



5.11 Tribal and Cultural Resources



5.11 TRIBAL AND CULTURAL RESOURCES

5.11.1 PURPOSE

This section identifies existing cultural (including historic and archeological resources), paleontological and tribal resources within the Study Area, and provides an analysis of potential impacts associated with implementation of the General Plan Update. Potential impacts are identified and mitigation measures to address potentially significant impacts are recommended, as necessary.

This section is primarily based upon the Cultural and Tribal Cultural Resources Technical Report for the Rancho Santa Margarita General Plan Update, Rancho Santa Margarita, Orange County, California (Cultural Study), and the Paleontological Resources Impact Assessment Report for the Rancho Santa Margarita General Plan Update, Orange County, California (Paleontological Assessment), both prepared by SWCA Environmental Consultants (SWCA) and dated April 2019; refer to [Appendix F, Cultural/ Paleontological Resources Assessment](#).

5.11.2 EXISTING REGULATORY SETTING

Numerous laws and regulations require Federal, State, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations establish a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (i.e., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended, the California Environmental Quality Act (CEQA), and the California Register of Historical Resources, Public Resources Code 5024, are the primary Federal and State laws governing and affecting preservation of cultural resources of Federal, State, regional, and local significance. The applicable regulations are discussed below.

FEDERAL REGULATIONS

National Historic Preservation Act of 1966

Enacted in 1966 and amended in 2000, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the Federal, State, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO) and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).



Section 106 Process

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the Act until shown not to be significant.

Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations Part 800) state that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archeology, engineering, and culture. This quality must be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: It is associated with the lives of persons significant in our past; or
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Criterion (D) is usually reserved for archaeological resources. Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under City environmental compliance jurisdiction. However, should the undertaking require funding, permits, or other administrative actions issued or overseen by a Federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. The Section 106 process typically excludes cultural resources created less than 50 years ago unless the resource is considered highly significant from the local perspective. Finally, the Section 106 process allows local concerns to be voiced and the Section 106 process must consider aspects of local significance before a judgment is rendered.



Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards that were developed in 1976, the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings were published in 1995 and codified as 36 CFR 67. Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources." "Preservation" acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation" not only incorporates the retention of features that convey historic character, but also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

STATE REGULATIONS

California Environmental Quality Act

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource is considered historically significant if it meets any of the following criteria:

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

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts 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 resources cannot be left undisturbed, mitigation measures are required (Public Resources Code Section 21083.2[a], [b], and [c]). Public Resources Code Section 21083.2(g) defines a unique archaeological resource as 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; or
- 3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the criteria modeled on the NRHP criteria.

Senate Bill 18

Signed into law in 2004, Senate Bill (SB) 18 requires that cities and counties notify and consult with California Native American Tribes about proposed local land use planning decisions for the purpose of protecting traditional tribal cultural sites. Cities and counties must provide general and specific plan amendment proposals to California Native American Tribes that have been identified by the Native American Heritage Commission as having traditional lands located within the city's boundaries. If requested by the Native American Tribes, the city must also conduct consultations with the tribes prior to adopting or amending their general and specific plans.

Assembly Bill 52 (Gatto, 2014)

On September 25, 2014, Governor Brown signed AB 52. In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, of the stated goals of AB 52 are the following:



- 1) Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
- 2) Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
- 3) Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
- 4) Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.
- 5) In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision making body of the lead agency.
- 6) Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.
- 7) Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.
- 8) Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.
- 9) Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.



5.11.3 EXISTING ENVIRONMENTAL SETTING

CULTURAL SETTING

Prehistoric Period

Rancho Santa Margarita lies in the area generally described as the San Diego subregion of the Southern Coast Archaeological Region, which is one of eight organizational divisions of the State drawn from major physiographic boundaries. This subregion extends southward along the coast from Santa Monica Bay to the border with Mexico, and includes southern Los Angeles County, all of Orange County, the southwest corner of San Bernardino County, and western Riverside and San Diego Counties.

Numerous chronological sequences have been devised to understand cultural changes for various areas within southern California over the past century. A prehistoric chronology for the southern California coastal region, including Orange County, was developed in 1955 and consists of four periods: Early Man, Milling Stone, Intermediate, and Late Prehistoric.

EARLY MAN PERIOD/SAN DIEGUITO/PALEO-COASTAL (CA. 10,000–6000 B.C.)

When the Early Man Period was defined, there was little evidence of human presence on the southern California coast prior to 6000 B.C. Archaeological work in the intervening years identified numerous older sites dating prior to 10,000 years ago, including sites on the coast and Channel Islands. In Orange County, evidence from the Newport Coast Archaeological Project and Muddy Canyon Archaeological District shows that activity at several archaeological sites dates to the middle early Holocene.

Recent data from sites during this period indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas and on Pleistocene lakeshores in eastern San Diego County. At coastal sites, there is abundant evidence that marine resources such as fish, sea mammals, and shellfish were exploited during the Paleo-Coastal Period. At near-coastal and inland sites, it is generally considered that an emphasis on hunting may have been greater during the Early Man Period than in later periods, although few Clovis-like or Folsom-like fluted points have been found in southern California.

MILLING STONE PERIOD (CA. 6000–3000/1000 B.C.)

The Milling Stone Period is characterized by an ecological adaptation to collecting and by the dominance of the principal ground stone implements generally associated with the horizontal motion of grinding small seeds, namely, milling stones (metates, slabs) and handstones (e.g., manos and mullers).

Milling Stone Period sites are common in the southern California coastal region between Santa Barbara and San Diego, and at many inland locations. It has been suggested that Milling Stone Period sites represent migratory settlement patterns of hunters and gatherers who used marine resources during the winter and inland resources the remainder of the year. It is clear that subsistence strategies during the Milling Stone Period included hunting



of small and large terrestrial mammals, sea mammals, and birds; collecting of shellfish and other shore species; extensive using of seed and plant products; processing of yucca and agave; and nearshore fishing with barbs or gorges.

INTERMEDIATE PERIOD (CA. 3000/1000 B.C.–A.D. 500/650)

The Intermediate Period in Santa Barbara, Ventura, and parts of Los Angeles Counties date from approximately 3000 B.C.–A.D. 500 and are characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. During the Intermediate Period, there is a pronounced trend toward greater adaptation to regional or local resources. For example, the remains of fish, land mammals, and sea mammals are increasingly abundant and diverse in sites along the southern California coast. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks become part of the toolkit during this period.

LATE PREHISTORIC PERIOD (CA. A.D. 500/650–HISTORIC CONTACT)

During the Late Prehistoric Period, there was an increase in the use of plant food resources in addition to an increase in land and sea mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during this period, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely chipped projectile points, usually stemless with convex or concave bases, suggests an increased utilization of the bow and arrow rather than the atlatl and dart for hunting. In Orange County, Cottonwood series triangular projectile points are diagnostic of this period. Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone.

Ethnographic Overview

The City of Rancho Santa Margarita is within the ethnographic territory of the Juaneño/Acjachemen. Surrounding native groups included the Gabrielino and Serrano to the north, the Cahuilla to the East, and the Luiseño, Ipai, and Cupeño to the south. There is documented interaction between the Juaneño/Acjachemen and many of their neighbors in the form of intermarriage and trade, and they have been ethnographically and linguistically joined with the Luiseño based on the findings of recent comparative analyses.

JUANEÑO/ACJACHEMEN

The project area is within a portion of the lands historically occupied by the Juaneño. The name “Juaneño” denotes people who were ministered during Spanish Colonial times by Mission San Juan Capistrano priests. Many contemporary Juaneño and coastal Luiseño identify themselves as descendants of the indigenous people living in the local area, termed the Acjachemen Nation.

Acjachemen territory was situated in southern Orange County and northern San Diego County. Their lands encompassed the San Joaquin Hills west to the Pacific Ocean, east



into the Santa Ana Mountains and possibly farther into Temescal Valley, and south along the coast to the Santa Margarita mountain range. Their neighbors to the north were the Gabrielino (now known as the Tongva), who spoke a related northern Takic language, and by the closely related Luiseño to the east and south.

