

SEPTEMBER 2016



# Draft Environmental Impact Report

(DRAFT EIR)

[STATE CLEARINGHOUSE NO. 2015021014]

for Los Angeles International Airport (LAX)  
Landside Access Modernization Program

City of Los Angeles  
Los Angeles World Airports

## Appendix I



*Los Angeles  
World Airports*

**Appendix I**  
Archaeological and Palaeontological Resources  
Assessment Report







January 23, 2015



Mr. Stephen Culberson, Director  
**RICONDO & ASSOCIATES, INC.**  
20 North Clark Street, Suite 1500  
Chicago, Illinois 60602

**RE: ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT  
FOR THE PROPOSED LANDSIDE TRANSPORTATION PROGRAM AT LOS  
ANGELES INTERNATIONAL AIRPORT; CITY OF LOS ANGELES, CALIFORNIA**

Dear Mr. Culberson:

**PCR Services Corporation (PCR)** conducted an archaeological and paleontological resources assessment for the above-referenced project. This letter presents our methods, results, and recommendations from the assessment.

**1.0 PROJECT UNDERSTANDING AND SCOPE OF STUDY**

Ricondo & Associates, Inc. is assisting Los Angeles World Airports (LAWA) with the preparation of environmental documentation for the proposed Landside Transportation Program (LTP) to improve the ground access systems at the Los Angeles International Airport (LAX), to better accommodate airport-related traffic, especially within the Central Terminal Area (CTA). Elements of the LTP would include an Automated People Mover System (APM) to transport passengers between the CTA and ground transportation facilities located east of the CTA, Intermodal Transportation Facilities (ITF) for the drop-off and pickup of passengers, a Consolidated Rental Car Facility (CONRAC) that would centralize most rental car operations, public parking facilities, roadway improvements, utilities, and various laydown/staging areas across the LAX property. The depth of proposed excavations associated with implementation of the proposed project is yet to be determined, but it can be anticipated that there will be excavations across several portions of the study area associated with the development of the APM, ITF, CONRAC, and related underground utilities.

PCR conducted an archaeological and paleontological resource assessment from December 2014 to January 2015 to determine the potential impacts to archaeological and paleontological resources associated with implementation of the proposed project to demonstrate compliance with the California Environmental Quality Act (CEQA) and to support the Initial Study. The scope of work for the assessment included conducting records searches, review of historic aerials from the National Environmental Title Research Online (NETR) Online, Native American consultation, and a pedestrian survey of the study area. The records searches were conducted through the California Native American Heritage Commission's (NAHC) Sacred Lands File (SLF), the California Historical Resources Information System's (CHRIS) South Central Coastal Information Center (SCCIC) and the Natural History Museum of Los Angeles County (NHMLAC). Consultation letters were also sent to appropriate local Native American representatives identified by the NAHC.





## **2.0 PROJECT LOCATION**

The proposed LTP study area is located within LAX in a densely urbanized area of the City of Los Angeles, California (**Figure 1, *Regional Map***, attached) and is illustrated on the United States Geological Survey (USGS) 7.5-minute series, Venice, California, topographic quadrangle in unsectioned portions of Township 2 South, Range 15 West (**Figure 2, *Vicinity Map***, attached). The elevation within the study area ranges from 126 feet above mean sea level (MSL) to 86 feet above MSL. The areas surrounding the study area are developed with transportation infrastructure (airport and interstate highways), commercial, and residential uses (**Figure 3, *Aerial Photograph***, attached). To the north of LAX is the community of Westchester in the City of Los Angeles, to the east is the City of Inglewood, to the south is the City of El Segundo, and to the west is the Pacific Ocean. Highway access to LAX is provided by the San Diego Freeway (Interstate 405), which is a north-south freeway east of LAX, and the Century Freeway (Interstate 105), which is an east-west freeway south of LAX. Major roadways that serve LAX include Sepulveda Boulevard, Century Boulevard, Imperial Highway, and Lincoln Boulevard.

## **3.0 CULTURAL SETTING**

### **3.1 Prehistoric Background**

Prehistory is most clearly discussed chronologically, in terms of environmental change and recognized cultural developments. Several chronologies have been proposed for inland southern California, the most widely accepted of which is Wallace's (1955) four-part Horizon format, which was later updated and revised by Claude Warren (1968). The advantages and weaknesses of southern California chronological sequences are reviewed in Moratto (1984), Chartkoff and Chartkoff (1984), and Heizer (1978). The following discussion is based on Warren's (1968) sequence, but the time frames have been adjusted to reflect more recent archaeological findings, interpretations, and advances in radiocarbon dating.

#### **3.1.1 Paleoindian Period (ca. 13,000-11,000 Years Before Present [YBP])**

Little is known of Paleoindian peoples in inland southern California, and the cultural history of this period follows that of North America in general. Recent discoveries in the Americas have challenged the theory that the first Americans migrated from Siberia, following a route from the Bering Strait into Canada and the Northwest Coast sometime after the Wisconsin Ice Sheet receded (ca. 14,000 YBP), and before the Bering Land Bridge was submerged (ca. 12,000 YBP). A coastal migration route somewhat before that time is also possible (Johnson et al. 2002). The timing, manner, and location of this crossing are a matter of debate among archaeologists, but the initial migration probably occurred as the Laurentide Ice Sheet melted along the Alaskan Coast and interior Yukon. The earliest radiocarbon dates from the Paleoindian Period in North America come from the Arlington Springs Woman site on Santa Rosa Island. These human remains date to approximately 13,000 YBP (Johnson et al. 2002). Other early Paleoindian sites include the Monte Verde Creek site in Chile (Meltzer et al. 1997) and the controversial Meadowcroft Rockshelter in Pennsylvania. Both



sites have early levels dated roughly at 12,000 YBP. Lifeways during the Paleoindian Period were characterized by highly mobile hunting and gathering. Prey included megafauna such as mammoth and technology included a distinctive flaked stone toolkit that has been identified across much of North America and into Central America. They likely used some plant foods, but the Paleoindian toolkit recovered archaeologically does not include many tools that can be identified as designed specifically for plant processing.

The megafauna that appear to have been the focus of Paleoindian lifeways went extinct during a warming trend that began approximately 10,000 years ago, and both the extinction and climatic change (which included warmer temperatures in desert valleys and reduced precipitation in mountain areas) were factors in widespread cultural change. Subsistence and social practices continued to be organized around hunting and gathering, but the resource base was expanded to include a wider range of plant and game resources. Technological traditions also became more localized and included tools specifically for the processing of plants and other materials. This constellation of characteristics has been given the name “Archaic” and it was the most enduring of cultural adaptations to the North American environment.

