

Section 3.4 | Cultural Resources

3.4.1 Introduction

This section describes the affected environment for archaeological, historical, and paleontological resources; the regulatory setting associated with these resources; the impacts on archaeological, historical, and paleontological resources that would result from the project; and the mitigation measures that would reduce these impacts.

The key sources of data and information used in the preparation of this section are listed and briefly described below.

The following impact determinations were made in the County of Los Angeles Initial Study Checklist for the proposed project.

- The project site does not contain rock formations indicating potential paleontological resources.
- The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- The project would not result in impacts associated with other factors related to cultural resources (i.e., factors not addressed in the initial study).

These issues are not discussed further in this section.

3.4.2 Regulatory Setting

3.4.2.1 Federal

Section 106 of the National Historic Preservation Act of 1966 and any other federal historic preservation laws do not apply to the project because there is no federal funding involved.

3.4.2.2 State

California Environmental Quality Act

CEQA Public Resources Code (PRC) Section 21084.1 identifies a historical resource as:

... an historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, as defined in subdivision (k) of Section 5020.1¹, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1², are presumed to be historically or culturally significant for purposes of this section, unless the

¹ PRC 5020.1(k) indicates a "local register of historic resources," which means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

² Subdivision (g) of Public Resources Code Section 5024.1 states: a resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria: (1) The

preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the resource may be an historical resource for purposes of this section.

CEQA uses the term *historical resources* to include buildings, sites, structures, objects, or districts that may have historical, pre-historical, architectural, archaeological, cultural, or scientific importance. The term *unique archaeological resource* refers to an archaeological artifact or site that does not meet the criteria for a historical resource but does meet criteria set forth in PRC Section 21083.2.

CEQA Guidelines Section 15064.5(a)(3) provides protection for paleontologic resources by requiring that they be identified and mitigated as historical resources under CEQA.

California Register of Historical Resources

The California Register of Historical Resources (California Register) was established to be a comprehensive listing of California's historical resources, including those of national, state, and local significance. The California Register was established in 1992 by the state legislature with the passage of Assembly Bill (AB) 2881. Buildings listed in or formally determined eligible for listing in the National Register of Historic Places (National Register) are automatically listed in the California Register. The criteria for listing in the California Register are consistent with those developed for the National Register, but have been modified for state use.

The types of resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. A resource must be significant at the local, state, or national level under one or more of the following criteria:

- It is 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 (Criterion 1).
- It is associated with the lives of persons important to local, California, or national history (Criterion 2).
- It 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 (Criterion 3).
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Resources eligible for listing in the California Register must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that resources that may not retain sufficient integrity for listing in the National Register may still be eligible for the California Register. Buildings, structures, or objects that have been moved or reconstructed, and resources that have achieved significance within the

survey has been or will be included in the State Historic Resources Inventory. (2) The survey and the survey documentation were prepared in accordance with office procedures and requirements.

past 50 years may also be considered for listing in the California Register under specific circumstances.

3.4.2.3 Local

Southern California Association of Governments

The Southern California Association of Governments Growth Management Chapter (SCAGGMC) has instituted policies regarding the protection of cultural resources. SCAGGMC Policy No. 3.21 “encourages the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites”(Sapphos Environmental 2009:3–9).

Los Angeles County Historical Landmarks and Records Commission

The Los Angeles County Historical Landmarks and Records Commission (Commission) considers and recommends to the board of supervisors local historical landmarks defined to be worthy of registration by the State of California, either as California Historical Landmarks or as Points of Historical Interest. The Commission also may comment for the board on applications relating to the National Register. The Commission also is charged with fostering and promoting the preservation of historical records. In its capacity as the memorial plaque review committee of the County of Los Angeles, the Commission screens applications for donations of historical memorial plaques and recommends to the board plaques worthy of installation as County property (Sapphos Environmental 2009:3–9).

