

MATERIAL CULTURE CONSULTING, INC.

archaeology | paleontology | sustainability

PHASE 1 CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT: HOLLY STREET LOGISTICS CENTER SAN BERNARDINO COUNTY, CALIFORNIA

Prepared on Behalf of:

Howard Industrial Partners, LLC.
1944 N. Tustin Street, Suite 122
Orange, CA 92865

Prepared for:

San Bernardino County Planning Department
385 N Arrowhead Ave # 2
San Bernardino, CA 92415
Phone: (909) 387-8311

Prepared By:

Tria Marie Belcourt, M.A., Registered Professional Archaeologist
Jennifer Kelly, M. Sc., Geology, Professional Paleontologist
Material Culture Consulting, Inc.
342 Cucamonga Avenue
Claremont, California 91711
626-205-8279

December 28, 2018

Date of Fieldwork: June 3, 2017

Archaeological Sites within Area of Potential Impacts: none

Paleontological Resources within Area of Potential Impacts: none

Project and Site Location: Holly Street, Riverside CA (APN 026-013-114 and 026-013-115); Township 25 South, Range 5 West, Section 2 of the USGS 7.5-minute Fontana and San Bernardino South, California topographic map.

Area: 64.80 acres

Key Words: cultural resources assessment, paleontological resources assessment, Quaternary alluvium, Phase 1, negative findings, San Bernardino County, Agua Mansa Industrial Corridor Specific Plan, San Bernardino South USGS Quad, Fontana USGS Quad

MANAGEMENT SUMMARY

The following report describes the results of a Phase I archaeological and paleontological assessment conducted by Material Culture Consulting (MCC) for the Holly Street Project, in unincorporated San Bernardino County, California. Howard Industrial Partners, LLC. is proposing the construction of a paved trailer storage and overflow employee parking lot on two parcels encompassing approximately 64.80 gross acres of land (APN 026-013-114 and 026-013-115). MCC, in compliance with the California Environmental Quality Act (CEQA), County of San Bernardino, and Agua Mansa Specific Plan environmental guidelines, conducted the assessment to identify any cultural and paleontological resources present within the Project Area, as well as to assess the potential for significant impacts to cultural and paleontological resources within the Project Area.

A cultural resources records search was conducted at the South Central Coastal Information Center at California State University, Fullerton (SCCIC) and the Eastern Information Center at University of California, Riverside (EIC). While the Project is located entirely within San Bernardino County, the one-mile records search buffer extends into Riverside County. The records search provided information regarding previous studies and previously recorded resources within the Project boundaries, and a one-mile radius of the Project. No previously recorded resources exist within the Project Area; however, thirteen previously recorded resources exist within one-mile radius of the Project Area. The area has not been previously surveyed for cultural resources, however portions of the one-mile radius have been previously investigated by intensive pedestrian survey.

The paleontological records search was conducted by the Western Science Center in Hemet, California. The records search included review of known fossil localities within the Project Area and surrounding vicinity, as well as review of geological maps. While no localities are recorded within the Project location or within a one-mile radius, the geologic units underlying this Project are mapped entirely as alluvial fan deposits dating from the Pliocene to the Holocene period (Jennings, Strand, and Rogers, 1977). These types of native sediments are considered to be of high paleontological sensitivity, as per Society of Vertebrate Paleontology (SVP) guidelines and any fossils recovered from the Project Area would be scientifically significant.

The archaeological and paleontological survey of the Project Area was conducted on June 3, 2017. Survey conditions were generally good and ground visibility ranged from good to excellent in most areas. The entirety of the property has been immensely disturbed and graded in the past, and is currently in use as a motocross track. No prehistoric or historic archaeological resources were identified during the survey.

Considering the potential for encountering cultural and paleontological resources in buried contexts under fill soils, a construction worker training program is appropriate. This program should identify discovery and processing protocol for inadvertent discoveries of cultural and paleontological resources. We do not recommend cultural resources monitoring, however we do recommend spot-checking paleontological excavation of native soils, if encountered, at depths of ten feet or greater below surface. Material Culture recommends that with implementation of the training program, and spot-check paleontological monitoring, the Project will have no foreseeable impact to cultural or paleontological resources.

TABLE OF CONTENTS

PROJECT LOCATION	1
PROJECT DESCRIPTION	1
PROJECT PERSONNEL.....	2
REGULATORY SETTING	2
ENVIRONMENTAL SETTING	9
PALEONTOLOGICAL SETTING	9
PREHISTORIC CONTEXT	9
ETHNOGRAPHY.....	10
HISTORIC CONTEXT	12
METHODS	13
PALEONTOLOGICAL RESOURCES RECORDS SEARCH	13
CULTURAL RESOURCES RECORDS SEARCH	13
NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH	14
FIELD SURVEY	14
REPORT PREPARATION AND RECORDATION	14
RESULTS	14
PALEONTOLOGICAL RECORDS SEARCH.....	14
CULTURAL RESOURCES RECORDS SEARCH.....	15
NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH	16
FIELD SURVEY	16
CONCLUSIONS AND RECOMMENDATIONS	18
PALEONTOLOGICAL RESOURCES.....	18
CULTURAL RESOURCES.....	18
REFERENCES CITED	20

LIST OF FIGURES

FIGURE 1. HOLLY STREET PROJECT VICINITY	3
FIGURE 2. HOLLY STREET PROJECT AREA	4
FIGURE 3. HOLLY STREET PROJECT AREA (AERIAL PHOTOGRAPH).....	17

LIST OF TABLES

TABLE 1. PREVIOUSLY RECORDED CULTURAL RESOURCES	15
TABLE 2. ADDITIONAL SOURCES CONSULTED FOR THE PROJECT.....	15

LIST OF APPENDICES

APPENDIX A: Qualifications	
APPENDIX B: Paleontological Resources Records Search Results	
APPENDIX C: Cultural Resources Records Search Results	
APPENDIX D: NAHC and Native American Correspondence	
APPENDIX E: Photographs	

PROJECT LOCATION

Howard Industrial Partners, LLC. is proposing the construction of a trailer storage and overflow employee parking lot on approximately 65 gross acres of land within two parcels (APN 026-013-114 and 026-013-115). The proposed Project is located on Holly Street (address to be determined), in unincorporated San Bernardino County, California, within the Agua Mansa Industrial Corridor Specific Plan Area. Major streets adjacent to the Project Area are Riverside Avenue to the east/northeast, Agua Mansa Road to the west/northwest, and the Santa Ana River to the south/southeast. Specifically, this Project is located on Section 2 of the USGS 7.5-minute Fontana and San Bernardino South, California topographic map, Township 25 South, Range 5 West (projected) (See Figures 1 and 2).

PROJECT DESCRIPTION

The proposed project will be used as a parking lot for FedEx Ground drivers and for trailer storage lot on an approximately 65-acre site. The site is located on the east side of Holly Street, north of Wilson Street, within the Rialto Sphere of Influence. The site is within the Agua Mansa Industrial center and is bounded by warehouses and other industrial uses to the north and west, a horse boarding facility to the south, and the Santa Ana River to the east.

