



November 30, 2018  
Job Number: 2338-002  
21419 and 21425 Cajalco Road, Mead Valley, CA 92570

**MEMORANDUM FOR THE RECORD**

2.6 2338-002.MFR01

**TO:** Mr. Sameh Ibrahim  
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**FROM:** Sapphos Environmental, Inc.  
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**SUBJECT:** Results of the Cultural Resources Records Searches for  
the Proposed New Construction at 21419 and 21425  
Cajalco Road, Mead Valley, California

**FIGURES:**

1. Project Vicinity Map
2. Topographic Map
3. Conceptual Site Plan

**APPENDICES:**

1. Resume of Key Personnel
2. NHM Paleo Records Search Results Letter

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## EXECUTIVE SUMMARY

This Memorandum for the Record (MFR) documents the results of the cultural records searches conducted by Sapphos Environmental, Inc. for the proposed new construction at 21419 and 21425 Cajalco Road (proposed project) located in Mead Valley, an unincorporated section of Riverside County, California. Sapphos Environmental, Inc. was contracted by the property owner to provide cultural records searches in support of the proposed new construction on two undeveloped parcels involving the construction of a new shopping center and service gas station. The records search area included the proposed project boundary, and a 1-mile buffer area. The purpose of the survey was to assess the presence or absence of previously recorded cultural resources afforded consideration pursuant to the California Environmental Quality Act (CEQA), and other applicable federal, state and local statutes. The goal of the study is to provide information, and where warranted, avoidance and minimization measures to avoid impacts to cultural resources.

Based on the results of cultural resources records searches, no previously recorded cultural resources were identified within or adjacent to the proposed project area. Previous cultural resource investigations indicate a low potential to encounter cultural resources during the proposed project undertaking. The archival research identified seven previously recorded archaeological sites and one historic built environment resource within 1-mile of the proposed project area. Each of the seven previously recorded archaeological resources consist of a prehistoric milling station on bedrock outcrops. There are no exposed bedrock outcrops within the proposed project area.

There are no records of historic built resources within the proposed project area. There is a low probability to encounter historic built resources based on the inherent characteristics and location of the proposed project area.

There were no cemeteries or burial sites discovered as a result of the literature review or records searches. There is a low probability to encounter human remains based on the inherent characteristics and location of the project site.

No paleontological mitigation measures are warranted or recommended.

Sapphos Environmental, Inc. recommends the following measures be implemented for the proposed project so that there are no adverse effects to archaeological, historic or tribal resources:

- In the event of unanticipated discoveries during the course of the construction, a qualified archaeologist shall be consulted to assess the significance of the discovery. A discovery may also require consultation to be conducted with the Native American groups.

## INTRODUCTION

The property owner proposes the construction of a new shopping center, service gas station and a paved parking lot at 21419 and 21425 Cajalco Road in Mead Valley (proposed project), an unincorporated section of Riverside County, California. Sapphos Environmental, Inc. was contracted by the owner to provide cultural resources records searches prior to the proposed new construction on the property. The archaeological, historic, and paleontological records searches have been completed by Sapphos Environmental, Inc. to assess potential impacts to cultural resources afforded consideration pursuant to the California Environmental Quality Act (CEQA), and other applicable federal, state and local statutes. The goal of the study is to provide information, and where warranted, avoidance and minimization measures to avoid impacts to cultural resources.

## REGULATORY FRAMEWORK

### California Environmental Quality Act<sup>1</sup>

Pursuant to CEQA, a *historical resource* is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historical resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey, shall not preclude a Lead Agency from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.<sup>2</sup>

CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource or (2) the archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:<sup>3</sup>

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

### California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical

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<sup>1</sup> California Public Resources Code, Division 13, Sections 21083.2 and 21084.1.

<sup>2</sup> California Code of Regulations. Title 14, Chapter 3: “Guidelines for the Implementation of the California Environmental Quality Act as Amended October 6, 2005,” Section 15064.5(a).

<sup>3</sup> California Public Resources Code. Division 13, Section 21083.2(g).

resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."<sup>4</sup> Certain properties, including those listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP) and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:<sup>5</sup>

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.<sup>6</sup> It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.<sup>7</sup> Resources that have achieved significance within the past 50 years may also be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.<sup>8</sup>

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<sup>4</sup> *California Public Resources Code*. Section 5024.1(a).

<sup>5</sup> *California Public Resources Code*. Section 5024.1(c).

<sup>6</sup> California Department of Parks and Recreation, Office of Historic Preservation. n.d. *California Register and National Register, A Comparison (for Purposes of Determining Eligibility for the California Register)*. Technical Assistance Bulletin 6. Available at: [www.ohp.parks.ca.gov](http://www.ohp.parks.ca.gov)

<sup>7</sup> California Department of Parks and Recreation, Office of Historic Preservation. 4 September 2002. *California Register of Historical Resources: Questions and Answers*. Technical Assistance Series 3. Available at: <http://www.ohp.parks.ca.gov>

<sup>8</sup> California Department of Parks and Recreation, Office of Historic Preservation. n.d. *California Register and National Register, A Comparison (for Purposes of Determining Eligibility for the California Register)*. Technical Assistance Bulletin 6. Available at: [www.ohp.parks.ca.gov](http://www.ohp.parks.ca.gov)

## PROJECT DESCRIPTION

The proposed project is located at 21419 and 21425 Cajalco Road near the City of Perris, within Mead Valley, an unincorporated section of Riverside County, California 92570 (Figure 1, *Project Vicinity Map*). The proposed project is in Mead Valley, a census-designated location in the County. The proposed project is located within the U.S. Geological Survey (USGS) 7.5-minute series Steele Peak topographic quadrangle in Township 4S, Range 4W, Section 10 (Figure 2, *Topographic Map with USGS 7.5-Minute Quadrangle Index*). Existing conditions at the proposed project location is generally characterized as disturbed vacant lot and has low potential for undiscovered cultural resources. The site is located adjacent to paved roads, Cajalco Road and Clark Drive Street, and is accessible from these roads by taking Cajalco Road west from the U.S. 215 Freeway.

The property owner has negotiated an improvement plan with the County encompassing two undeveloped parcels, Assessor Parcel Number (APNs) 318-140-010 and 318-140-009 that total 73,332 square feet (project footprint). The proposed project involves the construction of a new shopping center with a restaurant, minimart, service gas station, and 79 parking spaces (Figure 3, *Conceptual Site Plan*). The proposed project requires clearance from the County under CEQA.