Local Preservation Ordinances

The following Cities in Los Angeles County have preservation ordinances to designate historic landmarks or districts (Los Angeles Conservancy 2008:26–31):

- Azusa
- Baldwin Park
- Beverly Hills
- Burbank
- Calabasas
- Commerce
- Covina
- Culver City
- El Segundo
- Glendale
- Glendora
- Hermosa Beach
- Huntington Park
- Long Beach
- Los Angeles
- Manhattan Beach
- Monrovia
- Pasadena
- Pomona
- Redondo Beach
- Rolling Hills Estates
- San Fernando
- San Gabriel
- San Marino
- Santa Monica
- Sierra Madre
- South Gate
- South El Monte
- South Pasadena
- Torrance
- West Covina
- West Hollywood
- Whittier

3.4.3 Environmental Setting

This section discusses the existing conditions related to cultural resources in the study area. Los Angeles County is geographically one of the largest counties in the nation with approximately 4,083.2 square miles. The County stretches along 75 miles of the Pacific Coast of Southern California, and is bordered to the east by Orange and San Bernardino Counties, to the north by Kern County, and to the west by Ventura County. Los Angeles County also includes the offshore islands of Santa Catalina and San Clemente.

The unincorporated areas of the County of Los Angeles comprise 2,656.6 square miles of Los Angeles County's 4,083.2 square miles, equivalent to approximately 65% of the County's total land area. The majority of unincorporated County land is located in the northern part of the County and includes expansive open space within the Antelope and Santa Clarita Valleys. The unincorporated areas of the County consist of 124 separate, non-contiguous land areas. These areas in the northern part of the County are covered by large amounts of sparsely populated land and include the Angeles and Los Padres National Forests and the Mojave Desert. The Antelope Valley is located in the western portion of the Mojave Desert and is approximately 3,000 square miles in area. To the northwest, the Antelope Valley is separated from the San Joaquin Valley by the Tehachapi Mountains. To the south and southwest, it is separated from the Los Angeles Basin by the San Gabriel Mountains. The unincorporated areas of the southern portion of the County consist of 58 communities, located among the other urban incorporated cities in the County, which are often referred to as the County's unincorporated urban islands. The County's southwestern boundary consists of the Pacific Ocean coastline and encompasses two islands, Santa Catalina and San Clemente; however, the two islands are not included in the Plan.

3.4.3.1 Prehistoric Background

The prehistoric occupation of Southern California is divided chronologically into four temporal phases or horizons (Moratto 1984). Horizon I, or the Early Man Horizon, began at the first appearance of people in the region (approximately 12,000 years ago) and continued until about 5000 B.C. Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone Horizon or Encinitas Tradition, began around 5000 B.C. and continued until about 1500 B.C. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates), core tools, and few projectile points or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important and that reliance on collecting shellfish and vegetal resources increased (Moratto 1984).

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 1500 B.C. and continued until about A.D. 600–800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, possibly indicating a greater reliance on acorns as a food

source. Projectile points become more abundant and, together with faunal remains, indicate increased use of both land and sea mammals (Moratto 1984).

Horizon IV, the Late Horizon, which began around A.D. 600–800 and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea mammal hunting; extensive trade networks; use of the bow and arrow; and a general cultural elaboration (Moratto 1984).

3.4.3.2 Ethnographic Background

The Los Angeles Basin portion of the project area lies within the territory of the Gabrieleno Native American people (Bean and Smith 1978). The Gabrieleno are characterized as one of the most complex societies in native Southern California, second perhaps only to the Chumash, their coastal neighbors to the northwest. This complexity derives from their overall economic, ritual, and social organization (Bean and Smith 1978:538; Kroeber 1925:621).

The Gabrieleno, a Uto-Aztecan (or Shoshonean) group, may have entered the Los Angeles Basin as recently as 1500 B.P. In early protohistoric times, the Gabrieleno occupied a large territory including the entire San Fernando Valley and Los Angeles Basin. This region encompasses the coast from Malibu to Aliso Creek, parts of the Santa Monica Mountains, the San Fernando Valley, the San Gabriel Valley, the San Bernardino Valley, the northern parts of the Santa Ana Mountains, and much of the middle to the lower Santa Ana River. The Gabrieleno also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities with populations ranging from 50 to 150 individuals.

