Phase I Archaeological Survey Report

Santa Clarita Commerce Center Project

MAY 2023

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Project Information Page

Report Type: Phase I Archaeological Survey

Project Name: Santa Clarita Commerce Center Project

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APN: 2836-076-001 through -021

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USGS Quads: Newhall

Resources: No cultural resource located within the proposed Project Site

Acreage: approximately 22.3 acres

Keywords: Phase I Archaeological Survey, Pedestrian Survey, Santa Clarita Commerce Center Project

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
APN	Assessor's Parcel Number
BGS	Below Ground Surface
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
CHRIS	California Historical Resources Information System
DPR	Department of Parks and Recreation
MCA	Medieval Climatic Anomaly
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
Project	Santa Clarita Commerce Center Project
SCCIC	South Central Coast Information Center
W&S	Whitley and Simon

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Executive Summary

COV-SC Land LLC retained Dudek to conduct a cultural resources assessment documented by a Phase I Archaeological Survey Report for the Santa Clarita Commerce Center Project (Project) located in the City of Santa Clarita, Los Angeles County, California (2836-076-001 through -021). This report includes the following components: results of a California Historical Resources Information System (CHRIS) records search of the proposed Project area plus a 1-mile radius; results of background research including a literature, archival and historic map and aerial photograph review; result of the intensive-level pedestrian survey of the proposed Project area for cultural resources; an assessment of cultural sensitivity of the area as well as impacts to historical resources in compliance with the requirements of the California Environmental Quality Act (CEQA) and management recommendations. This report satisfies all applicable requirements for CEQA and City of Santa Clarita.

The Phase I investigation was designed with the following goals: (1) to better understand the potential for cultural resources to exist within the proposed Project site through extensive background research and an intensive pedestrian survey; (2) consideration of the potential for any known or unknown cultural resources to be impacted by proposed Project ground disturbances; and (3) if necessary, provide management recommendations to ensure that potential impacts to cultural resources would be appropriately addressed consistent with CEQA and City of Santa Clarita Cultural Resource Guidelines. A CHRIS archaeological literature and records search conducted at the South Central Coast Information Center (SCCIC) determined that no cultural resources have been previously identified within the proposed Project area. Eleven cultural resources have been previously identified within 1 mile of the proposed Project site; the closest archaeological resource is located 900 meters (2,950 feet) from the proposed Project site and the closest built environment resource is located 190 meters (620 feet) from the proposed Project site. Thirty-two cultural resource investigations were identified within the CHRIS database as having been undertaken within 1 mile of the proposed Project site in all directions. Two of these overlap the proposed Project site, and neither identified cultural resources. A geotechnical investigation of the proposed Project site was conducted in 2011 which indicated that at the time of the study artificial fill soils were present between grade and 4 feet below grade within the southwest corner of the site, and alluvial soils were present between grade and 50 feet below grade throughout the remainder of the site. However, a review of aerial photography, documented disturbance activities, and conditions observed during the pedestrian survey for this report confirm that the proposed Project site conditions have been altered since the 2011 geotechnical study. The entire project site appears to have been graded, resulting in lowering the site's overall elevation by an average of 5 feet since the conditions recorded in 2011 (Walsh 2022). Additionally, a review of historical topographic maps and aerial photographs demonstrate that the surface area of the proposed Project site has been disturbed since at least 1903.

The proposed Project site was intensively surveyed by Dudek staff archaeologists on June 22, 2022 using parallel transect intervals spaced not more than 10 meters (approximately 30 feet) apart. Ground surface visibility, within the proposed Project site, varied from fair to excellent and special attention was given to barren ground including within dirt roads and paths, as well as subsurface soils exposed by burrowing animals and piled soils from previous grading. No cultural material was observed within the proposed Project site as a result of the pedestrian survey under reliable conditions.

The proposed Project involves the construction and operation of an industrial distribution/warehouse facility totaling in approximately 433,185 square feet of development on an approximately 22.3-acre site. In addition to the industrial/warehouse buildings, the proposed Project would include landscaped areas, passenger vehicle parking spaces, trailer parking spaces, and tractor-trailer loading docks. Proposed ground disturbances are

anticipated to extend no deeper than 6 feet bgs. Based on the results of this study, the potential for unknown prehistoric and historic cultural resources to exist within the proposed Project is considered unlikely. However, it is possible that unknown cultural material and features could be encountered during ground disturbances associated with the proposed Project. Therefore, the measures identified in this report have been recommended to ensure that the potential for impacts to unknown cultural resources during proposed ground disturbing construction activities would be appropriately addressed consistent with CEQA and City of Santa Clarita Cultural Resource Guidelines: development and implementation of a Cultural Resource Inadvertent Discovery Plan and Workers Environmental Awareness Program Training and adherence to an Inadvertent Discovery Clause. Proper implementation of these recommendations would ensure impacts to cultural resources would be less than significant.

1.0 Introduction

COV-SC Land LLC retained Dudek to conduct a cultural resources assessment documented by a Phase I Archaeological Survey Report for the Santa Clarita Commerce Center Project (Project) located in the City of Santa Clarita, Los Angeles County, California (Figure 1). This report includes the following components: results of a California Historical Resources Information System (CHRIS) records search of the proposed Project area plus a 1-mile radius; results of background research including a literature, archival and historic map and aerial photograph review; result of the intensive-level pedestrian survey of the proposed Project area for cultural resources; an assessment of cultural sensitivity of the area as well as impacts to historical resources in compliance with the CEQA and management recommendations. This report satisfies all applicable requirements for the California Environmental Quality Act (CEQA) and City of Santa Clarita.

1.1 Project Description

The proposed Project involves the construction and operation of an industrial distribution/warehouse facility totaling in approximately 433,185 square feet of development on an approximately 22.3-acre site. In addition to the industrial/warehouse buildings, the proposed Project would include landscaped areas, passenger vehicle parking spaces, trailer parking spaces, and tractor-trailer loading docks. The largest building located in the southeast corner of the site (referred to as "Building 1") would be 262,325 square feet; the southwestern building (referred to as "Building 2") would be 50,712 square feet; the northwestern building (referred to as "Building 3") would be 79,868 square feet; and the northeastern building (also referred to as "Building 4") would be 40,280 square feet. Each building would contain office/mezzanine space that would total approximately 26,000 square feet across the four buildings. Figure 2 provides a conceptual site plan of the proposed Project.

Access to the Project site would be provided via Springbrook Avenue off of Oak Ridge Drive, along the southern edge of the Project site. Six entrances, ranging from 30 feet to 45 feet in width, would be installed and located off Springbrook Avenue to access the four industrial/warehouse buildings. The proposed Project would connect to the existing utility facilities located within the proposed Project site and in its immediate vicinity.

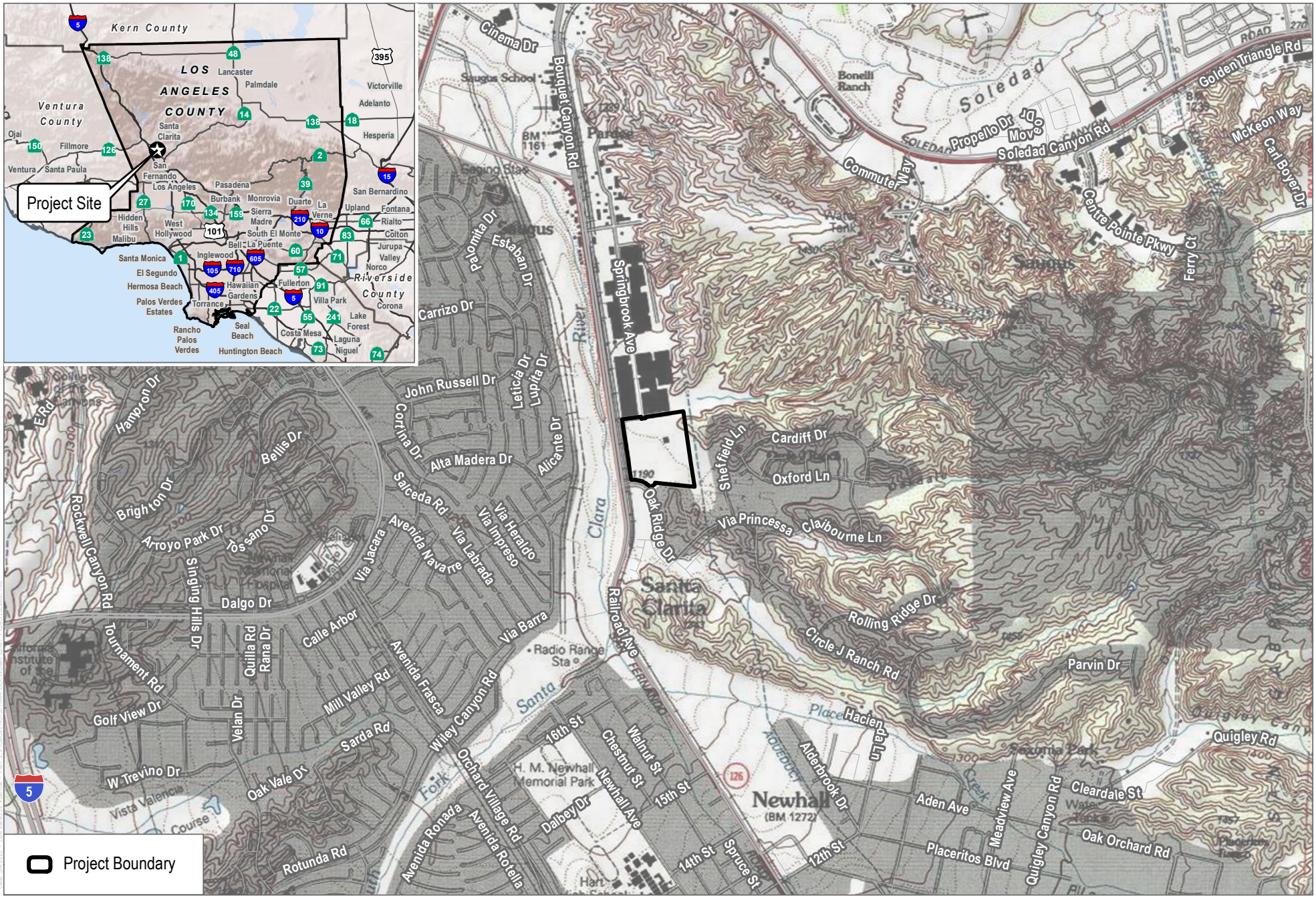
Given that the site has been previously graded, fine grading would be minimal and is anticipated to require approximately 2,500 cubic yards of cut and fill. No import or export is anticipated. Ground disturbances are anticipated to extend no deeper than 6 feet below the current ground surface.

1.2 Natural Setting

The proposed Project site is located in the City of Santa Clarita within the U.S. Geological Survey (USGS) 7.5-minute *Newhall* quadrangle, Township 4 North, Range 16 West, Sections 26 and 27. The proposed Project site is situated between the Transverse Ranches in the central Santa Clarita Valley 4.6 miles south of the Sierra Pelona Mountains, 2.9 miles northwest of the San Gabriel Mountains, and 2 miles north of the Santa Susanna Mountains. The nearest fresh water sources are located less than 300 feet to the west, South Fork Santa Clarita River, and approximately 0.60 miles to the south, Placerita Creek. Elevation within the proposed Project site is relatively flat, gently sloping to the north with 1191 feet amsl at the highest point and 1186 feet amsl at the lowest point. Vegetation within the general area would likely have consisted, prior to interruption of native habitat, of low-lying grasses and sage scrub

and the occasional Oak Savannah. The current conditions represent considerable disturbance; the entirety of the proposed Project site shows evidence of large-scale grading including push piles and lack of vegetation.

The characterization of soils is important to understanding the potential for yet unidentified cultural resources to exist within subsurface soils and if so, what is the potential that resources are present within an intact soil matrix (previously undisturbed soils). Soils in the majority of the proposed Project site are characterized as Hanford sandy loam (USDA 2022). The Hanford sandy loam soil series exists at both 0 to 2 percent slopes and 2 to 9 percent slopes and has a series profile typically consisting of 0 to 8 inches of sandy loam and 8 to 70 inches of fine sandy loam. The parent material is alluvium derived from granite. A small portion of the northeastern quadrant of the proposed Project site consists of Ojai loam. Ojai loam exists at 30 to 50 percent slopes and has a series profile typically consisting of 0 to 25 inches of loam; 25 to 53 inches of clay loam; and 53 to 60 inches of sandy loam. The parent material is alluvium derived from sedimentary rock. The site is underlain by Quaternary alluvium comprised of light brown sands, gravels, and clays (GeoSoils Consultants, Inc. 2012). Note: the entire project site has been previously graded, resulting in lowering the site's overall elevation by a maximum of 5 feet since the conditions recorded in 2011 (GeoSoils Consultants, Inc. 2012) and documented in the associated 2012 report (Walsh 2022).