The first direct European contact with the Acjachemen was the July 1769 Spanish expedition led by Lieutenant Colonel Gaspar de Portolá. Six years later, eight missions and forts had been founded to the north and south, and Mission San Juan Capistrano founded in 1776. Within 20 years, over fifty percent of the Acjachemen had been brought into the new religious, social and economic system, with an even larger percentage of their hunting grounds and plant harvesting areas turned into croplands and cattle pasture. By 1806, all remaining Acjachemen had been baptized or fled the region.

During the 1920s, many Native Americans residing in San Juan Capistrano became members of the Mission Indian Federation, organized to fight for self-rule on southern California reservations. Acjachemen were aware of their linguistic and cultural connections to other tribal people, and there were strong marriage ties from San Juan throughout the rest of the region. In 1975, Acjachemen created the Capistrano Indian Council, which served as a cultural center and an advisory council to the school district. The Juaneño Band of Mission Indians was formed in 1979.

Historic Period

Post-contact history for the State of California generally is divided into three specific periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present).

SPANISH PERIOD (1769–1822)

Spanish explorers made sailing expeditions along the coast of southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríguez Cabrillo stopped in 1542 at present-day San Diego Bay. With his crew, Cabrillo explored the shorelines of present Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present California and Oregon coastline was mapped and recorded in the next half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, giving each location its long-standing name.

More than 200 years passed before Spain began the colonization and inland exploration of Alta California. The 1769 overland expedition by Captain Gaspar de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. In July of 1769, while Portolá was exploring southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta, California by the Spanish and the Franciscan Order between 1769 and 1823.



MEXICAN PERIOD (1822–1848)

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. Nine ranchos were granted between 1837 and 1846 in the future Orange County. During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

AMERICAN PERIOD (1848–PRESENT)

California officially became a State with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. Territories. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods.

CITY OF RANCHO SANTA MARGARITA

The earliest historic accounts of the Rancho Santa Margarita come from the journals of Captain Gaspar de Portolá, Ensign Miguel Costanso, and Father Juan Crespi, who passed through the area on their expedition between San Diego and San Francisco Bay in 1769. With the construction of Mission San Juan Capistrano on November 1, 1776, a Spanish presence in the area was firmly established. Around 1810 an outpost of the Mission now known as the Trabuco Adobe was constructed on a high plateau in what is today O'Neill Park in Rancho Santa Margarita. The Adobe, which had served primarily as a training ground for the Mission's horses, became a storehouse for its jewels and other valuables in 1818 when the southern California coast was assailed by a group of pirates led by Frenchman Hippolyte de Bouchard. The Padres of the Mission were warned of an imminent attack by informants from Los Angeles and arranged to safely transport the goods to the inconspicuous outpost. The Mission itself was raided, though rewarded the thieves with little treasure.

With Mexican independence in 1821, Mission lands formerly held by the Catholic Church were transferred to the Mexican government. The area was divided into three ranchos, Rancho Mission Viejo, Rancho Trabuco, and Rancho Santa Margarita. The Trabuco Adobe was occupied by a number of Basque sheep herders, before coming under the control of James L. Flood and Jerome O'Neill in 1882 following the American acquisition of California. O'Neill and Flood purchased all three ranchos the same year, with the massive estate operating as a ranch well into the 1920s. It was subdivided once again in 1940, with the heirs of the Flood estate claiming the southern portion, in today's San Diego County, and the O'Neill family retaining the northern portion, including Rancho Santa Margarita. The Trabuco Adobe slowly decayed, with minor remnants still visible today.



Archaeological investigations at the adobe site reveal that it caught fire at some point historically, causing the roof to collapse.

A 278-acre portion of the land retained by the O'Neill family was donated to the County of Orange for public recreation in 1948, and an additional 120 acres of parkland was donated to the County in 1963. That same year, the O'Neill family also established the Mission Viejo Company and began plans for a master-planned community under the same name. However, it was not until the mid-1980s that ground was finally broken on the Urban Village that would become the modern-day Rancho Santa Margarita. Envisioned as an Urban Village by master planner and urban designer Richard Reese, the community developed rapidly through the late 1980s and 1990s. The City of Rancho Santa Margarita eventually incorporated on January 1, 2000, after being joined with the neighboring communities of Robinson Ranch, Dove Canyon, Rancho Cielo, Trabuco Highlands, and Walden in 1999.

CULTURAL RESOURCES

Records Search

On May 26, 2016, SWCA requested a search of the California Historical Resources Information System (CHRIS) from the South Central Coast Information Center (SCCIC) located at the California State University, Fullerton. Staff at the SCCIC provided search results on June 1, 2016. The search included any previously recorded cultural resources and investigations within the project area. The CHRIS search also included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, the Historic Properties Directory, the California State Historic Resources Inventory, the California Department of Transportation (Caltrans) Bridge Survey, and local inventories.

PREVIOUSLY CONDUCTED STUDIES

Results of the records search indicate that 76 previous cultural resource studies have been conducted within the Study Area. Details pertaining to these investigations are presented in Table 3, *Previous Cultural Resources Studies within the Project Area*, of the Cultural Study in [Appendix F](#). Inspection of the GIS data for the previous studies indicates that the entire Study Area has been subject to some form of archeological fieldwork conducted between 1974 and 2011. Many of the field surveys were conducted after agricultural and other developments had already modified the physical setting. The variability in terrain and disturbances is reflected in the mixture of fieldwork methods employed in the archaeological surveys that include reconnaissance-level surveys (i.e., judgmental sample) used to identify resources outside of existing disturbances and intensive pedestrian surveys (i.e., total coverage walked using transects) within other less disturbed settings or otherwise required by a lead agency.

PREVIOUSLY RECORDED CULTURAL RESOURCES

The CHRIS records search indicates that 43 archaeological resources have been previously recorded within the Study Area consisting of one prehistoric district, 37 prehistoric sites, one prehistoric isolate, two historic sites, one historic isolate, and one



multi-component site. No historic built-environment resources have been recorded in the Study Area. Built environment resources are any buildings, structures, or objects; for the purposes of the General Plan, the phrase “built environment” is used to refer to those buildings, structures, and objects that are 45 years or older.

The prehistoric district (P-30-001728; Upper Aliso Creek Archaeological District) is NRHP-eligible and listed in the CRHR. Two prehistoric sites (P-30-000641 and P-30-000727) identified in the records search are contributing elements of the Upper Aliso Creek Archaeological District and are recorded as lithic scatter and quarry sites. The multi-component site (P-30-000876) is the Trabuco Adobe site in O’Neill Park. The Upper Aliso Creek Archaeological District and Trabuco Adobe are described in more detail below. Only the Upper Aliso Creek Archaeological District and two archaeological sites identified as contributing elements have been formally evaluated for inclusion in the NRHP and CRHR and are considered to be tribal cultural resources. The other prehistoric sites, including the Trabuco Adobe site, are all considered to be potential tribal cultural resources.