Several groups lived in the high desert portion of Los Angeles County, including the Kawaiisu, Chemehuevi, Alliklik (Tataviam), Kitanemuk, Vanyume, and Serrano (Kroeber 1925). The desert and mountain-dwelling peoples originally extended into the eastern areas of Los Angeles County (Fortier 2009). The population at the time of European contact for each of these groups is estimated to have been 500–1,000, residing mainly in the areas of modern Los Angeles County (Blackburn and Bean 1978; Kroeber 1925).

3.4.3.3 Historic Background

Spanish occupation of California began in 1769, at San Diego. Mission San Gabriel was established in the Los Angeles Basin in 1771 and the Los Angeles Pueblo was established as a civilian settlement on September 4, 1781. The City of Los Angeles began as the Los Angeles Pueblo. It was established as a civilian settlement at the behest of the Spanish royal governor of California. Eleven families, a total of 44 people, recruited as colonists from Sinaloa, Mexico, founded the village of *Nuestra Señora de la Reina de Los Angeles de Porciuncula* on September 4, 1781 (Dillon 1994). Mission San Fernando was established in the San Fernando Valley on September 8, 1797, encompassing large portions of the valley, including the project area, for cattle ranching and agricultural activities.

Mexico rebelled against Spain in 1810, and by 1821 Mexico, including California, achieved independence. The Mexican Republic began to grant private land to citizens to encourage

immigration to California. Huge land grant ranchos took up large sections of land in California. In 1833, Mexico declared an end to the missions and secularized the religious order's land holdings.

Cattle ranching came to dominate the agricultural economy in the region during the Mexican Period, and industries and trade grew around this shift. San Pedro, south of Los Angeles, became a major port for export of tallow and hides to Boston and Europe (Dallas 1955). San Gabriel produced more hides than any other mission, making San Pedro one of the most important ports in California. At that time, the pueblo of Los Angeles was also the largest town in California. Shipments to San Pedro from Los Angeles proceeded south across the open plain of the Los Angeles Basin.

The acquisition of California by the United States at the end of the Mexican-American War in 1848, and the discovery of gold in 1850, brought many Euro-Americans into California and promoted further cultural changes. The state developed rapidly, being admitted to statehood in 1850. However, the great influx of population was primarily limited to central California, San Francisco, and the Gold Rush region of the Sierra Nevadas. Southern California grew very slowly during this time. On April 4, 1850, Los Angeles was incorporated as a municipality.

In 1876, the Southern Pacific Railroad completed a rail line from Oakland to Los Angeles, crossing the Antelope Valley by way of Soledad Pass, located just south of present-day Palmdale (Serpico 2002). A devastating drought in the 1890s brought homesteading and agriculture in the Antelope Valley to a halt, and small communities were virtually abandoned. Following the drought, innovations in the delivery of water revived Antelope Valley's agricultural industries.

In 1913, the completion of the Los Angeles Aqueduct from the Owens Valley in the eastern Sierra Nevada to the City of Los Angeles provided impetus for development of the San Fernando Valley, as well as for the rich agricultural lands in the Antelope Valley. After the opening of the aqueduct, irrigated lands in the valley increased from 5,000 acres in 1910 to 11,900 acres in 1919. This boosted agricultural productivity, primarily pears, apples, nuts, alfalfa, and poultry. In addition, the human population increased (Gardiner 2002).

The history of Los Angeles County through most of the 20th Century is one of remarkable urban growth. The urban areas of the County experienced intensive development at the beginning of the 20th Century, resulting in a dense urban landscape. World War II was a turning point in terms of the demography and economy of the high desert portion of the County. The War Department established Edwards Air Force Base as a pilot training facility in 1942, and the resultant temporary population influx brought a welcome boost to the economy; this military installation helped fuel growth in the Palmdale and Lancaster area (Gardiner 2002).