The site is located downslope from Holly Street, with an elevation about 50 feet lower than the street. Beyond an initial steep slope down from the street, the site is generally flat. The site is used as a motocross park, containing a series of earth tracks for motorcycle and ATV racing. Existing structures are limited to small single-story buildings supporting the motocross facility, including a pro shop for retail sales, maintenance and storage sheds, and management offices. A parking area frequented by trucks and RVs is also present. The site is fully disturbed and generally maintained free of vegetation. Occasional clusters of ornamental vegetation, including trees, are found between race tracks.

The proposed project would remove the existing structures on-site and pave approximately 31 acres (approximately 48%) of the site for use as a parking lot for FedEx Ground drivers and for trailer storage. Approximately 1005 parking stalls will be provided for automobiles and long-haul tractors. An additional 556 trailer spaces will be provided. The parking lot will be used for FedEx Ground drivers (Contracted Service Providers – CSPs). The CSPs would arrive in their personal vehicles and park, then drive a tractor to the FedEx Rialto Hub located 330 Resource Drive, Bloomington, CA or the West Rialto Station located at 11600 Cactus Ave., Bloomington, CA. CSPs would then pick up a trailer and dispatch from the hub. Drivers would return to drop their trailers at the Rialto Hub or West Rialto station then drive the tractor back to the proposed Holly Street lot. When the FedEx facilities are congested, some trailers would be returned to the Holly Street lot along with the tractor. Access to the site would be provided via a transponder-operated gate. Security from the FedEx facility would roam between the FedEx site and the proposed Holly Street parking lot and would patrol the site on a regular basis, approximately every 2 hours or 12 times per day.

It is anticipated that approximately 9 CSPs will arrive at the site every hour and will shuttle 9 tractors/trailers to the Rialto Hub or West Rialto Station. This number could be as low as 5 per hour during off-peak times. The potential trip generation of the project has been evaluated based on the proposed operation of the site and is shown in Table 1. Table 1 shows the total trips as well as the passenger car equivalent (PCE) trips. PCE accounts for the fact that a truck has a slower start-up time, takes up more roadway space and has reduced maneuverability when compared to a passenger car.

PROJECT PERSONNEL

Tria Belcourt, M.A., RPA served as the Project Manager and Principal Investigator for the cultural resources study and supervised all work. Ms. Belcourt coordinated both records searches, communicated with NAHC and Native American individuals, conducted the survey, and oversaw completion of this report. Belcourt is a Registered Professional Archaeologist (RPA) with a M.A. in Anthropology from the University of Florida, a B.A. in Anthropology from the University of California at Los Angeles and over twelve years of experience in California archaeology. Resume is provided (Appendix A). Jennifer Kelly, M.Sc., served as the Principal Investigator for Paleontology. Ms. Kelly reviewed the paleontological records search and survey results, and authored the paleontological section of this report. Ms. Kelly has a B.S. in Geological Studies and M.Sc. in Geology from California State University, Long Beach. Ms. Kelly has over twelve years of experience in paleontological compliance in California. Sonia Sifuentes, M.Sc., prepared the Native American outreach letters, and conducted all follow-up attempts, and prepared the report. Judy Bernal, B.A., conducted the cultural resources records searches. Resumes are presented as Appendix A.

REGULATORY SETTING

The present study meets the requirements of CEQA for cultural and paleontological resources assessments. In addition, the Project assessment meets the County of San Bernardino requirements. The paleontological assessment follows guidelines established by the Society of Vertebrate Paleontology (SVP 2010). According to these regulations and guidelines, if development of a project has the potential to impact scientifically significant paleontological resources, a plan must be developed and to mitigate those impacts.

California Environmental Quality Act (CEQA)

CEQA declares that it is state policy to "take all action necessary to provide the people of this state with...historic environmental qualities." It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect,