## METHODS

Sapphos Environmental, Inc. qualified archaeologist (Dr. Dustin Keeler; Appendix A, *Resumes of Key Personnel*) conducted a desktop review and records searches in support of the proposed project at 21419 and 21425 Cajalco Road.

### Paleontological Resources Records Search and Map Review

The presence of recorded paleontological resources and fossil localities within the proposed project area were assessed using information obtained from records searches at the Natural History Museum of Los Angeles County (NHMLAC) (Appendix B, *NHM Paleo Records Search Results Letter*).<sup>9</sup> Geologic maps of Riverside County were also examined to evaluate the potential for the geological deposits within the proposed project area to yield unique paleontological resources.

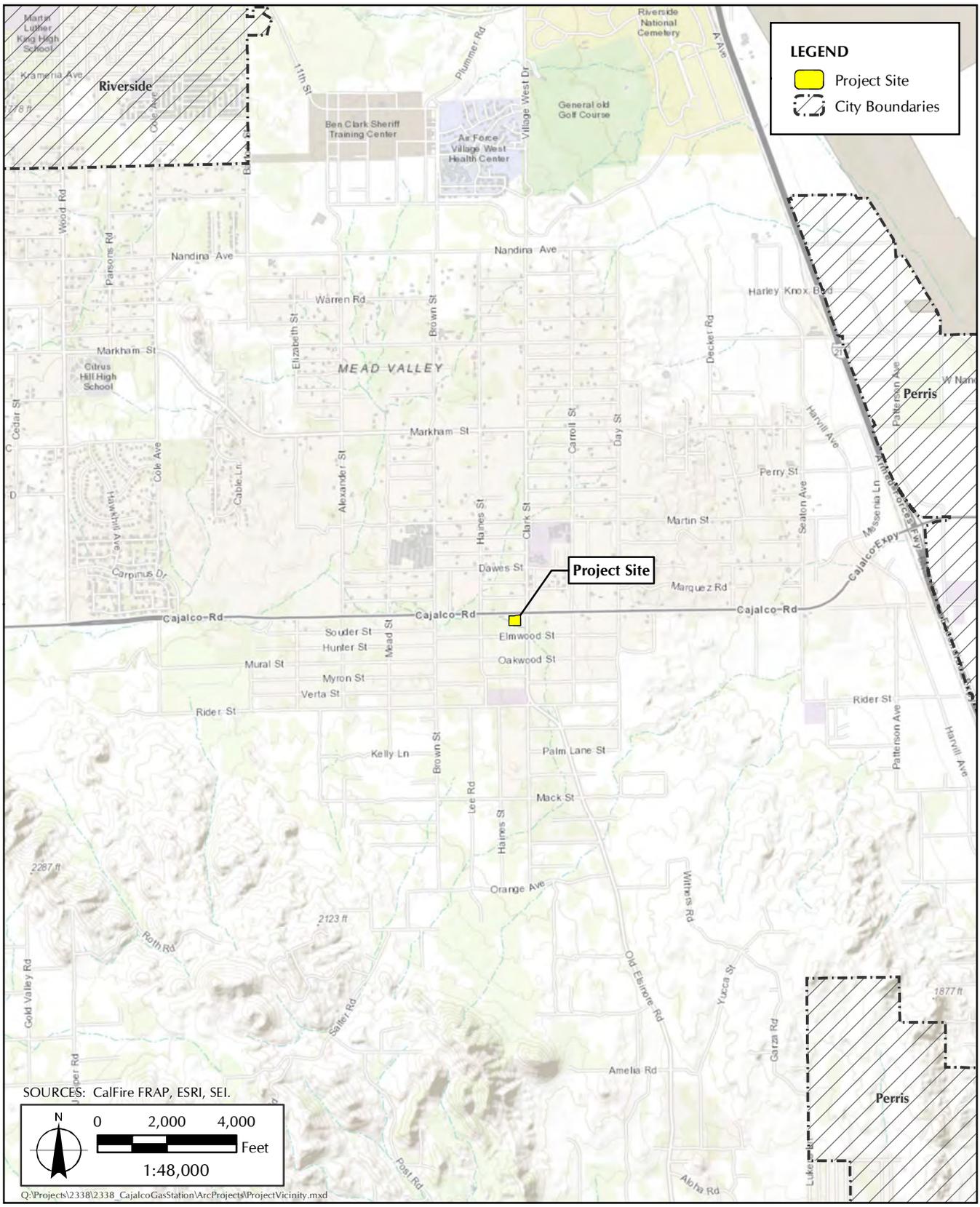
Based on the results of the records and map searches, each of the geologic units identified within the proposed project area were characterized according to their potential to yield paleontological resources.

### Cultural Resources Records Search and Literature Review

Cultural resources records searches were conducted at the Eastern Information Center (EIC), housed at the University of California, Riverside, on November 6, 2018. These searches included reviews of all known relevant cultural resource survey reports within the proposed project area and a 1-mile radius to ascertain the presence of known prehistoric and historic archaeological resources. In addition, the Historic Property Data File for Riverside County, which includes the NRHP, CRHR, California Historical Landmarks, and California Points of Historical Interest, was searched to identify known historical resources within the cultural resources study area.