SOURCE: USGS 7.5-Minute Series Newhall Quadrangle

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FIGURE 1

Project Location

Santa Clarita Commerce Center Project

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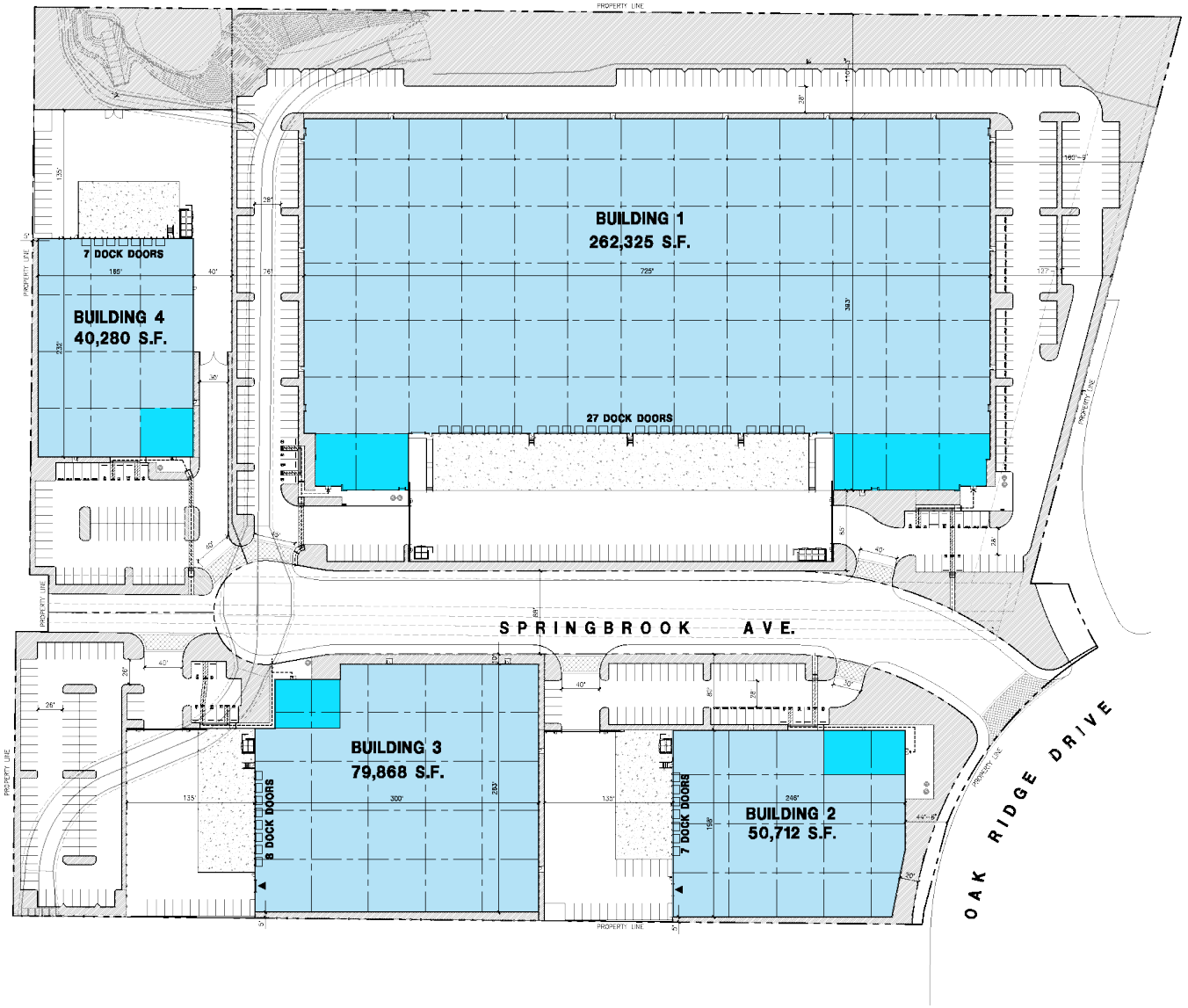

FIGURE 2

Site Plan

Santa Clarita Commerce Center Project

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2.0 Regulatory Setting

2.1 Federal Regulations

The proposed Project does not have a federal nexus and therefore is not subject to federal regulations.

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Register of Historical Resources

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code Section 5020.1[j]). In 1992, the California legislature established CRHR "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" (California Public Resources Code Section 5024.1[a]). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following NRHP criteria (California Public Resources Code Section 5024.1[c]):

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Associated with the lives of persons important in our past.
3. 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.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Resources less than 50 years old are not considered for listing in the CRHR but may be considered if it can be demonstrated that sufficient time has passed to understand the historical importance of the resource (see 14 CCR, Section 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing on the NRHP are automatically listed on the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys. The State Historic Preservation Officer maintains the CRHR.

Native American Historic Cultural Sites

The Native American Historic Resources Protection Act (California Public Resources Code Section 5097, et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American

skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR.

California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act), enacted in 2001, requires all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

California Environmental Quality Act Statutes and Guidelines

As described further below, the following CEQA statutes and guidelines are relevant to the analysis of archaeological and historic resources:

1. California Public Resources Code Section 21083.2(g): Defines "unique archaeological resource."
2. California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a): Defines historical resources. In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource. It also defines the circumstances when a project would materially impair the significance of a historical resource.
3. California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e): These statutes set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
4. California Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4: These statutes and regulations provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-in-place mitigation measures; identifies preservation-in-place as the preferred manner of mitigating impacts to significant archaeological sites.

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[b]). An "historical resource" is any site listed or eligible for listing in the CRHR. The CRHR listing criteria are intended to examine whether the resource in question: (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 pre-history or history.

The term "historical resource" also includes any site described in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code Section 5024.1[q]).

CEQA also applies to "unique archaeological resources." California Public Resources Code Section 21083.2(g) defines a "unique archaeological resource" as any 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.

In 2014, CEQA was amended to apply to "tribal culture resources" as well, but the amendment did not provide a definition for such resources or identify how they were to be evaluated or mitigated (California Public Resources Code Sections 21084.2 and 21084.3). Instead, California Public Resources Code Section 21083.09 required that the Office of Planning and Research develop and adopt guidelines for analyzing "tribal cultural resources" by July 1, 2016. As of the effective date of this report, however, those guidelines have not been finalized or adopted. Consequently, this report addresses only historic resources and unique archaeological resources.

All historical resources and unique archaeological resources – as defined by statute – are presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[a]). A site or resource that does not meet the definition of "historical resource" or "unique archaeological resource" is not considered significant under CEQA and need not be analyzed further (California Public Resources Code Section 21083.2[a]; CEQA Guidelines Section 15064.5[c][4]).

Under CEQA and significant cultural impact results from a "substantial adverse change in the significance of an historical resource [including a unique archaeological resource]" due to the "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5[b][1]; California Public Resources Code Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. 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
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

CEQA Guidelines Section 15064.5(b)(2)

Pursuant to these sections, the CEQA first evaluates evaluating whether a project site contains any "historical resources," then assesses whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

When a project significantly affects a unique archaeological resource, CEQA imposes special mitigation requirements. Specifically, "[i]f it can be demonstrated that a project will cause damage to a unique archeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:"

1. "Planning construction to avoid archeological sites."
2. "Deeding archeological sites into permanent conservation easements."
3. "Capping or covering archeological sites with a layer of soil before building on the sites."
4. "Planning parks, greenspace, or other open space to incorporate archeological sites."

California Public Resources Code Section 21083.2(b)(1)-(4)

If these "preservation in place" options are not feasible, mitigation may be accomplished through data recovery (California Public Resources Code Section 21083.2(d); CEQA Guidelines Section 15126.4(b)(3)(C)). California Public Resources Code Section 21083.2(d) states that "[e]xcavation as mitigation shall be restricted to those parts of the unique archeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report."

These same requirements are set forth in slightly greater detail in CEQA Guidelines Section 15126.4(b)(3), as follows:

(A) Preservation in place is the preferred manner of mitigating impacts to archeological sites. Preservation in place maintains the relationship between artifacts and the archeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

(B) Preservation in place may be accomplished by, but is not limited to, the following:
    1. Planning construction to avoid archeological sites;
    2. Incorporation of sites within parks, greenspace, or other open space;
    3. Covering the archeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site [; and]
    4. Deeding the site into a permanent conservation easement.

(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken.

Note that, when conducting data recovery, "[i]f an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation." However, "[d]ata recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archeological or historic resource, provided that determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center" (CEQA Guidelines Section 15126.4(b)(3)(D)).

California Health and Safety Code

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California Public Resources Code Section 5097.98.

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County coroner has examined the remains (Section 7050.5b). California Public Resources Code Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (section 7050.5c). The NAHC will notify the Most Likely Descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

2.3 Local Regulations – City of Santa Clarita

This study was completed in consideration of all sections of the City of Santa Clarita, California - Code of Ordinances related to Historic Preservation (Chapter 17.03.145). This ordinance was adopted by the City in 2013. Sections most relevant to this study are enumerated A, B, and D. These sections are provided below.

17.03.145 Historic Preservation Review.

A. The purpose of this section is to promote the economic and general welfare of the City of Santa Clarita by preserving and protecting public and private historic, cultural, and natural resources which are of special historic or aesthetic character or interest, or relocating such resources where necessary for their preservation and for their use, education, and view by the general public.

B. Definitions. As used in this section, this term has the following meaning:

> 1. “Historic Resource” shall mean structures or site features on properties listed on the National Register of Historic Places, the California Register of Historic Landmarks, the list of California Historical Landmarks, or the list of California Points of Historical Interest, or those structures designated under this ordinance. A listing of properties and structures designated under this ordinance shall be available with the Community Development Department.

D. Planning Commission Resolution Findings for Designating a Historic Resource. A building, structure, or object may be designated by the Planning Commission as a historic resource if it possesses sufficient character-defining features and integrity, and meets at least one of the following criteria:

> 1. Is associated with events that have made a significant contribution to the historical, archaeological, cultural, social, economic, aesthetic, engineering, or architectural development of the City, State or Nation; or

2. Is associated with persons significant in the history of the City, State or Nation; or

3. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or

4. Has a unique location, singular physical characteristic(s), or is a landscape, view or vista representing an established and familiar visual feature of a neighborhood, community, or the City; or

5. Has yielded, or has the potential to yield, information important to the history or prehistory of the City, State, or nation.

3.0 Cultural Setting

3.1 Background Context

3.1.1 Prehistoric Setting

The proposed Project area falls within a part of California that is poorly understood regarding aboriginal occupation. The few significant archaeological studies in the area (e.g., Waugh 1999) have not fully defined local culture history and as a result, researchers have imposed cultural historical schemes developed in adjacent regions onto the Santa Clarita Valley. Even the most recent published archaeological summaries casually lump the Santa Clarita Valley into neighboring cultural historical schemes of the southern California coast (i.e., Glassow et al. 2007). The same is true of the ethnohistoric record, which is based wholly on second-hand accounts of descendants claiming traditional ties to the area (see Section 3.2, below).

Note also that one artifact type defined for one region may or may not represent the same time period or human behavior in another. The simple correlations of artifact types or styles does not necessarily indicate a direct functional or causal relationship. That is, the presence of coastal or desert-derived artifacts in Santa Clarita Valley does not necessarily indicate cultural or socioeconomic relationships with inhabitants of those areas. Such relationships must be demonstrated in the archaeological record by ruling out other functional interpretations as less plausible.

To avoid the pitfalls of extending culture histories from adjacent regions into the Santa Clarita Valley, the following sections discuss major archaeological trends in southern California according to a geologic time scale: Terminal Pleistocene (pre-10,000 years before present—BP), Early Holocene (10,000 – 7500 BP), Middle Holocene (7500 – 4000 BP), and Late Holocene (post – 4000 BP). Regional culture historical frameworks are then discussed within these categories as appropriate, providing an opportunity to consider their local application.

Terminal Pleistocene (pre – 10,000 BP)

The terminal Pleistocene period has been the subject of much research in North America, although it remains hotly debated in terms of human adaptations. A few things are certain: terminal Pleistocene environments were rapidly changing at the end of the Wisconsin glaciation period after 18,000 BP; definitive evidence places humans in North American by at least 12,500 BP.

The last major glaciation period (Wisconsin) ended by about 18,000 BP, marked by a warming and drying trend that started at this time, lasting until at least 15,000 BP (Grayson 1993). Glaciers that covered most of northern North America began to melt forming pluvial lakes; Pleistocene Lake Lahontan being one of the largest covering the Great Basin of western North America (Grayson 1993). In southern California, many of the vegetation communities found at high elevations today were found at lower elevations then. Wood rat middens from the Mojave Desert indicate that the area was covered by a coniferous forest characterized by juniper and sage by 15,000 BP (Spaulding 1983, 1990). As the Pleistocene came to a close by about 10,000 BP, the warming trend continued and upward migration of vegetation communities occurred, firmly establishing desert sage scrub communities and coastal chaparral from 10,000 to 8,000 BP. Ocean core sediment analysis of oxygen isotopes and pollen indicate much cooler ocean surface temperatures.

Coupled with rising sea levels at a rate of about one meter per century through close of the Pleistocene (Inman 1983), the early Holocene was set to be much more moderate in climatic stability than the Pleistocene.

These environmental changes have been often cited as a key agent in cultural adaptation. A very unique technology defined by fluted projectile points and a highly formal lithic tool kit with almost no processing equipment is recognized as the earliest evidence of human adaptation to North America. Widely known as "Clovis," regional manifestations of this toolkit show important variability both in projectile point styles and tool kit composition. In western North America, fluted points and related items are most often found near or along pluvial lakeshores, leading to the definition of the Western Pluvial Lakes Tradition (WPLT, Bedwell 1973). The WPLT holds as its primary tenet that human adaptive strategies in the terminal Pleistocene were evolved to exploit the rich flora and fauna located along pluvial shorelines. Emma Lou Davis' (1978) work at China Lake near the Coso Range is one of the more well-known examples of a pluvial association with fluted points. Indeed, there is good evidence that Pleistocene megafauna persisted alongside modern fauna and tended to cluster around pluvial lakeshores (Grayson 1993). However, recent research questions the reality of the WPLT through discoveries of Paleoindian toolkits, including fluted points in areas far removed from pluvial lakeshores (Basgall et al. 2002). Moreover, the variability in terminal Pleistocene tool kits is just beginning to be understood as various kinds of stemmed projectile points are being reliably assigned to pre-10,000 BP contexts, such as Great Basined Stemmed and Lake Mojave projectile point forms (Basgall et al. 2002; Basgall 2000; Warren 2004).