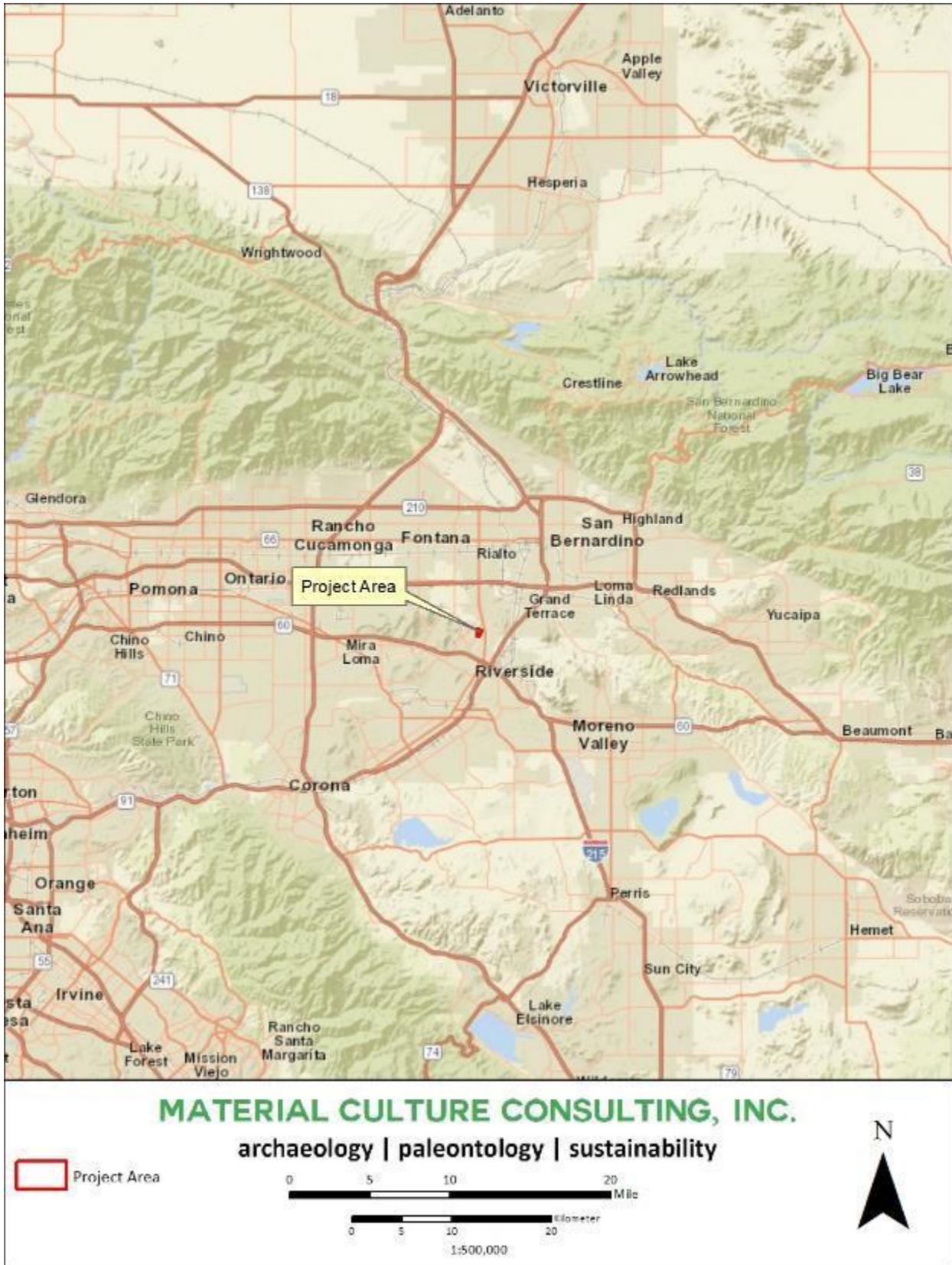


Figure 1. Holly Street Logistics Center - Project Vicinity

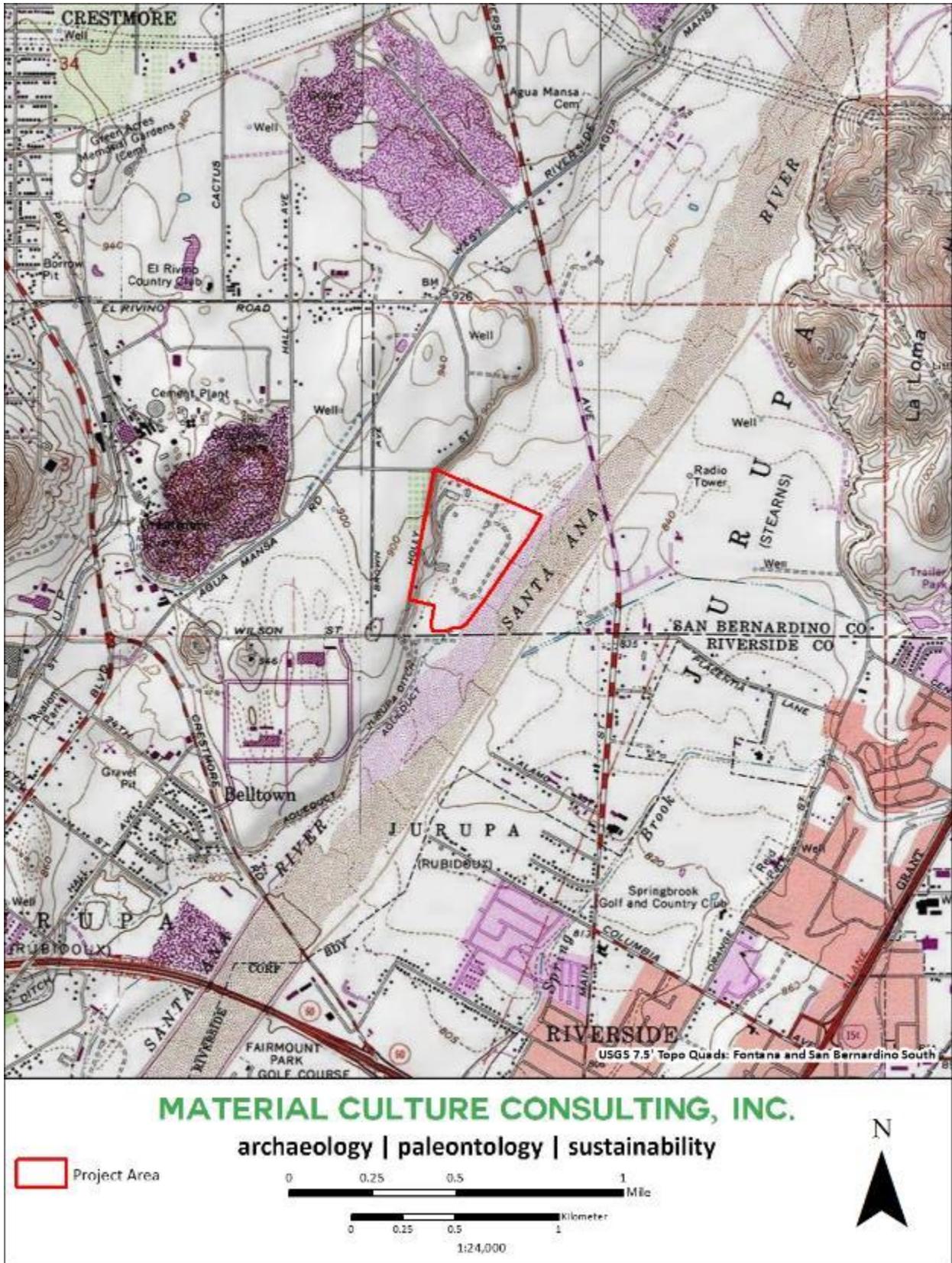


Figure 2. Holly Street Logistics Center - Project Area

the act requires that alternative plans and mitigation measures be considered. CEQA includes historic and archaeological resources as integral features of the environment. If paleontological resources are identified as being within the proposed Project Area, the sponsoring agency must take those resources into consideration when evaluating project effects as well. The level of consideration may vary with the importance of the resource.

CEQA requires a lead agency to determine whether a Project may have a significant effect on historical resources. A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Section 21084.1), a resource included in a local register of historical resources (Section 15064.5(a)(2)), or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5 (a)(3)). Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were used as the basic guidelines for the cultural resources study. PRC Section 5024.1 directs evaluation of historical resources to determine their eligibility for listing on the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change.

The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties. According to Public Resources Code (PRC) Section 5024.1(c)(1-4), a resource is considered historically significant if it meets at least one of the following criteria:

- 1) Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
- 2) Associated with the lives of persons important to local, California or national history;
- 3) Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values; or
- 4) Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Note that California Historical Landmarks with numbers 770 or higher are automatically included in the CRHR.

Under CEQA, if an archeological site is not a significant "historical resource" but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archeological resource is defined in PRC Section 21083.2(g) as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

Resources that neither meet any of these criteria for listing on the NRHP or CRHR nor qualify as a “unique archaeological resource” under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, “A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” [PRC Section 21083.2(h)].

Impacts to historical resources that alter the characteristics that qualify the historical resource for listing on the CRHR are considered to be a significant effect (under CEQA). The impacts to a historical resource are considered significant, if the Project activities physically destroy or damage all or part of a resource, change the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance, or introduce visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource. If it can be demonstrated that a Project will cause damage to a unique archaeological 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. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)).

California Historical Landmarks and Points of Historical Interest

Historical landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. In order to be considered a California Historical Landmark, the landmark must meet at least one of the following criteria:

- 1) Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
- 2) Associated with the lives of persons important to local, California, or national history;
- 3) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values;
- 4) Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

If a site is primarily of local or countywide interest, it may meet the criteria for the California Point of Historical Interest Program. Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value.

To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

- 1) The first, last, only, or most significant of its type in the local geographic region (city or county);
- 2) Associated with an individual or group having a profound influence on the history of the local area;
- 3) A prototype of, or an outstanding example of, a period, style, architectural movement or construction; or

- 4) One of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point of Interest. If a Point of Interest is subsequently granted status as a Landmark, the Point of Interest designation will be retired.