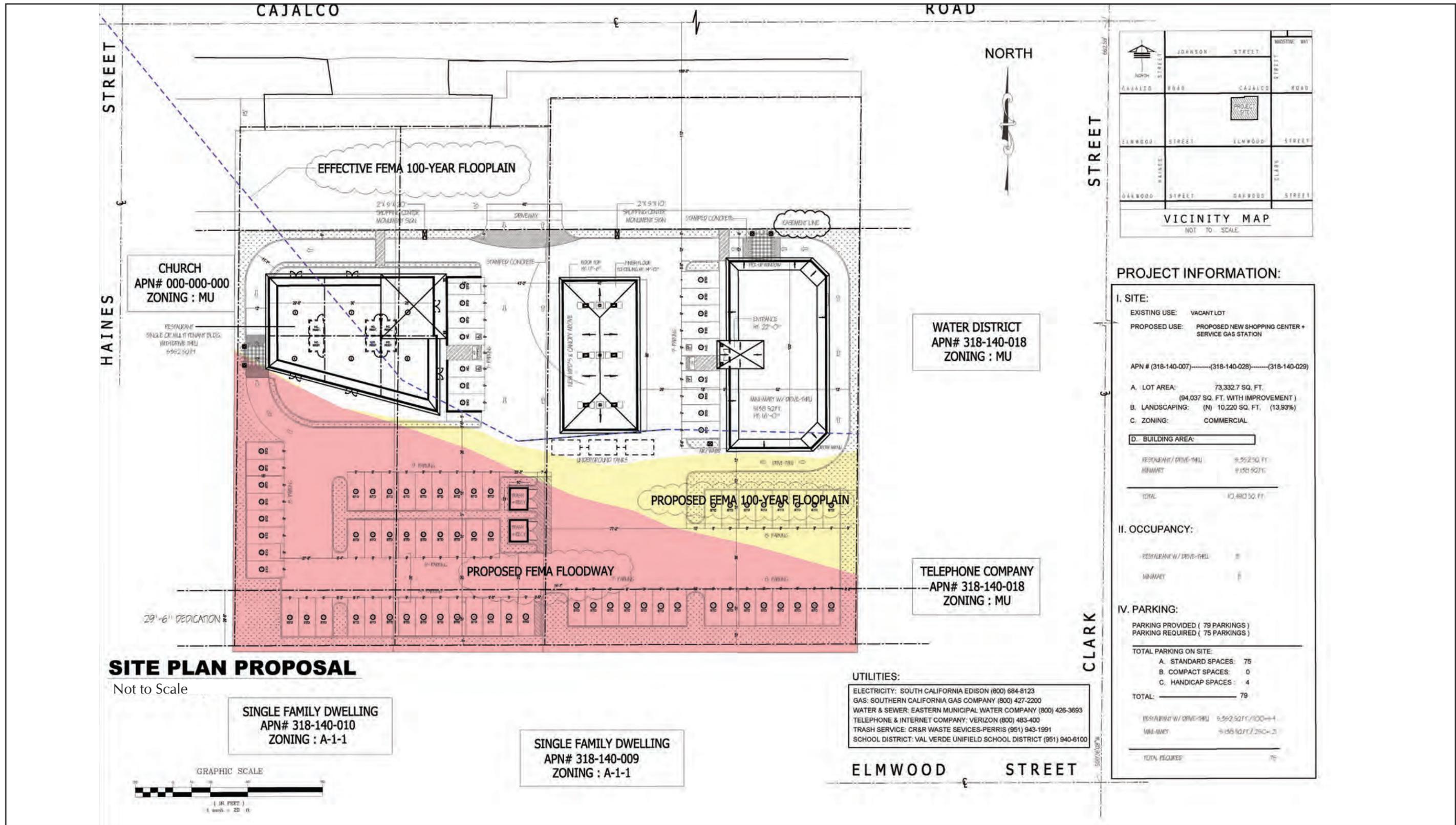
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<sup>9</sup> McLeod, Samuel, Natural History Museum of Los Angeles County. 19 November 2018. Letter response to Dustin Keeler, Sapphos Environmental, Inc., Pasadena, CA.



**FIGURE 1**  
Project Vicinity Map





**FIGURE 3**  
Conceptual Site Plan

## RESULTS

### Paleontological Resources

The results of the map review and fossil locality records searches at the NHMLAC indicate that the proposed project area has bedrock composed of plutonic igneous rocks that will not contain recognizable fossils. No vertebrate fossil localities from these types of rocks. Because the entire proposed project area has exposures and bedrock composed exclusively of igneous rocks, any excavations in the proposed project area will not encounter any recognizable fossils. No fossil localities lie directly within the proposed project area boundaries or in the types of igneous rocks that occur in the proposed project area.

### Archaeological and Historic Resources

#### *Cultural Resources Setting*

##### *Prehistoric Context*

Several prehistoric cultural chronologies have been proposed for the coastal Southern California region with three of the most frequently cited sequences developed by William Wallace,<sup>10</sup> Claude Warren,<sup>11</sup> and Chester King.<sup>12</sup> Such chronologies provide a framework to discuss archaeological data in relation to broad cultural changes seen in the archaeological record. The chronological sequence presented herein represents an updated synthesis of these schemes as compiled by Glassow and others<sup>13</sup> for the Northern California Bight. This geographic area consists of the coastal area from Vandenberg Air Force Base south to Palos Verdes, as well as the Channel Islands and adjacent inland areas, including the San Fernando Valley and Los Angeles Basin.<sup>14</sup> The prehistoric sequence of the Northern California Bight can be divided into four broad temporal categories (Table 1, *Southern California Coastal Regional Chronology*). It should be noted that the prehistoric chronology for the region is being refined on a continuing basis, with new discoveries and improvements in the accuracy of dating techniques.

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<sup>10</sup> Wallace, William J. 1955. "A Suggested Chronology for Southern California Coastal Archaeology." *Southwestern Journal of Anthropology* 11: 214–30.

<sup>11</sup> Warren, Claude M. 1968. "Cultural Tradition and Ecological Adaptation on the Southern California Coast." In *Archaic Prehistory in the Western United States*, ed. Cynthia Irwin-Williams. Eastern New Mexico University Contributions in Anthropology No. 1. Portales, NM: Eastern New Mexico University.

<sup>12</sup> King, Chester. 1990. *Evolution of Chumash Society: A Comparative Study of Artifacts Used for Social System Maintenance in the Santa Barbara Channel Region before AD 1804*. New York, NY: Garland.

<sup>13</sup> Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. "Prehistory of the Northern California Bight and the Adjacent Transverse Ranges." In *California Prehistory, Colonization, Culture, and Complexity*, ed. Terry L. Jones and Kathryn A. Klar. New York, NY: Altamira.

<sup>14</sup> Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. "Prehistory of the Northern California Bight and the Adjacent Transverse Ranges." In *California Prehistory, Colonization, Culture, and Complexity*, ed. Terry L. Jones and Kathryn A. Klar. New York, NY: Altamira.