Historical Resources

The California Office of Historic Preservation (OHP) maintains the California Historical Resources Inventory System (CHRIS). CHRIS identifies buildings and historic districts that have been surveyed, determination of eligibility, and the assigned California Historical Resources Status Code (CHRSC).³ Buildings designated with a CHRSC of 1 through 5 are considered historical resources

³ CHRSC can be viewed at: <http://ohp.parks.ca.gov/pages/1069/files/chrstatus%20codes.pdf>.

for the purposes of CEQA because they generally represent the categories of historical resources defined in Section 15064.5 of the CEQA Guidelines.

In the event a building, structure, object, or site is not listed in CHRIS, but listed in a federal, state, or local inventory, as described above, the resource *could* be considered a historical resource for the purposes of CEQA. Therefore, the following inventories should be consulted:

- National Register of Historic Places and updates (<http://www.nps.gov/nr/research/nris.htm>).
- California Register of Historical Resources.
- California Historical Landmarks.
- City of Los Angeles Historic-Cultural Monument list (<http://cityplanning.lacity.org/>).
- City of Los Angeles Historic Preservation Overlay Zone surveys (<http://cityplanning.lacity.org/>).
- Community Redevelopment Agency LA surveys (<http://www.crala.net/>).

In addition, other sources (human or archival) should be consulted, such as County assessor's records, historical society or museum archives, and oral histories. This information should be presented on the State of California's forms for recording historical resources. The forms are required by the Regulations for California Register of Historical Resources that were formally adopted by the State Historical Resources Commission on January 1, 1998. At a minimum, these regulations require that a qualified architectural historian or archaeologist complete a Primary Record (DPR 523A) and a Building, Structure, and Object Record (DPR 523B).

Archaeological Resources

The CHRIS also includes records of all prehistoric and historical archaeological sites and cultural resources survey reports for each California county, insofar as those documents have been transmitted to the CHRIS. Most archaeological sites have not been evaluated for eligibility and do not appear on the database of CHRSC. Therefore, archaeological resources are not included in Figures 3.4-1 and 3.4-2.

3.4.4 Project Impacts and Mitigation Measures

This section describes the impact analysis relating to archaeological, historical, and paleontological resources for the Bicycle Master Plan at the program level. It describes the methods used to determine the impacts of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, if necessary. Detailed analysis at the project level will determine the significance of impacts for individual Bicycle Master Plan projects and, if necessary, the applicability of mitigation measures.

- Off-road bikeways (Class I bike paths) have the greatest potential to have an impact on historical resources, as a result of construction.

- On-road bikeways (Class II bike lanes, Class III bike routes, and bicycle boulevards) have some potential to have an impact on historical resources, as a result of minor construction and road widening activities.