Paleontological Sensitivity

Paleontological sensitivity (potential) reflects the potential for a geologic unit to produce scientifically significant and/or important fossils. However, it is impossible to predict the specific types of fossils that will be found, or their exact locations in a geologic formation, regardless of the overall potential for that unit to produce fossils. The paleontological sensitivity determination does not necessarily predict the significance of fossils that may be found during construction activities on the Project. The scientific significance of an individual fossil can only be determined after it is discovered and subsequently evaluated by a qualified paleontologist. Any paleontological site that produces significant fossil remains or assemblages is considered highly significant, regardless of the initial paleontological sensitivity potential assigned to the geologic unit in which the locality occurs. Assigned sensitivity potentials of geologic units can change over time as increased knowledge of the geologic units or formations and their levels of productivity for paleontological resources becomes available.

According to the Society of Vertebrate Paleontology (SVP) (2010): "A Significant Fossiliferous Deposit is a rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information." In its "Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources," SVP (2010) recognizes four categories of paleontological potential for rock units: high, moderate/unknown (undetermined), low, and no potential:

High Potential - Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rock units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcanoclastic formations (e.g., ashes or tephra), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e.g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Moderate/Unknown Potential - Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological

resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

Low Potential - Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only. Preserved fossils are found in rare circumstances, and the presence of fossils is the exception not the rule, e.g. basalt flows or recent colluvium. Rock units with low paleontological sensitivity typically will not require mitigation measures for preservation or management of paleontological resources.

No Potential - Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

Ground disturbance in geologic units and geographic areas known to contain scientifically significant fossils may produce adverse impacts to nonrenewable paleontological resources (State CEQA Guidelines, 14 CCR Sections 15064.5[3] and 15023; State CEQA Guidelines Appendix G, Section V, Part C). Direct impacts to paleontological resources concern the physical destruction of fossils, usually by human-caused ground disturbance. Indirect impacts to paleontological resources typically concern the loss of resources to theft and vandalism resulting from increased public access to paleontologically sensitive areas. Cumulative impacts to paleontological resources concern the incremental loss of these nonrenewable resources to society as a whole.

San Bernardino County Development Code

The County of San Bernardino's Development Code (§82.12.010-050 regarding Cultural Resources and §82.20.010-040 regarding Paleontological Resources) requires evaluation of potential cultural and paleontological resources as part of its CEQA review of proposed projects. It also defines the requirements for a qualified technical specialist in both disciplines. The County additionally requires a Project proposed within the Cultural and Paleontological Resources Overlay to include a report prepared by a qualified professional that determines, through appropriate investigation, the presence or absence of cultural or paleontological resources on the Project site and within the Project Area. The report must also recommend appropriate recovery or protection measures. The Overlay may be applied to areas (determined by records searches at appropriate institutions) where cultural or paleontological resources are known to have been produced or are likely to be present.

Agua Mansa Industrial Corridor Specific Plan

As per the Agua Mansa Industrial Corridor Specific Plan, there are a number of significant cultural resources located within this planning area. Within the Specific Plan, Mr. Michael Lerch of the San Bernardino County Museum Association recommended that all new development in previously undisturbed areas be preceded by a cultural resources survey conducted by a professional archaeological consultant, and that consideration be given to subsurface testing or other evaluation of cultural resources for all proposed development in proximity to areas with previously recorded sites, even in cases where surface evidence has been destroyed since the site was originally recorded. Some levels of evaluation of potential impacts to cultural resources should be undertaken by a qualified archaeologist for every proposed Project within the study area due to the overall prehistoric and early historic significance of the region.

ENVIRONMENTAL SETTING

The Project site is located directly north of the San Bernardino /Riverside County line northeast of the intersection of Holly Street and Wilson Street, in unincorporated San Bernardino County, within the Rancho Jurupa (Stearns) land grant area. Major thoroughfares adjacent to the Project Area are Riverside Avenue to the east/northeast, Agua Mansa Road to the west/northwest, and the Santa Ana River to the south/southeast.

The Project Area is located within the northern extent of the Santa Ana Valley, a sub-portion of the larger San Bernardino Valley. The subject site is located within the broad alluvial fan originating from the southern flank of the San Gabriel Mountains, and dips gradually southward to the confluence of the Santa Ana River at the Prado Dam Flood Control Basin in Riverside County. These parcels are currently relatively flat above the Santa Ana River, with the property's lowest point located at its southern corner and its highest point located at its northeastern boundary. Elevations within the Project Area range from approximately 860 to 880 feet above mean sea level (AMSL). The entire Project Area has been disturbed by previous development. Currently, vegetation within the Project Area is characterized as primarily introduced grasses, weeds, and vegetation remnants.

PALEONTOLOGICAL SETTING

The Project Area is located within the northern/northwestern portion of the Peninsular Ranges Geomorphic Province of southern California. The Peninsular Ranges are the southernmost segment of a chain of North American Mesozoic batholiths that extend from Alaska to the southern tip of Baja California, and are a series of northwest-southeast trending mountain ranges separated by similarly trending valleys. The Project Area is situated in the San Bernardino Basin, adjacent to the Transverse Ranges Geomorphic Province. This province is comprised of a series of mountain ranges that run transverse to most mountain ranges in southern California – roughly east/west trending. The mountains within the province, including the San Gabriel and San Bernardino mountains to the north and northeast, were uplifted by tectonic activity in the area, and provide a major sedimentary source for the alluvium of the adjacent basin areas (Critelli et al. 1995). The geologic units underlying this Project are mapped entirely as alluvial fan deposits dating from the Holocene to Late Pleistocene period (Morton, 1995). The surface of the Project is heavily disturbed by present motocross dirt track activity to an unknown depth below surface.

PREHISTORIC CONTEXT

Most researchers agree that the earliest occupation for the area dates to the early Holocene (11,000 to 8,000 years ago). The following discussion of the cultural history of San Bernardino County references the San Dieguito Complex, the Milling Stone Horizon, the Encinitas Tradition, the La Jolla Complex, the Pauma Complex, and the San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component in the area of San Bernardino County was represented by the Cahuilla, Gabrielino, and Luiseño Indians. Absolute chronological information, where possible, will be incorporated into this discussion to examine the effectiveness of continuing to use these terms interchangeably.

The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983). Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering,

and collecting adaptation, utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995). The earliest sites known in the area are attributed to the San Dieguito culture, which consists of a hunting culture with flaked stone tool industry (Warren 1967). The material culture related to this time included scrapers, hammer stones, large flaked cores, drills, and choppers, which were used to process food and raw materials.

Around 8,000 years ago, subsistence patterns changed, resulting in a material complex consisting of an abundance of milling stones (for grinding food items) with a decrease in the number of chipped stone tools. The material culture from this time period includes large, bifacially worked dart points and grinding stones, handstones and metates. Archaeologists initially designated this period as the "Millingstone Horizon" (Wallace 1955). Later, the Millingstone Horizon was redefined as a cultural tradition named the Encinitas Tradition (Warren 1967) with various regional expressions including Topanga and La Jolla. Use by archaeologists varied as some adopted a generalized Encinitas Tradition without regional variations, while others continued to use Millingstone Horizon, and still others used Middle Holocene (the geologic time period) to indicate this observed pattern (Sutton and Gardner 2010:1-2). Recently, this generalized terminology was criticized by Sutton and Gardner (2010) as suppressing the identification of cultural, spatial, and temporal variation, as well as the movement of peoples throughout space and time. It is these factors that are believed to be critical to an understanding of prehistoric cultural adaptation and change in this portion of southern California (Sutton and Gardner 2010:1-2).