**TABLE 1**  
**SOUTHERN CALIFORNIA COASTAL REGIONAL CHRONOLOGY**

Epoch	Coastal Region	Dates
Terminal Pleistocene / Early Holocene	Paleo-Coastal Period	Circa 9500 to 7000/6500 BC
Middle Holocene	Millingstone Period	Circa 7000/6500 to 1500/1000 BC
Late Holocene	Intermediate Period	1500/1000 BC to AD 750
Late Holocene	Late Period	AD 750 to Spanish contact

Terminal Pleistocene and Early Holocene: Paleo-Coastal Period (Circa 9500 to 7000/6500 BC)

Although data on early human occupation for the Southern California coast are limited, archaeological evidence from the northern Channel Islands suggests initial settlement within the region occurred at least 12,000 years before present (BP). At Daisy Cave (CA-SMI-261) on San Miguel Island, radiocarbon dates indicate an early period of use in the terminal Pleistocene, sometime between 9600 and 9000 calibrated (cal) BC.<sup>15</sup> Evidence of early human occupation in the Northern California Bight has also been found on nearby Santa Rosa Island, where human remains from the Arlington Springs Site (CA-SRI-1730) have been dated between 11,000 and 10,000 cal BC.<sup>16</sup> Archaeological data recovered from these and other coastal Paleoindian sites indicate a distinctively maritime cultural adaptation, termed the “Paleo-Coastal Tradition,”<sup>17</sup> which involved the use of seafaring technology and a subsistence regime focused on shellfish gathering and fishing.<sup>18</sup>

Middle Holocene: Millingstone Period (Circa 7000/6500 to 1500/1000 BC)

The Millingstone Period or Horizon, also referred to as the “Encinitas Tradition,”<sup>19,20</sup> is the earliest well-established cultural occupation of the coastal areas of the region. The onset of this period, which began sometime between 7000 and 6500 cal BC, is marked by the expansion of populations throughout the Northern California Bight. Regional variations in technology, settlement patterns, and mortuary practices among Millingstone sites have led researchers to define several local manifestations or “patterns” of the tradition.<sup>21</sup> Groups that occupied the San Fernando Valley are thought to have been relatively small and highly mobile during this time, with a general subsistence

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- <sup>15</sup> Erlandson, J.M., D.J. Kennett, B.L. Ingram, D.A. Guthrie, D.P. Morris, M.A. Tveshov, G.J. West, and P.L. Walker 1996. “An Archaeological and Paleontological Chronology for Daisy Cave (CA-SMI-261), San Miguel Island, California.” *Radiocarbon*, 38: 355–73.
- <sup>16</sup> Johnson, J.R., T.W. Stafford Jr., H.O. Ajie, and D.P. Morris. 2002. “Arlington Springs Revisited.” In *Proceedings of the Fifth California Islands Symposium*, ed. D. Browne, K. Mitchell, and H. Chaney, pp. 541–45. Santa Barbara, CA: USDI Minerals Management Service and The Santa Barbara Museum of Natural History.
- <sup>17</sup> Moratto, M.J. 1984. *California Archaeology*, pp. 103-113. Academic Press, New York.
- <sup>18</sup> Rick, T.C., J.M. Erlandson, and R.L. Vellanoweth. 2001. “Paleocoastal Fishing along the Pacific Coast of the Americas: Evidence from Daisy Cave, San Miguel Island, California.” *American Antiquity*, 66: 595–614.
- <sup>19</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.
- <sup>20</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. “Reconceptualizing the Encinitas Tradition of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 42(4): 1–64.
- <sup>21</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. “Reconceptualizing the Encinitas Tradition of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 42(4): 1–64.

economy focused on the gathering of shellfish and plant foods, particularly hard seeds, with hunting being of less importance.<sup>22</sup>

Two temporal subdivisions have been defined for the portion of the Topanga Pattern falling within the Millingstone Period: Topanga I (circa 6500 to 3000 BC) and Topanga II (circa 3000 to 1000 BC).<sup>23</sup> Topanga I assemblages are characterized by abundant manos and metates, core tools and scrapers, charmstones, coggled stone, and discoidals; projectile points are quite rare with those present resembling earlier, large, leaf-shaped forms.<sup>24</sup> Secondary inhumations with associated cairns are the most common burial form at Millingstone sites with small numbers of extended inhumations also identified. The subsequent Topanga II phase largely represents a continuation of the Topanga pattern with site assemblages characterized by numerous manos and metates, charmstones, coggled stones, discoidals, and some stone balls. A significant technological change in ground stone occurs at this time with the appearance of mortars and pestles at Topanga II sites suggesting the adoption of balanophagy by coastal populations.<sup>25</sup> The quantity of projectile points also notably increases in Topanga II site deposits indicating that the hunting of large game may have played a greater role in the subsistence economy than in earlier times. While secondary burials continue to be quite common, a few flexed inhumations have also been recovered from archaeological contexts dating to the Topanga II phase.

A number of Millingstone sites have been identified in the San Fernando Valley and surrounding areas. The early component of the Tank site (CA-LAN-1), located in the nearby Santa Monica Mountains appears to date to the Topanga I phase.<sup>26</sup> In addition, a marine shell sample from the Encino Village site (CA-LAN-43 / CA-LAN-111) yielded a radiocarbon date of  $4570 \pm 80$ , suggesting use of the southern portion of the valley during the Topanga I phase.<sup>27</sup> The presence of mortars and pestles alongside stemmed projectile points at the Chatsworth site (CA-LAN-21), located at the western edge of the San Fernando Valley, suggests a Topanga II presence.<sup>28</sup> Finally, the Big Tujunga Wash site, located at the eastern edge of the San Fernando Valley, may have also contained a Topanga II component.<sup>29</sup>

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<sup>22</sup> Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. "Prehistory of the Northern California Bight and the Adjacent Transverse Ranges." In *California Prehistory, Colonization, Culture, and Complexity*, ed. Terry L. Jones and Kathryn A. Klar. New York, NY: Altamira.

<sup>23</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. "Reconceptualizing the Encinitas Tradition of Southern California." *Pacific Coast Archaeological Society Quarterly*, 42(4): 1-64, 8.

<sup>24</sup> Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. "Prehistory of the Northern California Bight and the Adjacent Transverse Ranges." In *California Prehistory, Colonization, Culture, and Complexity*, ed. Terry L. Jones and Kathryn A. Klar. New York, NY: Altamira.

<sup>25</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. "Reconceptualizing the Encinitas Tradition of Southern California." *Pacific Coast Archaeological Society Quarterly*, 42(4): 1-64, 41.

<sup>26</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. "Reconceptualizing the Encinitas Tradition of Southern California." *Pacific Coast Archaeological Society Quarterly*, 42(4): 1-64, 8.

<sup>27</sup> Taylor, R.E., P.J. Ennis, P.J. Slota Jr. and L.A. Payen. 1989. "Non-Age-Related Variations in Aspartic Acid Racemization in Bone from a Radiocarbon-dated Late Holocene Archaeological Site." *Radiocarbon*, 31(3): 1048-56.

<sup>28</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. "Reconceptualizing the Encinitas Tradition of Southern California." *Pacific Coast Archaeological Society Quarterly*, 42(4): 1-64, 8.

