTURAL RESOURCES

Section 4 of AB 52 adds Sections 21074(a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as one of the following:

- (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1(b)(9) of AB 52 establishes that “a substantial adverse change to a tribal cultural resource has a significant effect on the environment.” Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource” (Section 6[a]). Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects on tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1:** It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- **Criterion 2:** It is associated with the lives of persons important in our past.
- **Criterion 3:** It 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.

- **Criterion 4:** It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for the CRHR.

Treatment of Human Remains

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code Section 7050.5. More specifically, remains suspected to be Native American are treated under CEQA in accordance with 14 CCR 15064.5, and PRC Section 5097.98 illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the county coroner must be notified (14 CCR 15064.5 and PRC Section 5097.98).

METHODS

In support of this analysis, SWCA completed a confidential records search of the CHRIS, an SLF search through the California NAHC, archival research, and an intensive pedestrian survey. The results of these were used to evaluate the presence or likelihood of cultural resources within the project area.

California Historical Resources Information System Records Search

On August 8, 2024, SWCA conducted a search of the CHRIS at the SCCIC on the campus of California State University, Fullerton. This search included previously recorded cultural resources and investigations within a 0.5-mile radius of the project area for archaeological resources. A subsequent search of the CHRIS data was conducted on March 12, 2025, which expanded the search radius from 0.5 mile to 1 mile. The CHRIS records search also included a review of the NRHP, the CRHR, California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list (Office of Historic Preservation Directory of Historic Properties Data File), the City's HCM list, and the California State Inventory of Historic Resources.

Sacred Lands File Search

The NAHC is charged with identifying, cataloging, and protecting Native American cultural resources, which includes ancient places of special religious or social significance to Native Americans, and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC's inventory of these resources is known as the SLF. In addition, the NAHC maintains a list of tribal contacts affiliated with various geographic regions of California. The contents of the SLF are strictly confidential, and the SLF search requests return positive or negative results in addition to a list of tribal contacts with affiliation to the specified location. A letter from the NAHC summarizing the results of the records search is provided in Appendix B.

Archival Research

Concurrent with the confidential CHRIS records search, SWCA conducted a desktop review of available historic-age maps, aerial images, USGS quadrangles, and San Bernardino County Assessor records (2025). This archival research focused on assessing the general sequence of historic-age development within the project area and identifying any natural, built environment, or other resources that may have previously existed within the project area. The aerial images and maps were also used to assess the potential for previously unrecorded built environment or archaeological resources to be present within the project area. Sources consulted included the following publicly accessible data sources: USGS (2025) historical topographic maps; University of California, Santa Barbara Aerial Imagery Library (2025); and NETROnline Historical Aerials (2025) (historical topographic maps and aerial images).

Cultural Resources Survey

On March 13, 2025, SWCA Archaeologist Cecilio Garcia conducted an intensive pedestrian survey of the 2.54-acre project area (see Figure A-2). The purpose of the survey was to identify cultural resources and historical built environment resources that may be present within the project area. The intensive-level survey consisted of a systematic surface inspection of all areas using transects walked at 10- to 15-meter (m) (about 33- to 50-foot) intervals or less to ensure that any surface-exposed artifacts and sites could be identified.

SWCA examined the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools); historic-era artifacts (e.g., metal, glass, ceramics); sediment discoloration that might indicate the presence of a cultural midden; roads and trails; and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes, foundations).

Overviews of the survey area were photographed using a digital camera. Survey data collection, including mapping, was completed using a tablet computer (Samsung Galaxy Tab A) paired with a Juniper Geode submeter-accurate global navigation satellite system receiver. The survey was documented using standard archaeological survey forms. All field notes, photographs, and records related to the current study are on file at SWCA's office in Pasadena, California.

ENVIRONMENTAL SETTING

The project area is within the Victor Valley, a subregion along the southern edge of the larger Mojave Desert. The project area is on undeveloped land that supports scattered Joshua trees (*Yucca brevifolia*) with an herbaceous understory dominated by nonnative forbs and grasses. Disturbance on-site includes vegetation removal, trash piles, and unmaintained roads associated with off-road vehicle usage. Topographically, the setting is characterized as an open aspect plain with a very gradual slope to the south. The project area is at an elevation of approximately 1,030 to 1,035 m (3,380–3,396 feet) above mean sea level. The project area is near two washes: the Oro Grande Wash, a segment of the Upper Mojave River Basin that is 2.43 kilometers (km) (1.5 miles) to the northwest, and an unnamed wash located directly to the northwest of the project area. Both washes run in a meandering northwesterly-southeasterly direction. Notably, however, these two water sources are seasonal or dependent on heavy rains and are likely dry much of the year. A segment of the California Aqueduct also runs in a northeasterly-southwesterly direction approximately 1.6 km (1 mile) to the southwest of the project area, and the Mojave River is located 10.62 km (6.6 miles) to the east of the project area. The soils within the site largely date to the Pleistocene (Tang et al. 2010:19)

HISTORIC CONTEXT

Prehistoric Context

The prehistory of Southern California is varied and rich, encompassing a period of more than 12,000 years. Numerous chronological sequences have been devised to explicate cultural changes for various areas within southern California over the past 75 years (Moratto 2004). This prehistoric overview is structured using the latest Mojave Desert culture history (Sutton et al. 2007). The framework is thus divided into four major periods: Pleistocene, Early Holocene, Middle Holocene, and Late Holocene (Table 1).

Table 1. Mojave Desert Chronology

Temporal Period	Cultural Complex or Period	Approximate Dates	Marker Artifact
Pleistocene	Pre-Clovis (hypothetical)	Pre-10,000 B.C.	Unclear
	Paleoindian	10,000–8000 B.C.	Fluted points (Clovis)
Early Holocene	Lake Mojave	8000–6000 B.C.	Stemmed points (Lake Mojave, Silver Lake)
	Pinto		
Middle Holocene	Gypsum	7000–3000 B.C.	Pinto Series points
Late Holocene	Gypsum	2000 B.C.–A.D. 200	Gypsum and Elko Series points
	Rose Spring	A.D. 200–1100	Rose Spring and Eastgate Series points
	Late Prehistoric	A.D. 1100–contact	Desert Series points, ceramics

Note: Based on Sutton et al. (2007:236).

Paleoindian Period (ca. 10,000–8000 B.C.)

A firm date for the initial human occupation of the Mojave Desert has not yet been established. While there have been several controversial claims of Pleistocene-age (pre-Clovis) finds, such as the Early Man Site of Calico Hills (Leakey et al. 1968; Leakey et al. 1972), most archaeologists remain unconvinced by available Mojave Desert data. The growing acceptance of evidence for pre-Clovis occupations elsewhere in the Western Hemisphere suggests the possibility that such evidence may yet be found in this region as well.

The earliest broadly accepted cultural complex in the Mojave Desert is the Clovis Complex (Sutton et al. 2007:233). The hallmark artifacts of this complex are large lanceolate-shaped bifaces with distinctive fluting, used to thin and flatten the base for hafting. Other tools associated with the Clovis Complex were large side scrapers, blades struck from prepared cores, and a mixture of expedient flaked tools (Justice 2002:73). Paleoindian populations associated with fluted point technology consisted of small, mobile groups who hunted and gathered near permanent sources of water such as pluvial lakes.

There is some doubt as to whether the Clovis Complex had a temporally or geographically extensive presence in the Mojave Desert. Fluted points have traditionally been interpreted as tools used for hunting Pleistocene megafauna due to their clear association with megafauna remains in the American Southwest, but most fluted points found in California have been recovered as isolated surface finds without confirmed Pleistocene radiocarbon dates (Arnold 2004). However, excavations at China Lake during the 1970s uncovered fluted points associated with burned, extinct megafaunal material (Davis 1975). These

discoveries are among the more convincing evidence that suggests there was human occupation during the terminal Pleistocene (Giambastiani and Berg 2008:12).

The Early Holocene (8000–6000 B.C.)