### **3.1.2 Archaic Period (ca. 11,000-3,500 YBP)**

The earliest Archaic Period lifeways in inland southern California have been given the name San Dieguito tradition, after the San Diego area where it was first identified and studied (Warren 1968). Characteristic artifacts include stemmed projectile points, crescents and leaf-shaped knives, which suggest a continued subsistence focus on large game, although not megafauna of the earlier Paleoindian period. Milling equipment appears in the archaeological record at approximately 7,500 years ago (Moratto 1984:158). Artifact assemblages with this equipment include basin millingsstones and unshaped manos, projectile points, flexed burials under cairns, and cogged stones, and have been given the name La Jolla Complex (7,500–3,000 YBP). The transition from San Dieguito lifeways to La Jolla lifeways appears to have been an adaptation to drying of the climate after 8,000 YBP, which may have stimulated movements of desert peoples to the coastal regions, bringing millingsstone technology with them. Groups in the coastal regions focused on mollusks, while inland groups relied on wild-seed gathering and acorn collecting.

### **3.1.3 Late Prehistoric Period (ca. 3,500 YBP-A.D. 1769)**

Cultural responses to environmental changes around 4,000–3,000 YBP included a shift to more land-based gathering practices. This period was characterized by the increasing importance of acorn processing, which supplemented the resources from hunting and gathering. Meighan (1954) identified the period after A.D. 1400 as the San Luis Rey complex. San Luis Rey I (A.D. 1400–1750) is associated with bedrock mortars and millingsstones, cremations, small triangular projectile points with concave bases and Olivella beads. The San Luis Rey II (A.D. 1750–1850) period is marked by the addition of pottery, red and black pictographs, cremation urns, steatite arrow straighteners and non-aboriginal materials (Meighan 1954:223, Keller and McCarthy 1989:6). Work at Cole Canyon and other sites in southern California suggest that this complex, and the ethnographically described





lifeways of the native people of the region, were well established by at least 1,000 YBP (Keller and McCarthy 1989:80).

#### **3.1.4 Ethnography – The Gabrielino**

At the time of contact, the Native Americans subsequently known as the Gabrielino occupied lands around the LAX and whose territories comprised nearly the entire basin comprising the Counties of Los Angeles and Orange. They belonged to the Takic family of the Uto-Aztecan linguistic stock. Named after the Mission San Gabriel, the Gabrielino are considered to have been one of the two wealthiest and largest ethnic groups in aboriginal southern California (Bean and Smith 1978:538), the other being the Chumash in the Santa Barbara Channel region. This was largely due to the many natural resources within the land base they controlled, primarily the rich coastal section from Topanga Canyon to Aliso Creek, and the offshore Channel Islands of San Clemente, San Nicholas, and Santa Catalina.

The Takic-speaking ancestors of the Gabrielino arrived in the Los Angeles basin around 1500 BC and spread throughout the area, displacing a preexisting Hokan-speaking population (Sutton 2009). The first Spanish contact with the Gabrielino took place in 1520, when Juan Rodriguez Cabrillo arrived in Santa Catalina Island. In 1602, the Spanish returned to Santa Catalina under Sebastián Vizcaíno, and in 1769, Gaspar de Portolá made the first attempt to colonize Gabrielino territory. By 1771, the Spanish had built four missions, and the decimation of the Gabrielino had already begun (Bean and Smith 1978:540-541). European diseases and conflicts among the Gabrielino population, as well as conversion to Christianity, carried a toll in their numbers, traditions, and beliefs.

Although determining an accurate account of the population numbers is difficult, Bean and Smith (Bean and Smith 1978:540), state that by AD 500, the Gabrielino established permanent settlements and their population continued to grow. Early Spanish accounts indicate that the Gabrielino lived in permanent villages with a population ranging from 50 to 200 individuals. The Gabrielino population surpassed 5,000 people by around 1770.

Several types of structures characterized the Gabrielino villages. They lived in domed circular structures covered with tule, fern, or carrizo. Communal structures measured over 60 feet in diameter and could house three or four families. Sweathouses, menstrual huts, and a ceremonial enclosure were also part of the village arrangements (Bean and Smith 1978:542).

The Gabrielino practiced different subsistence strategies that included hunting, fishing, and gathering. Hunting activities in land were carried out with the use of bow and arrow, deadfalls, snares, and traps. Smoke and throwing clubs also were used to assist with the hunt of burrowing animals. Aquatic animals were hunted with harpoons, spear-throwers, and clubs. Although most fishing activities took place along rivers and from shore, open water fishing trips between mainland and the islands also took place using boats made from wood planks and asphaltum. The Gabrielino



fishing equipment included fishhooks made of shells, nets, basketry traps, and poison substances obtained from plants (Bean and Smith 1978:546).

The Gabrielino diet included a large number of animals, such as deer, rabbit, squirrel, snake, and rats, as well as a wide variety of insects. However, some meat taboos also existed. The meat of bears, rattlesnakes, stingrays, and ravens were not consumed; these animals were believed to be messengers of the god *Chengiichngech*. Aquatic animals such as fish, whales, seals, sea otters, and shellfish were also an important part of the diet, mainly among the coastal population (McCawley 1996:116-126).

A variety of plant foods were consumed by the Gabrielino, the main one being acorns. These nuts are rich in nutrients and have a high content of fiber and fat. Other plants used for consumption by the Gabrielino include the seeds of the Islay (*Prunus ilicifolia*), which were ground into a meal, and the seeds and shoots of the Chia (*Salvia columbariae*), which were eaten raw, made into loaves, or mixed with water to make a beverage. Roots and bulbs were also part of the diet among the mainland and island groups, as well as clover, wild sunflower seeds, and cholla seeds. Wild tobacco was used for medicinal purposes and as a sedative and narcotic population (McCawley 1996:131).

The Gabrielinos were involved in trade among themselves and with other groups. Coastal Gabrielinos exchanged steatite, shell and shell beads, dried fish, sea otter pelts, and salt with inland groups for acorns, seeds, obsidian, and deerskins (Bean and Smith 1978:547). During the late prehistoric period, the principal trade item, both among the Gabrielino and for export to other groups, was steatite. Also known as soapstone or soaprock, major outcroppings of steatite are found on Santa Catalina Island. Steatite was widely used among the Gabrielino to make arrow straighteners and artistic or ritualistic objects. In addition, this rock was used in the making of functional objects for food preparation such as bowls, mortars, pestles, and comals (Bean and Smith 1978:547). Archaeological data indicate that a steatite “industry” developed prehistorically on the island that involved the large-scale trade of both raw materials and finished artifacts to mainland communities (Bean and Smith 1978:547).