<sup>29</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. "Reconceptualizing the Encinitas Tradition of Southern California." *Pacific Coast Archaeological Society Quarterly*, 42(4): 1-64, 8.

## Late Holocene: Intermediate Period (1500/1000 BC to AD 750)

The Intermediate Period, which encompasses the early portion of the “Del Rey Tradition” as defined by Sutton,<sup>30</sup> begins around 3500 BP. At this time, significant changes are seen throughout the coastal areas of Southern California in material culture, settlement systems, subsistence strategies, and mortuary practices. These new cultural traits have been attributed to the arrival of Takic speaking people from the southern San Joaquin Valley.<sup>31</sup> Biological, archaeological, and linguistic data indicate that the Takic groups who settled in the San Fernando Valley were ethnically distinct from the preexisting Hokan-speaking Topanga populations and are believed to be ancestral to ethnographic Gabrielino groups.<sup>32</sup> While archaeological evidence indicates that “relic” Topanga III populations continued to survive in isolation in the Santa Monica Mountains, these indigenous groups appear to have been largely replaced or absorbed by the Gabrielino or Chumash by 2000 BP.<sup>33</sup>

Intermediate Period sites within the region are represented by the “Angeles Pattern” of the Del Rey Tradition.<sup>34</sup> Three temporal subdivisions have been defined for the portion of the Angeles Pattern that falls within the Intermediate Period: Angeles I (1500 to 600 BC), Angeles II (600 BC to AD 400), and Angeles III (AD 400 to 750).<sup>35</sup> The onset of the Angeles I phase is characterized by the increase and aggregation of regional populations and the appearance of the first village settlements. The prevalence of projectile points, single-piece shell fishhooks, and bone harpoon points at Angeles I sites suggests a subsistence shift in the Intermediate Period with an increased emphasis on fishing and terrestrial hunting and less reliance on the gathering of shellfish resources. Regional trade or interaction networks also appeared to develop at this time with coastal populations in Los Angeles County obtaining small steatite artifacts and *Olivella* shell beads from the southern Channel Islands and obsidian from the Coso Volcanic Field.<sup>36</sup> Finally, marked changes are seen in mortuary practices during the Angeles I phase with flexed primary inhumations and cremations replacing extended inhumations and cairns.

The Angeles II phase largely represents a continuation and elaboration of the Angeles I technology, settlement, and subsistence systems. One exception to this pattern is the introduction of a new funerary complex around 2600 BP consisting of large rock cairns or platforms which contain abundant broken tools, faunal remains, and cremated human bone. These mortuary features have generally been thought to represent the predecessor of the Southern California Mourning

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<sup>30</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

<sup>31</sup> Sutton, Mark Q. 2009. “People and Language: Defining the Takic Expansion in Southern California.” *Pacific Coast Archaeological Society Quarterly*, 41(2&3): 31–93.

<sup>32</sup> Sutton, Mark Q. 2009. “People and Language: Defining the Takic Expansion in Southern California.” *Pacific Coast Archaeological Society Quarterly*, 41(2&3): 31–93.

<sup>33</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. “Reconceptualizing the Encinitas Tradition of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 42(4): 1–64, 17.

<sup>34</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

<sup>35</sup> Sutton, Mark Q., and Jill K. Gardner. 2010. “Reconceptualizing the Encinitas Tradition of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 42(4): 1–64, 8.

<sup>36</sup> Koerper, Henry C., Roger D. Mason, and Mark L. Peterson. 2002. “Complexity, Demography, and Change in Late Holocene Orange County.” In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, ed. M. Erlandson and Terry L. Jones. Perspectives in California Archaeology, Vol. 6. Los Angeles, CA: University of California, Los Angeles, Institute of Archaeology.

Ceremony.<sup>37</sup> Several important changes in the archaeological record mark the beginning of the Angeles III phase. At this time, larger seasonal villages characterized by well-developed middens and cemeteries were established along the coast or inland areas. Archaeological data from Angeles III sites indicate that residents of these settlements practiced a fairly diverse subsistence strategy which included the exploitation of both marine and terrestrial resources.<sup>38</sup> Notable technological changes occurred at this time with the introduction of the plank canoe and bow and arrow.<sup>39</sup> The appearance of new *Olivella* bead types at Angeles III sites indicates a reconfiguration of existing regional exchange networks with increased interaction with populations in the Gulf of California.<sup>40</sup> Finally, cremations increase slightly in frequency at this time with inhumations no longer placed in an extended position.<sup>41</sup>

#### Late Holocene: Late Period (AD 750 to Spanish Contact)

The Late Period dates from approximately AD 750 until Spanish contact at AD 1542. Sutton<sup>42</sup> has divided this period, which falls within the larger Del Rey Tradition, into two phases: Angeles IV (AD 750-1200) and Angeles V (AD 1200–1550). The Angeles IV phase is characterized by the continued growth of regional populations and the development of large, sedentary villages. Although chiefdoms appear to have developed in the northern Channel Islands and Santa Barbara region after 850 BP,<sup>43,44</sup> little direct evidence has been found to suggest this level of social complexity existed in the San Fernando Valley during the late prehistoric period.<sup>45</sup>

Several new types of material culture appear during the Angeles IV phase including Cottonwood series points, birdstone and “spike” effigies, *Olivella* cupped beads, and *Mytilus* shell disk beads. The presence of Southwestern pottery, Patayan ceramic figurines, and Hohokam shell bracelets at Angeles IV sites suggests some interaction between groups in Southern California and the Southwest. Notable changes are seen in regional exchange networks after 800 BP with an increase in the number and size of steatite artifacts, including large vessels, elaborate effigies, and *comals*, recovered from Angeles V sites. The presence of these artifacts suggests a strengthening of trade ties between coastal

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<sup>37</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

<sup>38</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

<sup>39</sup> Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. “Prehistory of the Northern California Bight and the Adjacent Transverse Ranges.” In *California Prehistory, Colonization, Culture, and Complexity*, ed. Terry L. Jones and Kathryn A. Klar. New York, NY: Altamira.

<sup>40</sup> Koerper, Henry C., Roger D. Mason, and Mark L. Peterson. 2002. “Complexity, Demography, and Change in Late Holocene Orange County.” In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, ed. M. Erlandson and Terry L. Jones. Perspectives in California Archaeology, Vol. 6. Los Angeles, CA: University of California, Los Angeles, Institute of Archaeology.

<sup>41</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

<sup>42</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

<sup>43</sup> Arnold, Jeanne E. 1992. “Complex Hunter-Gatherer-Fishers of Prehistoric California: Chiefs, Specialists, and Maritime Adaptations of the Channel Islands.” *American Antiquity*, 57(1): 60–84.