The Encinitas Tradition characteristics include abundant metates and manos, crudely-made core and flake tools, bone tools, shell ornaments, very few projectile points, indicating a subsistence pattern focused on hunting and gathering a variety of floral resources. Faunal remains vary by location but include marine mammals, fish, and shellfish, as well as terrestrial animals, reptiles, and birds (Sutton and Gardner 2010:7). The Encinitas Tradition has been redefined to have four patterns (Sutton and Gardner 2010: 8-25). These include the Topanga Pattern in coastal Los Angeles and Orange counties, the La Jolla Pattern in coastal San Diego County, and the Sayles or Pauma cultures in inland San Diego County extending into western San Bernardino County, where the Project is located. At approximately 3,500 years ago, Pauma groups in the general Project vicinity adopted new cultural traits which transformed the archaeological site characteristics - including mortar and pestle technology. This indicated the development of food storage, largely acorns, which could be processed and saved for the leaner, cooler months of the year.

At approximately 1,500 years before present, bow and arrow technology started to emerge in the archaeological record, which also indicates new settlement patterns and subsistence systems. The local population retained the subsistence methods of the past, but incorporated new materials into their day to day existence, as evidenced by the archaeological record. The Palomar Tradition is attributed to this time, and is comprised of larger two patterns: the Peninsular Pattern in the inland areas of the northern Peninsular Ranges (e.g., San Jacinto and Santa Rosa mountains) and the northern Coachella Valley (Sutton 2010), and the San Luis Rey pattern of the Project Area. Archaeological sites from this time period are characterized by soapstone bowls, arrowhead projectile points, pottery vessels, rock paintings, and evidence of cremation sites. The shift in material culture assemblages is largely attributed to the emergence of Shoshonean (Takic-speaking) people who entered California from the east.

ETHNOGRAPHY

The territory of the Gabrielino at the time of Spanish contact covers much of current-day Los Angeles and Orange counties. The southern extent of this culture area is bounded by Aliso Creek, the eastern extent is located east of present-day San Bernardino along the Santa Ana River, the northern extent includes the San Fernando Valley, and the western extent includes portions of the Santa Monica Mountains. The Gabrielino also occupied several Channel Islands including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island.

Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in all of southern California. Trade of materials and resources controlled by the Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California (Bean and Smith 1978; Kroeber 1925).

The Gabrielino lived in permanent villages and smaller, resource-gathering camps occupied at various times of the year depending upon the seasonality of the resource. Larger villages were comprised of several families or clans, while smaller, seasonal camps typically housed smaller family units. The coastal area between San Pedro and Topanga Canyon was the location of primary subsistence villages, while secondary sites were located near inland sage stands, oak groves, and pine forests. Permanent villages were located along rivers and streams, as well as in sheltered areas along the coast. As previously mentioned, the Channel Islands were also the locations of relatively large settlements (Bean and Smith 1978; Kroeber 1925).

Resources procured along the coast and on the islands were primarily marine in nature and included tuna (*Thunnus* spp.), swordfish (*Xiphias gladius*), ray and shark (*Chondrichthyes*), California sea lion (*Zalophus californianus*), Stellar sea lion (*Eumetopias jubatus*), harbor seal (*Phoca vitulina*), northern elephant seal (*Mirounga angustirostris*), sea otter (*Enhydra lutris*), dolphin and porpoise (*Delphinidae* and *Phocoenidae*), various waterfowl species, numerous fish species, purple sea urchin (*Strongylocentrotus purpuratus*), and mollusk, such as rock scallop (*Crassadoma gigantea*), California mussel (*Mytilus californianus*), and limpet (*Fissurellidae* and *Acmaeidae*). Inland resources included oak acorn (*Quercus* sp.), pine nut (*Pinus* sp.), Mohave yucca (*Yucca schidigera*), cacti (*Opuntia* spp.), sage (*Salvia* sp.), grass nut (*Triteleia laxa*), deer (*Odocoileus hemionus*), rabbit (*Sylvilagus* spp.), hare (*Lepus californicus*), rodent (*Rodentia*), quail (*Callipepla/Oreortyx* spp.), duck (*Anatidae*), and a variety of reptiles such as western pond turtle (*Clemmys marmorata*) and numerous different snakes (Bean and Smith 1978; Kroeber 1925).

The social structure of the Gabrielino is little known; however, there appears to have been at least three social classes: 1) the elite, which included the rich, chiefs, and their immediate family; 2) a middle class, which included people of relatively high economic status or long-established lineages; and 3) a class of people that included most other individuals in the society. Villages were politically autonomous units comprised of several lineages. During times of the year when certain seasonal resources were available, the village would divide into lineage groups and move out to exploit them, returning to the village between forays (Bean and Smith 1978; Kroeber 1925).

Each lineage had its own leader, with the village chief coming from the dominant lineage. Several villages might be allied under a paramount chief. Chiefly positions were of an ascribed status, most often passed to the eldest son. Chiefly duties included providing village cohesion, leading warfare and peace negotiations with other groups, collecting tribute from the village(s) under his jurisdiction, and arbitrating disputes within the village(s). The status of the chief was legitimized by his safekeeping of the sacred bundle, a representation of the link between the material and spiritual realms and the embodiment of power (Bean and Smith 1978; Kroeber 1925). Shamans were leaders in the spirit realm. The duties of the shaman included conducting healing and curing ceremonies, guarding of the sacred bundle, locating lost items, identifying and collecting poisons for arrows, and making rain (Bean and Smith 1978; Kroeber 1925). Marriages were made between individuals of equal social status and, in the case of powerful lineages, marriages were arranged to establish political ties between the lineages (Bean and Smith 1978; Kroeber 1925). Men conducted the majority of the heavy labor, hunting, fishing, and trading with other groups. Women's duties included gathering and preparing plant and animal resources, and making baskets, pots, and clothing (Bean and Smith 1978; Kroeber 1925).