Whether or not terminal Pleistocene humans focused on hunting large animals or not is also debated. Most hold Clovis and other fluted point-dominated assemblages as a highly specialized large animal hunting complex, but others interpret these technological complexes as generalized, allowing for rapid movement across large areas with flexibility (i.e., Kelly and Todd 1988). Resolution to this issue has yet to come, but strong evidence suggests on either side with direct evidence of megafauna procurement using fluted and other stemmed points (see Meltzer 1993), as well as direct evidence of stemmed projectile points for cutting and grinding, indicating a more generalized intent of use (see Basgall 1993). The truth probably rests in regional variation where localized climatic and environmental patterns affect the resources humans exploit and as a result, their response to changes in the availability of those.

Further complicating the picture is the realization that vegetal processing technology was being intensively used prior to 10,000 BP. The discovery in La Jolla of a robust assemblage of millingstones, handstones, and battered implements, with virtually no formal flaked lithic items associated with dozens of human burials and radiocarbon dates in excess of 10,000 BP indicates at the very least that socioeconomic adaptation was occurring rapidly among California hunter-gatherers during the terminal Pleistocene (Hale 2010a; see also Ike et al. 1979). Assemblages of this nature are often attributed to the Milling Stone pattern that has been interpreted as a response to punctuated middle Holocene aridity (see middle Holocene discussion, below). Regardless, discoveries of artifacts, such as fluted points that are exclusive to terminal Pleistocene cultural adaptations associated with pre-10,000 BP radiocarbon dates indicates that humans reached the coastal margins of western North America during this period (see Erlandson 1988, 1991; Erlandson et al. 2008; Fitzgerald and Jones 2000; Rogers 1938; Warren 1968).

Initial efforts to parse out archaeological components somewhat arbitrarily ascribed the "Early Man" phase to southern California (Wallace 1955). Wallace's Early Man phase (10,000 – 6000 B.C. (12,000 – 8000 BP) was allocated to the terminal Pleistocene and early Holocene, but without the benefit of radiocarbon dates. The Early Man phase was ill-defined and based off of Rogers (1938) work with San Dieguito collections—a hunting-related toolkit defined at the Harris Site containing stemmed projectile points similar to Lake Mojave points located in desert regions to the north. Other fluted point discoveries to the north near Pleistocene Lake Tulare certainly biased Wallace's (1955) efforts to define an

early phase of human occupation, especially since his primary region of study (Los Angeles and Ventura Counties) was nestled in between San Dieguito and Lake Tulare archaeological discoveries.

Regardless of early efforts to define a terminal Pleistocene cultural chronology, the upper Santa Clarita River Valley has yielded no evidence of terminal Pleistocene human occupation. Earliest radiocarbon dates extend only into the middle Holocene, and these are also rare. Given the early timeframe, that preservation of organic materials dramatically decreases with time, and that the accretional and degradational depositional context of the upper Santa Clarita River Valley has obscured or wiped out any such evidence, it is unlikely that a terminal Pleistocene component will ever be identified there.

Early Holocene (10,000 – 7500 BP)

Human occupation of southern California during the early Holocene period (10,000 – 7500 BP) is better understood than the terminal Pleistocene, although archaeological evidence for early Holocene human occupation still tends to be regionally clustered. Early Holocene environments continued the warming and drying trend initiated during the terminal Pleistocene, but most of the major pluvial lake systems were fully desiccated, with periodic recharge of some basins provided by seasonal precipitation rather than melting glaciers (Basgall 1993; Waters 1991). Most studies converge on the idea that the early Holocene was noticeably more arid since desert vegetation communities appear strongly established in composition and distribution by 9000 BP (Spaulding and Graumlich 1986; Van Devender et al. 1987). All megafauna (i.e., elephants, camelids, sloths, etc.) were all but gone by 10,000 BP, however with modern fauna attaining their modern vegetation associations by this time.

Most cultural chronologies have their roots in the early Holocene, save for the WPLT, San Dieguito, and other stemmed and fluted point traditions noted earlier. David Banks (D.B.) Rogers (1929) was the first to propose a cultural chronology, though his age estimates suffered from the lack of absolute dating techniques and data at the time. D.B. Rogers (1929) proposed Oak Grove as the earliest robust cultural tradition beginning just after the Pleistocene and early Holocene transition at around 10,000 BP. Later known as the Milling Stone Horizon (Wallace 1955), or Encinitas Tradition (Warren 1968), Oak Grove was recognizable by the large amounts of processing equipment dominated by basined millingstones and handstones, along with a general lack of formal flakedstone hunting tools. Wallace (1955) built on D.B. Roger's work, with Oak Grove representing the Milling Stone Horizon, but the interpretation was the same: an economy dominated by vegetal processing and a general lack of hunting. Warren (1968) sought to clarify regional variability during the early Holocene and proposed the Encinitas Tradition, comprised of various local manifestations of the Milling Stone Horizon assemblages that had locally specific environmental agents driving the development of the processing economies. Warren, however, significantly added to the discourse by better defining the San Dieguito complex as preceding the Milling Stone pattern and being comprised of stemmed projectile points and bifacial knives, with few processing tools (see Warren 2004). San Dieguito appeared to be a coastal southern California manifestation of what is known as Lake Mojave in the northern high deserts.

Coastal evidence for early Holocene human occupation is increasingly common, mostly in the form of pre – 7500 BP radiocarbon dates (Byrd 1997; Curtis 1965; Erlandson 1988, 1991, 1997; Erlandson et al. 1993, 2008; Gallegos and Kyle 1988; Glassow et al. 2007; Hale 2009, 2010a, 2010b; Hale and Becker 2006; Kaldenberg 1982; Levulett et al. 2002; Salls 1991; True 1980). Since the definition of the Milling Stone pattern by Wallace (1955) and Warren (1968), extensive archaeological work in regulatory settings has generated a robust database of radiocarbon dated sites resulting in a clear picture that the Milling Stone pattern is firmly rooted in the early Holocene, by as much as 10,000 BP (see Hale 2010a). In fact, early Holocene radiocarbon dates have come to be

expected in certain depositional contexts along the southern California coast because of their commonality and the consistency of the associated archaeological deposit (Hale 2009). Early Holocene dates along the coastal plain of southern California and interior ranges are currently considered part of the "Archaic" pattern; an umbrella term synonymous with Milling Stone.

Desert regions to the north and interior Peninsular Ranges (and intervening valleys) to the east also have relatively robust early Holocene records. To the east, the early Holocene continues to align with the Archaic or Milling Stone pattern (see Hale 2009; Hale and Comeau 2009; Sutton 2011). In the Mojave Desert, traditional early Holocene chronologies are being revised. The Lake Mojave (11,000 – 7500 BP) complex still appears to be the oldest stemmed point tradition that followed fluted point toolkits. Lake Mojave assemblages are characterized by weak shouldered stemmed projectile points and large amounts of formed flake tools with lesser amounts of expedient flaked tools and groundstone. However, recent evidence is pushing back dates for the Pinto complex to as much as 8000 BP, presenting an overlap problem with Lake Mojave (Basgall 2000; Sutton et al. 2007). The significance here is that Pinto sites are dominated by large amounts of ground and battered stone with relatively small amounts of formed flakedstone tools (Basgall and Hall 1993, 1994; Campbell and Campbell 1935; Giambastiani and Basgall 1999; Hall 1992; Schroth 1994; Warren 1968, 1980); Pinto is the first robust processing economy that appears in California deserts and is similar in many respects to the Milling Stone pattern of southern California, though not as old as Milling Stone. The similarities with the Milling Stone pattern include settlement that was characterized by serial occupation of specific sites producing robust assemblages through tool reuse (Hale 2001).

The early Holocene is not represented in Santa Clarita Valley by direct archaeological evidence, despite being known in adjacent desert and coastal regions. No doubt prehistoric populations took advantage of the natural travel corridors linking interior areas to the coast and southern coastal plain. However, as with archaeological deposits of later periods, damaging erosion and flooding have either destroyed or obscured any such deposits that may have existed. Attempts to locate buried deposits using hollow stem augers (i.e., core samples) in other parts of southern California, such as the Las Flores watershed (Hale and Becker 2006) or Otay River floodplain (Cook and Andrews 2003; Comeau et al. 2014) focused on floodplains with a gradual sedimentation sequence and less frequent and less destructive erosional events. It is no surprise then that intact archaeological deposits dating to the early Holocene (and later) were identified in those areas. The same is not true for the Santa Clarita River floodplain and surrounding geologic landscape that has seen frequent intervals of violent flooding that eroded any riverbed or nearby terrace deposits.

Middle Holocene (7500-4000 BP)

The middle Holocene (7500-4000 BP) witnessed a continuation of archaeological patterns defined in the early Holocene. However, the middle Holocene was marked by periods of extreme aridity collectively termed the Altithermal by Ernst Antevs (1953). After much research since Antevs' (1953) original work the Altithermal is better understood as having variable effects at a subregional scale. Southern California was already characterized as an arid landscape by the inception of the middle Holocene, thus notable changes include adjustments in the elevation and density of existing vegetation communities and related fauna (Mehringer 1967; Spaulding 1985, 1990; Wells 1983). To be sure, humans respond to changes in the resources they exploit, and it is plausible that plants and animals that were the focus of subsistence either decreased in abundance or congregated in more favorable areas. Warren (1968) postulates as much, suggesting that the Encinitas Tradition (i.e., Milling Stone pattern) was adapted in the coastal plain to the margins of lagoons that were magnet locations for vegetation and fauna, and as a result, human occupation.

Whatever the regional environmental differences were, it was clear that humans have been present in southern California throughout the middle Holocene with widespread evidence of humans hunkering down and increasing vegetal processing intensity, rather than depopulating whole areas. In fact, the origin of Milling Stone pattern itself was thought to be a response to Altithermal conditions (Wallace 1955; see Hale 2001, Erlandson 1997). The early Holocene appearance of Milling Stone adaptations, however, runs counter to this explanation, suggesting instead that Milling Stone economies were the first socioeconomic adaptation to stable California environments after the waning of terminal Pleistocene transitions (Hale 2010a, 2011). Regardless, processing economies were apparently well-suited to the arid middle Holocene conditions, based on the ubiquity of Milling Stone assemblages.

Regional cultural histories adjacent to the upper Santa Clarita River Valley continue in the same nomenclature. In the deserts to the north, the Pinto period reigns until at least the end of the middle Holocene (4000 BP); although, Gypsum period assemblages characterized by contracting stem dart points, larger numbers of small flake tools, and some mortar/pestle technology have pushed their 4000 BP inception date to some degree (Hale 2011). Southern coastal regions such as San Diego County and parts of Orange and Los Angeles Counties also retain Milling Stone assemblage dominance, including at the Tank Sites (CA-LAN-1 and -2) in Topanga Canyon that date as late as 2000 BP (see Hale 2001). The middle Holocene is one of the best represented periods in San Diego County and keeping with the Milling Stone or Archaic pattern (Masters and Gallegos 1997; see Hale 2009 for assemblage summaries).

Real socioeconomic change during the middle Holocene appears first in the Santa Barbara Channel with the abrupt appearance of bowl mortars by at least 5500 BP at sites such as CA-SBA-53, CA-SBA-54, CA-SBA-75, and CA-SBA-84 to name a few (Hale 2009; see also Erlandson et al. 2008, Harrison and Harrison 1966; Levulett et al. 2002). Mortars are costly to manufacture (mortar surfaces are manufactured, rather than mostly accruing depth through use), and thus their manufacture in noticeable quantities necessarily signals a shift to a more intensive processing economy (Hale 2010b). It is thought that mortars in the Santa Barbara Channel were used to intensively process nuts such as acorn and buckberry that have substantial nutritional value when processed in mass quantities (Bettinger and Mahli 1997; Bettinger and Tushingham 2013). Moreover, the complex ecology of acorn masting requires storage for it to be an efficient economic pursuit of humans (Hale 2009; 2010a). The attendant social shifts that must occur to make an acorn economy economically viable are no less complex, requiring defense of territories containing acorn producing oaks and storage facilities; concepts not altogether welcoming to hunter-gatherer societies that have evolved social institutions precisely to cull such behavior (Bettinger 1999).

Other refinements to culture historical frameworks are based on King's (1981) chronology of burial patterns and related artifacts. Minor refinements to King's chronology occur when assemblage data warrant as much, but substantial numbers of *Olivella sp.* shell beads present in burial populations of the last 3000 years in King's study laid a strong chronological foundation for determining the kinds of socioeconomic patterns that developed during the late Holocene, discussed below.

Overall, the middle Holocene in southern California is primarily defined by processing economies of the Milling Stone pattern, which is undeniably the most robust and visible archaeological pattern found in California (Hale 2001, 2009; Fitzgerald and Jones 2000). Archaeologists continued until the turn of the century to be captivated by the Milling Stone pattern, resulting in numerous graduate theses and dissertations, monographs, and articles that focused on analyzing regional variability. That is, research focused on understanding how the Milling Stone pattern varied from place to place. Perhaps the most exhaustive review of the Milling Stone pattern was completed by Basgall and True (1985) for a Caltrans project along the Interstate 15 corridor. Basgall and True (1985) investigated archaeological sites belonging to the Sayles Complex—an inland, Transverse Ranges manifestation of the Milling Stone pattern. They reviewed most

of the significant contributions to the Milling Stone pattern concept as of 1985 and provide an analytical framework for investigating and interpreting archaeological deposits of this kind. Since then, certain early contributions to the topic (i.e., Warren 1968) have been more supported than refuted (see Hale 2001).

