

3.13 Cultural and Tribal Resources

Environmental Setting

HISTORY

Prehistoric Period

The archaeological record currently indicates that the earliest inhabitants of California resided along its coasts and inlands as early as 13,000 years ago (i.e., Erlandson et al., 2007). Evidence of human use of the San Francisco Bay region appears to extend as far back as 11,000 years ago and primarily consists of upland archaeological sites (CA-SCL-178 and CA-CCO-696; Hildebrandt, 1983; Meyer and Rosenthal, 1997). Starting in the early Holocene, semi-mobile hunter-gatherers appear to have occupied the region, based on the presence of terrestrial mammal remains, chipped stone tools, milling implements, and remnants of acorns and wild cucumber (Wohlgemuth, 1997; Meyer and Rosenthal, 1997, 1998). The appearance of specialized tools, non-utilitarian items, semi-subterranean houses, and floral and faunal remains from a range of seasons appears to indicate that humans began to transition towards sedentism during the middle Holocene (Ingram, 1998; Wallace and Lathrop, 1975; Rosenthal and Meyer, 2000; Milliken et al., 2007).

During the early part of the late Holocene, the pre-contact peoples that lived along the shores of San Francisco Bay began to increase the proportion and types of marine resources that they collected and developed specialized tools to capture marine resources (Elsasser, 1978; Milliken et al., 2007). In the uplands, terrestrial plants and animals continued to be used. By the middle of the late Holocene, many of the coastal sites were abandoned, and the remaining sites saw a decline in the range of marine resource types that were collected. At the same time, the use of seeds appeared to intensify in both coastal and upland archaeological sites (Milliken, 2007). By the latter part of the late Holocene, seed use continued to intensify and the archaeological record appears to reflect a further move towards sedentism and the emergence of status ascription and ceremonial integration (Milliken et al., 2007).

Ethnographic Period

At the time of European contact, the Bay Area was inhabited by a group of Native Americans whom ethnographers refer to as the Ohlone or Costanoan. The Ohlone spoke several dialects of the Utian Language family of the Penutian stock. The territory of the Ohlone people extended along the coast from the Golden Gate to the north to just below Carmel to the south, and as far as 60 miles inland. Prior to contact, the Ohlone were politically organized into tribelets, with each having a designated territory. A tribelet consisted of one or more villages and camps within a territory designated by physiographic features (Levy, 1978). The Planning Area was inhabited by the Pelen tribe of the

Ohlone, whose territory included the western portion of the Livermore Valley and present-day Pleasanton, extending south to the canyon leading to Sunol Valley and no farther north than Dublin. Another small group, the Caburans, were a subsidiary village of the Pelnen group. The members of both groups were forced to join Mission San Jose in 1798 and 1805 (Milliken, 1995).

Historic Period

Between 1776 and 1797, seven Spanish missions were founded in Ohlone territory and many Ohlone were brought to live and work, often by force. It has been estimated that in 1776, when the first mission was established in Ohlone territory, the Ohlone population numbered around 10,000. By 1832, the Ohlones numbered less than 2,000 as a result of introduced disease, harsh living conditions, and reduced birth rates (Cook, 1943a, 1943b). During the early twentieth century, descendants of the Ohlone and other groups participated in legal efforts to obtain recognition by the federal government, including two legal suits brought against the U.S. government by Indians of California (1928–1964) for reparation due them for the loss of traditional lands. Although descendants of the Ohlone have yet to receive formal recognition from the federal government, they are becoming increasingly organized as a political unit and have developed an active interest in preserving their ancestral heritage and advocating for Native American issues.