## **4.0 METHODS**

### **4.1 Cultural Resources Records Search**

On December 11, 2014, PCR archaeologist, Mr. Chris Purtell, M.A., RPA conducted a cultural resources records search at the CHRIS-SCCIC at California State University, Fullerton. This records search included a review of all recorded archaeological resources within a one-half mile radius of the study area. The records search also reviewed cultural resource reports/studies and historic topographic maps on file. In addition, PCR reviewed the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources, the National Register of Historic Places, and the California State Historic Resources Inventory listings. The purpose of the updated record search was to determine whether or not there are newly inventoried archaeological and historical resources within the study area and surrounding vicinity





that require evaluation and treatment. The results also provide a basis for assessing the sensitivity of the study area for additional and buried archaeological resources.

#### **4.2 Sacred Lands File Search and Native American Consultation**

On December 30, 2014, Mr. Purtell commissioned an updated SLF records search through the NAHC and conducted follow-up consultation with Native American groups and/or individuals identified by the NAHC as having affiliation with the study area vicinity. Each Native American group and/or individual listed was sent a project notification letter and map and was asked to convey any knowledge regarding prehistoric or Native American resources (archaeological sites, sacred lands, or artifacts) located within the Study area or surrounding vicinity. The letter included information such as project location and a brief description of the proposed project. The purpose of the search and follow-up consultation was to obtain information regarding the nature and location of additional prehistoric or Native American resources whose records may not be available at the CHRIS-SCCIC.

#### **4.3 Paleontological Resources Records Search**

On December 30, 2014, Mr. Purtell commissioned a paleontological resources records search through the Vertebrate Paleontology Department at NHMLAC. This records search entailed an examination of current geologic maps and known fossil localities on and within the general vicinity of the study area. The purpose of the records search was to determine whether or not there are previously recorded paleontological resources and/or fossiliferous geologic units within the study area. The results also provided a basis for assessing the sensitivity of the study area for additional and buried resources.

#### **4.4 Pedestrian Survey**

For the current assessment, PCR relied on previous full-coverage surveys conducted by PCR (Garcia) in 2011 and 2012 for the Southwest Remain Overnight Apron project and LAX Specific Plan Amendment Study, respectively, and by Sapphos Environmental, Inc. (Purtell) in 2013 for the Runway 6L-24R Safety Area and Associated Improvements project. All three of these investigations included surveys of portions or the entirety of the current LTP study area, including the laydown/staging areas that are within the Airport Operations Area (AOA). As a result, PCR focused the LTP survey on the undeveloped portions areas outside the AOA. These surveys were conducted in areas where the ground surface was exposed and where the likelihood of surface resources was possible. These areas included the following project elements: CONRAC, one of the APM Stations, portions of the APM alignment associated support facilities, and four laydown areas. PCR classified the laydown areas into the following designations: Laydown Area No. 1 - located north and south of Westchester Parkway and west of Sepulveda Westway; Laydown Area No. 2 - located at the intersection of South La Cienega Boulevard and Lennox Boulevard; Laydown Area No. 3 - located at the intersection of Imperial Highway and Aviation Boulevard; and Laydown Area No. 4 - located at the intersection of Imperial Highway and Main Street. Where open access and ground surface



visibility permitted, the ground surfaces in these areas were examined for the presence of archaeological and paleontological resources. Some areas were fenced-off and inaccessible during the survey; therefore, PCR could not thoroughly inspect these areas but they could be viewed from a distance. Given the high level of ground disturbance from airport operations and development, commercial and residential development, and other on-going construction activities that would have displaced resources, it is unlikely that any resources were overlooked in these areas. The survey was conducted by Mr. Purtell on January 7, 2015. Detailed notes were made, and digital photographs were taken of the study area and surrounding vicinity during the survey.

## 5.0 RESULTS

### 5.1 Cultural Resources Records Search

Results of the records search from the SCCIC indicated no archaeological resources have been recorded within the study area and 11 archaeological resources have been previously recorded within a half-mile radius. The 11 resources are summarized in **Table 1**, *Archaeological Resources Within a One-Half Mile Radius of the Study Area*, below. These resources include both archaeological resources from the prehistoric and historic period. None of these resources would be impacted by the proposed project.

**Table 1**

**Archaeological Resources Within a One-Half Mile Radius of the Study Area**

<b>Resource Designation</b>	<b>Description</b>	<b>Status Code</b>
CA-LAN-202	Contents of resource unknown; currently does not exist on surface	6Z
CA-LAN-214	“small site” consisting of “points”; paved over with single family residences	6Z
CA-LAN-691	Shell scatter recorded in 1972; likely displaced from subsequent airport activities	6Z
CA-LAN-1118	Shell midden with lithic debitage; likely displaced from subsequent airport activities	6Z
CA-LAN-2345	Large prehistoric site (tools, faunal remains, shell, fire-affected)	3CS
CA-LAN-2385H	Historic debris (concrete, window glass, asphalt, brick, plaster, and metal fragments)	6Z
P-19-100115	Isolated prehistoric chipped stone tool	6Z
P-19-100116	Isolated prehistoric chipped stone flake (quartzite)	6Z
P-19-004352	Sewer pipe fragments, railroad ties, metal spikes, and iron pipe (3-8 ft below surface)	7
P-19-004353	1940s to 1950s bottle deposit (at depth during monitoring)	7
P-19-004354	1950s bottle, mammal bones, and shell (4 feet below surface during monitoring)	7

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3CS – Appears eligible for California Register of Historical Resources through survey evaluation; 6Z – Found not eligible for CRHR through survey evaluation; 7 – Not Evaluated; 6ZNRHP = National Register of Historic Places





The records also indicated that more than 15 cultural resource studies have been conducted within the study area. These studies were conducted for various projects across LAX from 1974 to 2005 and encompass approximately 50 percent of the study area footprint.

## 5.2 Sacred Lands File Search and Native American Consultation

Results of the updated SLF search through the NAHC failed to indicate newly inventoried Native American cultural resources within the study area. The NAHC results letter can be found as an attachment to this report. The NAHC results also noted, however, that the absence or resource information in the SLF inventory does not preclude the discovery of cultural resources within any project area (Sanchez 2015). Pursuant to NAHC suggested procedure, letters were sent via certified mail on January 14, 2015 to the nine Native American individuals and organizations (from the Gabrielino/Tongva tribes) identified by the NAHC as being affiliated with the vicinity of the study area to request any additional information or concerns they may have about Native American cultural resources that may be affected by the proposed project. As of January 23, 2015, no responses have been received from any of the Native American contacts.