Locally, the upper Santa Clarita River Valley certainly has evidence of Milling Stone occupations, but these are confined to the late Holocene period, after 4000 BP, including the work by Waugh (1999) at CA-LAN-2233 and CA-LAN-2235. The Milling Stone component there is dated by proxy with a small number of obsidian hydration readings. Its presence in the upper Santa Clarita River Valley is not surprising; sites of this nature are visible precisely because they were repeatedly occupied on a seasonal basis for a similar processing purpose, resulting aggregations of reused grinding and processing tools.

Late Holocene (post – 4000 BP)

The late Holocene (post – 4000 BP) is characterized by increased variation in environmental conditions and archaeological assemblages. Part of this variability is due to better resolution in both records, but much of it represents an accurate sample of prehistoric times over the last 4000 years. A summary of the various regionally specific paleoenvironmental conditions will not be provided in this brief overview. However, some patterns warrant discussion. With the dissipation of Altithermal conditions after about 4000 BP, increased precipitation is generally evident for southern California. In desert regions, spring flows markedly increased along with the stabilization of marshes, and some lake basins retained shallow waters from runoff (Batchelder 1970; Hunt and Mabey 1966; La Marche 1973; Mehringer 1987; Mehringer and Sheppard 1978; Mehringer and Warren 1976; Smith 1979; Stine 1990, 1994, 1995; Weide 1982). In coastal southern California, lagoons stabilized and destructive erosional processes that gutted them stopped after about 3000 BP (see Byrd and Reddy 2004 Erlandson and Rick 2002). Pollen and oxygen isotope studies from ocean and estuary cores sometimes present conflicting information, but all generally point to climatic instability during the last 3000 years, with a few pronounced periods of extreme climate, such as the Medieval Climatic Anomaly (MCA) from approximately 800 – 1200 BP (see Munns and Arnold 2003).

Erlandson suggests that southern California Mediterranean climates were more characterized by instability and fluctuations in resource availability than by sustained abundance (Erlandson 2003). It is a fact that southern California hunter-gatherer populations grew overtime. Coupled with instability in climate and resource availability, dense aggregations of hunter-gatherers would certainly elicit a socioeconomic response—this seems to be borne out in the archaeological record, at least in coastal regions.

Along the Northern California Bight (Santa Barbara and Ventura coastal plain), archaeological assemblages are referred to as Canaliño (D.B. Rogers 1929), or Late Prehistoric (Wallace 1955), while King's (1990) cultural chronology separates the last 2600 years into various divisions of the Middle Period (950-2600 BP [2600 B.C. – A.D. 1150]) and Late Period (post 950 BP [A.D. 1150]). The Southern California Bight (roughly, Orange and San Diego Counties) is characterized uniformly as the Late Prehistoric in most areas, although Gabrielino territory (parts of Orange County and Los Angeles County) tend to mimic the Northern California Bight chronology. Notably, the Southern California Bight witnesses a wholesale continuation of the Milling Stone pattern into the late Holocene, changing little in assemblage composition excepting the addition of the bow and arrow and ceramics (Hale 2009, 2010a). Significant socioeconomic shifts occur just prior to Spanish contact at approximately 450 – 650 BP with an acorn economy starting to emerge (Hale 2009, 2010a).

Santa Barbara, Ventura, and parts of coastal Los Angeles exhibit significant changes in archaeological assemblages. Mortars and pestles are firmly established in the late Holocene by 3500 BP. This is followed by the appearance of the single piece fishhook by approximately 2900 BP, the plank canoe at approximately 1600 BP,

bow and arrow (1500 BP), circular fishhook (700 BP), and microlithic tools (700 BP) (Arnold 1992; 1997; Gamble 2002; Glassow 1996; Kennett 2005; C. King 1990; Rick et al. 2002; Strudwick 1985). These technological innovations are successively accompanied by related increases in the formality of other kinds of subsistence tools already present in tool kits (Hale 2010a). *Olivella sp.* bead manufacturing is present throughout the late Holocene but becomes a robust industry in the last thousand years. Other items characteristic of late Holocene coastal regions includes steatite cooking vessels and containers, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone. There is also an increased use of asphaltum for waterproofing and as an adhesive.

Many late Holocene coastal sites contain complex objects of art and decoration. Ornaments include drilled whole venus clam (*Chione* spp.) and drilled abalone (*Haliotis* spp.). Steatite effigies become more common, with scallop (*Pecten* spp. and *Argopecten* spp.) shell rattles common in middens. Mortuary customs are elaborate and include cremation and interment with abundant grave goods.

In Warren's (1968) cultural ecological scheme, the period between AD 500 and European contact is divided into three regional patterns. The Chumash Tradition is present mainly in the region of Santa Barbara and Ventura counties; the Takic or Numic Tradition is present in the Los Angeles, Orange, and western Riverside counties region; and the Yuman Tradition is present in the San Diego region. The seemingly abrupt changes in material culture, burial practices, and subsistence focus at the beginning of the Late Prehistoric period was taken to be the result of a migration to the coast of peoples from inland desert regions to the east. In addition to the small triangular and triangular side-notched points similar to those found in the desert regions in the Great Basin and Lower Colorado River, Colorado River pottery and the introduction of cremation in the archaeological record are diagnostic of the Yuman Tradition in the San Diego region.

In Los Angeles, Orange, and western Riverside counties, similar changes (introduction of cremation, pottery, and small triangular arrow points) are thought to be the result of a Takic migration to the coast from inland desert regions. This Takic or Numic Tradition was formerly referred to as the "Shoshonean wedge" or "Shoshonean intrusion" (Warren 1968). This terminology used originally to describe an Uto-Aztecan language group, is generally no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups who spoke Numic languages (Heizer 1978:5; Shipley 1978:88, 90).

The growing body of archaeological literature, however, either contradicts the notion of a population migration, or indicates that when they arrived, they adopted local socioeconomic practices (Hale 2009). The longstanding archaeological patterns in the San Diego region are evidence of this. To the north, the similarity of archaeological assemblages and ethnic customs between the Los Angeles region and the Ventura and Santa Barbara regions is interesting, considering the two areas have distinct linguistic profiles. This disparity highlights the problem of considering any artifact type as an ethnic marker, which is not considered good scientific practice because it cannot be supported in the material record. Behavioral norms are the best ethnic marker, but tying behaviors to specific artifact types or patterns, as archaeologists do, measures only similarity in socioeconomic adaptation, which can exist between groups that share no ethnicity. Because of this, the archaeological record is generally the wrong context to measure ethnic association. Rather, among all ethnographic and ethnohistoric studies in California, language is the best discriminator of ethnic identity. Dialectical differences are better indicators of ethnicity when ethnographic information is the only representation of past populations, even though true ethnic markers are embodied in behavioral norms (see McElreath et al. 2003).

Items manufactured in coastal locales, such as shell ornaments and steatite vessels commonly made their way to the interior of California, being found in archaeological deposits in the Transverse Ranges and Mojave Desert (e.g., Basgall and Hall 1994; Schroth 1994; Sutton 1980). Likewise, obsidian from the Coso volcanic field near Ridgecrest, California made its way to coastal environments. Whether these artifacts were carried to their location of deposition in the hands of those who made them or whether they were procured through trade is a question specific to each occurrence, ruling out various explanations in favor the most plausible scenario. Regardless, ethnographic and ethnohistoric accounts indicate that transregional trade and exchange was common and did not equate to similarity in ethnic identity since exchanges traversed traditional cultural boundaries (see Heizer 1978). For this reason alone, none of the artifacts common to southern California archaeological assemblages can be considered ethnic markers. This is especially true for ornaments, such as shell beads that may have been used as form of currency (Arnold 1991, 1997), or the bow and arrow that is widely considered one of the most significant technological innovations of the prehistoric world and that spread rapidly across the globe through adoption (Bettinger 1991).

The archaeological record in the Santa Clarita Valley is best represented by late Holocene assemblages. CA-LAN-2235 (Chiquito Creek I) and -2233 (Chiquito Creek II) are sites with a relatively typical Milling Stone period deposit with no surprising attributes relatively to the norm for this pattern (Waugh 1999; Whitley and Simon 1994a). The Milling Stone component at CA-LAN-2235 dates to approximately 4000 – 3000 BP, predating the cemetery component at CA-LAN-2233 that is bracketed between 2000 and 1630 BP. The latter contains artifacts characteristic of the late Holocene in general, fitting within Wallace's (1955) Late Prehistoric period, including mortars and pestles, time-sensitive shell beads, and the like (Waugh 1999). However, Waugh (1999) concludes that adaptive strategy represented by the Late Prehistoric component is similar to that of the earlier Milling Stone component, despite differences in milling technology. An interesting conclusion by Waugh (1999) is that mitochondrial DNA analysis of burials indicates no physical relationship to Chumash peoples to the west, but strong ties to Tataviam and other Takic peoples located to the east and northeast in desert landscapes.

Also in the upper Santa Clarita River Valley, Whitley and Simon (W&S) (1994a, 1994b) documented several other sites that generally lack substantial assemblages but can be characterized as Late Prehistoric temporary encampments generally postdating 3000 BP. Aside from their work at CA-LAN-2233 and LAN-2235, W&S (1994a, 1994b) evaluated several other small sites but failed to identify significant archaeological deposits.

W&S (2009) evaluated CA-LAN-4355 along Santa Clarita River in Sand Canyon, California, finding artifacts consistent with prehistoric habitation dating to the Late Prehistoric era (though no radiocarbon dates were provided). These artifacts included mortars and pestles, projectile points, flaked stone tools, steatite ornaments, bone tools, and various cobble-based tools. W&S interpreted this site as dating between 400 and 800 BP, based on time sensitive artifacts. CA-LAN-1077, also located in Sand Canyon, was evaluated by Robinson (1980) who had findings similar to those of W&S (2009). CA-LAN-1077 had a weakly developed midden deposit with excavations producing four steatite beads/pendants, three cores, two retouched flakes, one hammerstone, five handstones, two battered cobbles, and fire-affected rock; no chronological placement was offered (Robinson 1980). None of the artifacts from CA-LAN-1077 or CA-LAN-4355 are specific to coastal locales; all types of artifacts recovered can be found in coastal, riparian, or desert environments.

One of the more well-known archaeological sites in the Santa Clarita River Valley dating to the late Holocene is CA-LAN-324. Loetzerich (1998) analyzed the collection from this massive site that contained human remains, residential features, thermal features, one flower pot mortar, mortars and pestles, millingstones and handstones, flakedstone tools (including bifaces), cobble tools, and several exotic items such as quartz crystals, and schist and

other stone beads. The site was interpreted as representing aboriginal occupation continuously from 2600 BP to 400 Bp, based on various time-sensitive artifacts (including the flower pot mortar which tend to date to the last 300 years), and that it reflected a well-stratified aboriginal society similar to those seen in Gabrielino territory. The latter is consistent with Loetzerich's findings that burial patterns were similar to those seen in the San Fernando Valley.

A few archaeological sites near Vasquez Rocks in the Sand Canyon area to the northeast of Santa Clarita Valley, such as CA-LAN-618 produced *Olivella sp*. beads that were tentatively thought to date prior to Chester King's (1990) Early Period have subsequently been found to date after 4000 BP (W&S 1994b). Additionally, Love and DeWitt (1990) revisited these sites concluding that their earliest documented occupation occurred no earlier than about 2700 BP. In her review, Waugh (1999) reviews the chronological evidence from this site according to the coastally derived cultural chronology developed by King (1990). The reference to King's (1990) bead chronology is justified in the sense that it is a baseline for review of shell bead types, but it leaves the impression that the occupants were socioculturally connected to coastal areas, while the non-ornamental archaeological assemblage provides no such justification.

Farther to the north in Antelope Valley, Sutton (1980) studied CA-LAN-488—a substantial prehistoric site dating from 2200 – 300 BP and containing a prehistoric cemetery, including a child burial associated with more than 5,000 shell beads. The archaeological assemblage from this site, dating within the late Holocene was decidedly desert focused, despite this strong shell bead component.

Finally, investigations of the Lovejoy Springs site (CA-LAN-192) summarized nearly a century of investigation at a large, desert site near Lake Los Angeles in the Antelope Valley (Price et al. 2009). The assemblage from CA-LAN-192, dating from approximately 3500 BP to historic times is characteristic of those found in the western Mojave Desert, being dominated almost exclusively by millingstone and handstone technology and the appropriate time-sensitive, desert projectile point forms. A few fragments of mortars and pestles (one decorated), and steatite vessels are present. Similar to CA-LAN-488, thousands of *Olivella sp*. shell beads were found interred with several of the nine human burials and in the general deposit (Price et al. 2009). Together, the site spans the Gypsum (4000 – 1500 BP), Saratoga Springs (1500 – 900 BP) and the Late Prehistoric periods (post – 900 BP) and exhibits many of the assemblage changes characteristic of each time period within the Mojave Desert.