The communities that lived in the Mojave Desert witnessed and were profoundly affected by great environmental changes during the gradual Pleistocene-Holocene transition. Temperatures became warmer but remained cooler and moister than today. The Mojave Desert became marked by shallow lakes and marshes that were biologically very productive. These were surrounded by desert vegetation typical of later time periods, most prominent being the white bursage and later the creosote bush (Grayson 1993:199–200). Some low-elevation locales retained maintained juniper and sagebrush habitats. By the early Holocene, warmer temperatures, reduced precipitation, and the eventual dehydration of the pluvial lakes are believed to have led to irregularities in the distribution and abundance of resources (Sutton et al. 2007:237). These climatic changes created the need for a more diversified subsistence strategy; the archaeological pattern associated with this adaptation is known as the Lake Mojave Complex.

Named for a Pleistocene lake in southern California, the Lake Mojave Complex is recognized by the heavy, stemmed projectile points of the Great Basin Stemmed series such as Lake Mojave and Silver Lake. Other tools include bifaces, steep-edged unifaces, crescents, the occasional cobble-core tool, and, rarely, ground stone implements (Justice 2002:91). This tool kit represents a generalized adaptation to highly variable terrain. For example, the crescent is thought to have served multiple functions, including use as a spear tip to hunt waterfowl (Justice 2002:116).

While the tool kit of the Lake Mojave Complex has long been thought of as an adaptation to lacustrine subsistence strategies, this conclusion was based on largely circumstantial evidence: the occurrence of numerous sites along extinct shorelines (Moratto 2004:93–96). However, many of the lakes were no longer constant sources of water during the Holocene, and an increasing number of recent studies (e.g., Basgall 2005; Basgall and Jurich 2006; Giambastiani and Berg 2008:14), have revealed that the people of the Lake Mojave Complex sites occur in non-lacustrine terrain as well. Furthermore, there is no clear evidence that Lake Mojave technology indicates a focus on aquatic resources (Basgall and Jurich 2006:12). Sutton et al. (2007:237) have noted that the Lake Mojave assemblages included tools that are “consistent with long-term curation and transport.” Additionally, it is not uncommon for extralocal materials, such as stone artifacts and marine shell beads, to be found in Lake Mojave cultural deposits, suggesting that Lake Mojave people were either highly mobile or interacted with groups over long distances.

The changing climate, distribution of occupational sites, and the all-terrain tool kit suggest that the inhabitants of the Mojave Desert during the early Holocene developed a broad-ranging subsistence strategy based on patterns of “intensive environmental monitoring” (Sutton et al. 2007:237): the people monitored the seasons and moved in the direction of known resource patches.

The Middle Holocene (7000–3000 B.C.)

The middle Holocene climate, although more arid than periods before and after, was still highly variable, with multiple oscillations between wetter and drier conditions occurring throughout. In addition, although the lakes and marshes of the early Holocene dried up, streams and springs in the Mojave Desert may have still maintained water flow from nearby ranges, at various times and places, providing suitable water sources to sustain human activity, albeit at low densities (Aikens 1978; Basgall 2000; Cleland and Spaulding 1992; Sutton 1996; Warren 1984). Between 7000 and 5000 B.C., temperatures appear to have risen and aridity appears to have increased, peaking between 6000 and 5000 B.C. Lowland ephemeral lakes and streams began to dry up, and vegetation communities capable of supporting large game animals

became limited to a few isolated contexts. Settlement patterns adapted, shifting to upland settings where sources of water still existed (Sutton 1996). This land-use change also correlated with adjustments in tool assemblage content and diversity, resulting in the emergence of the Pinto Complex.

Originally defined by Campbell and Campbell (1935), the Pinto Complex appears to represent shifts in subsistence patterns and adaptations, with greater emphasis placed on the exploitation of plants, as well as a continued focus on artiodactyls and smaller animals. It had a wider distribution throughout the Mojave Desert than the previous complexes. The pan-desert nature of the complex suggests that it represents a settlement system with a high degree of residential mobility.

The distinctive characteristics of the Pinto Complex tool kit, as defined by Justice (2002:126) and Zyniecki (2003:12), include “indented base and bifurcate base projectile points with robust basal ears and weak shoulders.” Other diagnostic artifact types of this complex include large and small leaf-shaped bifaces, domed and heavy-keeled scrapers, numerous core/cobble tools, large metates and milling slabs, and shaped and unshaped handstones.

Basgall hypothesized the existence of a distinct complex occupying the Mojave Desert at the same time as the Pinto Complex. His hypothesized Deadman Lake Complex is characterized by “small-to-medium-size contracting-stemmed or lozenge-shaped points, extensive concentrations of battered cobbles and core tools, abundant bifaces, simple flake tools, and milling implements” (Sutton et al. 2007:239). Basgall and his coauthors speculate that the complexes coexisted, with the Pinto materials associated with pluvial lakes and the Deadman Lake Complex at higher elevations. These complexes may represent the material evidence of two separately adapted groups; alternatively they may indicate two different activity patterns produced by a single group. However, they acknowledge that the sample of known sites containing Deadman Lake assemblages is extremely small, and any characterization of the complex as a distinct cultural system is provisional at best. It is still unclear whether Pinto and Deadman Lake complexes represent the material evidence of two separately adapted groups, or of two different activity patterns produced by a single group.

Near the end of the Middle Holocene the climate became hotter and drier, marked by a period of “cultural hiatus” between 3000 and 2000 B.C.; during this gap there appears to have been little to no human occupation in much of the Mojave (Sutton et al. 2007:241).

The Late Holocene (2000 B.C.–contact)

The climate of the prehistoric Late Holocene approximates that of today, with cooler and moister conditions than the middle Holocene but not as cool and moist as the early Holocene. As with the middle Holocene, the climate was highly variable. Many lakes once again rose to high stands, and plant communities took on their modern distribution; however, these lake levels fluctuated, at times dramatically, throughout the period. At least two major droughts are thought to have occurred within the Sierras (Stine 1994), at ca. A.D. 892 to 1112, and ca. A.D. 1209 to 1350. This was followed by a cooler and wetter period between 600 and 150 years ago (Cleland and Spaulding 1992:4). People returned to the region, and human subsistence strategies, compared to previous settlement behavior, changed significantly. This subsistence strategy correlated with adjustments in artifact/tool assemblage content and diversity, resulting in the emergence of the Gypsum Complex.

The Gypsum Complex was characterized by dart-point size projectile points in notched or eared (Elko), concave base (Humboldt), and small-stemmed (Gypsum) forms. In addition to diagnostic projectile points, Gypsum Complex sites included leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, and, occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416). Manos and milling stones were common, and the mortar and pestle were also introduced during this

period. Other artifacts included split-twig animal figurines, *Olivella* shell beads, and *Haliotis* beads and ornaments. The presence of both *Haliotis* and *Olivella* shell beads and ornaments and split-twig animal figurines indicates that the California desert inhabitants were in contact with populations from the southern California coast and the southern Great Basin (Arizona, Nevada, and Utah). The increased contact with other groups likely provided the local inhabitants with storable food products in exchange for lithic materials (obsidian, chalcedony, and chert).

By A.D. 200, the climate had become slightly cooler. Population size appears to have increased, as evidenced by a higher frequency of archaeological sites. This period in California prehistory is marked by the Rose Spring Complex, an archaeological pattern associated with a time frame known as the Saratoga Springs, Haiwee, or Amargosa period, depending on region (Sutton 1996; Sutton et al. 2007:236). By the onset of this period at A.D. 200, dart-size points were being replaced with smaller Rose Spring projectile points, signaling the introduction of the bow and arrow (Yohe 1998). This innovation may also correspond with the beginning of the Numic expansion, which many researchers believe emanated from southeastern California (Bettinger and Baumhoff 1982; Grayson 1993). Major villages and numerous smaller sites dating to this period have been recorded in eastern California, many of which contain bedrock milling features in addition to portable milling equipment.