## 5.3 Paleontological Resources Records Search

The record search from the Vertebrate Paleontology Department at the NHMLAC indicated that there were no known paleontological localities within the study area. However, museum records indicated that two fossil localities (LACM 3264 and LACM 7332) were recorded adjacent to the study area and five fossil localities (LACM 3789, LACM 7332, LACM 8734, LACM 1180, and LACM 4942) were recorded within a one-half radius of the study area. These fossils were discovered at depths between 13 to 40 feet below the surface and are summarized in **Table 2**, *Vertebrate Fossils Localities in the Vicinity of the Study Area*, below.

**Table 2**

**Vertebrate Fossil Localities in the Vicinity of the Study Area**

Locality Number and Approximate Location	Taxa	Common Name
LACM 3264, near the Tom Bradley International Terminal at LAX	Prodoscidea	Baby elephant
LACM 7332, south of West 98 <sup>th</sup> Street and west of Bellanca Avenue	<i>Mammuthus</i> sp.	Baby mammoth
LACM 3789, 9734 Bellanca Avenue south of Manchester Avenue	<i>Mammuthus</i> sp.	Mammoth
	Rodentia	Rodent
	<i>Citharichthys sitigmaeus</i>	Speckled sanddab
LACM 1180 and LACM 4924, northwest and southeast sides respectively of Airport Boulevard at the intersection with Manchester Avenue	<i>Equus</i> sp.	Horse
	<i>Mammuthus</i> sp.	Mammoth
	<i>Lepus</i> sp.	Rabbit



In 2013, PCR also encountered invertebrate (shell) fossil specimens during construction monitoring services for with the LAX Central Utility Plant Replacement Project. These resources were encountered during trench excavations for an underground vault immediately south of the Theme Building at a depth of approximately 10 to 12 feet.

The geology of the study area can be characterized as surficial deposits composed of older Quaternary dune sands located in the western portion of the study area, roughly west of Sepulveda Boulevard and surficial deposits consisting of older Quaternary Alluvium, derived primarily from the Windsor Hills to the north and the Rosecrans Hills to the east of the study area. Both of these types of sedimentary deposits typically do not contain significant vertebrate fossils in the uppermost layers; however, these deposits are conducive to retaining paleontological resources at depth (McLeod 2015). The paleontological records search results letter from the NHMLAC is provided as an attachment to this report.

#### **5.4 Pedestrian Survey**

The results of the three cultural resource surveys of the areas within the AOA for other LAX projects identified no resources within the LTP study area. Results from PCR's pedestrian survey of project elements outside the AOA also yielded negative results.

#### **CONRAC, APM Station, and APM Alignment**

As discussed earlier, many areas that exhibited exposed ground surface were fenced-off with locked gates that prevented access. However, PCR was able to inspect these areas along their fence lines which revealed that ground surface visibility is fair, with low-lying non-native grasses and/or non-native plants covering approximately 90-100 percent of the surface area (**Figures 4 and 5, Study Area Photographs**, attached). Additionally, these areas receive regular and/or routine maintenance that utilizes an above ground sprinkler system made of PVC piping. With the exception of mature trees/landscaping, driveways, and the occasional concrete/stone planter, there is limited evidence of the past residential housing, streets, buildings and/or other structures that were once present in these areas. Areas inside the fence exhibit little to no modern refuse while areas outside the fence are scattered with various amounts and types of modern refuse including paper, plastic, glass bottle fragments, crushed aluminum cans, and household items. No archaeological or paleontological resources were identified in these areas.

#### **Laydown/Staging Areas**

The areas that exhibited exposed ground surface in four laydown areas were fenced-off with chain-link fencing, with locked gates that prevented access. However, PCR was able to inspect these areas along their fence lines which revealed that the ground surface visibility varied from poor to excellent (**Figures 6 and 7, Study Area Photographs**, attached). Laydown Area No. 1 is currently being used by LAWA for their elevator operations while Laydown Area No. 2 is paved over and appears to have been used for parking. Laydown Area No. 3 was undergoing earthmoving construction activities of unknown nature at the time of the survey while Laydown Area No. 4 is



developed with a LAWA Facilities Building. Similar to the other project elements surveyed by PCR, no remnants of the former residential communities were identified and modern refuse was scattered throughout. No archaeological or paleontological resources were identified in these areas.

## **6.0 IMPACT ANALYSIS**

### **6.1 Archaeological Resources**

The cultural resource records search indicated that no previously recorded archaeological resources (including historic or prehistoric archaeological resources) are located within the study area; however, 11 archaeological resources have been recorded within a half-mile radius. Recent surveys by PCR in 2011 (Garcia) and Sapphos in 2013 (Purtell) and the current survey by PCR of the undeveloped portions of the study area did not identify any new archaeological resources. Much of the study area is developed with surface parking lots, buildings, streets, and/or dense vegetation (i.e., sod, landscaping) which obstructed the surveyor's view of the native ground surface. The study area is located within a highly urbanized area and has been subject to disturbance by airport operations and development, commercial and residential development, and other on-going construction activities. Thus, surficial archaeological resources that may have existed at one time have likely been displaced by these disturbances. While discovery of archaeological resources in artificial fill deposits within the study area is unlikely, proposed excavations that would occur below the fill levels could potentially impact intact archaeological resources that have not been disturbed or displaced by previous development. Since the proposed project would include excavations of varying depths across portions of the study area, including excavations at depths where native soils would be encountered, the proposed project has the potential to impact previously unknown buried archaeological resources. Mitigation Measure CULT-1, Conformance with LAX Master Plan Archaeological Treatment Plan (ATP), described below, would reduce this impact to a level that is less than significant.

The ATP provides for evaluation and treatment of archaeological resources consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation and other applicable guidance. Requirements outlined in the ATP include specific procedures for archaeological monitoring, identifying and assessing the significance of resources, and for the recovery and curation of resources when warranted. For example, an archaeological excavation program to remove the resources may be implemented, if deemed necessary. In addition, the ATP includes guidance on retaining a Native American monitor if Native American cultural resources are encountered. If human remains are found, LAWA will need to comply with the State Health and Safety Code regarding the appropriate treatment of those remains as outlined in the ATP. Finally, the ATP details the reporting requirements to document the archaeological monitoring effort and provides guidance as to the proper curation and archiving of artifacts in accordance with industry and federal standards. The procedures outlined in the ATP would reduce significant impacts to previously unidentified archaeological resources associated with the proposed project to a less than significant level.