<sup>44</sup> Gamble, Lynn H. 2005. “Culture and Climate: Reconsidering the Effect of Palaeoclimatic Variability among Southern California Hunter-Gatherer Societies.” *World Archaeology*, 37(1): 92–108.

<sup>45</sup> Sutton, Mark Q. 2010. “The Del Rey Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly*, 44(2): 1–54.

Los Angeles populations and the southern Channel Islands.<sup>46</sup> Finally, Late Period mortuary practices remain largely unchanged from the Intermediate Period with flexed primary inhumations continuing to be the preferred burial method.

## **Ethnographic Context**

Ethnographic literature indicates that just prior to and during the early historic period, the proposed project site is situated within the traditional use area of the Serrano and Cahuilla and closely abuts the traditional use area of the Gabrieliño and Luiseño.

### ***The Serrano***

The term “Serrano” has been used to describe linguistic similarities between the Kitanemuk, Vanyume, Tataviam, and Serranos groups; however, the Serrano group refers to a small ethnic nationality that primarily inhabited the San Bernardino Mountains.<sup>47</sup> The word “Serrano” is from the Spanish term for “mountaineer” and the group’s core inhabited lands are thought to have been the San Bernardino Mountains. Although it is difficult to determine the boundary of Serrano territory beyond the San Bernardino Mountains, the Transverse Mountains east of the Cajon Pass, the western Mojave Desert and the area from the Tehachapi Mountains to the northern Colorado Desert have all been attributed to Serrano territory.<sup>48</sup>

Related groups of the Serrano include the Gabrieliño and Luiseño to the west at the Pacific Coast, and the Cahuilla inhabiting the Colorado Desert. For much of the Late Prehistoric Complex, the Serrano band, likely inhabited the western Mojave Desert, in what is now the Cajon Pass and Barstow area. Little is known about early Serrano social organization because the band was not studied until the 1920s and by that time enculturation had seriously compromised their native lifeway.<sup>49</sup> The Serrano were a hierarchically ordered society with a chief who oversaw social and political interactions both within their own culture and with other groups. Like other local groups, the Serrano had multiple villages ranging from seasonal satellite villages to larger, more permanent villages.

The primary food staple varied depending on locality. Groups located in the mountain and foothill regions gathered acorns and piñon; desert groups gathered honey mesquite, piñon nuts, yucca roots, mesquite and cacti fruits.<sup>50</sup> In addition to gathering fruit, seeds, and honey, deer, mountain sheep, antelope, rabbits, small rodents, and birds were hunted by the Serrano.<sup>51</sup>

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<sup>46</sup> Koerper, Henry C., Roger D. Mason, and Mark L. Peterson. 2002. “Complexity, Demography, and Change in Late Holocene Orange County.” In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, ed. M. Erlandson and Terry L. Jones. Perspectives in California Archaeology, Vol. 6. Los Angeles, CA: University of California, Los Angeles, Institute of Archaeology.

<sup>47</sup> Bean, Lowell J., and Charles R. Smith. 1978. “Serrano.” In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

<sup>48</sup> Kroeber, A.L. 1925. *Handbook of the Indians of California*. New York, NY: Dover Publications, Inc. p. 611.

<sup>49</sup> Kroeber, A.L. 1925. *Handbook of the Indians of California*. New York, NY: Dover Publications, Inc. p. 611.

<sup>50</sup> Bean, Lowell J., and Charles R. Smith. 1978. “Serrano.” In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

<sup>51</sup> Bean, Lowell J., and Charles R. Smith. 1978. “Serrano.” In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

Serrano villages were typically located near water sources and dwellings consisted of large, circular thatched and domed structures of willow covered with tule thatching. These tule houses could be built to house a large family. In addition to the living structure, a ramada (an open-air structure for outdoor cooking) was located adjacent to the home.<sup>52</sup> A large ceremonial structure was often present and was used as the religious center where the lineage leader resided. Additional structures, such as granaries for food storage and sweathouses for ritual activities, were often located adjacent to pools or streams.<sup>53</sup>

Because of their inland location, Serrano society was left relatively intact during initial Spanish colonization, unlike groups that inhabited the coastal area. In 1772, Spanish explorer Pedro Fagès traveled through the Cajon Pass to the Mojave Desert in an attempt to identify the native groups in this region. Fagès' ultimate goal was to place the Serrano under the supervision of a mission. By 1819, the Serrano were relocated to the Estancia of the Mission San Gabriel in Redlands.<sup>54</sup> At the time of relocation, there were likely on the order of 3,500 Serrano inhabiting the Mojave Basin. Between 1840 and 1860, a smallpox epidemic decimated the population. By 1910, the census recorded only 100 Serrano.<sup>55</sup>

### ***The Cahuilla***

As inhabitants of the topographically complex south-central California desert, the Cahuilla were able to exploit and inhabit a variety of ecotones that include mountains, canyons, valleys, and deserts. Portions of the Cahuilla territory include elevations of 11,000 feet above mean sea level (MSL) in the San Bernardino Mountains to 273 feet below MSL in the vicinity of the Salton Sea.<sup>56</sup> Today three main divisions of Cahuilla are recognized by researchers: Desert Cahuilla, Mountain Cahuilla, and Western (or Pass) Cahuilla.<sup>57</sup> Their lifeways adapted to a variety of environmental zones, which contributed to the formation of a diverse and complex cultural.

Traditionally the Cahuilla gathered, hunted, and gardened, and were organized socially and politically around a hierarchical structure.<sup>58</sup> Cahuilla clans contributed to a larger integrative system that connected many politically autonomous segments into a wider religious, economic, and political network of cooperative groups.<sup>59</sup> The Cahuilla are members of the Shoshonean language group. They are organized along lines of patrilineal descent and are exogamous, being members of either the Wildcat or Coyote moieties. An office of lineage leader (*net*) is inherited through the father's line and

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<sup>52</sup> Bean, Lowell J., and Charles R. Smith. 1978. "Serrano." In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

<sup>53</sup> Bean, Lowell J., and Charles R. Smith. 1978. "Serrano." In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

<sup>54</sup> Bean, Lowell J., and Charles R. Smith. 1978. "Serrano." In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

<sup>55</sup> Bean, Lowell J., and Charles R. Smith. 1978. "Serrano." In *Handbook of North American Indians*, Volume 8: California, ed. William C. Sturtevant. Washington, DC: Smithsonian Institute. pp. 570–574.