Gabrielino houses were domed, circular structures made of thatched vegetation. Houses varied in size, and could house from one to several families. Sweathouses—semicircular, earthcovered buildings—were public structures used in male social ceremonies. Other structures included menstrual huts and a ceremonial structure called a *yuvar*, an open-air structure built near the chief's house (Bean and Smith 1978; Kroeber 1925). Clothing was minimal; men and children most often went naked, while women wore deerskin or bark aprons. In cold weather, deerskin, rabbit fur, or bird skin (with feathers intact) cloaks were worn. Island and coastal groups used sea otter fur for cloaks. In areas of rough terrain, yucca fiber sandals were worn. Women often used red ochre on their faces and skin for adornment or protection from the sun. Adornment items included feathers, fur, shells, and beads (Bean and Smith 1978; Kroeber 1925). Hunting implements included wooden clubs, sinew-backed bows, slings, and throwing clubs. Maritime implements included rafts, harpoons, spears, hook and line, and nets. A variety of other tools included deer scapulae saws, bone and shell needles, bone awls, scrapers, bone or shell flakers, wedges, stone knives and drills, metates, mullers, manos, shell spoons, bark platters, and wooden paddles and bowls. Baskets were made from rush (*Juncus* sp.), deer grass (*Muhlenbergia rigens*), and skunkbush (*Rhus trilobata*). Baskets were fashioned for hoppers, plates, trays, and winnowers for leaching, straining, and gathering. Baskets were also used for storing, preparing, and serving food, and for keeping personal and ceremonial items (Bean and Smith 1978; Kroeber 1925). The Gabrielino had exclusive access to soapstone, or steatite, procured from Santa Catalina Island quarries. This highly prized material was used for making pipes, animal carvings, ritual objects, ornaments, and cooking utensils. The Gabrielino profited well from trading steatite since it was valued so much by groups throughout southern California (Bean and Smith 1978; Kroeber 1925).

HISTORIC CONTEXT

While indigenous peoples adapted (and thrived) to environmental conditions in what is now "California," those same lands remained isolated from European and Asian cultures until the early-sixteenth century. In 1521, Spain sent explorer and conquistador Hernan Cortes and his army into what is now Mexico to conquer the indigenous Aztecs and capture the wealth of the land and its people. "New Spain," as the region soon became known, quickly became the hub of Spanish colonial efforts in the New World. Cortes, hopeful of finding comparable wealth in the northern Pacific, authorized the first explorations, and in 1535, founded the first nonnative settlement in Baja (or Lower) California. Inspired by Cortes' success in the New World and hoping to find a waterway from the Pacific to the Atlantic, the Spanish dispatched Juan Rodriguez Cabrillo in 1542 to explore the northwest coast of New Spain. It is believed that Cabrillo sailed as far north as the Oregon border, and that he became the first European to see what was then termed "Alta (or Upper) California" (Paddison 1999:xi).

In 1602, the Spanish Crown ordered Sebastian Vizcaino to make the first detailed survey of the Alta California coast. Vizcaino eventually anchored at Monterey Bay, and in subsequent reports to Spain, greatly exaggerated the quality of the natural harbor he found (Paddison 1999:xii). Despite Vizcaino's inflated recommendations, it took the Spanish almost 170 years to act. The so-called "Sacred Expedition" of 1769, led by Spaniard Gaspar de Portola and Franciscan Fray (or Father) Junipero Serra, was meant to begin the permanent settlement of Alta California, beginning in San Diego. The plan called for the Spanish to converge on San Diego by land and sea, and to use the newly established San Diego settlement as a base to begin further colonization and mission-building activities along the California coast.

Soon after American control was established (1848), gold was discovered in California. There was a tremendous influx of Americans and Europeans, and eastern San Bernardino and northwestern Riverside Counties saw development of hard rock mining for gold. Several mineral rights were issued around this time, however none within the Project Area. Around the same time, San Bernardino County was settled by homesteaders and farmers, and quickly became a diversified agricultural area with citrus, grain, grapes, poultry, and swine being the leading commodities.

Agua Mansa, “Gentle water”, and La Placita de los Trujillos “Little Town of the Trujillos”, were two of the first settlements established non-indigenous communities within San Bernardino Valley (Caballeria 1902: 102-103; San Bernardino County Museum). As part of the land donations of Jurupa Rancho acquired by Juan Bandini in the late 1830s, which included land previously under the jurisdiction of San Gabriel Mission, these settlements were mostly comprised of settlers from New Mexico of mixed Spanish and Native American individuals (Caballeria 1902: 102-103; Jones 1956: 6-8; San Bernardino County Museum). The first settlement, La Placita for short, was established a distance from the Santa Ana River where as the latter village, Agua Mansa, was established one mile northeast along the banks of the river (Caballeria 1902: 102-103). On January 1862, an intense storm system causes rainfall in the area to last for fifteen days, causing the Santa Ana River to overflow and completely destroy Agua Mansa, as well as cause damage in La Placita (Caballeria 1902: 105; Jones 1956: 9-10; San Bernardino County Museum). The village was rebuilt but never regained its peak status again, with the industrialized economy driving away the community until both communities fell into disrepair by the 20th century, with only the cemetery standing (Caballeria 1902: 106; Jones 1956: 10; San Bernardino County Museum). In 1995, the “Friends for the Preservation of the Agua Mansa Pioneer Cemetery” was formed and in 1967, the cemetery was acquired by San Bernardino County and now serves as a museum branch of the San Bernardino County Museum (San Bernardino County Museum).

METHODS

PALEONTOLOGICAL RESOURCES RECORDS SEARCH

The paleontological study for the Holly Street Project included a geologic map review, literature search, institutional records search, and reconnaissance survey. The goal of this report is to identify the level of paleontological potential of the Project site, and make recommendations for the mitigation of adverse effects on paleontological resources that may occur as a result from the proposed construction. Material Culture Consulting reviewed geologic mapping of the San Bernardino South Quadrangle by Jennings, Strand, and Rogers (1977). A paleontological records search was conducted at the Western Science Center in June 2017. Darla Radford at the museum performed the search. The search included fossil localities occurring within the Project site and a one-mile radius around the Project. Additional searches of available online databases, including the PaleoBiology Database (PBDB) and University of California Museum of Paleontology database (UCMP), were conducted by Material Culture Consulting staff.

CULTURAL RESOURCES RECORDS SEARCH

An initial search for archaeological and historical records was completed by Judy Bernal, a qualified Material Culture Consulting archaeologist, at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Inventory System (CHRIS), located at California State University, Fullerton and the Eastern Information Center (EIC) at University of California, Riverside, on June 8 and June 9, 2017. The records search included a one-mile radius around the Project Area, as well as the Project Area itself. In addition to the records at the SCCIC and EIC, a variety of sources were consulted by Tria Belcourt in June 2017 to obtain information regarding the cultural context of the Project Area (National Register of Historic Places [1979-2002 and supplements], Historical USGS Topographic maps, Historical USDA aerial photos, CRHR, California Inventory of Historic Resources, California Historical Landmarks, California Points of Historical Interest, Local Historical Register Listings, and Bureau of Land Management General Land Office Records).

NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH

A sacred lands record search was requested by Material Culture Consulting from the Native American Heritage Commission (NAHC) on June 13, 2017. The Commission responded on June 16, 2017, requesting that 32 Native American tribes or individuals be contacted for further information regarding the general Project vicinity. Material Culture Consulting subsequently sent letters to the 32 Native American contacts on June 19, 2017, requesting any information related to cultural resources or heritage sites within or adjacent to the Project Area. Additional attempts at contact by email or phone call were made on June 26 and June 28, 2017. Material Culture Consulting did not conduct formal consultation with the Native American representatives as per AB52 or SB18.