## **6.2 Paleontological Resources**

The paleontological resources records search indicated that no previously recorded vertebrate fossil localities from the NHMLAC database are located within the study area. However, museum records indicate that two fossil localities; LACM 3264 (Prodescidea, elephant) and LACM 7332 (*Mammuthus*, mammoth) located adjacent to the study area and five fossil localities; LACM 3789 (*Mammuthus*), LACM 7332 (Rodentia, rodent), LACM 8734 (*Citharichthys sitigmaeus*, speckled sanddab), LACM 1180 (*Equus* sp., horse), and LACM 4942 (*Lepus* sp., rabbit) located within a one-half radius of the study area. These fossils were discovered at depths between 13 to 40 feet below the surface. In 2013, PCR also encountered invertebrate (shell) fossil specimens during construction monitoring services for with the LAX Central Utility Plant Replacement Project. These resources were encountered during trench excavations for an underground vault immediately south of the Theme Building at a depth of approximately 10 to 12 feet.

PCR's pedestrian survey did not identify any new paleontological resources; however, much of the study area is developed with surface parking lots, buildings, streets, and/or dense vegetation (i.e., sod, landscaping) which obstructed the surveyor's view of the native ground surface. According to the NHMLAC, the study area is comprised of surficial deposits consisting of older Quaternary Alluvium derived as fluvial deposits composed from older Quaternary dune sands located in the western portion of the study area, roughly west of Sepulveda Boulevard and surficial deposits consisting of older Quaternary Alluvium, derived primarily from the Windsor Hills to the north and the Rosecrans Hills to the east of the study area. Both of these types of sedimentary deposits typically do not contain paleontological resources in the uppermost layers; however, these deposits are conducive to retaining paleontological resources at depth.

As mentioned above, the study area is located on artificial fill material ranging in depth throughout due to the disturbances from previous onsite development and operations that have also likely displaced surficial paleontological resources. While discovery of paleontological resources in artificial fill deposits within the study area is unlikely, proposed excavations that would occur below the fill levels could potentially impact intact paleontological resources that have not been disturbed or displaced by previous development. Since the proposed project would include excavations of varying depths across portions of the study area, including excavations at depths where native soils would be encountered, the proposed project has to potential to impact previously unknown buried paleontological resources. Mitigation Measure CULT-2, Conformance with LAX Master Plan Paleontological Management Treatment Plan (PMTP), described below, would reduce this impact to a level that is less than significant

The PMTP provides for evaluation and treatment of paleontological resources consistent with the Society of Vertebrate Paleontology and other applicable guidance and industry standards. Requirements outlined in the PMTP include specific procedures for paleontological construction monitoring, identifying and assessing the significance of resources, reporting, and for the recovery and curation of resources when warranted.



### **6.3 Human Remains**

As discussed earlier, a SLF search requested by PCR from the NAHC failed to indicate the presence of Native American cultural resources from the NAHC archives within the study area or surrounding vicinity. Results of the cultural resource records search through the SCCIC and PCR's pedestrian survey also did not encounter any known human remains within the study area. As stated above, the study area is located within a highly urbanized area and has been subject to disturbance by airport operations and development, commercial and residential development, and other on-going construction activities. Thus, surficial human remains resources that may have existed at one time have likely been displaced by these disturbances. While discovery of human remains in artificial fill deposits within the study area is unlikely, proposed excavations that would occur below the fill levels could potentially impact intact human remains that have not been disturbed or displaced by previous development. Since the proposed project would include excavations of varying depths across portions of the study area, including excavations at depths where native soils would be encountered, the proposed project has the potential to impact previously unknown buried human remains. Mitigation Measure CULT-1, Conformance with LAX Master Plan Archaeological Treatment Plan (ATP), described below, would reduce this impact to a level that is less than significant. Specifically, the ATP provides guidance as to the treatment of human remains that are accidentally encountered during construction excavations, such as compliance with State Health and Safety Code 7050.5 and Public Resources Code Section 5097.98.

## **7.0 RECOMMENDED MITIGATION MEASURES**

### **7.1 Archaeological Resources**

#### **Mitigation Measure CULT-1 – Conformance with LAX Master Plan Archaeological**

**Treatment Plan:** Prior to initiation of grading and construction activities, LAWA will retain an on-site Cultural Resource Monitor (CRM), as defined in the LAX Master Plan MMRP Archaeological Treatment Plan (ATP), who will determine if the proposed project area is subject to archaeological monitoring. As defined in the ATP, areas are not subject to archaeological monitoring if they contain re-deposited fill or have previously been disturbed. LAWA shall retain an archaeologist to monitor excavation activities in native or virgin soils in accordance with the detailed monitoring procedures and other procedures outlined in the ATP regarding treatment for archaeological resources that are accidentally encountered during construction. In accordance with the methods and guidelines provided in the ATP, the CRM will compare the known depth of re-deposited fill or disturbance to the depth of planned grading activities, based on a review of construction plans. If the CRM determines that the proposed project area is subject to archaeological monitoring, a qualified archaeologist (an archaeologist who satisfies the Secretary of the Interior's Professional Qualifications Standards [36 CFR 61]) shall be retained by LAWA to inspect excavation and grading activities that occur within native material. The extent and frequency of



inspection shall be defined based on consultation with the archaeologist. Following initial inspection of excavation materials, the archaeologist may adjust inspection protocols as work proceeds. Identification, evaluation, and recovery of cultural resources shall be conducted in accordance with the methods, guidelines, and measures established in the ATP. If Native American cultural resources are encountered, LAWA shall comply with guidance established in the ATP for retaining a Native American monitor. If human remains are found, LAWA shall comply with the State Health and Safety Code regarding the appropriate treatment of those remains as outlined in the ATP. Reporting shall be completed in conformance with the requirements established in the ATP to document the archaeological monitoring effort and guidance as to the proper curation and archiving of artifacts in accordance with industry and federal standards.

## **7.2 Paleontological Resources**

**Mitigation Measure CULT-2 – Conformance with LAX Master Plan Paleontological Management Treatment Plan:** Prior to initiation of grading and construction activities, LAWA will retain an on-site paleontologist as defined in the LAX Master Plan MMRP Paleontological Management Treatment Plan (PMTP), who will determine if the proposed project proposed site exhibits a high or low potential for subsurface resources. As defined in the PMTP, areas are not subject to paleontological monitoring if they contain re-deposited fill or have previously been disturbed. If the project site is determined to exhibit a high potential for subsurface resources, paleontological monitoring will be conducted in accordance with the procedures stipulated in the PMTP. If the project site is determined to exhibit a low potential for subsurface deposits, excavation need not be monitored as per the PMTP. In the event that paleontological resources are discovered, the procedures outlined in the PMTP for the identification of resources will be followed.

## **7.3 Human Remains**

As discussed earlier, Mitigation Measure CULT-1, Conformance with LAX Master Plan Archaeological Treatment Plan (ATP), described above, would reduce this impact to a level that is less than significant. Specifically, the ATP provides guidance as to the treatment of human remains that are accidentally encountered during construction excavations, such as compliance with State Health and Safety Code 7050.5 and Public Resources Code Section 5097.98.