The Planning Area is located within the present-day limits of the City of Livermore, which is located in the Livermore Valley region of Alameda County. The County, which was established in 1853, has an agricultural legacy that began in the late 18th century. The Mission San Jose, which dates to 1796, grazed sheep and cattle on the land. Following Mexico's successful vie for independence from Spain in 1822, California Missions were secularized, and the Mexican government encouraged settlement of Alta California through land grants. Rancheros in the valley settled through this process included: Rancho San Ramon, Rancho Santa Rita, Rancho El Valle de San Jose, and Rancho Las Positas – the latter of which is located within the Planning Area. In 1839, partners Robert Livermore and Jose Noriega received the land grant for Rancho Las Positas, located in the eastern portion of what would become known as Livermore Valley. Livermore later purchased Noriega's share and, in addition to raising livestock, planted the rancho with a vineyard, orchards of pears and olives, and wheat fields. Although Livermore died in 1858, his role in settling the valley would be remembered (Kyle et al., 2002; Livermore Heritage Guild, 2000; Livermore Heritage Guild, 1999).

The town of Livermore was founded and named in Robert Livermore's honor, by William Mendenhall in 1869 (Kyle et al., 2002). Located on a portion of what was the Rancho El Valle de San Jose, Mendenhall donated 100 acres of his property to establishing to the town site and 20 acres of land to provide right-of-way for the Central Pacific Railroad. In the interest of encouraging economic development, the latter donation supported routing of the transcontinental railroad through town (Kyle et al., 2002; Nale, 2003). The Livermore Valley's economy had begun to transition from livestock to agriculture in the 1850s, but grain farmers lacked efficient and affordable means of transporting their harvest until the railroad offered increased access to the market (Livermore Heritage Guild, 1999). In addition to agriculture, Livermore's economic growth was spurred by discovery of coal and oil in the late 19th century. With population growth in the region, Livermore developed a concentration of healthcare facilities during the 1920s, which persisted through the 1960s. These included the Livermore Sanitarium, Arroyo Sanatorium, Del Valle Farm children's hospital, the Veterans Hospital, and St. Paul's Hospital (Kyle et al., 2002; Livermore Heritage Guild, 2006).

Early 20th-century transportation improvements featured construction of a section of the first transcontinental paved highway – Lincoln Highway – through Livermore. As the automobile became more ubiquitous, this additional access supported further development and population growth for the city and surrounding valley region. While Livermore supported a population of 830 when it was incorporated as a city in 1876, by the 1930s, the population was approximately 3,000, with increases through the 1940s and 1950s resulting in more than 25,000 residents by 1965 (Kyle et al., 2002; Bartlett, 1878; Livermore Heritage Guild and Christian, 2013).

The post-World War II period ushered in new development in the form of converting the Livermore Naval Air Station into the Livermore Sky Ranch airport and University of California Lawrence Livermore Laboratory. In the latter half of the 20th century, the city and Livermore Valley experienced continuous growth in the form of commercial and residential development. Although housing development has replaced portions of the valley’s farmland, the area continues to be one of California’s most prosperous wine-producing regions (Livermore Heritage Guild and Christian 2013; Kyle et al., 2002).

PHYSICAL SETTING

Cultural resources are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, paleontological, cultural, or scientific importance. ICF conducted a comprehensive record search at the Northwest Information Center (NWIC) of the California Historic Resources Information System (CHRIS) and conducted field reconnaissance for the Planning Area to identify any known archaeological sites and historical resources (buildings, structures, districts). The results of the records search and field reconnaissance identified one historical archaeological resource, five prehistoric archaeological resources, one individual historical resource, and a related historic district.

Record Search Results and Literature Findings

A cultural resources records search was conducted on February 13, 2017 by an ICF archaeologist at the NWIC. The NWIC is the CHRIS repository which houses records of previously recorded cultural resources and other historical information in the vicinity of the Planning Area. The records search covered the proposed Planning Area and all areas within 0.5 miles of the Planning Area. The purpose was to identify any previously recorded cultural resources in the Planning Area and vicinity. Also included in the search were previous cultural resources studies that have included portions of the Planning Area or areas within 0.5 miles of the Planning Area.

The records search was performed on data from the following sources:

- National Register of Historic Places (NRHP).
- California Register of Historical Resources (CRHR).
- California Inventory of Historic Resources (1976).
- California Historical Landmarks (1996).
- California Points of Historical Interest (May 1992 and updates)
- Directory of Properties in the Historic Property Data File.