- P-30-001728 – Upper Aliso Creek Archaeological District: The Upper Aliso Creek Archaeological District is an NRHP- and CRHR-eligible archaeological district comprising 33 contributing elements. The original 1977 request for NRHP and CRHR designation as a district included 118 prehistoric sites within a very large area along the Aliso Creek corridor between the Santa Ana Mountains and Pacific coast. At the time, the 118 prehistoric sites included a representative sample of types and time periods, dating back as early as the Milling Stone Period (ca. 6000-3000/1000 B.C.), but possibly earlier. The area was also cited as the traditional boundary between Gabrielino and Juaneño groups. A much smaller district comprising 33 sites was ultimately designated. Two of the contributing elements of the district, prehistoric archaeological sites P-30-000641 and P-30-000727, are located within the northeastern portion of the Study Area. The majority of P-30-000641 is situated on open space and managed as part of O’Neill Regional Park; however, most of P-30-000727 has been destroyed by developments associated with the Upper Oso Reservoir.
- P-30-000876 (CA-ORA-876) – Trabuco Adobe: The Trabuco Adobe was first recorded in 1936 by C.E. Roberts as the ruins of an adobe structure built as an outpost of the San Juan Capistrano Mission. Mission records describe horses being trained at the Trabuco outpost. Reports describe occupation of the adobe as the home of the mission mayordomo, Santiago Arguello, and a succession of Basque sheep herders during the nineteenth century before being purchased by Richard O’Neill. The adobe was rumored to have been used as a hiding place for valuables removed from the mission fearing looting by raiding French pirates in 1818. The story persisted into the nineteenth and twentieth centuries and is reported to have attracted looters seeking the buried materials. When Roberts documented the site in 1936, the adobe was missing the roof and the walls were in an advanced state of deterioration. By the 1960s, the building retained little physical integrity, being described as little more than an adobe mound. Limited archaeological testing was conducted in 1993 which determined, based on the exposed cobble foundations, the roof had likely collapsed from a single fire and that the third room was a later addition, which lacked a foundation and roof.



Prehistoric artifacts (flaked stone debris) in some of the adobe bricks indicate that the sediments used to create the bricks were likely extracted from within the surrounding archaeological site. In the mid-1960s, locals erected a commemorative plaque next to the remains, around the same time an overhang was constructed. What remains of the adobe is now enclosed on four sides by plywood walls. Reports on a public website describe further damage from flooding in the early 2000s. Though these claims have not been substantiated, there does not appear to be any formal protections being provided to the site. The site boundary currently measures 710 meters by 560 meters (approximately 65 acres). Approximately 72 percent of the site is developed as part of the Tijeras Creek Golf Club, residential housing, and improved roads. The remaining 28 percent is situated within open space managed by the City and County (as part of O'Neill Regional Park). The site has not been formally evaluated for NRHP and CRHR inclusion and there have been no updates to the resource record since 1993.

TRIBAL CONSULTATION

Sacred Lands File Search and Outreach

On May 31, 2016, SWCA requested a search of the Sacred Lands Files from the Native American Heritage Commission (NAHC). SWCA received a response letter by electronic mail from the NAHC dated July 7, 2016, which indicated that records of sites were found in the Newport Beach United States Geological Survey (USGS) Quadrangle and recommended consultation with the Juaneño Band of Mission Indians Acjachemen Nation. The NAHC also provided a list of 22 Native American groups and individuals who may have knowledge of these cultural resources or others in the project area.

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the NAHC. Therefore, on July 12, 2016, SWCA sent letters to each of the contacts, identifying the project location and requesting input and made a follow-up phone call on July 25, 2016. These letters were not intended to initiate formal consultation but rather to provide information to interested Native American individuals and groups, and to request assistance in identifying resources. As of this writing, two tribes have responded:

- Joyce Stanfield Perry, Cultural Resources Director of the Juaneño Band of Mission Indians Acjachemen Nation: Ms. Perry spoke with SWCA's Cultural Resources Program Director John Dietler, Ph.D., RPA on July 27, 2016 and requested that the tribe continue to be consulted on all projects within the City of Rancho Santa Margarita Boundaries. She wants the City to be aware that the City contains cultural traditional properties, and that in its planning process, the City should proceed with appropriate caution with regards to these resources.
- Viejas Band of Kumeyaay Indians: SWCA received a letter from the Viejas Band of Kumeyaay Indians via email on July 26, 2016 asking that they be informed of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.



A summary of the City's outreach efforts is summarized in Cultural Study Table 1, *Summary of Native American Outreach*; refer to [Appendix F](#).

SB 18 and AB 52 Notification

On June 8, 2018, the City received a letter from the NAHC with an SB 18 and AB 52 consultation list of California Native American tribes with traditional lands or cultural places located in the project area. The City sent notification letters on June 14, 2018 to the 14 contacts listed on the consultation list. Pursuant to the requirements of SB 18 and AB 52, each letter included a description of the City's efforts to update the General Plan (project description) and notified each contact that requests for formal consultation were required to be sent within 30 days. To date, no requests for consultation have been received in response to the SB 18 and AB 52 notification letters and the consultation is considered to be concluded. A summary of the City's SB 18 and AB 52 consultation efforts is summarized in Table 2, *Summary of SB 18 and AB 52 Notification*, of the Cultural Study; refer to [Appendix F](#).

PALEONTOLOGICAL SETTING

Geologic Setting

California is naturally divided into 12 geomorphic provinces, each distinguished from one another by having unique topographic features and geologic formations. The project area occurs in the northern portion of the Peninsular Ranges province. The Peninsular Ranges extend from the Mexican border in the south to the Transverse Ranges in the north and northeast, and are bordered by the Pacific Ocean on the west and the Colorado Desert on the east. The Peninsular Ranges are a series of northwest trending mountain ranges extending approximately 240 kilometers (km) to the Mexican border, where they then continue for an additional 1,200 km along the Baja Peninsula. Locally, the project area occupies much of the Plano Trabuco plateau, with Trabuco Canyon and the Santa Ana Mountains to the north.

Project Geology and Paleontology

According to geologic mapping, the surficial geology of the project area is composed of 24 geologic units including volcanic and sedimentary rocks from the Jurassic to the Miocene and alluvial deposits from the Pleistocene to the recent. The paleontological sensitivity of these units is included in [Table 5.11-1, *Paleontological Sensitivity of Geologic Units Within the Project Area*](#).