3.4.4.1 Methods

Historical Resources

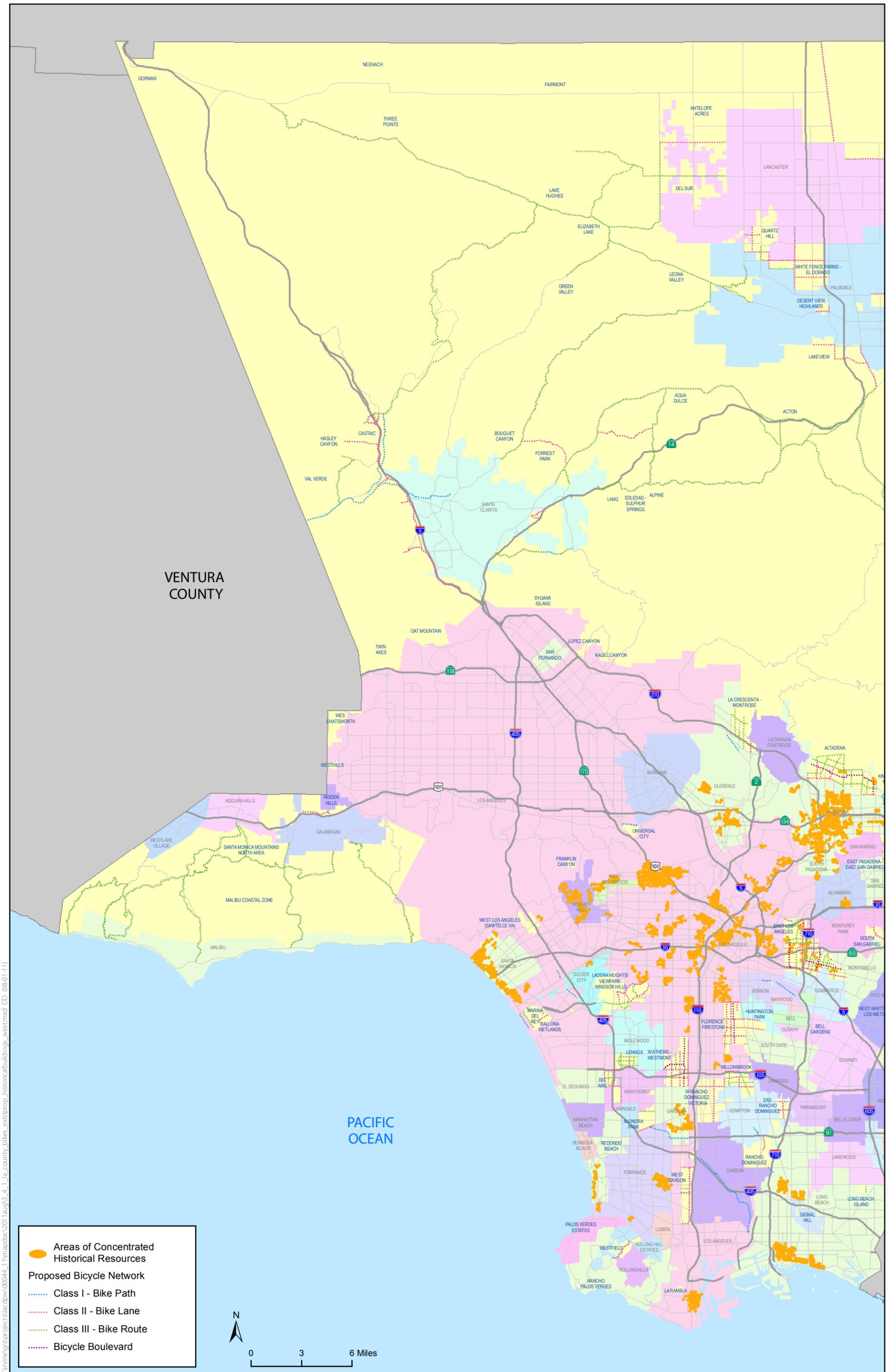
The potential impact on built environment historical resources was estimated by analyzing the two GIS maps, prepared specifically for this document. Figures 3.4-1 and 3.4-2 show the eastern and western areas of Los Angeles County and identify where are located the highest density of built environment historical resources. From the CHRIS database, records located in Los Angeles County with Status Codes 1 through 5 were extracted, which totaled 15,504 sites. These records were geocoded, which is the process of finding and placing geographic coordinate points from a street address. From these 15,504 records, 12,797 came back with a match. For the 12,797 point locations on the map, a 500-foot buffer was created around each one; the buffer circles that were within 100 feet of each other were aggregated or clumped together. Only those aggregated/clumped buffer areas greater than 50 acres are shown on the map. The maps were then analyzed to determine the greatest concentration of historical resources in proximity to off-road and on-road bikeways and the potential for impact (see impacts discussion).

Prehistoric Archaeological Sites

Proximity to resources usually defines the location of significant prehistoric archaeological sites. In Southern California, the most important resource is water. Larger sites are usually found in proximity to drainage courses or springs. Other features that define archaeologically sensitive areas include proximity to the ocean, and the presence of hillsides and knolls, rock outcrops, or oak trees. Each of these areas represents a resource-rich environment that was exploited by prehistoric peoples.

The most archaeologically rich and, therefore, sensitive area of Los Angeles County is along the coastline. Because of readily available fresh water in streams flowing into the Pacific Ocean combined with abundant food resources in the ocean, large village sites were located adjacent to stream mouths near the ocean. In parts of Los Angeles County where marshlands and estuaries mark the shoreline, such as the harbor area, prehistoric sites that were resource procurement-oriented, such as shell middens, were located at water's edge, while village and occupation sites were set back from the water's edge on higher ground.