The introduction of ceramics to the archaeological record of the Mojave Desert region marks the beginning of the Late Prehistoric period (ca. A.D. 1100–1770). During this period Rose Spring-style projectile points were replaced with smaller Desert Side-notched and Cottonwood Series points. Resource intensification and specialization are suggested by an increased variety of tool forms, use of new technologies such as the mortar and pestle and ceramics, use of storage facilities, and increased diversity in the locations of archaeological sites. In the central Mojave Desert, the Mojave River became a primary focus of occupation, and trade networks increased along the Mojave River and over the San Gabriel Mountains (Sutton 1996). During the early portions of the Late Prehistoric period, the Colorado River intermittently flowed westward into the Salton Trough, forming Lake Cahuilla. This freshwater lake was more than 100 miles long and extended well into the present-day Coachella Valley before its final recession after A.D. 1400. Archaeological remains recovered from the extinct lakeshore, as well as Cahuilla oral history, reflect the fish, mussels, waterfowl, and other lacustrine resources that made up local subsistence regimes during this period. There is evidence that populations relocated to new residential bases in the Peninsular Range foothills, including the Little San Bernardino Mountains immediately south of the project area, following the final recession of Lake Cahuilla (Wilke 1978).

Generally speaking, archaeological evidence left by highly mobile hunter-gatherers in the Mojave Desert most often takes the form of sparse scatters of flaked stone, ground stone, and ceramic artifacts and features such as hearths, rock rings, and trails. These remains represent resource extraction and processing sites as well as short-term encampments. Repeated use of specific locations may result in more diverse and substantial archaeological deposits. Likely locations for such habitual-use areas are places with predictable critical resources, especially water, tree crops (e.g., piñon), and outcrops of stone suitable for tool manufacture.

Ethnographic Context

According to available ethnographic maps (Bean and Smith 1978:570; Kroeber 1925; Sutton et al. 2007:232), the study area falls within the traditional territory of the Serrano people, south of the Kawaiisu, southeast of the Kitanemuk, and west of the Southern Paiute. Other neighboring Takic-speaking groups include the Tataviam and Gabrielino (or *Tongva*) to the west and southwest and the Cahuilla to the south. Ethnographic boundaries in the Mojave Desert are loosely defined, owing to the highly mobile nature of desert settlement strategies and the variety of alternatives presented by previous researchers.

Serrano

The Serrano language is part of the Serran division of a branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2006:539, 543). The two Serran languages, Kitanemuk and Serrano, are closely related. Kitanemuk lands were northwest of Serrano lands. Serrano was originally spoken by a relatively small group within the Sierra Madre and San Bernardino Mountains, and the term “Serrano” has come to be ethnically defined as the name of the people in the San Bernardino Mountains (Kroeber 1925:611). The Vanyume, who lived along the Mojave River and associated Mojave Desert areas, and are also referred to as the Desert Serrano, spoke either a dialect of Serrano or a closely related language (Mithun 2006:543).

The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet (450–3,350 m) above mean sea level. Their territory extended west into the Cajon Pass, east past Twentynine Palms, north past Victorville, and south to Yucaipa Valley. Year-round habitation tended to be on the desert floor, at the base of the mountains, and up into the foothills, with all habitation areas requiring year-round water sources (Bean and Smith 1978; Kroeber 1908).

Most Serrano lived in small villages located near water sources (Bean and Smith 1978:571). Houses measuring 12 to 14 feet in diameter were domed and constructed of willow branches and tule thatching. The interiors were encircled with tule mats. Each house was occupied by a single extended family, including a husband, wife (or wives), children, grandparents, and perhaps a widowed aunt or uncle, and was a family gathering place for sleeping and storage. Much of the daily routine occurred outdoors in the open or under square ramadas constructed of at least four posts, cross beams, and tule-thatched roofs. Many of the villages had a ceremonial house, used both as a religious center and the residence of the lineage leaders. When hunting, the men would sometimes construct individual dwellings away from the village. Additional structures within a village might include granaries and a large circular subterranean sweathouse. The sweathouses were typically built along streams or pools.

A village was usually composed of at least two lineages, referred to as a lineage set. In each village, one lineage tended to be more dominant than the other. Lineages tended to rise and fall in dominance. A lineage set would intermarry, share ties of economic reciprocity, and share the ceremonial house and ceremonial bundle. Lineage sets together assumed the responsibility of conducting religious ceremonies through the one lineage’s religious leader and the leader’s assistant; the assistant was the religious leader of the other lineage of the set. The Serrano were loosely organized along patrilineal lines and associated themselves with one of two exogamous moieties or “clans”—the Wahiyam (coyote) or the Tukum (wildcat) moiety.

Serrano territory was a trade nexus between inland tribes and coastal tribes. Ethnohistory also suggests that the Serrano played a role in the trade of horses from the southwest to the California coast (Bean and Vane 2002). Despite the Serrano’s large geographic extent, as well as their control of significant travel corridors, some anthropologists consider the politically autonomous structure and function of the village unit and therefore have difficulty considering the Serrano a unified “tribe,” as that word is defined as a unit of people with a common political leadership (Kroeber 1925:617; Strong 1929:14).

The subsistence economy of the Serrano was one of hunting and collecting plant goods, with occasional fishing carried out (Bean and Smith 1978:571). They hunted large and small animals, including mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Plant staples consisted of seeds; acorn nuts of the black oak; piñon nuts; bulbs and tubers; and shoots, blooms, and roots of various plants, including yucca, berries, barrel cacti, and mesquite. The Serrano used fire as a management tool to increase yields of specific plants, particularly chía.

Trade and exchange was an important aspect of the Serrano economy. Those living in the lower-elevation, desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources. In addition to inter-village trade, ritualized communal food procurement events, such as rabbit and deer hunts and piñon, acorn, and mesquite nut-gathering events, integrated the economy and helped distribute resources that were available in different ecozones.

Among the materials that the Serrano used for hunting, gathering, and processing food, many were also used for shelter, clothing, and ceremonial items. Shell, wood, bone, horn, stone, plant materials, animal skins, and feathers were used for making money, baskets, rabbit skin blankets, mats, nets, and bags. The Serrano made pottery and used it daily to carry and store water or foodstuffs; ceramics were also used as ceremonial objects (Benedict 1924). They also made awls, sinew-backed bows, arrows, arrow straighteners, throwing sticks (for hunting), traps, fire drills, stone pipes, musical instruments of various types (rattles, rasps, whistles, bull-roarers, and whistles), yucca fiber cordage for snares, nets, and carrying bags, and clothing (Bean and Smith 1978:571; Bean and Vane 2002). A strong tradition of basket weaving incorporated the use of juncus sedge, deergrass, and yucca fiber (Benedict 1924). They cooked foods in earth ovens or in watertight baskets using heated cooking rocks and stirring constantly, or by parching through the use of hot embers and a constant tossing motion of shallow trays containing the grains. Animal bones were boiled and then cracked for access to the marrow. A variety of methods were used in drying and preserving foods for later consumption.

Mainly due to the inland location of the territory that the Serrano occupied beyond Cajon Pass, contact between Serrano and Europeans was relatively minimal prior to the early 1800s. As early as 1790, however, Serrano began to be drawn into mission life (Bean and Vane 2002). More Serrano were relocated to Mission San Gabriel in 1811 after a failed indigenous attack on that mission. Most of the remaining western Serrano were moved to an *asistencia* built near Redlands in 1819 (Bean and Smith 1978:573). By 1834, most western Serrano had been moved to the missions, with some Serrano possibly moved to the mission at San Fernando Rey (Kroeber 1908). Only small groups of Serrano remained in the area northeast of the San Geronio Pass and were able to preserve some of their native culture.