Mr. Stephen Culberson, Director  
**RICONDO & ASSOCIATES, INC.**  
January 23, 2015 - Page 14



Please contact us if you have any questions about the results and recommendations presented in this report.

Sincerely,

**PCR SERVICES CORPORATION**

A handwritten signature in black ink, appearing to read "CW Purtell".

Chris Purtell, M.A., RPA  
Senior Archaeologist I

A handwritten signature in black ink, appearing to read "Kyle Garcia".

Kyle Garcia  
Senior Archaeologist I

Attachments (as noted)



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Mr. Stephen Culberson, Director  
**RICONDO & ASSOCIATES, INC.**  
January 23, 2015 - Page 16



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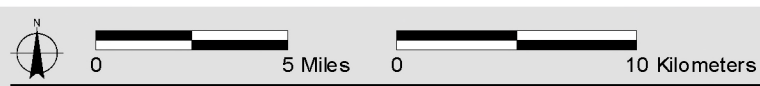
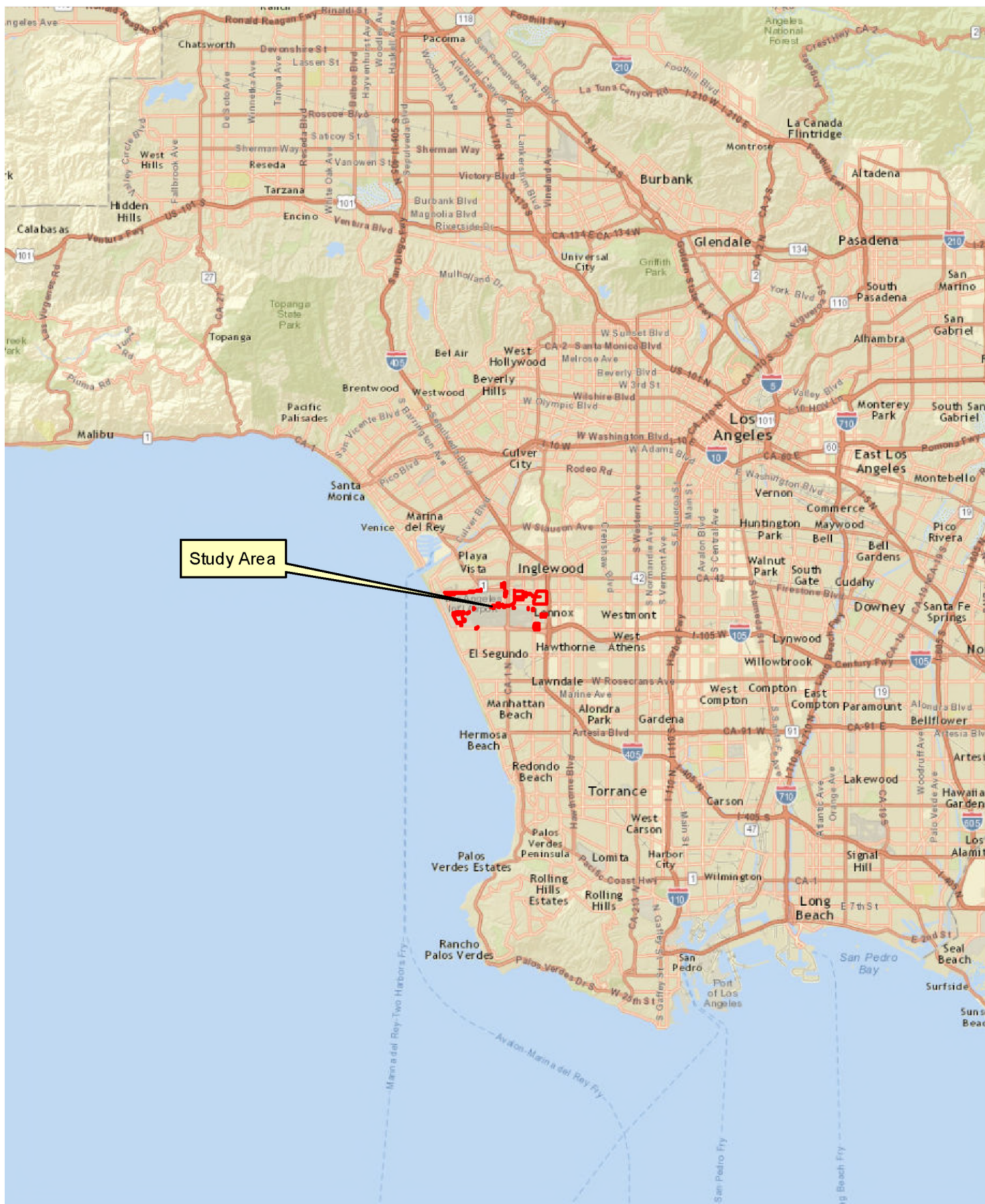
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## Regional Map

LAX Landside Transportation Program  
Source: ESRI Street Map, 2009; PCR Services Corporation, 2015.