Mountains, hills, and knolls are also areas that can be sensitive for prehistoric archaeological resources. Mountains and hills are the source of streams, which provide resources for plants, animals, and humans. Additionally, uplift of mountains and ranges of hills commonly is the result of faulting, and these underlying faults along the bases of the slopes often result in springs and spring seeps. Prehistoric peoples often settled around these springs at the base of hillslopes. These locations allowed them to exploit more than one environmental resource area, the slopes and the adjacent plains. Hill and mountain slopes often included rock outcrops and oak groves, while plains areas allowed easy access to low land plant resources and browsing game animals.

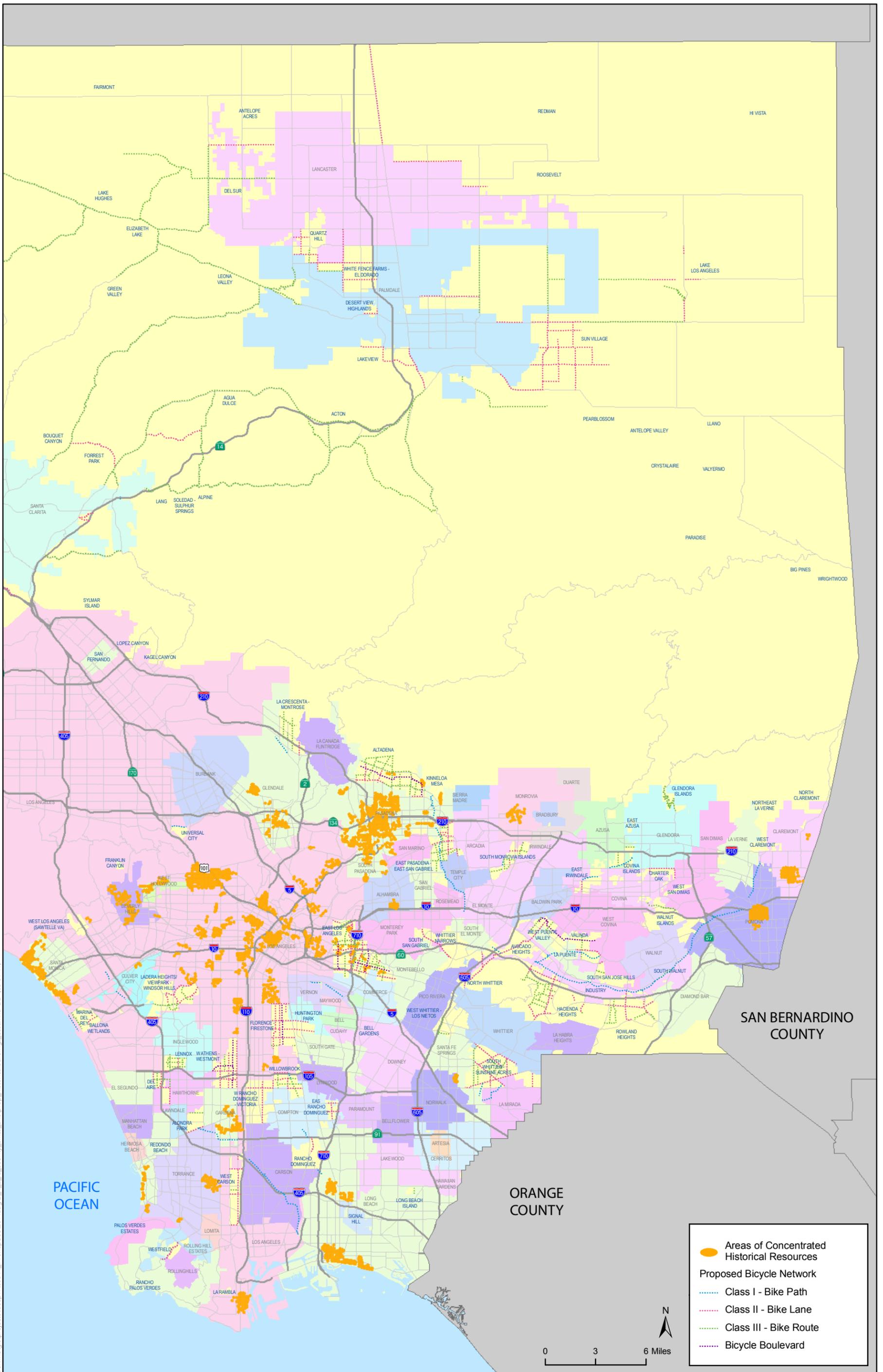


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SOURCE: ESRI Streetmap USA (2008), LA County DPW, State of CA Historical Resources



Figure 3.4-1
Western Los Angeles County Areas with Concentration of California Historical Buildings
Los Angeles County Bicycle Master Plan



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SOURCE: ESRI Streetmap USA (2008), LA County DPW, State of CA Historical Resources



Figure 3.4-2
Eastern Los Angeles County Areas with Concentration of California Historical Buildings
Los Angeles County Bicycle Master Plan

Rock outcrops were used by prehistoric peoples for grinding nuts and seeds, and also as a source of rock material, used to manufacture projectile points, knives, and other tools. Los Angeles County does not have any outstanding sources of stone tool material. Lithic raw material sources in Los Angeles County tend to be small outcrops of fine grained rocks, such as chert, or alluvial cobbles. Outcrops of granitic bedrock are most commonly used for bedrock milling. This material is not common in Los Angeles County, but does occur in the upland areas of the San Gabriel Mountains.

Oak tree groves were harvested by prehistoric inhabitants, yielding acorns for food. Oak trees occur naturally in Los Angeles County in hill and mountain areas or along stream channels. Oak groves that grow up around granitic outcrops are often archaeological sites, with harvested acorns being processed on the spot.

Historical Archaeological Sites

Historical archaeological sites usually follow areas of Euro-American development of the County. However, they sometimes can be found at seeming unlikely locations, for example, agricultural homesteads in the high desert, since a farm or ranch can be started anywhere an optimistic individual might choose. Historical sites are also much more common and can often yield large amounts of artifacts. These sites are usually much easier to locate, since historical maps and other records can be analyzed to determine where development has occurred. In a general sense, areas sensitive for historical archaeological sites will follow the areas depicted on the maps as sensitive for historical built environment resources, since these are the areas of the County with early development.