- Archeological Determinations of Eligibility (April 5, 2012).
- Caltrans State and Local Bridge Survey (1989 and updates).
- Livermore (1959) U.S. Geological Survey (USGS) 7.5' topographical map.
- Historical Resources Inventory of the City of Livermore
- Historic Livermore, California. Anne Marshall Homan, 2007.

The results were collected in the following forms:

- Mapped locations of:
 - a. Previously recorded archaeological resources;
 - b. Previously recorded historical resources; and,
 - c. Previous cultural resources studies.
- Copies of:
 - a. Resource records for previously recorded archaeological resources;
 - b. Resource records for previously recorded historical resources; and,
 - c. Reports from previous studies.

Previously Recorded Cultural Resources

Eleven previously recorded cultural resources were identified within the Planning Area. Of these 11, six are archaeological (belowground and remnant from the prehistoric or historic period) resources. There are five historical (aboveground and intact from historic period) resources in the Planning Area, two of which (P-01-002204 and P-01-00205) are elements of the same district and are described together below. These previously recorded resources include the following:

Archaeological Resources

- **P-01-000067 (CA-ALA-47)** – This resource was originally recorded in 1951 as a prehistoric site consisting of midden and groundstone pestles. After the site was revisited in 1991, it was decided that there is no evidence of an archaeological site in this location.
- **P-01-002200** – This prehistoric resource is recorded as an isolated hammerstone fragment.
- **P-01-002203** – This prehistoric resource is recorded as an isolated modified chert flake with use wear.
- **P-01-002195 (CA-ALA-584H)** – This historic resource is recorded as the remnants of a concrete foundation, footings, and fence remnants. Historic maps depict this as the possible location of a barn.
- **P-01-002198** - This prehistoric resource is recorded as an isolated mano fragment.
- **P-01-002199** - This prehistoric resource is recorded as two isolated artifacts. One sandstone slab metate and a unifacially modified cobble.

Historical Resources

- **P-01-002204 and P-01-00205**– This resource consists of the Gandolfo Ranch Historic District. This complex is comprised of a 21-acre lot with 16 standing structures. Circa 1874-1970s. This resource is recommended as eligible for listing to the NRHP.
- **P-01-002122 (CA-ALA-516H)** – This resource is recorded as two standing structures, structural debris, and a linear feature. This resource has not been formally evaluated for inclusion to the NRHP or CRHR.
- **P-01-002194** – This resource consists of a large wooden trough lined with galvanized iron and a 16' x 18' scatter of flat faced concrete fragments. This resource has not been formally evaluated for inclusion to the NRHP or CRHR.
- **P-01-002196** – This resource is recorded as approximately 1700 linear feet of fence constructed of wooden posts strung with barbed wire. This fence is associated with Ramke Ranch, which is no longer operational. This resource has not been formally evaluated for inclusion to the NRHP or CRHR.

An additional five resources were identified within 0.5 miles of the Planning Area. All five are archaeological resources. A total of 27 cultural resources studies have been conducted in areas within or adjacent to the Planning Area. These studies are listed in Appendix F.

Map Search

In addition to the NWIC records search, historic topographic and Bureau of Land Management (BLM) General Land Office (GLO) maps were reviewed. These maps indicate that a portion of the Planning Area is located within what was once the Rancho Positas, with a portion extending into the Rancho Santa Rita. Although some trails and structures may be identified, the Planning Area generally remained undeveloped until after 1975.

Archaeological Field Reconnaissance and Results

In February 2017, ICF conducted a field reconnaissance of the proposed Plan Change Areas in Livermore, California. The Change Areas included all vacant, developable parcels within the Planning Area, as well as parcels with a proposed new or intensified land use compared to existing use or what is allowed currently under the Livermore General Plan. ICF inspected various visible ground surfaces closely for evidence of topographic disturbance, soil discoloration, charcoal, modified bone or stone, exotic materials, and historic-period use. Historic-period uses include structure foundations; building materials; and glass, metal, or ceramic debris. Extensive notes were taken with regard to the current conditions of the area surveyed. Digital photographs were taken as well.