<sup>56</sup> Caballeria, Juan y Collell. 1902. *History of the San Bernardino Valley: From the Padres to the Pioneers*. San Bernardino, CA: Times-Index Press. p. 67.

<sup>57</sup> Caballeria, Juan y Collell. 1902. *History of the San Bernardino Valley: From the Padres to the Pioneers*. San Bernardino, CA: Times-Index Press. p. 67.

<sup>58</sup> Caballeria, Juan y Collell. 1902. *History of the San Bernardino Valley: From the Padres to the Pioneers*. San Bernardino, CA: Times-Index Press. p. 67.

<sup>59</sup> Caballeria, Juan y Collell. 1902. *History of the San Bernardino Valley: From the Padres to the Pioneers*. San Bernardino, CA: Times-Index Press. p. 67.

is responsible for tribal schedules and events necessary to maintain cultural, social, political, and economic balance. Additionally, the lineage leader functions with the support of the *hawaynik* or ceremonial song leader, and the *paxa* or shaman, who form an elite association.<sup>60</sup>

First contact with the Spanish came in 1774 by the Juan Bautista de Anza expedition.<sup>61</sup> After near eradication through the ensuing years, people of the remaining Cahuilla tribelets were confined to reservations in 1877 now known as the Morongo, Agua Caliente, Augustine, Cabazon, Los Coyotes, Santa Rosa, Cahuilla, Ramona, and Torres Martinez Reservations.

### **Cultural Resources Characterization**

#### *Previous Archaeological Surveys in the Proposed Project Study Area*

The results of the literature reviews indicate that 14 archaeological studies (survey, excavation, and monitoring) have been conducted within a 1-mile radius of the proposed project area (Table 2, *Previous Surveys within the Study Area*); of these, none have been completed within the proposed project area. The table below provides an overview of the previous surveys conducted within the study Area.

**TABLE 2  
PREVIOUS SURVEYS WITHIN THE STUDY AREA**

<b>Report No.</b>	<b>Year</b>	<b>Report Title</b>	<b>Authors</b>
RI-00310	1978	Environmental Impact Evaluation: An Archaeological Assessment of Tentative Tract No. 11095, North of Cajalco Road, Riverside County, California	Donna Belligio and Rene Giansanti
RI-03264	1991	An Archaeological Assessment of A 2.53-Acre Parcel as shown on TRM 26112 Located Adjacent to Haines Street in Mead Valley, Riverside County.	Robert S. White
RI-03299	1991	Cultural Resources Assessment Tentative Parcel 26874, Mead Valley Area of Riverside County, California	John Torres
RI-03388	1991	An Archaeological Assessment of Tentative Parcel Map 26734, County of Riverside, California	Christina Brewer
RI-03878	1994	Negative Archaeological/Historic Property Survey Report: Cajalco Road Improvements, Route S10626	Deborah Mclean
RI-04519	2001	A Cultural Resources Assessment	Robert S. White and

<sup>60</sup> Caballeria, Juan y Collell. 1902. *History of the San Bernardino Valley: From the Padres to the Pioneers*. San Bernardino, CA: Times-Index Press. p. 67.

<sup>61</sup> Caballeria, Juan y Collell. 1902. *History of the San Bernardino Valley: From the Padres to the Pioneers*. San Bernardino, CA: Times-Index Press. p. 67.

**TABLE 2**  
**PREVIOUS SURVEYS WITHIN THE STUDY AREA, *Continued***

<b>Report No.</b>	<b>Year</b>	<b>Report Title</b>	<b>Authors</b>
		of the Proposed Mead Valley Fire Station Site, 2.09 Acres (APN 318-180-060) Located at the Northeast Corner of Clark And Pinewood Streets, Mead Valley, Riverside County	Laurie S. White
RI-05027	2000	A Phase I Cultural Resources Investigation of the Vesta Telecommunications, Inc. Fiber Optic Alignment, Riverside County to San Diego County, California	Jeanette A. McKenna
RI-05492	2000	Records Search Results for Sprint PCS Facility Rv54xc460d (Pair of Bunns Site), Perris, Riverside County, CA	Adrianna L. Jackson
RI-05493	2001	Cultural Resource Assessment for Sprint PCS Facility Rv54xc460d (Pair of Bunns Site), Riverside County, CA	Adrianna L. Jackson
RI-07572	2006	Phase I Cultural Resources Survey Report for the Tentative Tract Map 33869, 49.95 Acres Near Rider and Day Streets, County of Riverside, California With a Paleontological Records Review	Michael Dice
RI-08827	2012	Letter Report: Request for Comments Regarding Proposed Range Blossom Site, 21381 Cajalco Road, Perris CA, TCNS#81444	Heather Puckett
RI-08909	2012	Letter Report: Proposed Cellular Tower Project(s) in Riverside County, California, Site Number(s)/ Name(s): LA4020B/TMO Colo IE 04373A, TCNS# 81486	Scott Billat
RI-10092	2002	Cultural Resource Assessment Prepared for: Colleen Dooley Cingular Wireless SB-170-01 Clark Street	Don Lewis
RI-10099	2002	Phase I Archaeological Field Survey for Cingular Wireless Site SB-170-01 (The Clark Street Site), Located at 21650 Elmwood St., Perris, Riverside County, California.	Don Lewis

*Previously Recorded Archaeological Resources*

The results of the records searches determined that seven prehistoric archaeological sites are located within 1-mile of the proposed project area. In addition, one historic built resource has also been recorded within 1-mile of the proposed project area. Descriptions of these resources are provided in Table 3, *Previously Recorded Archaeological Resources*; Table 4, *Previously Recorded Historic Built*

Resources, respectively. None of these previously documented cultural resources are located within or adjacent to the proposed project area.

**TABLE 3  
PREVIOUSLY RECORDED ARCHAEOLOGICAL RESOURCES**

Primary Number	Trinomial	Time Period		Description	Location
		Prehistoric	Historic		
P-33-001263	CA-RIV-1263	X		Prehistoric milling station with one slick	Within 1 mile of project area
P-33-001336	CA-RIV-1336	x		Prehistoric milling station with one slick	Within 1 mile of project area
P-33-004251	CA-RIV-4251	x		Prehistoric milling station with two slicks	Within 1 mile of project area
P-33-008303	CA-RIV-8303	X		Prehistoric milling station	Within 1 mile of project area
P-33-008344	CA-RIV-8344	x		Prehistoric milling station with three slicks	Within 1 mile of project area
P-33-008345	CA-RIV-8345	x		Prehistoric milling station with two slicks	Within 1 mile of project area
P-33-009300	CA-RIV-9300	x		Prehistoric milling station with two slicks	Within 1 mile of project area

**TABLE 4  
PREVIOUSLY RECORDED HISTORIC BUILT RESOURCES**

Primary Number	Trinomial	Description	Location
P-33-006726	CA-RIV-6726H	Colorado River Aqueduct	Within 1 mile of project area

**CONCLUSION**

This section of the report provides the conclusions and recommendations for minimizing potential impacts to cultural resources for the proposed project.