FIELD SURVEY

The survey stage is important in a Project's environmental assessment phase to verify the exact location of each identified cultural and paleontological resource, the condition or integrity of the resource(s), and the proximity of the resource(s) to areas of cultural or paleontological sensitivity. Tria Belcourt, a qualified Material Culture Consulting Archaeologist and cross-trained Paleontologist, conducted the cultural and paleontological survey of the proposed Project Area on June 3, 2017. The survey consisted of walking in parallel transects spaced at a maximum of 15 meter intervals over the exposed soils of the Project parcel, while closely inspecting the ground surface.

All undeveloped ground surface areas within the ground disturbance portion of the Project Area were examined for native soils, fossils, artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Existing ground disturbances (e.g., cutbanks, ditches, animal burrows, etc.) were visually inspected. Representative photographs were taken of the entire Project Area and a photographic log was maintained.

REPORT PREPARATION AND RECORDATION

The current report contains information regarding previous studies, statutory requirements for the Project, a brief description of the setting, research methods employed, and the overall results of the significance evaluation. The report includes all appropriate illustrations and tabular information needed to make a complete and comprehensive presentation of these activities, including the methodologies employed and the personnel involved. A copy of this report will be placed at the SCCIC at California State University, Fullerton. Any newly recorded sites or sites requiring updated information will be recorded on the appropriate Department of Parks and Recreation (DPR) forms, which will be filed with the SCCIC.

RESULTS

PALEONTOLOGICAL RECORDS SEARCH

Records search results indicate that the geologic unites underlying the Project Area are mapped entirely as Pliocene to Holocene alluvium deposits (Jennings, Strand, and Rogers 1977). These types of alluvial deposits are considered to be of high paleontological sensitivity. Although the Western Science Center does not have any recorded localities within the Project Area or within 1-mile of the Project Area, there are numerous fossil localities that present significant paleontological finds within similarly mapped units, such as those associated with the El Casco Project and the Diamond Valley Lake Project, which have resulted in hundreds of fossil localities and over 250,000 Pleistocene fossil specimens. Paleontological Records Search Results are presented as Appendix B.

CULTURAL RESOURCES RECORDS SEARCH

The records search indicates a total of sixteen cultural resources investigations were previously completed within a one-mile radius of the Project Area, one of which took place within portions of the Project Area itself (Wetherbee, et al. 2007, See Appendix C). The results of the records searches further indicate there are thirteen previously recorded cultural resources within one mile of the Project Area, none of which are recorded within the Project Area itself (See Table 1). Results from other sources consulted are presented in Table 2.

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

Primary Number	Trinomial	Resource Name	Attributes	NRHP/CRHR	Proximity to API
P-33-005044	CA-RIV-005044				1/4-mile
P-33-008752	CA-RIV-006237/H		AH4-Trash scatter; AP2-Lithic scatter; AP4-Ceramic scatter	Not Evaluated	1/2-mile
P-33-009684					3/4-mile
P-33-010902	CA-RIV-006595H		AH5-Well/cisterns; AH6-water conveyance system	Not Eligible	1/2-mile
P-33-011750					1-mile
P-33-011751					1-mile
P-36-006085	CA-SBR-6085-H		AH2-Foundation/struture pads, AH6-Water conveyance system	Not Evaluated	1-mile
P-36-006858	CA-SBR-6858-H		AH4-Trash scatter	Not Evaluated	3/4-mile
P-36-006860	CA-SBR-6860H		AH4-Trash scatter	Not Evaluated	3/4-mile
P-36-007172	CA-SBR-7172H; CA-RIV-4791-H	Riverside Lower Canal	HP20-Canal	Not Evaluated	1-mile
P-36-015221		Agua Mansa Pioneer Cemetery	HP3-Multiple family property; HP40-Cemetery	CSHL #121	3/4-mile
P-36-019815		Paintball House	HP2- Single family property; HP45-Unreinforced masonry building; AH2-House foundation; AH5-Well, AH15-Standing structures	Not Eligible	1-mile
P-36-060235	ACE-SAR-H7		AH4- Trash scatter	Not Eligible	1-mile

Table 2. Additional Sources Consulted for the Project

Source	Results
National Register of Historic Places (1979-2002 & supplements)	Negative
Historical United States Geological Survey topographic maps (USGS 2012)	Negative, no development in Project vicinity
Historical United States Department of Agriculture aerial photos	Property area and adjacent properties were agricultural fields
California Register of Historical Resources (1992-2010)	Negative
California Inventory of Historic Resources (1976-2010)	Negative
California Historical Landmarks (1995 & supplements to 2010)	Negative (although P-36-015221 is within 1-mile records search buffer)
California Points of Historical Interest (1992 to 2010)	Negative
Local Historical Register Listings	Negative
Bureau of Land Management General Land Office Records (2008)	Negative

NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH

The Native American Heritage Commission (NAHC) responded to our inquiry on June 16, 2017, stating that there are no known/known sacred lands within 1/2 mile of the Project Area. Ms. Jessica Mauck, Cultural Resource Analyst of San Manuel Band of Mission Indians, responded on June 23, 2017. Ms. Mauck requested the more information on engineering plans for the proposed Project Area, inquired on the possibility of shovel test probes, remote sensing, and/or deep testing via controlled units or trenching of appropriate landscapes. (See Appendix D). Ms. Goldie Walker, Chairperson for Serrano Nation of Mission Indians, responded on June 26, 2017. Ms. Walker requested to be notified of any potential discoveries made during the duration of the Project. Joseph Ontiveros, Cultural Resource Department for Soboba Band of Luiseno Indians, Shasta Gaughen, Tribal Historic Preservation Officer of Pala Band of Mission Indians, Ray Hauate, Cultural Resource Specialist for Morongo Band of Mission Indians, Andrew Salas, Chairperson of Gabrieleno Band of Mission Indians-Kizh Nation, Robert Dorame, Chairperson of Gabrielino Tongva Indians of California Tribal Council, and Bobby Ray Esparza, Cultural Coordinator of Cahuilla Band of Indians all responded on June 26, 2017 requesting digital copies of the letter. John Valenzuela, Chairperson of San Fernando Band of Mission Indians responded on June 26, 2017, stating the Project Area falls out of the region of the tribe's interest. As of July 3, 2017, no other responses were received. All Native American correspondence materials are presented in Appendix D.

FIELD SURVEY

The paleontological and archaeological survey was conducted on June 3, 2017. The survey was conducted by Tria Belcourt, M.A., RPA, a cross-trained archaeologist/paleontologist. The entire property was accessible, and approximately 90 to 95 percent of the ground surface was visible. The property primarily consists of completely disturbed graded area due to construction of, and decades of use as, a dirt motocross track. The property is bound by Holly Street to the west, an industrial park to the north, and The Santa Ana River to the east and south. No native vegetation or undisturbed areas were noted on the property. Images of the property are provided in Appendix E. The intensive archaeological/paleontological survey of the property did not result in the identification of any cultural or paleontological resources. The extensive construction disturbance of the property may have contributed to the survey results, if any prior cultural resources were located within the Project Area they have likely been destroyed by construction and subsequent use of the property.