In the 1860s, a smallpox epidemic killed many indigenous Southern Californians, including many Serrano (Bean and Vane 2002). Oral history accounts of a massacre in the 1860s at Twentynine Palms may have been part of a larger American military campaign that lasted 32 days (Bean and Vane 2002:10). Surviving Serrano sought shelter at Morongo with their Cahuilla neighbors; Morongo later became a reservation (Bean and Vane 2002). Other survivors followed the Serrano leader Santos Manuel down from the mountains and toward the valley floors and eventually settled what later became the San Manuel Band of Mission Indians Reservation. This reservation was established in 1891 (San Manuel Band of Mission Indians 2008).

Historic Context

Post-contact history for the state of California is generally divided into three periods: the Spanish period (1769–1822), Mexican period (1822–1848), and American period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the Spanish period in California began with the establishment in 1769 of a settlement at San Diego and the first (Mission San Diego de Alcalá) of 21 missions constructed between 1769 and 1823. Independence from Spain marks the beginning of the Mexican period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, signals the beginning of the American period, when California became a territory of the United States.

Spanish Period (1769–1822)

Spanish explorers made sailing expeditions along the coast of southern California between the mid-1500s and late 1700s. In search of the legendary Northwest Passage, Juan Rodríguez Cabrillo stopped in 1542 at present-day San Diego Bay. With his crew, Cabrillo explored the shorelines of present-day Catalina Island, and the San Pedro and Santa Monica bays. Much of the present California and Oregon coastline was mapped and recorded in the following half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica bays, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabrillo and Vizcaíno (Bancroft 1886:96–99; Gumprecht 1999:35).

Inland exploration and colonization of Alta California by Spain would not be a priority for more than 200 years. The 1769 overland expedition by Captain Gaspar de Portolà marks the beginning of California's "Historic Period," occurring just after the king of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolà established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. Also in July of 1769, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823.

Although Pedro Fages traveled near the Cajon Pass as early as 1772, the first known Spanish explorer to enter the area that would become San Bernardino County was Fr. Francisco Garcés, traveling from the Colorado River in 1776 (Hoover et al. 2002:321). Fr. Garcés traveled as far as the Pacific Coast along an ancient trade route, known as the Mojave Trail, and he named the Mojave River Arroyo de los Mártires (Stream of the Martyrs). The river was later named Rio de las Animas (River of Souls) by Fr. Joaquín Pasqual Nuez, who accompanied the 1819 expedition of Lt. Gabriel Moraga. The San Bernardino Valley was named in 1810 by the Franciscan missionary Francisco Dumetz, who led a party from the San Gabriel Mission into the valley in observance of the Feast of St. Bernardine of Siena.

The series of 21 missions was parallel to the California coastline between San Diego and Sonoma. Near-coastal locations were preferred by the Spaniards for colonization because they were easier to defend and supply from ships and were also bordered by populous Native American villages with potential converts. Although present-day San Bernardino County did not formally host Spanish missions, the region remained connected to the California presidio and mission system through the Franciscan rancho and *asistencia* outposts. Near today's city of Redlands in San Bernardino County, the San Bernardino de Sena Estancia (also known as the San Bernardino Rancho) was established in 1819 for grazing cattle owned by the Mission San Gabriel Arcángel (Engelhardt 1927).

A major government objective during the Spanish period in California was to build missions and associated presidios to integrate the Native American population into Christianity and communal enterprise. Inducements were also made to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish period, only two of which were successful and are now major California cities (San José and Los Angeles). The threat of foreign invasion, political dissatisfaction, demands for land by civilian settlers and retiring soldiers, and unrest among the indigenous population kept growth within Alta California to a minimum.

Mexican Period (1822–1848)

After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California

ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports, including San Diego, open to foreign merchants (Dallas 1955:14).

During this period, trappers and explorers from the eastern United States journeyed westward. Jedediah Strong Smith was among these early American adventurers. He traveled through the project vicinity in 1826 and 1827 and nicknamed the Mojave River the “Inconstant River” because it frequently disappeared beneath the ground’s surface.

The influence of the California missions waned in the late 1820s through the early 1830s, and as one consequence, extensive land grants in the interior were initiated in the Mexican period, in part to entice populations away from the more settled coastal areas where the Spanish had concentrated their colonization efforts. Following the adoption of the Secularization Act of 1833, the Mexican government privatized most Franciscan lands, including holdings of their California missions. By 1836, this sweeping process effectively reduced the California missions to parish churches and released their vast landholdings. Although earlier secularization schemes had called for the redistribution of lands to Native American neophytes who were responsible for construction of the mission empire, the vast mission lands and livestock holdings were instead redistributed by the Mexican government through several hundred land grants to private, non-Native American ranchers (Langum 1987:15–18).

The Mexican period is marked by the rise of large ranchos, which became important economic and social centers. Some 20 ranchos covering nearly 500,000 acres were granted in northwestern Riverside and southwestern San Bernardino Counties. These included Ranchos El Rincón and Jurupa, which straddled both of today’s counties; and Cucamonga, Santa Ana, and San Bernardino in San Bernardino County.

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The non-Native American population of California increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population unfortunately contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities. Large numbers of native peoples in the Central Valley, for example, died of disease between 1830 and 1833, and disease exterminated whole tribes along the American, Merced, Tuolumne, and Yuba Rivers. The Central Valley was hit by a second epidemic in 1837, which further reduced indigenous Californian populations (Cook 1955).

American Period (1848–Present)

The Mexican-American War ended with the Treaty of Guadalupe Hidalgo, signed in 1848, ushering California into its American period. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the Southern California economy through the first decade of the Gold Rush beginning in 1848. California attained statehood with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. territories. San Bernardino County was organized from parts of Los Angeles and San Diego Counties in April of 1853, and the city of San Bernardino became the county seat in 1854. Although portions of San Bernardino and San Diego Counties were used to create Riverside County in 1893, San Bernardino County remains the largest county in California.

During the Gold Rush, thousands of people traveled the Gila Trail or Southern Overland Trail from Texas to Arizona, then crossed the Colorado River at present-day Yuma into California and proceeded across the Colorado Desert to the San José Valley. The main trail continued from that point northward to Temecula and Los Angeles. Many left the main trail and traveled southward to San Diego, where they

then journeyed via ship to San Francisco or took the inland coastal route to Los Angeles, rejoining the main trail to the goldfields. Thousands more traveled the Mojave River Trail, named the Old Spanish Trail by Captain John C. Frémont in 1844. Starting in Santa Fe, New Mexico, and continuing through Utah and Arizona, the trail then crossed the Mojave Desert to reach the Mission San Gabriel Arcángel and the Pueblo de Los Ángeles. Northeast of Victorville near today's community of Daggett, a group of Native Americans told Frémont they had lived along the Mojave River and the mountains to the north, and traded with other indigenous peoples in the region along the Mojave River Trail. Frémont's is the first account to use the name "Mojave River" (Frémont 1845:260).

With the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, vaqueros drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains where available. The cattle boom ended for Southern California as neighboring states and territories drove herds to Northern California at reduced prices, as operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity.

American politics and the need for a mild winter route to the west favored a southerly thoroughfare from the eastern United States to California in the 1850s. The U.S. Gadsden Purchase of 1854 secured more land from Mexico for this route, and by 1857, surveys established the current international boundary from New Mexico west to California (Walker and Bufkin 1986). In 1857, the government awarded to James E. Birch a mail contract for 1,475 miles from San Antonio, Texas, to San Diego, California. The contractor's "Jackass Mail" passed through the Imperial Valley on its 2-month-long round trips. In 1858, the federal contract passed to the Butterfield Overland Mail Company. With the start of the Civil War in 1861 and the departure of southern representatives from Congress, the U.S. government canceled Butterfield's contract and suspended talks on a southern transcontinental rail route.