In sum, the late Holocene saw major socioeconomic development among aboriginal populations within and surrounding Santa Clarita Valley, but that each region is distinct, from the Mojave to the northeast, to the west along the Coast, to the south in the Los Angeles Basin and San Diego County. The archaeological record within Santa Clarita Valley is meager compared to these other regions and resists efforts to make socioeconomic connects to neighboring regions or their inhabitants. Simple assemblage similarities, such as the presence of coastal beads or burial patterns in Santa Clarita or the Mojave, are not direct evidence of cultural affiliation. If it were, burials located in some of the Mojave Desert sites, such as CA-LAN-488 or CA-LAN-192 would require the assumption that they were Chumash in origin, which is the least likely explanation and one that few archaeologists (if any) would suggest. Rather, it is likely that trade and exchange networks between different ethnic groups were well established with the onset of the late Holocene by at least 3000 years ago (Price et al. 2009). Such networks allowed for the exchange of goods, such as beads, across ethnic boundaries without carrying implications for population movement or replacement.

Overall, the archaeological record of the upper Santa Clarita River Valley is poorly understood, especially in comparison to neighboring regions. This is likely a function of the complex geomorphology of the Santa Clarita River watershed reviewed earlier in this report. The areas that would have attracted prehistoric human occupation, such as river terraces and flat ground in valley bottoms, were subject to periodic and destructive flooding and sedimentation, which likely wiped out a large portion of the archaeological record. The San Francisquito Dam failure

of 1928 probably exacted a heavy toll on the archaeological landscape of the floodplain since that event undoubtedly trumped previous natural flood events with its near 60-foot-high wall of water instantly released into the Santa Clarita River Floodplain.

3.1.2 Ethnohistoric Setting

Tataviam

The proposed Project area falls within the ethnographic boundary of the Tataviam (Johnson and Earle 1990; King and Blackburn 1978; Kroeber 1925). Tataviam territories included the upper reaches of the Santa Clara River drainage east of Piru Creek, but also encompassed the Sawmill Mountains to the north and the southwestern portion of the Antelope Valley (King and Blackburn 1978). Tataviam territory is bound by various branches of Chumash to the north and west (including the Ventureño to the west, and Castaic and Emigdiano to the northwest), Kitanemuk to the northeast, Serrano to the east, and Gabrielino to the south (King and Blackburn 1978).

Note that there is limited ethnographic data (i.e., data acquired by means of observation or taken from persons who practiced native lifeways) available concerning the Tataviam and their native lifeways. Most of what is known today about the Tataviam comes in the form of ethnohistory (i.e., historical accounts developed through examination of historical records and oral histories) as presented in the works of anthropologists Alfred L. Kroeber (1915, 1925) and John P. Harrington (1935). Their data is largely based on interviews conducted in the early 1900s with a Native American consultant named Juan José Fustero, a man who spoke Kitanemuk and claimed that his grandparents were born near the town of Newhall and spoke a language that is no longer extant (Bright 1975). Most of the subsequent works published on the Tataviam (Bright 1975; Hudson 1982; King and Blackburn 1978), including discussions of their cultural and geographic affiliations, were based on the Kroeber and Harrington interviews with Fustero and several other Kitanemuk consultants. Other studies have analyzed Spanish mission baptismal, marriage, and burial registers in an attempt to better understand the distribution of historic village settlements and kinship ties between settlements (Johnson 1978 and 1997; NEA and King 2004).

Early ethnologies referred to the Tataviam as Ataplili'ish (Kroeber 1915), but Kroeber found this name to be too general since it had already been used to describe other indigenous groups (namely the Gabrielino). Kroeber changed the term to Alliklik (1925), which was noted to be a Ventureño Chumash name for the group (although it is believed to be a derogatory term for the sound of the language) but offered almost no information concerning their native lifeways. One account of the Tataviam, provides a narrative that they held the river up from a point between Sespe and Piru, most of Piru Creek, Castaic Creek, and probably Pastoria Creek across the mountains in the San Joaquin Valley drainage and adjacent to the Yokuts (Kroeber 1925:613-614).

The Tataviam are linguistically classified as an Uto-Aztecan Serran sub-branch of Takic speaking groups consisting of Kitanemuk, Serrano (including Vanyume), and Tataviam (Golla 2011; Sutton 1980). William Bright has suggested that Tataviam was actually a separate language with Takic affinities, or perhaps a "remnant, influenced by Takic, of a language family otherwise unknown in southern California" (Bright 1975:230). However, the current and most widely accepted view is that Tataviam is in fact a Takic language (King and Blackburn 1978; Johnson and Earle 1990; Sutton et al. 2007).

King and Blackburn (1978:536) noted several Tataviam settlements based on information provided by Harrington and other sources, including mission registers. Among these is the putative village of *tsawayung* (also referred to as *Chaguayabit*, *Chaguayanga*, *takuyama'm*), which some believe was located near Castaic Junction at the site of

Rancho San Francisco. However, there is a lack of consensus as to the village's exact location. Harrington's own notes reflect this uncertainty: "Jose Juan Olivas thinks it is over by San Francisquito [Rancho San Francisco] but does not know and never did know just where" (NEA and King 2004:119). Based on diary entries from the Portolá Expedition (Perkins 1957), some have hypothesized that Estancia San Francisco de Xavier (often incorrectly referred to as an asistencia) was placed at the location of the village of *tsawayang*, but this is based on descriptive diary entries and has never been confirmed by archaeological or other historic evidence. In fact, no physical evidence of the village has ever been found. Other Tataviam villages mapped outside of the proposed Project area include *tikatsing* located on upper Castaic Creek, and *pi'ing* located where Castaic Creek meets Elizabeth Lake Canyon. The village of *Tochonaga*, was recorded on an 1843 land grant map. This site appears to be located to the southeast of Newhall, but its precise location has also never been confirmed: "Tochononga was located in the mountains northwest of San Fernando…over by Los Alamos somewhere here in the Tejon Ranch" (NEA and King 2004:117). Other villages and seasonal camp sites identified by Harrington include *akure'eng*, which was located at the original Newhall town site; *apatsitsing*, located on upper Castaic Creek; and *naqava'atang*, located east of Townsend Peak, and *Tobimonga* located near the present-day junction of Interstate 5 and State Route 14. Piru Creek also contained several village and -rancheria sites, located on the northern edge of Tataviam territory (Johnson and Earle 1990).

Pedro Fage's account of the 1769 Portola expedition indicates that the first Chumash settlement encountered upon leaving Tataviam territory was located west of the mouth of Piru Creek. The village of *kamulus* (*Camulos*), located east of Piru Canyon, bears a Chumash name (Johnson and Earle 1990), leading to speculation that this village consisted of a mixed Chumash-Tataviam population. There has been much discussion regarding Chumash ties to areas generally accepted as Tataviam territory (see Beeler and Klar 1977).

More recent studies have examined additional Tataviam investigations conducted by Harrington with neighboring groups (Johnson and Earle 1990). These studies support the original Kroeber and Harrington findings that the Tataviam were a distinct group:

> The correspondence between (1) ancestral villages traced using genealogical evidence and (2) independently elicited information regarding Tataviam territoriality builds confidence in the reliability of the ethnographic record compiled by Kroeber and Harrington. The distinctiveness of the Tataviam as an ethnic entity, separate from the Kitanemuk and Fernandeño, is supported by our research (Johnson and Earle 1990:209).

In 1996, as the result of a Caltrans District 7 highway widening project for SR-126, archaeologists discovered and excavated 45 burials from CA-LAN-2233, a prehistoric village site dating from approximately 2000 to 1640 years before present (BP) and located within Tataviam territory. Examination of mitochondrial DNA (mtDNA) from five burials at CA-LAN-2233 found that these individuals were genetically linked to modern Uto-Aztecan speaking groups, such as the Tataviam (Miller et al. 2003).

3.1.3 Historic Setting

Post-Contact history for the State of California is generally divided into three periods: the Spanish Period (1769–1821), Mexican Period (1821–1848), and American Period (1846–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 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 (1769-1821)

Spanish explorers made sailing expeditions along the coast of southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríquez Cabríllo stopped in 1542 at present-day San Diego Bay. With his crew, Cabríllo explored the shorelines of present Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present California and Oregon coastline was mapped and recorded in the next 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 Cabríllo and Vizcaíno (Bancroft 1885; Gumprecht 1999).

More than 200 years passed before Spain began the colonization and inland exploration of Alta California. The 1769 overland expedition by Captain Gaspar de Portolá 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, Portolá established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring southern California, 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.

The Portolá expedition first reached the present-day boundaries of Los Angeles in August 1769, thereby becoming the first Europeans to visit the area. Father Crespi named "the campsite by the river Nuestra Señora la Reina de los Angeles de la Porciúncula" or "Our Lady the Queen of the Angeles of the Porciúncula." Two years later, Friar Junípero Serra returned to the valley to establish a Catholic mission, the Mission San Gabriel Arcángel, on September 8, 1771 (Kyle 2002). Mission San Fernando Rey de España, the mission that served the proposed Project area, was established nearly 30 years later, on September 8, 1797.

Mexican Period (1821–1846)

A major emphasis during the Spanish Period in California was the construction of missions and associated presidios to integrate the Native American population into Christianity and communal enterprise. Incentives were also provided to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles). Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. 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 open to foreign merchants (Dallas 1955).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. Nine ranchos were granted between 1837 and 1846 in the future Orange County (Middlebrook 2005). Among the first ranchos deeded within the future Orange County were Manuel Nieto's Rancho Las Bolsas (partially in future Los Angeles County), granted by Spanish Governor Pedro Fages in 1784, and the Rancho Santiago de Santa Ana, granted by Governor José Joaquín Arrillaga to José Antonio Yorba and Juan Pablo Peralta in 1810 (Hallan-Gibson

1986). The secularization of the missions (enacted 1833) following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos.

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 number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

American Period (1846–Present)

War in 1846 between Mexico and the United States precipitated the Battle of Chino, a clash between resident Californios and Americans in the San Bernardino area. The Mexican-American War ended with the Treaty of Guadalupe Hidalgo in 1848, ushering California into its American Period.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. Territories (Waugh 2003). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The Gold Rush began in 1848, and 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, rancho 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 when available. The cattle boom ended for southern California as neighboring states and territories drove herds to northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 2005).

Local History of the Project Area

In 1795, Fr. Fermin Lasuen ordered a report to identify potential new mission sites. As a result, the Francisco Reyes Rancho was proposed as the site for the new Mission San Fernando Rey de España formally (Perkins 1957). The mission, founded in 1797, was ultimately located elsewhere; however, Mission San Fernando acquired the headwaters of the Santa Clara River east from Piru and named the land Rancho San Francisco. Shortly thereafter, many of the local Tataviam people were removed from their homeland and relocated to the mission where many of their traditional lifeways were no longer feasible.

When Mission padres were made aware that Francisco Avila, wealthy ranchero and alcalde (mayor) of the pueblo of Los Angeles (1810 – 1811), had claimed a large portion of Mission lands as his own, they protested to Governor José Arrillaga at Monterey. The governor acknowledged the church's title to the land, Avila's land grant was rescinded, and the padres quickly made plans to build in the area in order to establish their presence more clearly (Perkins 1957). The church built an outpost at the location using Native American labor, Rancho San Francisco, Fr. Crespi had first noted in his diary entry as a potential Mission site (Perkins 1957). Mission records suggest that this was an outpost known as Estancia San Francisco de Xavier and that it was likely never elevated to the status of "asistencia" or sub-mission.

By 1813, Rancho San Francisco had increased its production and the herds of cattle had grown larger eventually necessitating the need to construct a fence to keep mission cattle separate from neighboring cattle. The fence was

erected at Piru Creek across the river, establishing a formal boundary between San Francisco and Triunfo ranches. Additionally, an irrigation canal was dug and a small dam was built at the eastern boundary of the rancho in order to provide the western side of the rancho with much needed water. (Perkins 1957). Following secularization of the missions in 1833, the Mexican Government confiscated all mission land holdings and commissioned Lieutenant Antonio Del Valle to take over Mission San Fernando by inventory from the incumbent Padre, Fr. Ybarra.

Along with his wife Doña Jacoba Felix and two children, Del Valle decided to settle his family on a portion of Rancho San Francisco. In 1838, Del Valle resigned his army commission, petitioned the Mexican Government for title of Rancho San Francisco, and became owner of 48,829 acres of Rancho San Francisco on January 22, 1839. Just two years later, Antonio Del Valle died, leaving behind thousands of heads of livestock, over 75 square miles of land, and no legal will. Legal battles ensued between his widow and his oldest son Ygnacio Del Valle. A judge eventually divided up the land amongst the parties and Ygnacio built his own corral on the western edge of the property (in present-day Piru, Ventura County) surrounding the former village of *kamulus* (Rasmussen 2001) for which the Camulos Rancho was named in 1853.

As a result of a three-year long drought, which killed most of his cattle, Del Valle eventually lost the rancho in 1865 to his financiers who then sold it to oil speculators. The first significant discovery of oil on the Rancho occurred just seven weeks after the sale and the first oil well was installed on the south side of the Santa Clara River near the Del Valle residence. The region would eventually be surrounded by oil fields including the Hasley Canyon and Castaic Junction Oil Fields to the north and the historic Pico Oil Field to the south.

The Del Valle's portion of Rancho San Francisco changed hands a few more times until it was acquired by Henry Mayo Newhall in 1875. The San Fernando Railroad Tunnel was constructed by over 1,000 Chinese and 500 white laborers, the Southern Pacific Railroad (SPRR) right-of-way was granted across the rancho and the town of "Newhall" was founded in 1876 (Perkins 1957). The Lang and Newhall Railroad Stations were built the same year.