**Table 5.11-1
Paleontological Sensitivity of Geologic Units Within the Project Area**

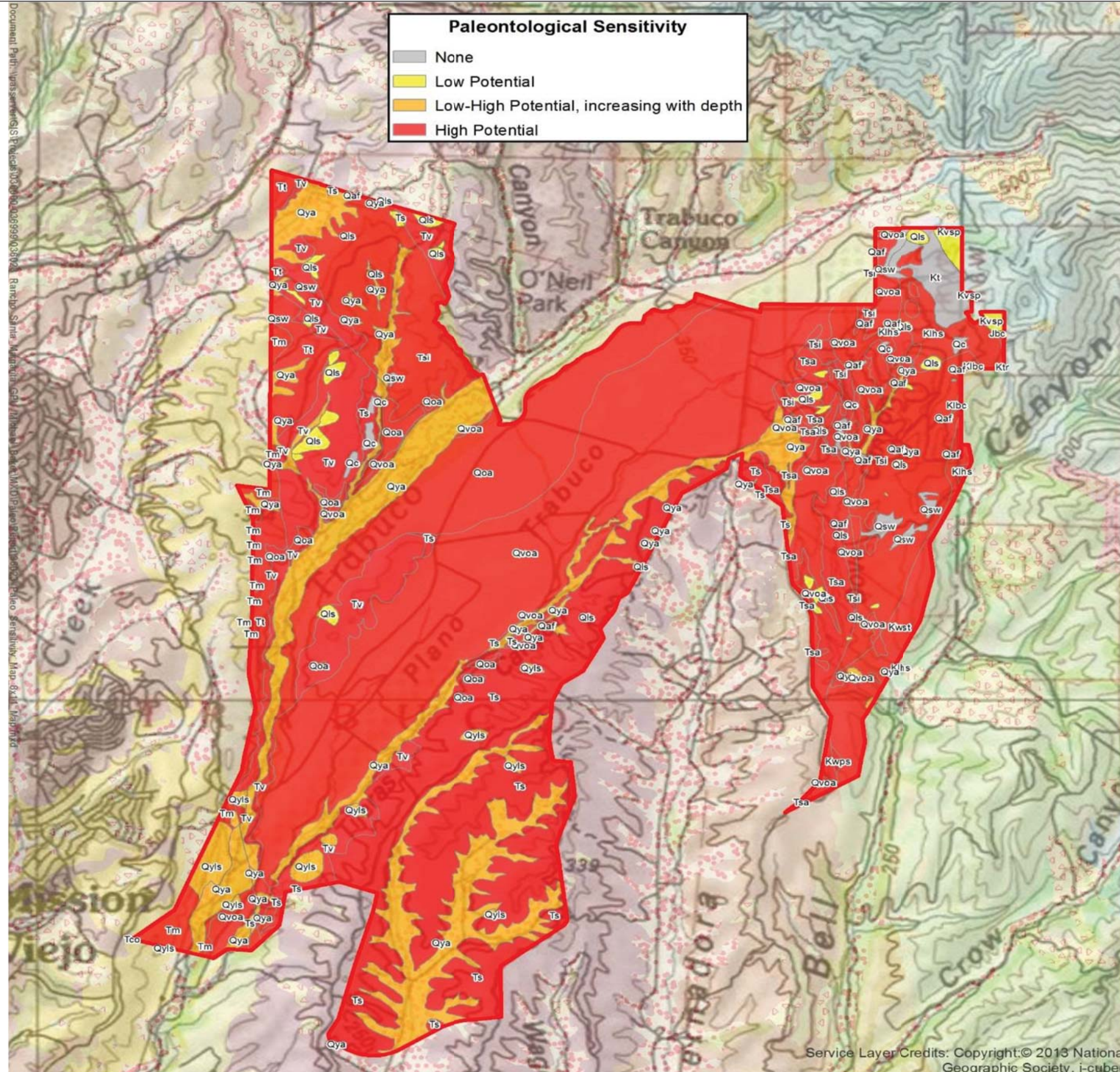
Geologic Unit	Map Symbol	Age	Paleontological Sensitivity
Artificial Fill	Qaf	Recent	None
Very Young Slope-Wash Deposits	Qsw	Recent	None
Very Young Landslide Deposits	Qls	Recent	Low
Very Young Colluvial Deposits	Qc	Recent	None
Young Landslide Deposits	Qyls	Late Pleistocene – recent	Low-High, increasing with depth
Young Axial-Channel Deposits	Qya	Late Pleistocene – recent	Low-High, increasing with depth
Old Axial-Channel Deposits	Qoa	Middle – Late Pleistocene	High
Very Old Axial-Channel Deposits	Qvoa	Early – Middle Pleistocene	High
Capistrano Formation, Oso Member	Tco	Late Miocene–Early Pliocene	High
Monterey Formation	Tm	Middle – Late Miocene	High
Topanga Group	Tt	Middle Miocene	High
Vaqueros Formation	Tv	Early Miocene – Late Eocene	High
Sespe Formation	Ts	Early Miocene – Late Eocene	High
Santiago Formation	Tsa	Middle Eocene	High
Silverado Formation	Tsi	Late Paleocene	High
Williams Formation, Pleasants Sandstone Member	Kwps	Late Cretaceous	High
Ladd Formation, Holz Shale Member	Kwst	Late Cretaceous	High
Ladd Formation, Baker Canyon Conglomerate	Klbc	Late Cretaceous	High
Trabuco Formation	Ktr	Late Cretaceous	High
Undifferentiated Tonalite	Kt	Cretaceous	None
Santiago Peak Volcanics	Kvsp	Jurassic	Low
Bedford Canyon Formation	Jbc	Jurassic	High

Source: SWCA Environmental Consultants, Cultural and Tribal Cultural Resources Technical Report for the Rancho Santa Margarita General Plan Update, Rancho Santa Margarita, Orange County, California, April 2019; refer to Appendix F.

Records Search Results

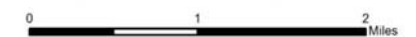
The Los Angeles County Museum (LACM) data indicates that there are multiple known fossil localities within the project area, as well as outside the project area in similar geologic formations; refer to [Table 5.11-2, Fossil Localities From Within the Project Area](#).

A map of the paleontological sensitivity of the surficial geology in and around the project area is shown on [Exhibit 5.11-1, Paleontological Sensitivity of Geologic Units](#). Construction activities including surficial and/or shallow excavations within the surficial young alluvial fan deposits, the Santiago Peak Volcanics, or in areas of previous disturbance are unlikely to result in adverse impacts to significant paleontological resources due to the lower potential for fossils to be preserved in such sediments. However, many of the other sedimentary units in the project area are of an age to preserve fossils and are known to contain paleontological resources. The LACM records search and literature review revealed that all these sediments, except the Trabuco Formation and the young alluvial sediments, have preserved significant vertebrate fossils both in the project area and elsewhere in the region, and therefore have high paleontological sensitivity.



LEGEND

City Boundary



Source: SWCA Environmental Consultants, September 2016.



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**Table 5.11-2
Fossil Localities From Within the Project Area**

Locality Number	Geologic Unit	Taxa	Location
LACM 4119 1215	older Quaternary alluvium (Qoa & Qvoa)	Bison (bison), shark, mammal	Oso Creek, west of southwestern project area.
LACM 4947	Monterey Formation (Tm)	Whale	South of the Upper Oso Reservoir, just outside northwest boundary of project.
LACM 3198, 3209, 3210, 3412, 3413, 3486, 4103-4114	Monterey Formation (Tm)	Sharks (Sphyrna, Carcharocles, Isurus, Paraechinorhinus), Anguilliformes (eels), bony fishes (Carangidae, Sarda, Sphyrnaena), Crocodylus (crocodile), birds, Otariidae (sea lions), Cetotheriidae (baleen whales), Kentriodontidae (dolphins), Dioplotherium (dugong)	Lake Forest, west of the southern project area.
LACM 4464, 4545-4552, 4556-4558, 4961, 5494-5496	Topanga Group (Tt)	Sharks (Mustelus, Heterodontus, Isurus), Myliobatidae (eagle ray), bony fishes (Rhinobatos, Prionurus), Dermochelyidae (leatherback turtle), birds (Anatinae, Alcodes, Sulidae, Diomedea, Puffinus) sea lions (Allodesmus, Neotherium), Cetotheriidae (baleen whale), Kentriodontidae (dolphin), Desmostylus (marine mammal)	Upper Oso Reservoir, in northwestern portion of project area.
LACM 4559	Vaqueros Formation (Tv)	Sharks (Carcharhinus, Galeocerdo, Hemipristis, Isogomphodon, Heterodontus, Cetorhinus, Squatina Ginglymostoma), three rays (Dasyatis, Mobula, Myliobatis), Raja (skate), Bony fishes (Rhinobatos, Balistidae, Rhynchobatus, Pristiophorus, Squalus, Clupeidae, Albulidae, Oplegnathidae, Cylindracanthus)	Upper Oso Reservoir, in northwestern portion of project area.
LACM 4553, 4554	Sespe Formation (Ts)	Testudinata (turtle), Peratherium (opossum), Archaeolagus (rabbit), Yatkolamys (deer mouse), Trogomys (pocket mouse), Mustelidae (badger)	Upper Oso Reservoir, in northwestern portion of project area.
LACM 3881, 3883, 3884, 3979, 4022, 5346, 5347, 6926, 68102	Santiago Formation (Tsa)	turtles, crocodiles, birds, rodents, insectivores, brontothere, camels, and amynodont rhinoceroses	Carlsbad.
LACM 592	Williams Formation (Kwst)	Hadrosaur dinosaur	North of the project area in Santiago Canyon.
LACM 1895	Ladd Formation, Holz Shale Member (Klhs)	Squalicorax (Mackerel shark)	Northwest of the project area in Silverado Canyon.
LACM 4221	Ladd Formation, Holz Shale Member (Klhs)	Cretolamna (Mako-like shark) Squalicorax (Mackerel shark)	Northwest of the project area in Silverado Canyon.

Source: SWCA Environmental Consultants, Cultural and Tribal Cultural Resources Technical Report for the Rancho Santa Margarita General Plan Update, Rancho Santa Margarita, Orange County, California, April 2019; refer to Appendix F.