Wagon roads and railroads constructed across California's Colorado and Mojave deserts from the 1840s to the 1870s connected coastal California with the rest of the county. These modes of transport served to carry mail, prospectors, miners, entrepreneurs, merchants, immigrants, laborers, muleteers, settlers, and military personnel as well as civilian and military supplies, livestock, produce, timber, and minerals produced by desert mines, among other necessities. The construction of permanent roadways in the place of desert trails and wagon roads marked the increased use of the automobile at the turn of the twentieth century. In addition to the Mojave River Trail (Old Spanish Trail) and the southern Yuma route (Gila Trail, Southern Overland Trail, Butterfield Stage Route), the earliest routes that traversed the California deserts from the west to the Colorado River included Brown's Wagon Road, the Bradshaw Trail, and Brown and Frink's Road.

Following the Civil War, overland stage services to and from Southern California resumed in 1868 with the Holladay and Wells Fargo operations (Nevin 1974; Stein 1994). The pre-Civil War national initiative for a southern transcontinental railroad route resumed during the 1870s, as the Texas and Pacific (T&P) Railway Company in 1871 received a federal charter and conducted transcontinental surveys to pursue the initiative. In 1873, however, the T&P's westerly construction stalled in north-central Texas. The resulting delay was critical, allowing San Francisco investors to extend their own Southern Pacific Railroad through Imperial Valley to the Colorado River in 1877, bridging the river at Yuma into Arizona along the T&P survey in 1878 (Yenne 1985). The Southern Pacific Railroad had already reached the extreme southwest corner of San Bernardino County in 1876. The Atlantic and Pacific (later the Atchison, Topeka, and Santa Fe; now the Burlington Northern Santa Fe) Railroad soon crossed the central part of the county, the Southern California Railway linked Barstow to San Diego in 1885, and San Bernardino was connected to the eastern states in 1887 via the Atchison, Topeka, and Santa Fe via Barstow and Needles.

The first highways across the Mojave Desert followed the Cajon Pass-Barstow-Needles route established by the Southern California Railway and the Atchison, Topeka, and Santa Fe. Established in 1912, the Ocean-to-Ocean Highway, now known as the National Old Trails Road, stretched from Baltimore, Maryland, to California. The route across the California deserts followed the Mojave River/Old Spanish Trail through Needles and Barstow to San Bernardino. Established in 1926, the majority of U.S. Route 66 largely followed the Ocean-to-Ocean Highway, passing through the desert region south of Needles on its way across the country to Los Angeles. After U.S. Route 66 was decommissioned in 1985, parts of it became Interstate 40 as well as Interstate 15. Remains of the route in several western states, including California, have been designated a National Trails Highway. Other important highways that crossed through the region included the Randsburg/San Bernardino Road, which was added to the state system of secondary highways in 1933 and designated State Route 145. Two years later, the highway was designated U.S. Route 395.

RESULTS

Records Search Results

Previously Conducted Studies

SWCA conducted a search of the CHRIS records from the SCCIC on March 12, 2025. Results of the records search indicate that 23 previous cultural resource investigations have been conducted within a 1-mile radius of the project area. None of these studies includes any portion of the current project area. Details pertaining to these investigations are listed in Table 2.

Table 2. Previous Cultural Resources Studies within 1 mile of the Project Area

Report No.	Study Title	Author and Affiliation	Year	Relationship to Project Area
SB-01025	Archaeological, Historical, and Paleontological Site Survey for County Service Area No. 70 Improvement Zone "J", Assessments of Impact and Recommendations	Harris, Ruth: San Bernardino County Museum Association	1973	Outside
SB-01026	Archaeological, Historical and Paleontological Site Survey for County Service Area No. 70, Improvement Zone "J", Assessments of Impact and Recommendations	Harris, Ruth: San Bernardino County Museum Association	1980	Outside
SB-01027	Cultural Resources Assessment: Baldy Mesa Water Lines, County Service Area 70, Improvement Zone J, San Bernardino County, California	Reynolds, Robert E.: San Bernardino County Museum Association	1973	Outside
SB-02150	An Archaeological Assessment of TT14591, a 7.57-Acre Parcel Located Adjacent to Maple Avenue in Hesperia, San Bernardino County	White, Robert S.: Archaeological Associates	1974	Outside
SB-02314	An Archaeological Assessment of a 9.23-Acre Parcel Located Immediately Northeast of the Intersection of Main Street and Topaz Avenue in Hesperia, San Bernardino County	White, Robert S.: Archaeological Associates	1980	Outside
SB-03020	(Draft) Adelanto-Lugo Transmission Project Cultural Resources Assessment	Sturm, Brad, D. Mclean, K. Becker, And J. Rosenthal: Woodward-Clyde	1991	Outside
SB-03703	An Historical Resource Identification Investigation For TTM 16252, City of Hesperia, California	Alexandrowicz, J. Stephen And Barbara Loren-Webb: ACS	1991	Outside

Report No.	Study Title	Author and Affiliation	Year	Relationship to Project Area
SB-03983	Cultural Resource Assessment: Cingular Wireless Facility SB 258-01, Hesperia, San Bernardino County, California	Duke, Curt: LSA	1993	Outside
SB-04182	Historical and Paleontological Resources Monitoring at the Forecast Homes Tract 16252 Development, City of Hesperia, San Bernardino County, California	Alexandrowicz, John Stephen And Richard A. Krautkramer: ACS	1993	Outside
SB-04190	Cultural Resource Assessment: TPN 16886, City of Hesperia, San Bernardino County, California	Goodwin, Riordan And Pattie Tuck: LSA	2005	Outside
SB-04192	Historical Archaeology at the Hall W. Watts Homestead	Alexandrowicz, John Stephen: ACS	2006	Outside
SB-04193	Historical & Paleontological Resources Monitoring at the Forecast Homes Tract No. 16252 Development, City of Hesperia, San Bernardino County, California	Alexandrowicz, John Stephen: ACS	2006	Outside
SB-04790	Historical/ Archaeological Resources Survey Report: Tentative Tract Map No. 17916, in the City of Hesperia, County of San Bernardino, California	Jacquemain, Terri, Hruby, Zachary X., And Josh Smallwood: Unknown	2005	Outside
SB-05216	Results of a Phase 1 Cultural Resources Investigation for the Proposed Wal-Mart Supercenter Approximately 38 Acres in the City of Hesperia, San Bernardino County, California	Mckenna, Jeanette: Unknown	2006	Outside
SB-05221	SHPO Cover Letter FCC Form 620 Submittal Earthtouch Inc West Hesperia/CA-5357A Hesperia, San Bernardino County, California	Billat, Lorna: Unknown	2005	Outside
SB-06537	Archaeological Survey Report for Southern California Edison's Existing Pole Support Project: Victor-Aqueduct-Phelan 115kV Transmission Line, Hesperia, San Bernardino County, California	Sander, Jay K.: Chambers Group, Inc.	2010	Outside
SB-06652	Preliminary Archaeological Survey Report for 98 Linear Miles of the East Branch Extension of the California Aqueduct for the DWR East Branch Enlargement Project Los Angeles and San Bernardino Counties (California)	ESA: Unknown	2010	Outside
SB-06858	Cultural Resources Study: Main Street Corridor Project, City of Hesperia, San Bernardino County, California	Smallwood, Josh: Ecorp	2010	Outside
SB-06859	Identification and Evaluation of Historic Properties: Town of Apple Valley and City of Hesperia Wastewater Reclamation Plants and Related Facilities Project, Victor Valley Area, San Bernardino County, California	Tang, Bai "Tom", Terri Jacquemain, Daniel Ballester, and Harry Quinn: Unknown	2011	Outside
SB-07494	G.O. 131-D Victor-Aqueduct-Phelan 115kV Replacement Project	Clark, Fatima V. and Dave Hanna: Southern California Edison	2011	Outside
SB-07845	Cultural Resource Records Search and Site Visit Results for T-Mobile West, LLC, Candidate IE24883A (IE883 M5-T2 Lugo SCE), 9950 Pyrite Avenue, Hesperia, San Bernardino County, California	Bonner, Wayne H., Sarah A. Williams, and Kathleen A. Crawford: EAS	2012	Outside
SB-07846	Direct APE Historic Architectural Assessment for T-Mobile West, LLC, Candidate IE24883A (IE883 M5-T2 Lugo SCE), 9950 Pyrite Avenue, Hesperia, San Bernardino County, California	Crawford, Kathleen A.: EAS	2012	Outside
SB-08480	Cultural Resources Assessment (Phase 1) (APN 0438-165-33) Apple Valley, California	Gold, Alan Garfinkel: RCA Associates, Inc.	2013	Outside

Previously Recorded Resources

The records search also identified 25 previously recorded cultural resources within a 1-mile radius of the project area. These resources are all historic in age and include 15 refuse scatters, two transmission lines, two roads/trails, three historic-era isolates, and three built environment resources (two buildings and a segment of the East Branch of the California Aqueduct). None of these resources overlap the project area. The results are summarized in Table 3.