Figure 3. Holly Street Project Area (Aerial Photograph)

CONCLUSIONS AND RECOMMENDATIONS

PALEONTOLOGICAL RESOURCES

No significant paleontological resources were identified within the Project Area during the locality search or field survey. However, areas with a "High Potential" for paleontological resources are present within the Project Area, and include sedimentary rock units with a high potential for containing significant non-renewable paleontological resources, and may contain vertebrate or significant invertebrate fossils. High sensitivity includes not only the potential for yielding abundant vertebrate fossils, but also for production of a few significant fossils that may provide new and significant (taxonomic, phylogenetic, ecologic, and/or stratigraphic) data.

Based on the mapped paleontological sensitivity of the Project area, and the field survey, the Project area has the potential to impact paleontological resources during construction activities at or below ten feet in undisturbed sedimentary deposits. The depth of fill soils that overlay native sediments is unknown at this time, considering the extensive surface modification of the Project Area. Therefore, this study recommends the following:

- A trained and qualified paleontological monitor should perform spot-check monitoring of any excavations on the Project that have the potential to impact paleontological resources in undisturbed native sediments below ten feet in depth. The monitor will have the ability to redirect construction activities to ensure avoidance of adverse impacts to paleontological resources.
- The project paleontologist may re-evaluate the necessity for paleontological monitoring after examination of the affected sediments during excavation, with approval from County and Client representatives.
- Any potentially significant fossils observed shall be collected and recorded in conjunction with best management practices and SVP professional standards.
- Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.
- A report documenting the results of the monitoring, including any salvage activities and the significance of any fossils will be prepared and submitted to the appropriate County personnel.

CULTURAL RESOURCES

The Phase I archaeological assessment for the Holly Street Project was negative for the presence of archaeological resources. Prehistoric resources are not known to occur within the immediate vicinity of the Project Area, and were not observed during the course of survey. However, there is a potential for encountering both prehistoric and historic-era materials associated with continued occupation of the region, particularly near the river bank. Deeply buried deposits of cultural materials have been widely documented along the Santa Ana River, due to periodic flooding and sediment deposit events. These materials have the potential to be considered significant as per CEQA, and recovery and salvage plans should be made prior to project implementation. It should be noted that the San Manuel Band of Mission Indians has requested subsurface testing in the area before further work is implemented on the Project. Based on the extensive disturbance of the site, however, we do not feel that subsurface testing will provide data crucial to our understanding of the project area. In lieu of this recommendation, our study recommends the following:

- In the event that these resources are inadvertently discovered during ground-disturbing activities, work must be halted within 50 feet of the find until it can be evaluated by a qualified archaeologist. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation or fossil recovery, may be warranted and would be discussed in consultation with the appropriate regulatory agency(ies). We also recommend that the tribes be notified upon any Native American finds, and that they have the opportunity to consult with the County on

appropriate treatment of these resources.

- Procedures of conduct following the discovery of human remains on non-federal lands have been mandated by California Health and Safety Code §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to insure the integrity of the immediate area must be taken. The Orange County Coroner will be immediately notified. The Coroner must then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the NAHC, who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

Considering the potential for encountering cultural and paleontological resources in buried contexts under fill soils, a construction worker training program is appropriate. This program should identify discovery and processing protocol for inadvertent discoveries of cultural and paleontological resources. We do not recommend cultural resources monitoring, however we do recommend spot-checking paleontological excavation of native soils, if encountered, at depths of ten feet or greater below surface. Material Culture recommends that with implementation of the training program, and spot-check paleontological monitoring, the Project will have no foreseeable impact to cultural or paleontological resources.

REFERENCES CITED

- Bean, L.J. and F.C. Shippek
1978 "Luiseno." In *Handbook of North American Indians*, Volume 8. *California*. The Smithsonian Institution, Washington, D.C.
- Bean, L.J. and C.R. Smith
1978 "Serrano." In *Handbook of North American Indians*, Volume 8. *California*. The Smithsonian Institution, Washington, D.C.
- BLM GLO (Bureau of Land Management Government Land Office)
2008 Land Grant Records Search Tool. Available online at <http://www.glorerecords.blm.gov/PatentSearch/Default.asp>, last accessed October 25, 2016.
- Caballeria, Rev. Father Juan.
1902 *History of San Bernardino Valley: From the Padres to the Pioneers 1810-1851*. Times-Index Press, San Bernardino, California.
- Critelli, S., Rumelhart, P.E., Ingersoll, R.V.
1995 Petrofacies and Provenance of the Puente Formation (middle to upper Miocene), Los Angeles Basin, Southern California; implications for rapid uplift and accumulation rates. *Journal of Sedimentary Research*.65, p. 656 – 667.
- DuBois, C.
1908 "The Religion of the Luiseno and Digueno Indians of Southern California." In *University of California Publications in American Archaeology and Ethnology* 8(3):69-186, Berkeley, California.
- Erlandson, J. and R. Colten
1991 An Archaeological Context for Archaeological Sites on the California Coast. *Hunter- Gatherers of the Early Holocene Coastal California*, edited by J. Erlandson and R. Colten.
- Fagan, B.
1991 *Ancient North America: The Archaeology of a Continent*. Thames and Hudson. London.
- Jennings, C.W., Strand, R.G., and Rogers, T.H.
1977 Geologic map of California: California Division of Mines and Geology, scale 1:750,000.
- Jones, Clark Harding
1956 Colton--The Spanish Fringe--1772-1873. *Quarterly of San Bernardino County Museum Association* 4(1): 1-10.
- Kroeber, A.L.
1976 *Handbook of Indians of California*. Reprint of 1925 original edition, Dover Publications, New York.
- Martin, P.S.
1967 Prehistoric Overkill. *Pleistocene Extinctions: The Search for a Cause*, edited by P. Martin and H.E. Wright. Yale University Press: New Haven.
1973 The Discovery of America. *Science* 179(4077):969-974.
- Moratto, M. J.
1984 *California Archaeology*. Academic Press, New York.
- Moss, M.L. and J. Erlandson
1995 Reflections on North American Coast Prehistory. *Journal of World Prehistory* 9(1):1-46. San Bernardino County Museum
2017 The Agua Mansa Pioneer Cemetery. Available at <http://www.sbcounty.gov/MUSEUM/branches/agua.htm>; Last accessed June 26, 2017

Schuiling, W.C.

1984 *San Bernardino County, Land of Contrasts*. Winsor Publications, Winsor Hills, California.

Society of Vertebrate Paleontology (SVP).

2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 11 p.
Available at; <http://vertpaleo.org/PDFS/68/68c554bb-86f1-442f-a0dc-25299762d36c.pdf>

Sparkman, P.

1908 *Fading Images Indian Pictographs of Western Riverside County*. Riverside Museum Press, Riverside, California.

Sutton, M.

2010 The Del Rey Tradition and its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(2):1-54

Sutton, M. and J. Gardner

2010 Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1-64

Wallace, William J.

1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214-230

Warren, Claude N.

1967 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by C. Irwin-Williams, pp. 1-14. *Eastern New Mexico University Contributions in Anthropology* 1(3).