5.11.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

The purpose of this analysis is to identify any potential cultural resources within or adjacent to the Study Area, and to assist the lead agency in determining whether such resources meet the official definitions of historical, archaeological, paleontological, and tribal cultural resources, as provided in the Public Resource Code, in particular CEQA.



SIGNIFICANCE GUIDELINES

Historical Resources

Impacts to a significant cultural resource that affect characteristics that would qualify it for the NRHP or that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (CEQA Guidelines, Section 15064.5 [b][1], 2000). Material impairment is defined as demolition or alteration “in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register” (CEQA Guidelines, Section 15064.5[b][2][A]). Note, the City of Rancho Santa Margarita does not have its own local register of historic resources.

Archaeological Resources

A significant prehistoric archaeological impact would occur if grading and construction activities result in a substantial adverse change to archaeological resources determined to be “unique” or “historic.” “Unique” resources are defined in Public Resources Code Section 21083.2; “historic” resources are defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15126.4.

Public Resources Code Section 21083.2(g) states:

As used in this section, “unique archaeological resource” means 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; or*
- 3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

Paleontological Resources

An impact on paleontological materials would be considered a significant impact if the project results in the direct or indirect destruction of a unique or important paleontological resource or site. The following criteria are used to determine whether a resource is unique or important:

- The past record of fossil recovery from the geologic unit(s);



- The recorded fossil localities in the project site;
- Observation of fossil material on-site; and
- The type of fossil materials previously recovered from the geologic unit (vertebrate, invertebrate, etc.).

Tribal Cultural Resources

AB 52 established a new category of resources in CEQA called Tribal Cultural Resources. (Public Resources Code Section 21074.) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also created a consultation with California Native American Tribes requirement in the CEQA process. Tribal Governments can request consultation with a lead agency and give input into potential impacts to tribal cultural resources before the agency decides what kind of environmental assessment is appropriate for a proposed project. The Public Resources Code now requires avoiding damage to tribal cultural resources, if feasible. If not, lead agencies must mitigate impacts to Tribal Cultural Resources to the extent feasible.

CEQA SIGNIFICANCE CRITERIA

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist, which includes questions relating to tribal and cultural resources. The issues presented in the Initial Study Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it would:

Cultural Resources

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;



- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Disturb any human remains, including those interred outside of dedicated cemeteries (as explained in Section 9.0, *Effects Found Not to Be Significant*, further analysis of this topic is not required in this EIR).

Tribal Cultural Resources

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

5.11.5 PROJECT IMPACTS AND MITIGATION MEASURES

HISTORICAL RESOURCES

- **DEVELOPMENT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE.**

Impact Analysis: No historical built environment resources have been identified in the General Plan Study Area. Because the City included either very few or no standing structures until the planned communities were created in the late 1980s and early 1990s, the soonest a building would meet the minimum age criteria for consideration as a historical resource (50 years) would be 2035 for any structures constructed on or after 1985. Based on information currently available, there are no surviving buildings, structures, or objects within the General Plan Study Area that will meet this age criteria sooner than those constructed between 1985 and 1990.

However, the General Plan Update planning period includes development projections through the year 2040. Therefore, it is possible that future development in accordance with the General Plan Update would require assessment of buildings or structures



constructed between 1985 and 1990 for potential impacts and may result in the identification of historical resources later in time. Potentially historic resources can be directly impacted by demolition activities or extensive remodeling and can be indirectly impacted by noise, dust, and changes to the existing setting and viewshed.

The Conservation/Open Space Element of the General Plan Update includes a goal related to preserving and protecting historical, archaeological, and paleontological resources. Specifically, Conservation/Open Space Element Policy 6.1 encourages balancing the benefits of development with a project's potential impacts to existing cultural resources, including historical resources; and Conservation/Open Space Element Policy 6.2 supports identifying, designating, and protecting sites of historic importance.

Nevertheless, as stated above, future individual development projects proposed in accordance with the General Plan Update could impact buildings or structures constructed between 1985 and 1990 that may be considered historic resources by 2035 and later (at least 50 years old). Thus, Mitigation Measures CUL-1 through CUL-3 are included to reduce potential project impacts on historical resources. Mitigation Measure CUL-1 would require a historical resources assessment be prepared should the potential for a future project to impact historical resources be anticipated. Mitigation Measure CUL-2 requires the Secretary of the Interior's Standards for the Treatments of Historic Properties be used should future projects involve the relocation, rehabilitation, or alteration of a historical resource, and Mitigation Measure CUL-3 requires recordation of a historical resource should it be demolished or significantly altered to assist in reducing adverse impacts to the greatest extent possible.

Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce potential project impacts on historical resources to less than significant levels.

Proposed General Plan Update Goals and Policies:

CONSERVATION/OPEN SPACE ELEMENT

Goal 6: Preserve and protect historical, archaeological, and paleontological resources.

Policy 6.1: Balance the benefits of development with a project's potential impacts to existing cultural resources.

Policy 6.2: Identify, designate, and protect sites of historic importance.

Mitigation Measures:

CUL-1 To ensure identification and preservation of potentially historic resources (as defined by CEQA § 15064.5 a resource listed in, eligible for listing in, or listing in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register), projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) shall be conditioned as follows: prior to any construction activities that could impact potential or previously identified historical resources, the project



- proponent shall provide a historical resources assessment performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for architectural history or history (as defined in 48 Code of Federal Regulations 44716) to the City of Rancho Santa Margarita Planning Division for review and approval. The historical resources assessment shall include a records search at the South Central Coastal Information Center (SCCIC) and a survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project.
- CUL-2 If a project subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) requires the relocation, rehabilitation, or alteration of a historical resource (defined above), the project proponent shall utilize the Secretary of the Interior's Standards for the Treatment of Historic Properties to the maximum extent possible to ensure the historical significance of the resource is not impaired. The application of the standards shall be overseen by an architectural historian or historic architect meeting the Secretary of the Interior's Professional Qualification Standards. Prior to any construction activities that may affect the historical resource (defined above), a report, meeting industry standards, shall identify and specify the treatment of character-defining features and construction activities and be provided to the City of Rancho Santa Margarita Planning Division for review and approval. A project proponent, its construction personnel, and all subcontractors shall comply with the procedures outlined in the resulting report.
- CUL-3 If a project subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) would result in the demolition or significant alteration of a historical resource previously recorded, evaluated, and/or designated in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register, recordation shall take the form of Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards. Recordation shall meet the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering, which defines the products acceptable for inclusion in the HABS/HAER/HALS collection at the Library of Congress. The specific scope and details of documentation shall be developed at the project level in coordination with the City of Rancho Santa Margarita Planning Division and performed prior to the first issuance of any demolition, building, or grading permits.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.



ARCHAEOLOGICAL RESOURCES

- **DEVELOPMENT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE.**

Impact Analysis: Redevelopment and development of previously undeveloped areas have the potential to impact known and unknown archaeological resources. Typically, surface-level and subsurface archaeological sites and deposits can be affected by ground-disturbing activities associated with most types of construction. Based on literature review and records searches, 43 archaeological resources have been previously recorded within the Study Area, including one prehistoric district, 37 prehistoric sites, one prehistoric isolate, two historic sites, one historic isolate, and one multi-component site.

A spatial analysis was conducted to assess archaeological resource areas (including those that qualify as tribal cultural resources) sensitivity and potential for impacts. The analysis used the proposed land use designations for each parcel and CHRIS data to identify portions of known archaeological resources areas that have already been developed (low sensitivity), remain undeveloped (high sensitivity), and those that include a mixture of developed and undeveloped areas (moderate sensitivity). The results of the spatial analysis are shown in Table 5.11-3, Proposed Land Use Designations Intersecting Known Archaeological Resources and Table 5.11-4, Archaeological Resources Identified in Developed, Undeveloped, and Partially Developed Parcels.