Table 3. Previously Recorded Cultural Resources within 1 mile of the Project Area

Primary No. (Trinomial)	Temporal Affiliation	Resource Type	Resource Description	Year Recorded (Recorded By)	Relationship to Project Area
P-36-004251 (CA-SBR-4251H)	Historic-era	Structure	Baldy Mesa Pole Line	1991 (J. Petersen) 2009 (Kathrine Anderson) 1980 (R. Reynolds) 1993 (Kenneth Becker) 2010 (J. Coleman) 2011 (Josh Trampler) 1993 (Kenneth Becker) 2018 (Carleton Bennett)	Outside
P-36-007739 (CA-SBR-7739H)	Historic-era	Site	Refuse scatter	1992 (Becker & Phillips)	Outside
P-36-007744 (CA-SBR-7744H)	Historic-era	Site	Refuse scatter	1993 (Becker et al.)	Outside
P-36-007745 (CA-SBR-7745H)	Historic-era	Site	Refuse scatter	1993 (Becker et al.)	Outside
P-36-010315 (CA-SBR-10315H)	Historic-era	Structure, Site	Edison Company Boulder Dam-San Bernardino Electrical Transmission Line	2012 (N. Lawson) 2012 (C. Bodmer) 2011 (Justin Lev-Tov) 2010 (J. Howard) 2009 (Stephen Pappas) 2008 (Jay K. Sander) 2006 (Roger Hatheway) 1993 () 1989 (J. Brock) 1988 (N. Neuenschwander) 2013 (C. Higgins) 2015 (Audry Williams) 1997 (Neal Neuenschwander) 2014 (Wendly L. Tinsley Becker) 1997 (Carrie Wills) 2018 (Carole Denardo) 2011 (S. Kremkau) 2013 (M. O'Neill) 2008 () 2023 (Jared Miles) 2020 (Stephanie Hodal)	Outside
P-36-011264 (CA-SBR-11264H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011265 (CA-SBR-11265H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011266 (CA-SBR-11266H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011267 (CA-SBR-11267H)	Historic-era	Site	Trail/road alignment	2001 (John S. Alexandrowicz)	Outside

Primary No. (Trinomial)	Temporal Affiliation	Resource Type	Resource Description	Year Recorded (Recorded By)	Relationship to Project Area
P-36-011268 (CA-SBR-11268H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011269 (CA-SBR-11269H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011271 (CA-SBR-11271H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011273 (CA-SBR-11273H)	Historic-era	Site	Unimproved segment of Muscatel Street	2001 (John S. Alexandrowicz) 2009 (Madelaine Bray)	Outside
P-36-011659 (CA-SBR-11659H)	Historic-era	Site	Refuse scatter	2004 (John S. Alexandrowicz)	Outside
P-36-020764	Historic-era	Building	14393 Main St, Hesperia	2009 (Josh Smallwood)	Outside
P-36-020765	Historic-era	Building	14602 Main St, Hesperia	2009 (Josh Smallwood)	Outside
P-36-021289	Historic-era	Site	Refuse scatter	2006 (WSA)	Outside
P-36-021301	Historic-era	Site	Refuse scatter	2007 (WSA)	Outside
P-36-021302	Historic-era	Site	Refuse scatter	2007 (Allen Estes)	Outside
P-36-021303	Historic-era	Site	Refuse scatter	2007 (Allen Estes)	Outside
P-36-021304	Historic-era	Site	Refuse scatter	2007 (Estes, Allen; Buckley, David)	Outside
P-36-021351 (CA-SBR-15913H)	Historic-era	Structure	East Branch of the California Aqueduct	2009 (ESA) 2011 (Anderson) 2011 (Ambacher) 2011 (Kremkau) 2008 (Jeremy Hollins) 2012 (M. O'Neill) 2018 (Laura Voisin George) 2019 ()	Outside
P-36-060848	Historic-era	Isolate	Glass bottle fragments	1993 (RMW PALEO)	Outside
P-36-064587	Historic-era	Isolate	Glass bottle fragments	2001 (John S. Alexandrowicz)	Outside
P-36-064588	Historic-era	Isolate	Glass bottle fragments	2001 (John S. Alexandrowicz)	Outside

Sacred Lands File Search

On February 28, 2025, SWCA received the results of the SLF search from the NAHC. The results letter indicated that the results were positive and recommended contacting the San Manuel Band of Mission Indians and Chemehuevi Indian Tribe. Additional representatives of Native Americans with traditional affiliations to the project area were included on a contact list (see Appendix B). The NAHC recommended that each person be contacted to request any additional information they may have regarding unlisted or potential resources. These contacts and their affiliated tribal organizations are listed in Appendix B.

SWCA sent outreach letters via email and U.S. Postal Service on March 12, 2025, to the 13 individuals on the NAHC contact list (Table 4). Follow-up emails or phone calls, or both, were conducted March 28, 2025, to those individuals that had not responded to the initial outreach effort. As a result of this outreach, three responses were received. These responses are summarized below and included in Appendix B.

Table 4. NAHC's Native American Contact List Included with the SLF Results

Name, Title	Affiliation
Kaitlyn Snodgrass, Cultural Director	Chemehuevi Indian Tribe
Glenn Lodge, Chairman	Chemehuevi Indian Tribe
Robert Martin, Chairperson	Morongo Band of Mission Indians
Ann Brierty, Tribal Historic Preservation Office	Morongo Band of Mission Indians
Jordan Joaquin, President, Quechan Tribal Council	Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer	Quechan Tribe of the Fort Yuma Reservation
Donna Yocum, Chairperson	San Fernando Band of Mission Indians
Alexandra McCleary, Senior Manager of Cultural Resources Management	San Manuel Band of Mission Indians
Mark Cochrane, Co-Chairperson	Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson	Serrano Nation of Mission Indians
Nicolas Garza, Cultural Resources Specialist	Twentynine Palms Band of Mission Indians
Christopher Nicosia, Cultural Resources Manager/Tribal Historic Preservation Office Manager	Twentynine Palms Band of Mission Indians
Sarah O'Brien, Tribal Archivist	Twentynine Palms Band of Mission Indians

The Chemehuevi Indian Tribe indicated they are not aware of any cultural resources concerns with the proposed project. The San Manuel Band of Mission Indians requested to participate in government-to-government consultation pursuant to AB 52 with the City of Hesperia. The Tribe indicated that the project is located within the Serrano Ancestral Territory and is within a culturally sensitive landscape for the Tribe. Finally, the Quechan Indian Tribe of Fort Yuma Reservation deferred to the local Tribes and support their determinations with regard to the project.

Historical Aerial and Map Review

SWCA reviewed aerial images, available via the University of California, Santa Barbara Aerial Imagery Library (2025) and NETROnline Historic Aerials (2025) dating from 1938 to the present day. The earliest aerial image available for the project area (1938) indicates that the project area and general area were undeveloped. Main Street to the north and Maple Avenue to the east appear as dirt roads. The next aerial (1952) shows that the project and surrounding area remain vacant. By 1959 several more streets and a few sporadic developments litter the general area while the project area itself remains undeveloped. Yucca Street and Primrose Avenue have been established by 1959. By 1968, Interstate 15 appears to have been expanded to its current extent. The project area remained undeveloped despite the progressive development of the surrounding area in the 1980s and 1990s. Throughout the 2020s residential development within the general area has continued, although the project area has remained vacant throughout this time.