3.4.4.2 Thresholds of Significance

For this analysis, an impact pertaining to archaeological, historical, and paleontological resources was considered significant if it would result in a “yes” answer to any of the following questions from the Los Angeles County Initial Study Checklist.

- Is the project site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) that indicate potential archaeological sensitivity?
- Does the project site contain known historic structures or sites?
- Would the project cause a substantial adverse change in the significance of a historical or archaeological resource as defined in 15064.5?

3.4.4.3 Impacts and Mitigation Measures

Impact 3.4-1: Be in or near an area containing known archaeological resources or containing features that indicate potential archaeological sensitivity.

Construction

Earth moving associated with construction of the bikeways identified in the Bicycle Master Plan could result in destruction of archaeological resources. The level of significance of effects is dependent on the existing integrity of an archaeological resource, which may have been disturbed by previous development in Los Angeles County.

Off-road bikeways are proposed that would traverse areas with features that indicate potential archaeological sensitivity, such as along rivers or the Pacific coast. Off-road bikeways would have the greatest likelihood to affect archaeological resources because of earth moving that would be associated with new construction of this class of bikeways.

On-road bikeways as proposed have less likelihood to affect archaeological resources because only minor construction and road widening are proposed.

If significant archaeological resources were disturbed during construction, impacts on these resources would be significant.

Mitigation Measures

Detailed analysis of impacts related to archaeological resources will be required prior to implementation of individual Bicycle Master Plan projects that would include earthmoving or other ground disturbance. These project-level analyses will require that a qualified archaeologist conduct a literature and record search and a field survey of the project area. If archaeological resources are discovered, they will be evaluated for significance, through testing excavations if necessary.