**Table 5.11-3
Proposed Land Use Designations Intersecting Known Archaeological Resources**

Land Use Designation	Prehistoric Isolate	Historic Isolate	Prehistoric District Element	Prehistoric Site	Historic Site	Multi-component Site	Total Square Feet	Percent Within Land Use Designation
Business Park	--	--	--	38,426	--	--	38,426	0.3
Community Facility	--	--	--	215,769	--	--	215,769	1.9
High Density Residential	--	--	--	96,305	--	--	96,305	0.8
Low Density Residential	--	--	--	574,306	73,731	115,728	763,766	6.6
Low-Medium Density Residential	--	--	--	217,126	52	--	217,178	1.9
Medium Density Residential	--	--	--	149,604	6,534	256,703	412,841	3.6
Open Space	--	27,783	--	1,416,984	9,600	412,483	1,866,851	16.1
Open Space Golf	--	--	--	401,392	--	1,557,404	1,958,797	16.9
Regional Open Space	7,609	--	1,861,312	2,872,889	--	354,141	5,095,952	43.9
Right-of-Way	--	--	--	583,586	--	63,078	646,663	5.6
Water	--	--	302,983	-	--	--	302,983	2.6
Grand Total	7,609	27,783	2,164,295	6,566,388	89,917	2,759,537	11,615,531	100.0%

Notes: All units in square feet.

Source: SWCA Environmental Consultants, Cultural and Tribal Cultural Resources Technical Report for the Rancho Santa Margarita General Plan Update, Rancho Santa Margarita, Orange County, California, April 2019; refer to Appendix F.



Table 5.11-3 indicates that 60 percent (approximately 7.0 million square feet) of all known archaeological resources are situated on parcels designated Open Space and Regional Open Space; these areas are considered to have high sensitivity. Open Space Golf is the next highest land use designation containing cultural resources (16 percent; approximately 2.0 million square feet) and is considered to have moderate sensitivity. The remaining 23 percent of the total area with known archaeological resources are situated within developed areas and are considered to have low resource sensitivity.

**Table 5.11-4
Archaeological Resources Identified in Developed, Undeveloped,
and Partially Developed Parcels**

Resource Type	Open Space ¹	Fully Developed ²	Partially Developed ³	Total
Historic Isolate	1	--	--	1
Historic Site	--	--	2	2
Multi-Component Site	--	--	1	1
Prehistoric District Element	--	1	2	3
Prehistoric Isolate	1	--	--	1
Prehistoric Site	15	2	18	35
Total	17	3	23	43

Notes:

1. Open Space, Regional Open Space.
2. Business Park, Community Facility, High Density Residential, Low Density Residential, Low-Medium Density Residential, Medium Density Residential, Right-of-Way, and Water (Upper Oso Reservoir).
3. Site includes a mixture of open space and developed parcels.

Table 5.11-4 indicates that 17 of the 43 archaeological resources occur within undeveloped parcels, (i.e., Open Space and Open Space Regional), while three are mapped within developed parcels. The remaining 23 of the known archaeological resources in the Study Area have portions in open space and developed parcels.

The spatial analysis indicates that almost 60 percent (when measured by total surface area) of the known archaeological resources within the Study Area have a high likelihood of preservation and are considered to have high sensitivity for potential impacts in the event of future development. Although land use designations are not an absolute predictor of archaeological preservation, these results suggest that the majority of the known archaeological resources within the Study Area have not been disturbed by developments.

Although unlikely, the areas of low and moderate sensitivity (fully developed and partially developed) may contain archaeological resources preserved as deeply buried deposits underneath the developments, or on the surface in small open spaces within the respective parcels. Developed parcels that have been previously surveyed for the presence of archaeological resources with negative results are the least likely to have unidentified archaeological resources presented below the surface.

Growth projections for the General Plan Update estimate an additional 528 dwelling units and approximately 3,085,014 square feet of non-residential use, including 507,166 square feet of Regional Open Space and 2,668 square feet of Open Space Golf. Because future residential developments would occur in areas of low sensitivity, they are less likely to impact archaeological resources. Future developments within the Regional Open Space



and Open Space Golf would have the highest potential to impact known archaeological resources. Future development or improvements within areas of high or moderate sensitivity could adversely impact archaeological resources.

Developed parcels that have been previously surveyed for the presence of archaeological resources with negative results are the least likely to have unidentified archaeological resources presented below the surface. Where a parcel has been subject to extensive cut or fill (i.e., disturbances), no archaeological resources have been recorded, and future development is proposed to occur exclusively within those disturbed sediments, impacts to archaeological resources are unlikely to occur. Disturbances are most likely to exist in parcels designated as Business Park, Community Facility, High Density Residential, Low Density Residential, Low-Medium Density Residential, Medium Density Residential, and right-of-way. Although unlikely, archaeological resources may be preserved within native soils below disturbances associated with commercial, residential, or other developments. Historic-period archaeological resources may also be intermixed with disturbed or non-native sediments including soils characterized as "artificial fill." If present, such resources may be significant and should be considered for potential impacts, especially where excavation into native soils would occur. Where a parcel has been subject to extensive cut or fill and an archaeological resource was previously identified, impacts may occur.

As such, Mitigation Measures CUL-4 through CUL-10 are provided to reduce potential impacts associated with future development. Mitigation Measure CUL-4 requires an archaeological resources assessment be conducted for future development projects to identify any known archaeological resources and sensitivity of the site. Mitigation Measures CUL-5 through CUL-7 detail the next steps required should the archaeological resources assessment identify known resources or determine the site to have high or medium resource sensitivity. Lastly, Mitigation Measures CUL-8 through CUL-10 detail required protocol related to flagging culturally sensitive areas within a project site; halting construction work in the event of an artifact discovery; and Coroner notification in the event of a human burial recovery.

The General Plan Update Conservation/Open Space Element also includes Goal 6, which is related to the preservation and protection of historical, archaeological, and paleontological resources. Conservation/Open Space Element Policy 6.1 encourages the balance of the benefits of a project's development with a project's potential impacts to existing cultural resources; and Conservation/Open Space Element Policy 6.2 promotes the identification, designation, and protection of sites with historic importance in Rancho Santa Margarita. Upon compliance with Mitigation Measures CUL-4 through CUL-10, impacts to archaeological resources would be reduced to less than significant levels.

Proposed General Plan Update Goals and Policies: Refer to the General Plan Update goals and policies cited above.

Mitigation Measures:

CUL-4 To ensure identification and preservation of archaeological resources and avoid significant impacts to those resources within the City of Rancho Santa



Margarita, all projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) shall be screened by the City to determine whether an Archaeological Resources Assessment study is required. Screening shall consider the type of project and whether ground disturbances will occur. Ground disturbances include activities such as grading, excavation, trenching, boring, or demolition that extend below the current grade. If there will be no ground disturbance, then an Archaeological Resources Assessment shall not be required. If there will be ground disturbances, prior to issuance of any permits required to conduct ground disturbing activities, the City shall require an Archaeological Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology.

All Archaeological Resources Assessments shall include records searches conducted through of the following databases through the respective repositories: California Historical Resources Information System (CHRIS) records search conducted through the South Central Coastal Information Center (SCCIC); Sacred Land Files (SLF) search through the Native American Heritage Commission (NAHC). The records searches shall be conducted for the proposed project site and a radius of no less than 0.5 miles. The results shall be documented in the Archaeological Resources Assessment and shall state if the project site has been adequately assessed for archaeological resources and whether archaeological resources are present within the project site or radius. Determining the adequacy of previous studies shall consider the methods utilized in the study and whether an intensive pedestrian survey and/or subsurface archaeological excavation was conducted, and the date of the study. The Archaeological Resources Assessment shall summarize the type of resource and whether it has been evaluated for significance at the federal, state, or local level. For resources identified directly within the project site, any details concerning the integrity of the resource, if available, shall be included in the results. If the area in which ground disturbances are proposed, including the horizontal and vertical extent, have been adequately assessed for the presence of archaeological resources and no archaeological resources are present, then the results shall be presented in a report or memo, submitted to the Rancho Santa Margarita Planning Division for approval, and no further work shall be required to avoid impacts to archaeological resources.