SWCA reviewed USGS quadrangles, available via the USGS Historical Topographic Map Explorer (USGS 2025) and NETROnline Historic Aerials (2025), dating from 1902 to 2021. Generally speaking, these maps correspond with the information depicted in the above-referenced aerials; however, they add little additional information that would help characterize the history of the project area. As shown on these topographic maps, the project area has never been developed and the surrounding area was sparsely developed throughout much of the twentieth century.

Cultural Resource Survey

The results of the field survey indicate that the project area consists of a flat parcel that has been recently cleared of vegetation and shallowly graded. The cleared soils have been grouped in piles around the project area. Ground surface visibility was good throughout the project area at approximately 60% to 85%. The parcel is bisected by a chain-link fence that runs east-west through the property. There is a gate on the eastern side along Primrose Avenue. Additionally, a concrete pathway was noted in the northeast corner of the property. The pathway is in very poor condition and mostly obscured by surface sediment. A review of historical aerial images indicates the pathway was constructed sometime during the 1980s as part of the adjacent property. No cultural resources were identified in the project area during the field survey.

Archaeological Sensitivity Assessment

The project area has never been developed as indicated by historical aerial images and topographic maps. The project is in an area of Hesperia that was sparsely developed until the early 2000s. The nearest development includes a residential property adjacent to the project area to the west. This property was developed sometime between 1952 and 1959 and then appears to have been expanded in the 1960s and again in the 1980s. Due to the development history of the project area and vicinity, it is expected that historic period archaeological remains would be limited to sparse, surface refuse scatters from opportunistic dumping episodes, particularly from the development associated with the adjacent property. This is further supported by the presence of refuse scatters and isolated refuse items identified by the record search within 1 mile of the project area. These types of archaeological deposits generally contain surficial evidence. As stated previously, the project area has been recently shallowly graded, which would have disturbed any surface or shallowly buried archaeological deposits or materials and none were identified. As such, SWCA finds the project area likely has a low sensitivity for containing historic period archaeological resources.

The project area is located within territory that was once occupied by the Serrano, and although there are seasonal water sources near the area that may have provided important natural resources to Native American groups during parts of the year, there is a lack of permanent and reliable sources of water or other resources. There are no known prehistoric resources within 1 mile of the project area or within the project area. Although, as discussed in the prehistoric context section, there is some evidence for Pleistocene age occupation of the Mojave Desert, specifically in the China Lake region, no such evidence has yet been found in the vicinity of the project area (Davis 1975). In addition, the project area has been recently shallowly graded which would have disturbed any surface or shallowly buried archaeological deposits or materials and none were identified. Therefore, SWCA finds the project area likely has a low sensitivity for containing prehistoric archaeological resources.

CONCLUSIONS AND MANAGEMENT RECOMMENDATIONS

The cultural resource assessment included an examination of CHRIS records, communication with Native American tribal representatives, archival and background research, a buried site sensitivity assessment, and a pedestrian survey. No archaeological resources were identified within the project area as a result of the assessment. Additionally, SWCA considers the sensitivity for unidentified prehistoric and historic-era Native American-affiliated archaeological resources to be low and the sensitivity for historic period (non-Native American) archaeological resources to be low. However, the possibility of encountering as-yet unidentified archaeological resources within the project area cannot be completely ruled out.

In the event that potentially significant archaeological materials are encountered during construction, all work must be halted in the vicinity of the discovery until a cultural resources specialist meeting the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service 1983) can evaluate the find. If the discovery proves to be eligible for the CRHR, then additional work, such as data recovery excavations, may be warranted to reduce the impacts under CEQA. Additionally, Health and Safety Code Section 7050.5, CEQA Guidelines Section 14 CCR 15064.5(e), and PRC Section 5097.98 mandate the process to be followed in the unlikely event of the discovery of human remains. Finally, if the project area is expanded to include areas not covered by this study or other recent cultural resource investigations, additional studies may be required.

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APPENDIX A

Figures

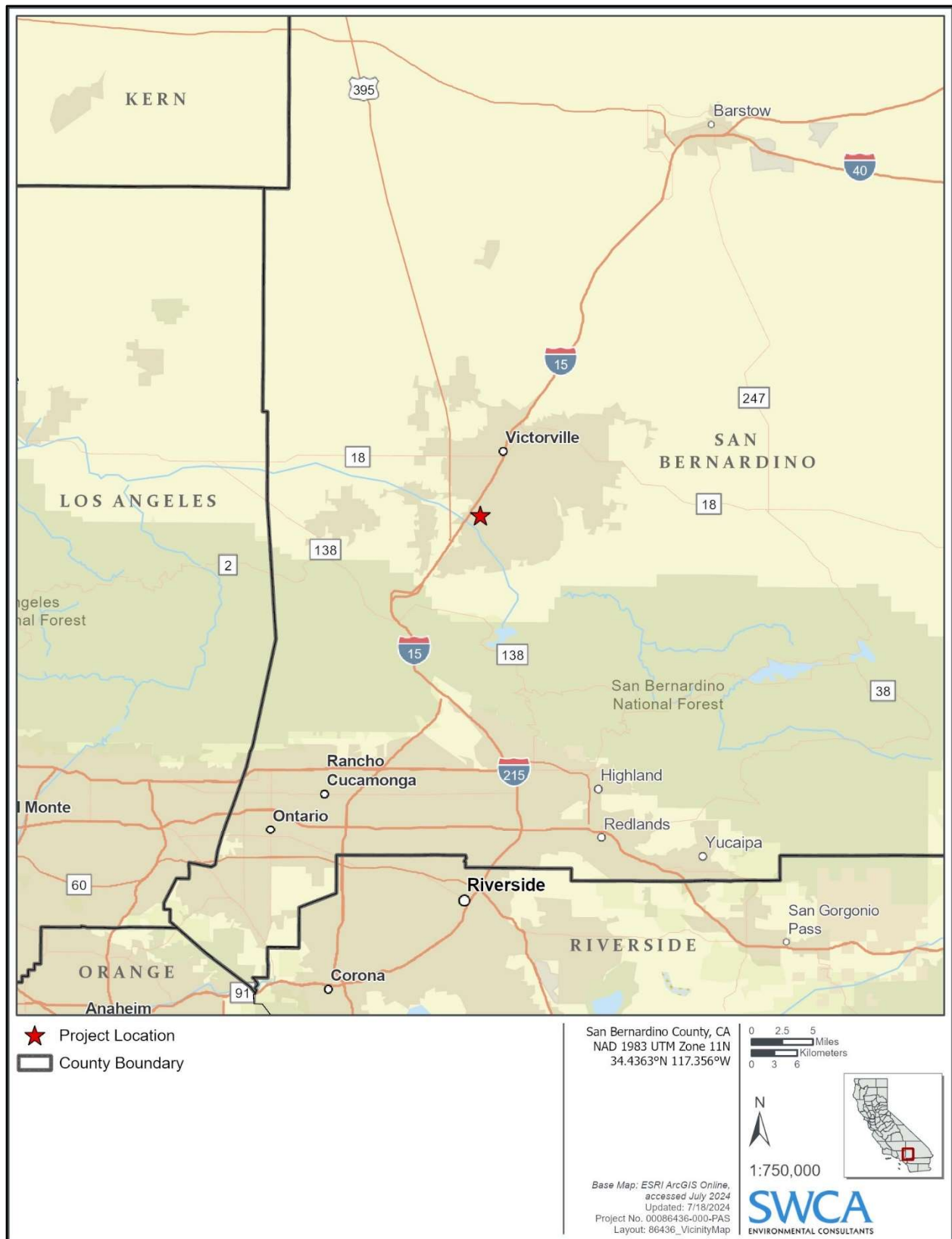


Figure A-1. Project vicinity map.