FIGURE  
**1**



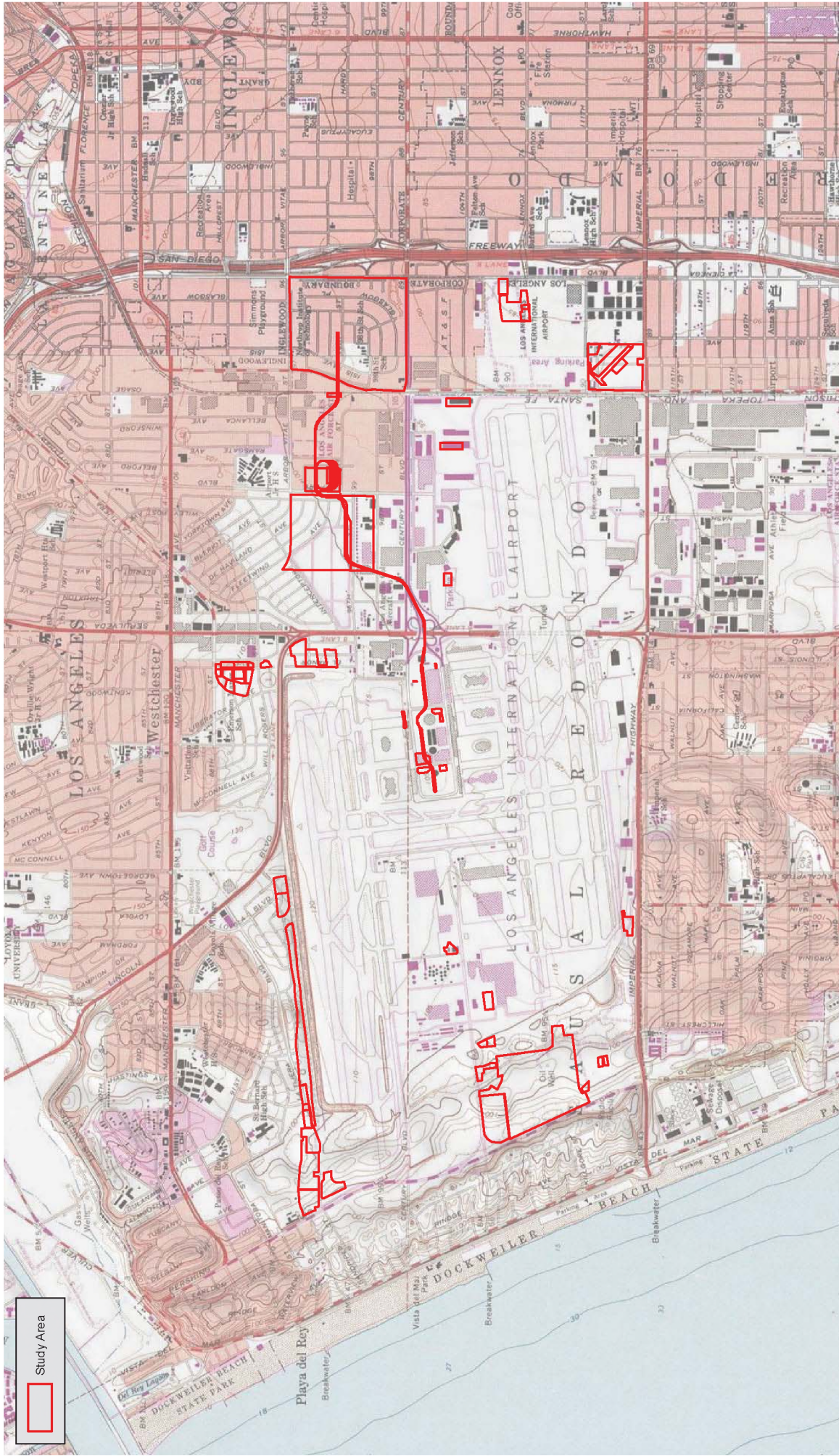


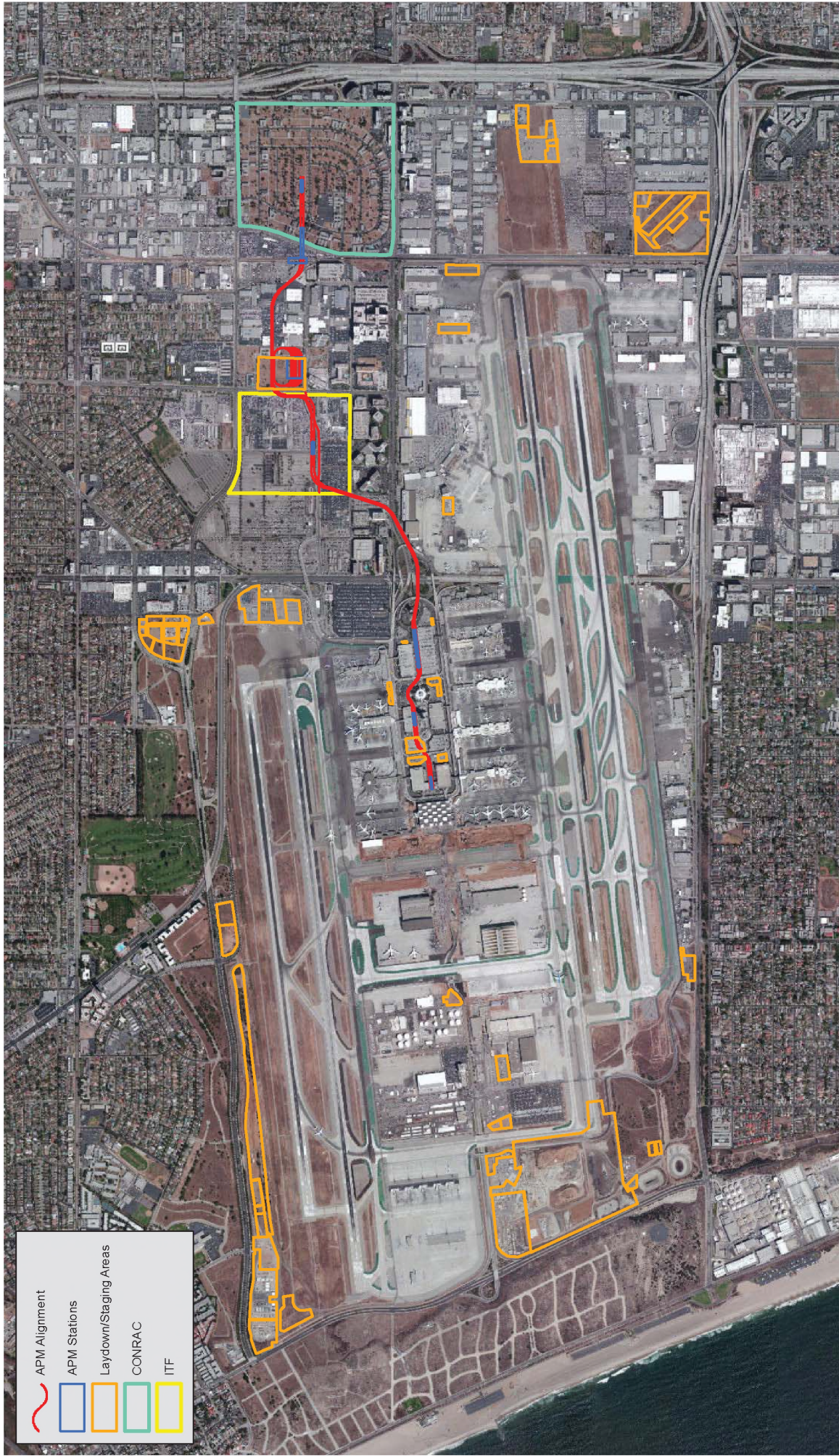
FIGURE 2

### Vicinity Map

LAX Landside Transportation Program  
 Sources: USGS Topographic Series (Venice, Inglewood, CA); PCR Services Corporation, 2015.







	APM Alignment
	APM Stations
	Laydown/Staging Areas
	CONRAC
	ITF



FIGURE 3

### Aerial Photograph

LAX Landside Transportation Program  
 Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.