If the area of proposed ground disturbances has not been adequately assessed, additional background research shall be conducted to assess the likelihood that unidentified archaeological resources may be present on the surface and below ground. The assessment shall be based on substantial information. If undeveloped surfaces are present and the project area has not been surveyed within the past 10 years, a Phase I (intensive) pedestrian survey shall be undertaken. Pedestrian surveys shall include an assessment of the likelihood for buried archaeological resources to occur. If the surface has been developed, the assessment shall consider the likelihood of buried archaeological resources to be present below or intermixed with existing disturbances. If the results of the Phase I survey are negative and the likelihood of buried archaeological resources is found to be low, the results shall be



documented in a report or memo, submitted to the Rancho Santa Margarita's Development Services Department for approval, and no further work shall be required to avoid impacts to archaeological resources.

If the likelihood of buried archaeological resources being present is assessed as medium or high, the assessment shall consider whether subsurface exploration is feasible and necessary to avoid potential impacts to as yet unidentified archaeological resources, and make recommendations for completing the Phase I investigation. If subsurface exploration is recommended, the methods shall conform to those used for Phase II investigations and include specific information about what information is required to complete an adequate Phase I assessment.

By performing a records search, consulting with the NAHC, and conducting background research and, if needed, a Phase I survey, the archaeologist shall classify the project site as having high, medium, or low sensitivity for unidentified archaeological resources. The results of the Archaeological Resources Assessment shall be summarized in a report or memo and submitted to the City of Rancho Santa Margarita Planning Division for review and approval. The Archaeological Resources Assessment shall meet or exceed standards in the Office of Historic Preservation's *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (1990) and *Guidelines for Archaeological Research Designs* (1991).

- CUL-5 For projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and subject to the requirement for an Archaeological Resources Assessment (Mitigation Measure CUL-4). If the required Assessment identifies potentially significant archaeological resources (defined as resources that have not been evaluated for listing to the NRHP, CRHR, or local register), a Phase II Testing and Evaluation investigation shall be performed by an archaeologist who meets the Secretary of the Interior's Professionally Qualified Standards prior to any construction-related ground-disturbing activities to determine the significance of the identified archaeological resources. If the resources are determined to be significant through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be developed and implemented by the project proponent in coordination with an archaeologist meeting the Secretary of the Interior's Professionally Qualified Standards. These might include a Phase III data recovery program that would be implemented by the archaeologist and shall be performed in accordance with the Office of Historic Preservation's *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (1990) and *Guidelines for Archaeological Research Designs* (1991). Additional options can include 1) interpretative signage 2) educational outreach that helps inform the public of the past activities that occurred in this area, or 3) funding a Phase III data recovery of a similar site outside of the proposed project that would allow the project to continue on an unimpeded timeline, but would still contribute to the public knowledge of past human activity.



- CUL-6 For projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and subject to the requirement for an Archaeological Resources Assessment (Mitigation Measure CUL-4). If potentially significant archaeological resources are not identified through an Archaeological Resources Assessment, but a project site is identified as being highly sensitive for archaeological resources (Mitigation Measure CUL-4), an archaeologist, supervised by an archaeologist meeting the Secretary of the Interior's Professionally Qualified Standards, shall monitor all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil within depths that archaeological resources can occur. The archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The pre-construction training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity (defined as within a 30-meter radius) of the discovery shall be halted while the resources are evaluated for significance by an archaeologist who meets the Secretary of the Interior's Professionally Qualified Standards. If the discovery proves to be significant, it shall be curated with a recognized scientific or educational repository.
- CUL-7 For projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and subject to the requirement for an Archaeological Resources Assessment (Mitigation Measure CUL-4). If potentially significant archaeological resources are not identified through an Archaeological Resources Assessment but a project site is identified as having medium sensitivity for archaeological resources (Mitigation Measure CUL-4), an archaeologist who meets the Secretary of the Interior's Professionally Qualified Standards shall be retained on an on-call basis. The archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The pre-construction training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity of the discovery shall be halted while the on-call archaeologist is contacted. If the on-call archaeologist determines that the discovery is significant, it shall be curated with a recognized scientific or educational repository.
- CUL-8 Projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) a site containing or adjacent to a cultural resource that is unevaluated for listing to, recommended eligible for listing to, listed as eligible for listing to, or already listed on the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register, shall be conditioned as follows: Prior to issuance of a grading or building permit, the construction limits shall be clearly flagged prior to



- commencement of any pre-construction or construction activities to assure impacts to eligible cultural resources are avoided or minimized to the extent feasible. Prior to construction activities, an archaeologist, supervised by an archaeologist meeting the Secretary of the Interior's Professionally Qualified Standards, shall verify that the flagging clearly delineates the construction limits and eligible resources to be avoided. Since the location of some eligible cultural resources is confidential, these resources will be flagged as environmentally sensitive areas (ESA).
- CUL-9 Projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and subject to the requirement for an Archaeological Resources Assessment (Mitigation Measure CUL-4) shall be conditioned as follows: In the event of any archaeological discovery regardless of if an archaeological monitor is present, construction work shall halt within a 30-meter radius of the find until its eligibility can be determined by an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards. Any artifact or feature shall be recovered, prepared to the point of curation, identified by an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards, listed in a database to facilitate analysis, and deposited in a designated archaeological curation facility.
- CUL-10 Projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and subject to the requirement for an Archaeological Resources Assessment (Mitigation Measure CUL-4) shall be conditioned as follows: In the event of a human burial recovery, all construction work shall halt within a 30-meter radius of the find. The Orange County Coroner shall be contacted immediately. If the Coroner and archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards agree that the human remains are prehistoric, the Native American Heritage Commission (NAHC) shall be contacted to determine the Most Likely Descendant (MLD). The MLD will make recommendations for the treatment and potential repatriation of the remains. The recommendations shall be followed, as deemed appropriate by a qualified archaeologist.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.

PALEONTOLOGICAL RESOURCES

- **IMPLEMENTATION OF THE GENERAL PLAN UPDATE COULD DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE.**

Impact Analysis: As illustrated in Exhibit 5.11-1, *Paleontological Sensitivity of Geologic Units*, most areas within the City of Rancho Santa Margarita have high paleontological sensitivity. Additionally, according to geologic mapping, the surficial geology of the project area is composed of 24 geologic units, of which 14 have high paleontological sensitivity and two have low-high paleontological sensitivity that increases with depth.



Further, the LACM data provided from records search results identified multiple significant vertebrate fossils within the project area, including bison, various marine animals, birds, rodents, rhinoceroses, camels, and a hadrosaur dinosaur; refer to [Table 5.11-2](#). As such, the City has high potential for paleontological resources.

Future development in accordance with the General Plan Update would mostly consist of infill development or redevelopment within urban areas. Most undeveloped, park, or open space areas would be preserved, including O'Neill Regional Park, Arroyo Trabuco and Tijeras Canyon. However, while development would predominantly occur in urban areas of the City, there is potential to uncover previously undiscovered paleontological resources when excavating to greater depths than prior development. Given the City's high paleontological sensitivity, project impacts on paleontological resources are potentially significant. Implementation of Mitigation Measure CUL-11 would ensure a paleontological resources mitigation and monitoring plan be prepared for future development projects. Future projects would be required to retain a qualified paleontological monitor for full-time or on-call basis depending on the paleontological sensitivity of the site. At a minimum, pre-construction training would be required. Compliance with Mitigation Measure CUL-11 would reduce potential paleontological resource impacts associated with the General Plan Update to less than significant levels.

Proposed General Plan Update Goals and Policies: Refer to the General Plan Update goals and policies cited above.