Based on the results of cultural resources records searches, no previously recorded cultural resources were identified within or adjacent to the proposed project Area. Previous cultural resource investigations indicate a low potential to encounter cultural resources during the proposed project undertaking. The archival research identified seven previously recorded archaeological sites and one historic built environment resource within 1-mile of the proposed project area. Each of the seven previously recorded archaeological resources consist of a prehistoric milling station on bedrock outcrops. There are no exposed bedrock outcrops within the proposed project area.

There are no records of historic built resources within the proposed project area. There is a low probability to encounter historic built resources based on the inherent characteristics and location of the proposed project area.

There were no cemeteries or burial sites discovered as a result of the literature review or records searches. There is a low probability to encounter human remains based on the inherent characteristics and location of the proposed project site.

No paleontological mitigation measures are warranted or recommended.

Sapphos Environmental, Inc. recommends the following measures be implemented for the proposed project so that there are no adverse effects to archaeological, historic or tribal resources:

- In the event of unanticipated discoveries during the course of the construction, a qualified archaeologist shall be consulted to assess the significance of the discovery. A discovery may also require consultation to be conducted with the Native American groups.

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***APPENDIX A***  
***RESUME OF KEY PERSONNEL***

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## Dustin M. Keeler, PhD, RPA

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### **Archaeological Resources Manager**

*PhD, Anthropology, emphasis in  
Archaeology, State University  
of New York at Buffalo*

*BA, Anthropology, emphasis in  
Archaeology Arizona State  
University, Tempe*

*RPA, Registered Professional  
Archaeologist*

- *Meets Secretary of the Interior's Professional Qualification Standards in archaeology*
- *Project Management*
- *Pedestrian Surveys*
- *Archaeological/ Paleontological Monitoring*
- *Agency and Native American tribal consultation*
- *GPS (Trimble/Garmin)/GIS*
- *Lithic Analysis*
- *Prehistoric Ceramic Analysis*
- *Historical Resource Identification and Analysis*

*Years of Experience: 18+*

#### *Relevant Experience:*

- *CEQA/NEPA/ NHPA, Section 106 compliance*
- *Field Direction of VA Long Beach Fisher House Mechanical Excavation, Long Beach, CA*
- *Field Direction of Extended Phase I Testing for the Caltrans High Desert Corridor Project, Los Angeles and San Bernardino Counties, CA*
- *Archaeological Monitoring Coordination for the Crenshaw/LAX Metro Project*
- *Data Recovery for Metropole Vault Replacements, Southern California Edison, Catalina*
- *Southern California Coastal and Inland, Channel Islands, Great Basin, and Central American Archaeology*

Dr. Dustin Keeler, Archaeological Resources Manager for Sapphos Environmental, Inc., has more than 18 years of experience in the field of archaeology including project management, field direction, planning, technical writing, archaeological field survey, data recovery, construction monitoring, Geographic Information Systems and laboratory analysis.

As Archaeological Resources Manager, Dr. Keeler has undertaken and contributed to work efforts for Historic and Prehistoric Archaeology in Los Angeles, San Diego, Imperial, Riverside, San Bernardino, Orange, Kern, San Luis Obispo, El Dorado, and Mono Counties. He has been involved in cultural resources investigations under Section 106 of the National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA) and in consultation with the SHPO and Native American tribes in accordance with the Secretary of the Interior's Standards. Dr. Keeler has directed and performed archaeological field surveys, site recordation, mapping, construction monitoring, and data recovery. In addition, Dr. Keeler has performed laboratory analysis, including GIS spatial analysis, ceramic and lithic formal artifact analysis, and historical artifact analysis. He is also experienced in the management of archaeological GIS data. His qualifications meet the Secretary of the Interior's Professional Qualifications Standards in archaeology as a project archaeologist for both prehistoric and historic cultural remains.

Dr. Keeler is experienced using ArcGIS, GPS and Trimble. His responsibilities have included identification, analysis and interpretation of archaeological material, preparation of site records and preparation of reports. Dr. Keeler has experience collaborating with Native American Tribal representatives as well as City, County, State and Federal agencies and compliance with each of their respective regulations and codes, including but not limited to the State Historic Preservation Officer (SHPO), U.S. Army, U.S. Navy, California Department of Parks and Recreations, California Department of Public Works, Bureau of Land Management, and Caltrans.

Dr. Keeler has presented original research at the Society for American Archaeology annual meeting. Current research interests include GIS intrasite and regional spatial analysis, marine adapted hunter-gatherers, and prehistoric Mojave desert archaeology.

Dr. Keeler is a member of the Society of American Archaeology and the Society for California Archaeology.



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e-mail: smcleod@nhm.org

19 November 2018

Sapphos Environmental, Inc.  
430 North Halstead Street  
Pasadena, CA 91107

Attn: Dustin Keeler, Ph.D., Senior Archaeological Resources Coordinator

re: Paleontological resources for the proposed New Shopping Center Service Gas Station  
Project, Job Number: 2338-002, in Mead Valley, Riverside County, project area

Dear Dustin:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed New Shopping Center Service Gas Station Project, Job Number: 2338-002, in Mead Valley, Riverside County, project area as outlined on the portion of the Steele Peak USGS topographic quadrangle map that you sent to me via e-mail on 5 November 2018. We do not have any fossil localities that lie directly within the proposed project area boundaries, nor do we have any fossil localities from the types of igneous rocks that occur in the proposed project area.

Geologic mapping shows that the entire proposed project area has bedrock composed of plutonic igneous rocks that will not contain recognizable fossils. We have no vertebrate fossil localities from these types of rocks. Because the entire proposed project area has exposures and bedrock composed exclusively of igneous rocks, any excavations in the proposed project area will not encounter any recognizable fossils. No paleontological mitigation measures, therefore, are warranted or recommended.

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

Sincerely,

Samuel A. McLeod, Ph.D.  
Vertebrate Paleontology

enclosure: invoice