Photograph 1: Overview of dense vegetation in ITF area, view north.



Photograph 2: Overview of APM alignment area, view north.





Photograph 3: Overview of dense vegetation in CONRAC area, view west.



Photograph 4: Overview of CONRAC area, view east.





Photograph 5: Overview of Laydown Area No. 2 located at the intersection of South Cienega Boulevard and Lennox Boulevard, view towards the west.



Photograph 6: Overview of Laydown Area No. 3 located at the intersection of Imperial Highway and Aviation Boulevard, view towards the north.





Photograph 7: Overview of Laydown Area No. 1 located at the southwest corner of Westchester Parkway and Sepulveda Westways, view towards the south.



Photograph 8: Overview of Laydown Area No. 1 located at the intersection of Westchester Parkway and Sepulveda Westways, view towards the north.



**NATIVE AMERICAN HERITAGE COMMISSION**

1550 Harbor Blvd., ROOM 100  
West SACRAMENTO, CA 95691  
(916) 373-3710  
Fax (916) 373-5471



January 8, 2015

Christopher W. Purtell  
PCR Services Corporation  
2121 Alton Parkway, Suite 100  
Irvine, CA 92606

Sent by Fax: (949) 753-7002

Number of Pages: 3

RE: Landslide Transportation Program at Los Angeles International Airport, City of Los Angeles,  
Los Angeles County.

Dear Mr. Purtell,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

A handwritten signature in cursive script that reads "Katy Sanchez".

Katy Sanchez  
Associate Government Program Analyst

**Native American Contacts  
Los Angeles County  
January 7, 2015**

Tongva Ancestral Territorial Tribal Nation  
John Tommy Rosas, Tribal Admin.

tattnlaw@gmail.com  
(310) 570-6567

Gabrielino Tongva

Gabrielino-Tongva Tribe  
Bernie Acuna, Co-Chairperson  
*1999 Avenue of the Stars, Suite 1100*  
Los Angeles , CA 90067

Gabrielino

(310) 428-5690 Cell

Gabrieleno/Tongva San Gabriel Band of Mission Indian  
Anthony Morales, Chairperson

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(626) 286-1262 Fax

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Gabrielino /Tongva Nation  
Sandonne Goad, Chairperson

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Gabrieleno Band of Mission Indians  
Andrew Salas, Chairperson

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Gabrielino

Gabrielino Tongva Indians of California Tribal Council  
Robert F. Dorame, Tribal Chair/Cultural Resources

P.O. Box 490  
Bellflower , CA 90707  
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(562) 761-6417 Voice/Fax

Gabrielino Tongva

Gabrielino-Tongva Tribe  
Conrad Acuna  
*1999 Avenue of the Stars, Suite 1100*  
Los Angeles , CA 90027

Gabrielino

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed Landside Transportation Program, Los Angeles International Airport, City of Los Angeles, Los Angeles County.

**Native American Contacts  
Los Angeles County  
January 7, 2015**

Gabrielino /Tongva Nation  
Sam Dunlap, Cultural Resources Director  
P.O. Box 86908                      Gabrielino Tongva  
Los Angeles , CA 90086  
samdunlap@earthlink.net  
(909) 262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed Landside Transportation Program, Los Angeles International Airport, City of Los Angeles, Los Angeles County.

Natural History Museum  
of Los Angeles County  
900 Exposition Boulevard  
Los Angeles, CA 90007

tel 213.763.DINO  
www.nhm.org



Vertebrate Paleontology Section  
Telephone: (213) 763-3325  
Fax: (213) 746-7431  
e-mail: [smcleod@nhm.org](mailto:smcleod@nhm.org)

8 January 2015

Planning Consultants Research  
2121 Alton Parkway, Suite 100  
Irvine, CA 92606

Attn: Christopher W. Purtell, Senior Archaeologist

re: Paleontological Records Check for the proposed Landside Transportation Program at Los Angeles International Airport Project, in the City of Los Angeles, Los Angeles County, project area

Dear Christopher:

I have conducted a thorough search of our Vertebrate Paleontology records for the proposed Landside Transportation Program at Los Angeles International Airport Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Venic USGS topographic quadrangle map that you sent to me via e-mail on 30 December 2014. We have two vertebrate fossil localities that lie within the proposed project site boundaries, and we have other localities nearby from the same sedimentary units that occur in the proposed project area.

In the western portion of the proposed project area, roughly west of Sepulveda Boulevard, the surficial deposits are composed of older Quaternary dune sands. In the eastern portion of the proposed project area the surficial deposits consist of older Quaternary Alluvium, derived primarily from the Windsor Hills to the north and the Rosecrans Hills to the east. Both of these types of deposits typically do not contain significant vertebrate fossils in the uppermost layers, but at depth they may well contain significant fossil vertebrate remains.

One of our vertebrate fossil localities that lies within the boundaries of the proposed project area, LACM 3264, in the middle of the Los Angeles International Airport near what is

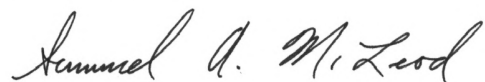


now the Tom Bradley International Terminal, produced a fossil specimen of a elephant, Proboscidea, at a depth of 25 feet below the surface. Our other vertebrate fossil locality that lies within the boundaries of the proposed project area, LACM 7332, in the northeastern portion of the proposed project area just south of West 98<sup>th</sup> Street and west of Bellanca Avenue, produced a fossil baby mammoth, *Mammuthus*, at a depth of 40 feet below street grade. Our other nearby vertebrate fossil localities include LACM 3789, further north of locality LACM 7332 at 8734 Bellanca Avenue south of Manchester Avenue, that produced fossil mammoth, *Mammuthus*, rodent, Rodentia, and even a speckled sanddab, *Citharichthys stigmaeus*, at a depth of 14 feet below the surface; and two localities, LACM 1180 and LACM 4942, immediately northwest of locality LACM 3789 on the northeast and southeast sides respectively of Airport Boulevard at the intersection with Manchester Avenue, that produced fossil specimens of horse, *Equus*, mammoth, *Mammuthus*, bison, *Bison*, and rabbit, *Lepus*, at depths of 13 to 16 feet below the surface.

Surface grading or very shallow excavations in the Quaternary Alluvium and dune sands exposed in the proposed project area probably will not encounter significant fossil vertebrate remains. Deeper excavations in the proposed project area, however, may well uncover significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

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,

A handwritten signature in cursive script that reads "Samuel A. McLeod".

Samuel A. McLeod, Ph.D.  
Vertebrate Paleontology

enclosure: invoice



*Los Angeles  
World Airports*