Rancho San Francisco and the upper Santa Clara River Valley featured prominently in three significant events in the history of California – the discovery of gold in 1842; the discovery of oil in 1865; and the collapse of the St. Francis Dam in 1928. The discovery of gold actually predates the John Sutter's Coloma mill-race in 1848; the first well documented discovery of gold occurred in 1942 in Placeritas Canyon just east of Santa Clarita and some evidence suggests the first discovery of gold in California could have occurred a few decades earlier in the Santa Clara River Valley region. The discovery of gold in the area was also one of the impetuses to the judge dividing Antonio Del Valle's land and awarding Rancho Temescal to Francisco Lopez and Jose Arellanes in 1843 both of which would return to Mexico. Ygnacio Del Valle eventually acquired Rancho Temescal and added it to the Rancho San Francisco holdings he had been awarded following his father's death.

The Santa Clara River Valley is also the location of where the first true oil drilling occurred. In 1865, oil seeps were discovered in Pico Canyon triggering the exploration of petroleum which lead to the discovery of oil in Rancho San Francisco and ultimately throughout the Santa Clara River Valley. Unfortunately, as mentioned before, Ygnacio Del Valle had sold all but 1,500 acres of his holdings to Thomas Bard and Thomas Scott. Only seven weeks following the sale, oil was discovered on the property Bard and Scott had purchased. Upon the discovery, Bard and Scott shifted focus from ranching to petroleum product and sold much of their Rancho Francisco land to Henry Mayo Newhall.

The last of the three historical events that shaped the area was the collapse of the St. Francis Dam on March 12, 1928, which resulted in a flood of devastating proportions. The failure of the dam caused a 60-foot-high wall of water to rage down the Santa Clara River Valley leveling most everything in its path including Castaic Junction and most of Fillmore and Santa Paula on its way to the Pacific Ocean. Although there was a terrible loss of life and property as a

result of the dam failure, the restitution provided by the City of Los Angeles to the Newhall Land and Farming Company and its management of the funds allowed the company to retain its previous financially sound status and eventually grow into a company that would finance the development of the Santa Clara River Valley region.

3.2 Records Search Results

On June 7, 2022, Dudek conducted a search of the California Historical Resources Information System (CHRIS) at the South Central Coast Information Center (SCCIC), located on the campus of California State University, Fullerton. The search included any previously recorded cultural resources and investigations within a 1-mile radius of the proposed Project site. The CHRIS search also included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. Confidential Appendix A provides the records search results.

3.2.1 Previous Cultural Resources Studies

Results of the cultural resources records search indicate that 32 previous cultural resource studies have been conducted within the records search area between 1974 and 2013. Of these, two studies (LA-01775 and LA-03895), are mapped as overlapping the proposed Project site. Table 1, below, summarizes all previous cultural resources studies, followed by a brief summary of the two overlapping reports.

Table 1. Previous Technical Studies Within a 1-Mile Radius of the Proposed Project Site

SCCIC Report No.	Authors	Date	Title	Proximity to Proposed Project Site
LA-00103	Singer, Clay A.	1975	Archaeological Resource Survey of Portions of the South Fork, Santa Clara River, Los Angeles County, California	Outside
LA-00247	Woodward, Jim	1988	Archaeological Survey of Lux Arboretum City of Monrovia, California	Outside
LA-00307	Tartaglia, Louis J.	1987	Cultural Resource Survey Report of Tentative Tract No. 44896	Outside
LA-00584	Schroth, Adella	1980	Archaeological Assessment of Tentative Tract 32262 Saugus Area of Los Angeles County	Outside
LA-00587	Schroth, Adella	1980	Archaeological Assessment of Tentative Tract 36701, Newhall Area of Los Angeles County	Outside
LA-00643	Jacobs, David and Glen Rice	1977	An Archaeological Survey of 225 Acres in the Foothills Overlooking Santa Clara Valley, Los Angeles County, California	Outside
LA-00651	Simon, Joseph M. and Ellen L. McCann	1979	An Archaeological Assessment of the District 26 and 32 Treatment Plants and the District 26 Interceptor, Routes 1 Through 3	Outside
LA-00781	Schroth, Adella	1980	Archaeological Assessment of Tentative Trace #36700 Newhall Area of Los Angeles County	Outside
LA-00834	Rozaire, Charles E.	1974	Archaeological Investigation for Environmental Study Report of the Los Angeles County, California	Outside

Table 1. Previous Technical Studies Within a 1-Mile Radius of the Proposed Project Site

SCCIC Report No.	Authors	Date	Title	Proximity to Proposed Project Site
LA-00914	Tartaglia, Louis J.	1979	Assessment of the Impact Upon Cultural Resources by the Proposed Development of Tentative Tract 38304 Newhall, Calif.	Outside
LA-00951	Romani, John F.	1980	Cultural Resources Survey for 6.69 Acres of Land Located at the Intersection of Magic Mountain Parkway and San Fernando Road in Valencia, California	Outside
LA-01019	Hawthorne, Janice G. and Leslie Schupp-Wessel	1980	Cultural Resource Survey and Assessment of 89+ Acres in Valencia (zc-79-012 and Zc-80-078), Northwest Los Angeles County, California	Outside
LA-01152	Tartaglia, Louis J.	1982	Cultural Resource Survey, Tentative Parcel Map 12895	Outside
LA-01775	Love, Bruce	1989	Cultural Resource Assessment for Three Postal Service Sites, Los Angeles County	Overlaps
LA-02979	Whitley, David S.	1993	Phase I Archaeological Survey and Cultural Resources Assessment for the Porta Bella Specific Plan Study Area, Santa Clarita, Los Angeles County, California	Outside
LA-03289	Davis, Gene	1990	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	Outside
LA-03690	Wlodarski, Robert J.	1997	Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR	Outside
LA-03840	Wlodarski, Robert J.	1996	A Phase I Archaeological Study: Santa Clarita Water Company Application 29898 for 13 Existing Well Site Locations, Los Angeles County, CA.	Outside
LA-03895	Pence, Robert L.	1977	Archaeological Assessment of the Proposed Oxnard LNG Pipeline Route From La Vista, Ventura County, to Quiqley, Los Angeles County	Overlaps
LA-05527	Wlodarski, Robert J.	2000	A Phase I Archaeological Study for the Proposed Magic Mountain/via Princessa Roadway Extension and Interchange City of Santa Clarita, County of Los Angeles, California	Outside
LA-05844	Maki, Mary K.	2002	Phase I Archaeological Survey of Approximately Four Linear Miles for the Placerita Canyon Mainline Sewer Project Newhall, Los Angeles County, California	Outside
LA-06917	Bricker, Lauren W. and Janet L. Tearnen	1998	Historic Property Clearance Report for the Magic Mountain Parkway Via Princessa Improvement Project in the City of Santa Clarita, Los Angeles County, California	Outside

Table 1. Previous Technical Studies Within a 1-Mile Radius of the Proposed Project Site

SCCIC Report No.	Authors	Date	Title	Proximity to Proposed Project Site
LA-08255	Arrington, Cindy and Nancy Sikes	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II	Outside
LA-08958	Tsunoda, Koji and Moreno, A.	2007	Archaeological Survey Report for Southern California Edison Company Saugus-North Oaks FO Cable Project Los Angeles County, California (WO#8456-0639, JO#6155)	Outside
LA-09028	Simolke, Daria and John Romani	1989	Historic Property Survey 07-LA-126 P.m. 7.8/10.8 Route 126 From Valencia Boulevard to Lyons Avenue, Santa Clarita Los Angeles County, California 07-109370.	Outside
LA-09302	Bonner, Wayne H.	2008	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11040A (SCE Pardee-Sylmar #1 and #2, M2-T5 1966), Calle Adrino/Alicante Drive, Santa Clarita, Los Angeles County, California	Outside
LA-09867	Robin D. Turner	2009	Proposed Residential Development on Approximately 95.25 Acres within the North Newhall Specific Plan Boundaries in Newhall, CA	Outside
LA-10642	Tang, Bai "Tom"	2010	Preliminary Historical/Archaeological Resources Study, Antelope Valley line Positive Train Control (PTC) Project Southern California Regional Rail Authority, Lancaster to Glendale, Los Angeles County, California	Outside
LA-10947	Bonner, Wayne	2011	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC, Candidate NL0444-01 (SCE Faisan Court), 25646 Alicanta Drive, Santa Clarita, Los Angeles County, California	Outside
LA-11228	Unknown	2004	Environmental Analysis - Onshore Component of BHP Billiton LNG International Inc. Cabrillo Port Project	Outside
LA-12281	Bonner, Wayne and Crawford, Kathleen	2012	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate SV11040A (SCE Pardee-Sylmar M2-T5) 25660 Alicante, Newhall, Los Angeles County, California	Outside
LA-12384	Bonner, Wayne and Crawford, Kathleen	2013	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC CandidateNL0444 (SCE Faison Court), [Near] 25646 Alicante Drive, Santa Clarita, Los Angeles County, California	Outside

Report LA-01775

Cultural Resource Assessment for Three Postal Service Sites, Los Angeles County (Love 1989), documents the results of a Phase I archaeological survey and cultural resources assessment consisting of an archival record search, literature review, and pedestrian survey. The area of study overlaps approximately 75% of the proposed Project site, excluding the southwest segment. The study was conducted to assess three proposed project sites (parcels) for the U.S Postal Service referred to as Site 1, 2, and 3. Site 3 is the parcel overlapping the current proposed Project site. No previously recorded cultural resources were identified within the current proposed Project site as a result of the investigation. During the pedestrian survey, remains of a house, which was visible on the reviewed 1952 and 1941 maps, were observed within Site 3. Due to the house not being visible on the reviewed 1903 map it was determined the remains were not old enough to be a cultural resource. The exact location of the observed structural remains was not provided in the report. The surface area observed during the pedestrian survey was very poor due to existing development and years of dumping of construction materials; furthermore, there was signs of previous grading and grading taking place during the survey. Based on the study's findings, it was recommended further background research be done to evaluate the structural remains observed during the survey.

Report No. LA-03895

Archaeological Assessment of the Proposed Oxnard LNG Pipeline Route From La Vista, Ventura County, to Quiqley, Los Angeles County (Pence 1977) documents the results of a Phase I archaeological survey consisting of an archival record search, literature review, and pedestrian survey of a 42-mile proposed pipeline route. The study area was linear in nature running north to south through the center of the proposed Project site. No cultural materials were identified within the current proposed Project site as a result of the investigation. Based on the study's findings, no mitigation measures or further action were recommended.

3.2.2 Previously Recorded Cultural Resources

The SCCIC records indicate that 11 cultural resources have been previously recorded within 1-mile of the proposed Project site, none of which overlap or are adjacent to the proposed Project site. The resources include six prehistoric isolates, one prehistoric-era archaeological site, and four historic built environment resources. Table 2, below, summarizes all previously recorded cultural resources identified within the search area followed by summaries of all the archaeological resources.

Table 2. Previous Recorded Cultural Resources Within a 1-Mile Radius of the Proposed Project Site

Designation	Description	Recording Events	NRHP/CRHR Status	Approximate Proximity to Proposed Project Site
P-19-100341	Prehistoric isolate: quartz flake	1977 (David Jacobs)	7: Not Evaluated	1,165 meters (3,820 feet) northeast
P-19-100342	Prehistoric isolate: metate	1977 (David Jacobs)	7: Not Evaluated	900 meters (2,950 feet) northeast

Table 2. Previous Recorded Cultural Resources Within a 1-Mile Radius of the Proposed Project Site

Designation	Description	Recording Events	NRHP/CRHR Status	Approximate Proximity to Proposed Project Site
P-19-100343	Prehistoric isolate: flake	1977 (David Jacobs)	7: Not Evaluated	1,190 meters (3,900 feet) northeast
P-19-100344	Prehistoric isolate: flake	1977 (David Jacobs)	7: Not Evaluated	1,260 meters (4,130 feet) northeast
P-19-100345	Prehistoric isolate: flake	1977 (David Jacobs)	7: Not Evaluated	1,260 meters (4,130 feet) northeast
P-19-100346	Prehistoric isolate: flake	1977 (David Jacobs)	7: Not Evaluated	1,280 meters (4,200 feet) northeast
P-19-120063	Prehistoric lithic scatter consisting of a mano with chalcedony and quartzite flakes.	1977 (David Jacobs)	7: Not Evaluated	1,115 meters (3,660 feet) northeast
P-19-186861	Historic Built Environment: SCE transmission lines	2002 (Schmidt and McIntosh); 2016 (Williams);	1D: Contributor to a district or multiple resource property listed in NR by the Keeper. Listed in the CR	240 meters (790 feet) west
P-19-189958	Historic Built Environment: SCE transmission line tower	2011 (K.A. Crawford)	6Z: Found ineligible for NR, CR or Local designation through survey evaluation	190 meters (620 feet) northwest
P-19-190295	Historic Built Environment: SCE transmission line tower	2012 (K.A. Crawford)	6Z: Found ineligible for NR, CR or Local designation through survey evaluation	290 meters (950 feet) northwest
P-19-190296	Historic Built Environment: SCE transmission line tower	2012 (K.A. Crawford)	6Z: Found ineligible for NR, CR or Local designation through survey evaluation	1,280 meters (4,200 feet) southwest

P-19-100341

P-19-100341 is a prehistoric isolate located approximately 1,165 meters (3,820 feet) northeast of the proposed Project site. P-19-100341 was formally recorded in 1977 by Jacobs who described the isolate as a quartz flake. As it is standard practice that isolated artifacts are not eligible for listing in the NRHP or the CRHR, P-19-100341 has not been formally evaluated for listing on the NRHP or the CRHR.