Mitigation Measures:

CUL-11 Projects subject to California Environmental Quality Act (CEQA) review (meaning, non-exempt projects) and that involve ground-disturbing activities shall implement the following:

- A paleontological resources mitigation and monitoring plan (PRMMP) tailored to the proposed development project shall be prepared by a qualified paleontologist, defined as a paleontologist who meets the Society of Society of Vertebrate Paleontology (SVP) standards for a Principal Investigator or Project Paleontologist. The qualified paleontologist shall submit a letter of retention to the project proponent no fewer than 15 days before any grading or excavation activities commence. The letter shall include a resume for the qualified paleontologist that demonstrates fulfillment of the SVP standards. The PRMMP shall be prepared before any grading activities begin. The PRMMP shall address mitigation and monitoring specific to the project area and construction plan, which may include one or more of the following: construction worker training, monitoring protocols, protocol for identifying the conditions under which additional or reduced levels of monitoring (e.g., spot-checking) may be appropriate, fossil salvage and data collection protocols in the event of an unanticipated discovery, curation facilities for any significant fossils that may be salvaged, and a final report summarizing the results of the program. The PRMMP shall take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and



any changes to the regulatory framework. The PRMMP shall adhere to and incorporate the performance standards and practices from the current SVP Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources. The qualified paleontologist shall submit the final PRMMP to the City of Rancho Santa Margarita Planning Division for review and approval before issuance of a grading permit.

- All projects involving ground disturbances in areas mapped as having high potential paleontological sensitivity (refer to Exhibit 5.11-1, *Paleontological Sensitivity of Geologic Units*) shall be monitored by a qualified paleontological monitor, as defined above, on a full-time basis. Monitoring shall include inspection of exposed sedimentary units during active excavations within sensitive geologic sediments. The monitor shall have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, should the fossils be determined to be significant, shall professionally and efficiently recover the fossil specimens and collect associated data for curation as detailed below. Qualified paleontological monitors shall use field data forms to record pertinent geologic data, measure stratigraphic sections (if applicable), and collect appropriate sediment samples from any fossil localities.
- All projects involving ground disturbance in areas mapped with low-high potential paleontological sensitivity (refer to Exhibit 5.11-1) shall only require paleontological monitoring if construction activity exceeds the depth of the low sensitivity surficial sediments as determined by a qualified paleontologist, as defined above, on a site-specific basis. The underlying sediments may have high paleontological sensitivity, and therefore work in those units may require paleontological monitoring.
- All projects involving ground disturbance in areas mapped as the Trabuco Formation (Ktr) with low paleontological sensitivity (refer to Exhibit 5.11-1) shall incorporate worker training prior to any ground-disturbing activity to ensure construction workers are aware that while paleontological sensitivity is low, fossils may still be encountered. A qualified paleontologist, as defined above, shall be appointed to oversee the training, remain on-call in the event fossils are found, and have the authority to divert activity should fossils be found on-site.
- If found, recovered fossils shall be prepared to the point of curation, identified by a qualified paleontologist, as defined above, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.



TRIBAL CULTURAL RESOURCES

- **FUTURE DEVELOPMENT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE COULD CAUSE A SIGNIFICANT IMPACT TO TRIBAL CULTURAL RESOURCES LISTED OR ELIGIBLE FOR LISTING IN THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES, OR IN A LOCAL REGISTER OF HISTORICAL RESOURCES, OR IMPACT A RESOURCE DETERMINED BY THE LEAD AGENCY, IN ITS DISCRETION AND SUPPORTED BY SUBSTANTIAL EVIDENCE, TO BE SIGNIFICANT TO A CALIFORNIA NATIVE AMERICAN TRIBE.**

Impact Analysis: As stated above, the prehistoric district (P-30-001728; Upper Aliso Creek Archaeological District) and two prehistoric sites (P-30-000641 and P-30-000727) have been identified as eligible for listing in the CRHR and, as such, are considered tribal cultural resources. The remaining prehistoric archaeological sites, including the multi-component site (Trabuco Adobe), have not been evaluated for inclusion in the CRHR or otherwise assessed as tribal cultural resources, but are considered as potential tribal cultural resources. As such, the records search, SLF search results, and consultation with Native American tribes under AB 52 and SB 18 indicate that the project area contains tribal cultural resources. Future development or improvements related to the General Plan Update could adversely impact tribal cultural resources.

Ground-disturbing activities (e.g., excavation, grading, vegetation removal, and construction) associated with future projects under the General Plan Update could have the potential to unearth, damage, and/or destroy known and unknown tribal cultural resources. Future projects proposed in accordance with the General Plan Update would be required to conduct an archaeological resources assessment and Phase I pedestrian survey to determine whether the project site has high, medium, or low sensitivity for archaeological resources, including tribal cultural resources (Mitigation Measure CUL-4). If resources are discovered, Mitigation Measure CUL-5 details additional archaeological testing that shall be conducted to determine significance and Mitigation Measures CUL-6 and CUL-7 require pre-construction training and monitoring if the project site is determined to have high and medium sensitivity, respectively. Implementation of the recommended mitigation measures would minimize potential impacts on tribal cultural resources. As such, impacts would be less than significant.

Proposed General Plan Update Goals and Policies: Refer to the General Plan Update goals and policies cited above.

Mitigation Measures: Refer to Mitigation Measures CUL-4 through CUL-10.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.



5.11.6 CUMULATIVE IMPACTS

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD CAUSE SIGNIFICANT IMPACTS TO HISTORICAL, ARCHAEOLOGICAL, PALEONTOLOGICAL, OR TRIBAL CULTURAL RESOURCES.**

Impact Analysis: Cultural resources impacts are site specific and generally do not combine to result in cumulative impacts. Additionally, a Phase I Cultural Resources Study would be required for other related projects with high cultural sensitivity (as determined by the respective agency) before ground disturbances and demolition activities are permitted to occur. The study would identify resources on the affected project sites that are or appear to be eligible for listing on the NRHP or CRHR. Such studies would also recommend mitigation measures to protect and preserve cultural resources, including historic, archaeological, paleontological, and tribal cultural resources. Mitigation Measures CUL-1 through CUL-3 would require a historical resources assessment be prepared and any potential historic resources be evaluated for significance. Mitigation Measures CUL-4 through CUL-7 require an archaeological resources assessment be conducted for future development projects to identify any known archaeological and tribal cultural resources and sensitivity of the site, and detail the next steps required should the assessment identify known resources or determine the site to have high or medium archaeological/tribal cultural resource sensitivity. Mitigation Measures CUL-8 through CUL-10 detail required protocol related to flagging culturally sensitive areas within a project site; halting construction work in the event of an artifact discovery; and Coroner notification in the event of a human burial recovery. Lastly, Mitigation Measure CUL-11 would ensure a paleontological resources mitigation and monitoring plan be prepared for future development projects. As such, implementation of these measures would reduce the potential for adverse impacts on cultural resources both individually and cumulatively. Therefore, cumulative impacts to cultural resources, including historical, archaeological, paleontological, and tribal cultural resources, would be less than significant.

Proposed General Plan Update Policies and Actions: Refer to the General Plan Update goals and policies cited above.

Mitigation Measures: Refer to Mitigation Measures CUL-1 through CUL-11.

Level of Significance After Mitigation: Less Than Significant Impact With Mitigation Incorporated.

5.11.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Tribal and cultural resources impacts associated with implementation of the General Plan Update would be less than significant with implementation of the identified mitigation measures. No significant unavoidable tribal and cultural resources impacts would occur as a result of the General Plan Update.



5.11.8 SOURCES CITED

SWCA Environmental Consultants, Cultural and Tribal Cultural Resources Technical Report for the Rancho Santa Margarita General Plan Update, Rancho Santa Margarita, Orange County, California, April 2019.

SWCA Environmental Consultants, Paleontological Resources Impact Assessment Report for the Rancho Santa Margarita General Plan Update, Orange County, California, April 2019.