MM 3.4-1: Implement treatment plan based on site-specific surveys prior to earth-moving activities.

For individual projects that would require earthmoving or other ground disturbance and for which significant impacts to archaeological resources are determined during site-specific analysis, the project will be redesigned to avoid impacts to the site and/or appropriate treatment measures will be completed. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation, detailed documentation, or monitoring.

Level of Significance after Mitigation

With implementation of MM 3.4-1, impacts on significant archaeological resources would be less than significant.

Impact 3.4-2: Contains known historic structures or sites.

Construction

Proposed off-road bikeways that would traverse a cluster of historical resources, as shown on Figures 3.4-1 and 3.4-2, have the greatest likelihood to affect historical resources because of associated new construction. (Note: None of the proposed Class I bike paths pass through the previously identified clusters of historical resources, but they could affect isolated historic resources.) Proposed off-road bikeway construction also has the potential to affect historic sidewalk features like streetlights, terrazzo, and commercial merchant names. Pasadena and Pomona are two communities that exemplify this case.

Proposed on-road bikeways have less likelihood to affect historical resources because only minor construction and road widening are proposed. East Los Angeles, South Los Angeles, Altadena, and Kinneloa Mesa are communities that exemplify this case.

If significant historic architectural resources were disturbed during construction, impacts on these resources would be significant.

Mitigation Measures

Detailed analysis of impacts related to historical resources will be required prior to implementation of individual Bicycle Master Plan projects that would be located near historical resources and where these projects would alter these resources or their context (such as for Class I bike paths, street widening, or removal of manmade structures or landscape features). These project-level analyses will require that a qualified architectural historian conduct a literature and records search, analyze appropriate inventories, and conduct a field survey of the project area to determine if significant historic resources are present. Significance would be determined by applying Section 15064.5(a) of the CEQA Guidelines and the California Register criteria.

MM 3.4-2: Avoid significant historical resources identified in site-specific surveys.

For any individual project that would result in impacts to significant historic resources, the project will be redesigned to avoid disturbing, damaging, altering, or destroying the historical resource, based on site-specific surveys.

Level of Significance after Mitigation

With implementation of MM 3.4-2, including avoidance of any significant historic architectural resources, impacts on historic architectural resources would be less than significant.

Impact 3.4-3: Cause a substantial adverse change in the significance of a historical or archaeological resource.

Construction

Typical project impacts that may cause a substantial adverse change in the significance of an historical resource may result from the following activities: disturbance or property damage as a

result of construction adjacent to an historical resource; disruption of the integrity of a property's setting, where new construction alters the historic setting and creates a visual impact; or long-term loss of access to a property, such as a bridge, as a result of new construction. The level of significance of effects is dependent on the existing integrity and the nature of elements contributing to its historic or cultural significance, and the sensitivity of the current or historic use of the resource. As discussed for Impacts 3.4-1 and 3.4-2, the projects proposed as part of the Bicycle Master Plan have the potential to result in an adverse change to a historical or archaeological resource.

Mitigation Measures

Implement MM 3.4-1 (Implement treatment plan based on site-specific surveys prior to earth-moving activities) and MM 3.4-2 (Avoid significant historical resources identified in site-specific surveys).

Level of Significance after Mitigation

With implementation of MM 3.4-1 and MM 3.4-2, impacts related to adverse change to the significance of historical and archaeological resources would be less than significant.

3.4.5 Cumulative

Cumulative historical resource impacts could occur should the project's proposed construction of bikeways simultaneously affect a single historic site or an historic district. Individual projects that may occur within the area could result in substantial adverse physical impacts associated with the destruction or demolition of historical or archeological resources. Any individual project that would result in a significant impact, either individually or through contribution to a cumulative impact, must be mitigated, including requiring relocation of the bicycle plan project in some cases, so as to avoid a significant impact as part of the project mitigation. With implementation of MM 3.4-1 and MM 3.4-2, the impacts would be less than significant and would not contribute to cumulative effects on historical resources.