P-19-100342

P-19-100342 is a prehistoric isolate located approximately 900 meters (2,950 feet) northeast of the proposed Project site. P-19-100342 was formally recorded in 1977 by Jacobs who described the isolate as a metate. As it is standard practice that isolated artifacts are not eligible for listing in the NRHP or the CRHR, P-19-100342 has not been formally evaluated for listing on the NRHP or the CRHR.

P-19-100343

P-19-100343 is a prehistoric isolate located approximately 1,190 meters (3,900 feet) northeast of the proposed Project site. P-19-100343 was formally recorded in 1977 by Jacobs who described the isolate as a flake. As it is standard practice that isolated artifacts are not eligible for listing in the NRHP or the CRHR, P-19-100343 has not been formally evaluated for listing on the NRHP or the CRHR.

P-19-100344

P-19-100344 is a prehistoric isolate located approximately 1,260 meters (4,130 feet) northeast of the proposed Project site. P-19-100344 was formally recorded in 1977 by Jacobs who described the isolate as a flake. As it is standard practice that isolated artifacts are not eligible for listing in the NRHP or the CRHR, P-19-100344 has not been formally evaluated for listing on the NRHP or the CRHR.

P-19-100345

P-19-100345 is a prehistoric isolate located approximately 1,260 meters (4,130 feet) northeast of the proposed Project site. P-19-100345 was formally recorded in 1977 by Jacobs who described the isolate as a flake. As it is standard practice that isolated artifacts are not eligible for listing in the NRHP or the CRHR, P-19-100345 has not been formally evaluated for listing on the NRHP or the CRHR.

P-19-100346

P-19-100346 is a prehistoric isolate located approximately 1,280 meters (4,200 feet) northeast of the proposed Project site. P-19-100346 was formally recorded in 1977 by Jacobs who described the isolate as a flake. As it is standard practice that isolated artifacts are not eligible for listing in the NRHP or the CRHR, P-19-100346 has not been formally evaluated for listing on the NRHP or the CRHR.

P-19-120063

P-19-120063 is a prehistoric site measuring approximately 15 meters in diameter and is located approximately 1,115 meters (3,660 feet) northeast of the proposed Project site. P-19-120063 is documented as consisting of a mano, chalcedony flakes, and quartzite flakes. P-19-120063 was formally recorded in 1977 by Jacobs who described the site as a possible base camp and states it is likely associated with the nearby isolates (P-19-100341

- P-19-100346). This site has not been evaluated for listing on CRHR or the NRHP; however, based on the description provided in the site record, it may meet the criteria for eligibility on either or both the CRHR and NRHP.

3.3 Historical Topographical Maps and Aerials

Historical topographic maps and aerial photographs were reviewed to better understand natural or human-made changes to the proposed project site and surrounding area over time. Through careful comparative review of historical aerials, changes to the landscape of a study area may be revealed. Disturbance to the study area is specifically important as it helps determine if soils within the study area are capable of sustaining intact archaeological deposits. Additionally, historical aerials have the potential to reveal whether a study area was subjected to alluvial deposits by way of flooding, debris flows or mudslides, as well as placement of artificial or foreign fill soils that may have buried intact archaeological deposits.

Historical Topographic Maps

A review of available topographic maps was conducted and includes the following years: 1903, 1908, 1916, 1924, 1929, 1930, 1933, 1939, 1943, 1948, 1953, 1958, 1964, 1967, 1970, 1988, 1999, 2012, 2015, and 2018 (NETR 2022a). Topographic maps depict elevation of the study area as well as the areas surrounding it and illustrate the location of roads and some buildings. Although topographic maps are not comprehensive, they are another tool in determining whether a study area has been disturbed and at times to what approximate depth. Table 3 summarizes the findings of the topographic map review.

Table 3. Topographic Maps Depicting the Proposed Project Site

Year	Description
1903	The proposed Project site is depicted as undeveloped land. There is an unnamed road or trail intersecting the eastern edge of the proposed Project site. The Southern Pacific Railroad is shown west of the proposed Project site.
1908	No changes indicative of ground disturbance to the proposed Project site are evident
1916	No changes indicative of ground disturbance to the proposed Project site are evident
1924	No changes indicative of ground disturbance to the proposed Project site are evident
1929	Oak Ridge Drive is present running southeast to northwest, as well as Railroad Avenue and the Southern Pacific Railroad running north to south and serving as the proposed Project site's southern and western boundaries, respectively.
1930	Topographic map depicts the same information as the 1924 topographic map
1933	Topographic map depicts the same information as the 1929 topographic map
1939	No significant changes to the proposed Project site.
1943	There is an unnamed road, oriented north-south, intersecting the eastern edge of the proposed Project site.
1948	Topographic map depicts the same information as the 1924 topographic map
1953 – 1967	No changes indicative of ground disturbance to the proposed Project site are evident
1970	There is a road, running north-south, along the western edge of the proposed Project site, parallel to the Southern Pacific Railroad. The road connects to an east-west running road along northern edge of the proposed Project site. Both roads connect to a development immediately north of the proposed Project site. One structure is depicted in the northeastern quadrant of the proposed Project site.

Table 3. Topographic Maps Depicting the Proposed Project Site

Year	Description
1988	The two new roads depicted in the 1970 topographic map now appear to be a single road which curves along the northwest corner of the proposed Project site. Oak Ridge Road is depicted with a curved road branching off of the previous southeast-northwest trending road along the southern boundary of the proposed Project site
1999	No changes indicative of ground disturbance to the proposed Project site are evident. Oak Ridge Road is now depicted as it is currently, curving to the southeast. The remaining straight portion east of the curve is no longer depicted.
2012	The singular structure in the northeastern portion of the proposed Project site, the development to the north, and roads bounding the western and northern edges of the Project site are no longer depicted.
2015	No significant changes to the proposed Project site.
2018*	Springbrook Avenue is present in the northwestern quadrant of the proposed Project site. The road forms a full loop within the northwestern section of the Project site as it is currently.

Note:
* no topographic maps available after 2018

Historical Aerial Photographs

A review of all available historical aerial photographs includes the following years: 1947, 1952, 1959, 1969, 1974, 1977, 1985,1992, 1994, 1996,1997, 1998, 1999, 2000, 2002, 2003, 2005, 2009, 2010, 2012, 2014, 2016, and 2018 (NETR 2022b).

Table 4. Historical Aerial Photographs Depicting the Proposed Project Area

Year	Description
1947	The proposed Project site is undeveloped, and the surrounding lands are agricultural or undeveloped land. Railroad Avenue and the Southern Pacific Railroad are visible to the west and there are roads along the southern and just inside the eastern boundaries of the proposed Project site. There is a single tree east of the Southern Pacific Railroad, within the proposed Project site, and two trees within the northeast corner. The proposed Project site is cleared of most other vegetation.
1952	The proposed Project site is being used as agricultural lands.
1959	No changes indicative of ground disturbance to the proposed Project site are evident with the exception of the removal of agricultural vegetation.
1969	The tree previously visible adjacent to the Southern Pacific Railroad is no longer present and one of the trees within the northeast corner of the proposed Project site has been removed. Three structures are visible in the northeast section of the proposed Project site along with various informal roads throughout the eastern two-thirds of the proposed Project site. A road bounding the northern boundary of the Project site is visible. There is now development present within the parcel directly north of the proposed Project site.
1974	There are what appear to be various temporary structures, possibly storage units or large truck trailers, scattered throughout the eastern two-thirds of the proposed Project site. There is an informal road running north-south that intersects the proposed Project site and connects to the existing Springbrook Avenue to the north.
1977	There are now additional temporary structures within the southwest corner of the proposed Project site. The informal road connected to the existing Springbrook Avenue, visible in the 1974 aerial, no longer intersects the southern half of the proposed Project site.

Table 4. Historical Aerial Photographs Depicting the Proposed Project Area

Year	Description
1985	There is an increase of small vegetation throughout the proposed Project site, except for the southwest corner, which contains various temporary structures. Only one of the structures within the northeast section of the proposed Project site is present. Oak Ridge Drive to the south now follows its current layout, curving to the south with the straight portion east of the curve still visible. There are some small trees along the western end of Oak Ridge Road and along the western boundary of the proposed Project site.
1992	There is now a structure directly north of where Oak Ridge Road curves to the south. The southwest section of the proposed Project site appears to be in use as possibly parking or storage.
1994	No changes indicative of ground disturbance to the proposed Project site are evident
1996	No changes indicative of ground disturbance to the proposed Project site are evident
1997	The northwest corner of the Project site has been cleared of small vegetation and also appears to be in use as is visible possibly parking or storage.
1998	The large structure previously visible within the northeast corner of Project site is no longer present.
1999	The northwest corner of the proposed Project site appears paved. The portion of previous Oak Grove Drive, east of the curve, exists but now appears to be a dead end (according to Google Earth, this portion is now titled Shawna Place and serves as a northern access and parking area for a residential neighborhood located south of the proposed Project site.
2000	No changes indicative of ground disturbance to the proposed Project site are evident
2002	The paved area within the northwest corner has been extended further east
2003	The paved area within the northwest corner area now covers approximately 75% of the northern boundary of the proposed Project site, and extends south to approximately halfway across the proposed Project site
2005	Approximately two-thirds of the western portion of proposed Project site appears in use as either parking or storage. The structures are still present
2009	No changes indicative of ground disturbance to the proposed Project site are evident
2010	The southeast section of the area that was in use in the 2005 aerial is no longer in use.
2012	The vegetation within the eastern most section of the Project site has increased. The area directly east of the structure is partially cleared of vegetation
2014	Increase of temporary structures and vehicles throughout the Project site.
2016	The large structure first seen in 1992 is no longer present.
2018	Dramatic decrease in temporary structures and vehicles throughout the proposed Project site.
2020	All temporary structures and vehicles are no longer present and the proposed Project site appears to have been mass graded and is consistent with the current conditions.

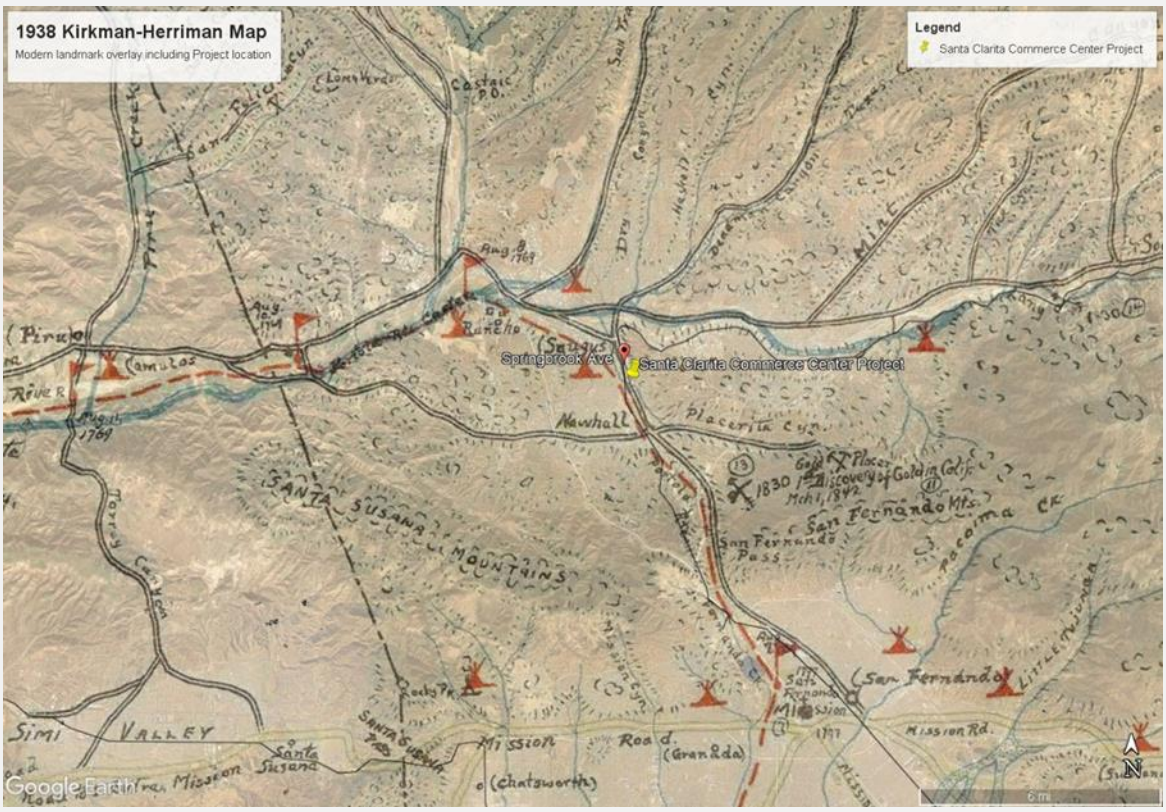
Review of historical topographic maps and aerial photographs demonstrate that the surface area of the proposed Project site has been disturbed for agricultural purposes as early as 1952. The Southern Pacific Railroad has been present directly west of the proposed Project site since at least 1903. Ground disturbances associated with the construction and demolition of structures have disturbed the soils within the proposed Project site since at least 1974.