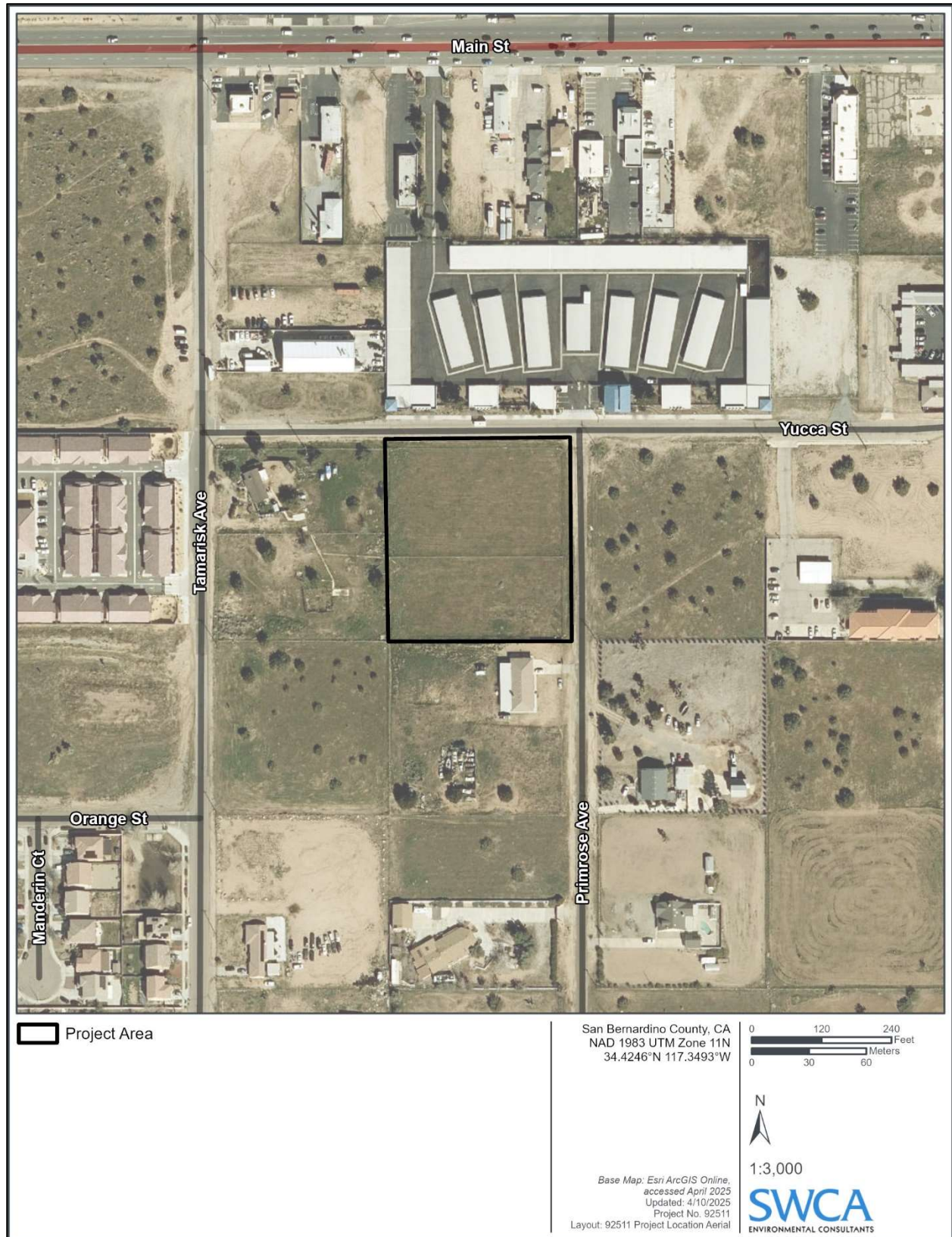


Figure A-2. Project area shown on aerial map.

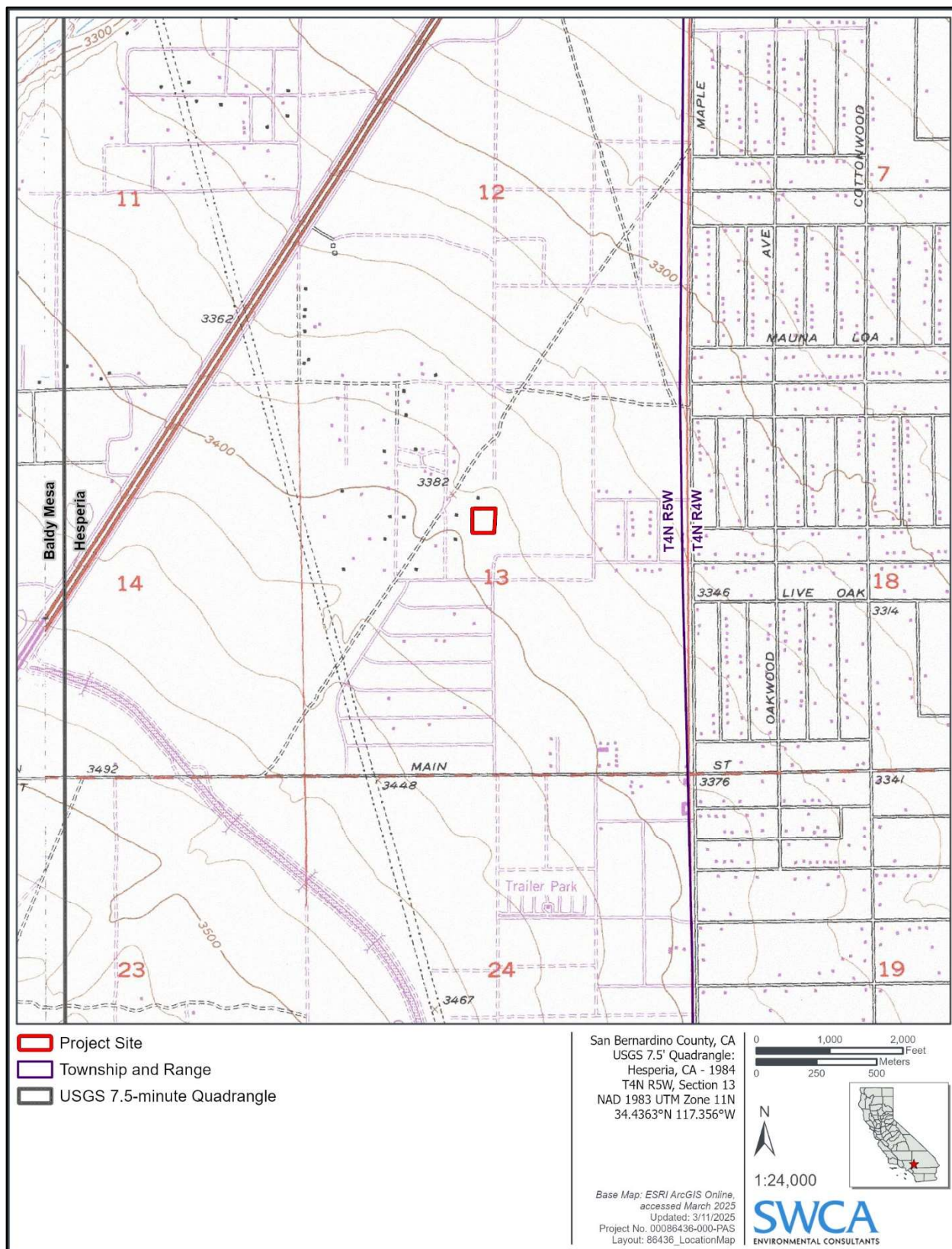


Figure A-3. Project area mapped on the USGS Hesperia, California, 7.5-minute quadrangle.

APPENDIX B

Native American Heritage Commission Sacred Lands File Search Results