3.4 1938 Kirkman-Harriman Historical Map Review

Dudek also reviewed pertinent academic and ethnographic literature for information pertaining to historic use of the Project area and vicinity, including sources commonly identified through tribal consultation, notably the 1938

Kirkman-Harriman Historical Map. This map is a valuable representation of post-colonization mission history; however, it is limited to a specific period of Native American history and substantiation of the specific locations and uses of the represented individual features should be verified by archaeological records and/or other primary documentation. This map is highly generalized due to scale and age and may be somewhat inaccurate with regard to distance and location of mapped features. Additionally, this map was prepared based on review of historic documents and notes more than 100 years following secularization of the missions (in 1833). Although the map contains no specific primary references, it matches with the details documented by the Gaspar de Portolá expedition (circa 1769–1770). Exhibit 1 depicts a portion of the Kirkman-Harriman Map that illustrates the Project area; an analytical review of the map in relation to the Project site and surrounding area follows.

Exhibit 1. 1938 Kirkman-Harriman Historical Map



Based on the Kirkman-Harriman Map, the Project site is approximately 0.5 miles east of the northwest–southeast-trending "Portola Route" depicting the path traversed through the area in 1769, approximately 4.5 miles southeast of where Portolá's group camped in the area and approximately 1.7 miles south of an offshoot road that connects the local area to the east–west trending "Old Road to Santa Barbara." The nearest mapped source of freshwater is the Santa Clara River approximately 1.7 miles north. The nearest mapped Native American village is mapped approximately 1.3 miles west of the Project site and is named "Saugus." The Tataviam name associated with this village is *Chaguayanga*. The map also marks "Gold Placer, 1st Discovery of Gold in Calif. Mch 1, 1842" approximately 5.5 miles southeast of the Project site and the location of a battle that occurred between Spanish soldiers and Indians in 1830 approximately 3.7 miles southeast. This battle is likely the same battle that occurred in the *Canyon de Los Difuntos* that Friar Mariano Payeras uses to petitioned Spain to establish another mission on the Santa Clara River near Newhall. Nothing in the archaeological record recorded within 1 mile of the Project site

or information collected during archival research conducted for this study refutes the mapped locations depicted on this portion of the Kirkman-Herriman Map.

3.5 Geotechnical Report Review

GeoSoils Consultants, Inc. completed a geotechnical study of the proposed Project site for another project (completed February 2, 2012). The report, Geologic and Geotechnical Engineering Study, Parcel Map No. 062646, Santa Clarita, California, documents the subsurface geological conditions at the proposed Project site (GeoSoils Consultants, Inc. 2012). The report details the results of six subsurface exploratory borings (B-1 through B-6) conducted on July 26 and 27, 2011, using a truck-mounted drill-rig equipped with an 8-inch hollow stem auger. One of the borings, B-5, was located outside the proposed Project site. The remaining subsurface exploratory borings were placed at accessible locations throughout the proposed Project site. The subsurface exploratory borings were advanced to depths between approximately 20 to 50 feet below ground surface (bgs) to determine subsurface geological conditions within the proposed Project site. According to the boring logs, fill/disturbed soils were encountered within boring investigation locations B-5 and B-6, between surface to 15 feet and 4 feet bgs and were characterized as orange-brown, slightly sandy, clayey silt that was moist and dense. Native alluvium soils were identified at ground surface and underlying the fill soils to varying depths between 0 to 50 feet bgs and characterized as medium brown, very fine to coarse sand with gravels to brown sandy silt and silty clays. The geological boring investigations were terminated at each location based on subsurface refusal at varying depths, approximately 20 to 50 feet bgs. Table 5, below, summarizes the results of the 6 subsurface exploratory borings within the proposed Project site. NOTE: a review of aerial photography documented disturbance activities and the pedestrian survey confirmed that the proposed Project site has been altered since the 2011 geotechnical study. The entire project site has been graded, resulting in lowering the site's overall elevation by a maximum of 5 feet since the conditions recorded in 2011 (Walsh 2022).

Table 5. Subsurface Trenching Results – GeoSoils Consultants 2012

Boring Number	Depths of Fill Soils - 2011	Depths of Native Soils - 2011	Depth of Fill Soils - 2022	Approximate Terminated/ Refusal Depth
B-1	N/A	0±-40 feet bgs	N/A	40 feet bgs
B-2	N/A	0±-32.5 feet bgs	N/A	32.5 feet bgs
B-3	N/A	0-30 feet bgs	N/A	30 feet bgs
B-4	N/A	0±-50 feet bgs	N/A	50 feet bgs
B-5*	0-15± feet bgs	15±-51 feet bgs	N/A	51 feet bgs
B-6	0-4± feet bgs	4±-20 feet bgs	N/A	20 feet bgs

Note:
* Boring is located outside the proposed Project site. Bgs = below ground surface; N/A = not applicable

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4.0 Field Investigations

4.1 Methods

The intensive-level survey methods consisted of a pedestrian survey conducted in parallel transects, spaced no more than 10 meters apart (approximately 30 feet). The ground surface was inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, groundstone tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of structures and/or buildings (e.g., standing exterior walls, post holes, foundations), and historical artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as burrows, trails and drainages were also visually inspected for exposed subsurface materials. No artifacts, if found, were intended to be collected during the survey.

All fieldwork was documented using field notes and an Apple Generation 7 iPad (iPad) equipped with ESRI Collector and Avenza PDF Maps software with close-scale georeferenced field maps of the proposed Project site, and aerial photographs. Location-specific photographs were taken using the iPad's 12-mega-pixel resolution camera. Cultural resources identified during this inventory within the proposed Project site were to be recorded on DPR forms, using the Instructions for Recording Historical Resources (Office of Historic Preservation 1995). Field notes, photographs, and records related to the current study are on file at Dudek's Santa Barbara, California office. All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory.

4.2 Results

An intensive pedestrian surface survey of the proposed Project site was completed on June 22, 2022 by Dudek staff archaeologists. All exposed ground surfaces were walked in no less than 10 meter (approximately 30 feet) parallel transects. Careful attention was given to barren ground as well as piled spoils that may contain native soils. At the time the pedestrian survey was conducted, the 22.3-acre proposed Project site was used as a truck storage, contained no structures and consisted mainly of previously graded soils and a strip of pavement.

The piled spoils were approximately 5 feet tall, by 15 feet long, by 6 feet wide and were located in the north/center of the proposed Project site. Exposed soils under vegetation and in open areas accounted for approximately 90 percent of the proposed parcel and provided very good to excellent ground surface visibility (80-100 percent). Areas developed with paving and excavations accounted for approximately 10 percent of the proposed parcel and provided none to fair ground surface visibility (0-50 percent). No cultural materials were observed within this area.

All soils appear to be consistent with the USDA's characterization of Hanford sandy loam and Ojai loam (USDA 2021).

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5.0 Assessment of Potential for Unrecorded Archaeological Resources

The proposed Project includes the industrial distribution/warehouse facility, including four buildings, totaling in approximately 433,185 square feet of development as well as landscaped areas, parking spaces, loading docks, and connections to the existing utility facilities. Proposed ground disturbances are anticipated to extend no deeper than 6 feet below the current ground surface. A CHRIS archaeological literature and records search conducted at the SCCIC determined that no cultural resources have been previously identified within the proposed Project area. Eleven cultural resources have been previously identified within 1 mile of the proposed Project site; the closest archaeological resource is located 900 meters (2,950 feet) from the proposed Project site and the closest built environment resource is located 190 meters (620 feet) from the proposed Project site. Thirty-two cultural resource investigations were identified within the CHRIS database as having been undertaken within 1 mile of the proposed Project site in all directions. Two of these overlap the proposed Project site, and neither identified cultural resources. A geotechnical investigation of the proposed Project site was conducted in 2011 which indicated that at the time of the study artificial fill soils were present between grade and 4 feet below grade within the southwest corner of the site, and alluvial soils were present between grade and 50 feet below grade throughout the remainder of the site. However, a review of aerial photography, documented disturbance activities, and conditions observed during the pedestrian survey for this report confirm that the proposed Project site conditions have been altered since the 2011 geotechnical study. The entire project site appears to have been graded, resulting in lowering the site's overall elevation by an average of 5 feet since the conditions recorded in 2011 (Walsh 2022). Additionally, a review of historical topographic maps and aerial photographs demonstrate that the surface area of the proposed Project site has been disturbed since at least 1903.

Based on the results of this study, the potential for unknown prehistoric and historic cultural resources to exist within the proposed Project is considered unlikely. However, it is possible that unknown cultural material and features could be encountered during ground disturbances associated with the proposed Project.

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6.0 Evaluation of Potential Project Effects

As stated in CEQA Guidelines Section 15064.5(b)(1), a project causing a substantial adverse change in the significance of an historical resource is one that could result in the 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 (i.e., altering those physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources as determined by a lead agency [the City of Santa Clarita] for purposes of CEQA; or its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code).

No cultural/historical resources were identified as a result of this project; therefore, the project would not cause an substantial adverse change to a known cultural/historical resource. Based on the negative CHRIS records search results and the negative survey results in reliable conditions, the potential for proposed Project ground disturbances to cause a substantial adverse change to unknown cultural resources is considered unlikely but cannot be ruled out. Should the proposed Project improvements change in location or nature, this determination should be reconsidered. Measures included in the following section have been recommended to ensure that the potential for impacts to unknown cultural resources during proposed ground disturbing construction activities would be appropriately addressed consistent with CEQA and City of Santa Clarita Cultural Resource Guidelines and ensure impacts to cultural resources would be less than significant.

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7.0 Recommendations

Since no potentially significant resources, as defined by CEQA, were identified as a result of the study, the proposed Project is not considered to have the potential to result in a significant impact on cultural/historical resources as defined by CEQA. However, it is possible that unknown cultural material and features could be encountered during proposed Project construction. Therefore, the following measures are recommended to ensure that the potential for impacts to unknown cultural resources during proposed ground disturbing construction activities would be appropriately addressed consistent with requirements and guidelines set forth by CEQA and City of Santa Clarita. Prior to commencement of construction activities for all phases of project implementation, the project applicant/owner/developer should retain a qualified archaeological principal investigator (Principal Investigator/ Archaeologist) that meets the Secretary of the Interior's Professional Qualification Standards for Archaeology, is approved by the City of Santa Clarita and has experience and is well-acquainted with the history of the ancestral tribes geographically connected to the Project site.

A principal investigator/archaeologist, meeting Secretary of Interior standards, should be retained to implement the following mitigation measures. Additionally, the Fernandeño Tataviam Band of Mission Indians should be contacted and invited to be involved with the mitigation program for the Project.

Cultural Resource Inadvertent Discovery Plan. Impacts to cultural resources should be minimized through implementation of pre- and post- construction tasks. Tasks pertaining to cultural resources include the development of a cultural resource inadvertent discovery plan (Plan). The purpose of the Plan is to outline a program of treatment and mitigation in the case of an inadvertent discovery of cultural resources during ground-disturbing phases and to provide for the proper identification, evaluation, treatment, and protection of any cultural resources throughout the duration of the Project. This Plan should define the process to be followed for the identification and management of cultural resources in the Project area during construction. Existence of and importance of adherence to this Plan should be stated on all Project site plans intended for use by those conducting the ground disturbing activities.

Worker Environmental Awareness Program Training. All construction personnel and monitors who are not trained archaeologists should be briefed regarding inadvertent discoveries prior to the start of construction activities. A basic presentation and handout or pamphlet should be prepared in order to ensure proper identification and treatment of inadvertent discoveries. The purpose of the WEAP training is to provide specific details on the kinds of cultural resources that may be identified during construction of the project and explain the importance of and legal basis for the protection of significant cultural resources. Each worker should also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor who should contact the City. This requirement should be noted on all construction plans to ensure implementation. A qualified representative of the Fernandeño Tataviam Band of Mission Indians should conduct the Tribal Cultural Resources portion of the WEAP training for construction personnel regarding the aspects of Tribal Cultural Resources and the procedures for notifying the Fernandeño Tataviam Band of Mission Indians should Tribal Cultural Resources be discovered by construction staff.

Inadvertent Discovery Clause. In the event that potential prehistoric or historic-era archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 60 feet of the find should immediately stop and the Principal Investigator/Archaeologist should be notified immediately in order to assess of the discovery and determine whether additional study is warranted. Depending upon the nature of the discovery, the Principal Investigator/Archaeologist may simply record the find and allow work to continue. If the discovery proves potentially significant under CEQA, additional work such as subsurface testing may be warranted. If the discovery is determined significant under CEQA and avoidance is not feasible, data recovery will be required. If archaeological resources are discovered or are suspected to be of Native American origin dating to pre-contact and/or post-contact, the Fernandeño Tataviam Band of Mission Indians should be contacted and be provided information after the archaeologist makes their initial assessment of the nature of the find, to provide tribal input with regards to significance and treatment. The Lead Agency and/or applicant should, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities. Should the find be deemed significant, as defined by CEQA (as amended, 2015), the Project Applicant should retain a professional Native American monitor procured by the Fernandeño Tataviam Band of Mission Indians and if necessary an archaeological monitor, supervised by a Secretary of the Interior qualified archaeologist, to observe all remaining initial ground-disturbing activities including, but not limited to, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, clearing, driving posts, auguring, blasting, stripping topsoil or similar activity, and archaeological work. Initial excavation is defined as initial construction-related earth moving of sediments from their place of deposition. As it pertains to cultural monitoring (archaeological or Native American/tribal), this definition excludes movement of sediments after they have been initially disturbed or displaced by project-related construction.

In the event that human remains are inadvertently encountered during construction activities, the remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby area (within 100 feet of the find) reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to immediately notify the NAHC. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant should then complete their inspection and determine, in consultation with the property owner, the treatment and disposition of the human remains.

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Appendix A

(Confidential – Not for Public View)
SCCIC Records Search