Because of the programmatic nature of this analysis, only archaeological resources that were readily accessible from public areas were visited. Thus, P-01-002195 [CA-ALA-584H]), the single historic-period archaeological resource, was relocated, but the locations of the remaining four previously recorded archaeological resources remained unconfirmed. The relatively high frequency of documented archaeological resources, combined with the fact that the Planning Area encompasses a portion of the Arroyo Las Positas, suggests that the Planning Area has elevated potential for archaeological resources. As discussed above, a single historic archaeological site and five prehistoric sites

have been recorded in the Planning Area. Of these, four are isolated finds and not eligible for inclusion in either the NRHP or the CRHR. Neither of the remaining two sites have been formally evaluated. Potentially unrecorded archaeological resources may also exist in the Change Areas, and within the Planning Area as a whole, particularly along Arroyo Las Positas.

Historical Resources Field Reconnaissance and Results

In February 2017, ICF conducted supplemental research to determine the built dates of properties within the proposed Plan Change Areas. This included a review of the historical resources identified in the records search and a review of historic aerial images from historicaerials.com to determine the approximate built date of the extant buildings within the Change Areas of the proposed Plan. The NRHP eligible Gandolfo Ranch Historic District buildings and structures southeast of East Airway Boulevard and Rutan Drive appear on the earliest historic aerial image of 1949 and are identified as constructed from ca. 1874 to the 1970s. Research indicated that all other buildings within the proposed Plan Change Areas were constructed within the last 15 years, ranging from built dates of 2002 to 2009. This information was used to focus the field reconnaissance.

In February 2017, ICF conducted supplemental research and a field reconnaissance to document the historical resources identified in the proposed Plan Change Areas and to determine the built date range of the properties identified. The findings of this effort are as follows.

- The buildings associated with the NRHP eligible Gandolfo Ranch Historic District properties (P-01-002204 and P-01-002205) appear to be extant.
- P-01-02122 consisting of two standing structures, structural debris and a linear feature appears to have been demolished. No structures were visible during the survey; the site containing this former resource is currently vacant land with a pedestrian path.
- P-01-002194 consisting of a large galvanized iron-lined wooden trough appears to have been demolished. The previously recorded trough was not visible during the survey.
- P-01-002196 consisting of a wooden fence associated with the former Ramke Ranch. The utilitarian fence is located along an existing creek and served to limit access to the creek. It is constructed of barbed wire and wooden posts and has been altered from its original design. The 1,700-foot long fence is located south of the I-580 eastbound on-ramp at Isabel Avenue and was extant during the field reconnaissance.

Two of the four previously identified historical resources (P-01-02122 and P-01-002194) are no longer extant. Of the two extant resources, the Gandolfo Ranch (P-01-002204 and P-01-002205) has been previously identified as eligible for the NRHP; and the former Ramke Ranch fence (P-01-002196), which is a utilitarian barbed wire boundary fence along an existing creek, does not appear to be eligible for the NRHP/CRHR and would not be altered as a result of the project. For the purposes of the EIR, only the Gandolfo Ranch resource requires evaluation of potential impacts.

Paleontological Resources¹

Geologic units present in the Planning Area are undivided Quaternary deposits and Tassajara Formation/Livermore Gravels (Wagner et al., 1991). Many of the fossils in undivided Quaternary sediments and the Livermore gravels are fragmented vertebrate fossils, including extinct bison, camels, boney fish, mammoths, and horses (Barlock, 1989).

Alameda County has more than 120 fossil localities recorded in the University of California Museum of Paleontology (UCMP) database. Slightly more than half of the localities contain megafossils (vertebrates or invertebrates identifiable without the aid of a microscope). Most (75 percent) are on the west slope of the Coast Ranges or in the valleys near Walnut Creek and Livermore in the undivided Quaternary deposits or the Livermore gravels.

The distribution of fossil localities and the location of corresponding geologic units indicate that most of the vertebrate paleontological resources in Alameda County are southeast of Interstate 680 in the upland foothills of the Diablo Range and in the Livermore Valley. Fossil localities diminish west of Interstate 680 because much of that area is underlain by young alluvial and basin deposits that do not contain abundant fossil remains. Invertebrate paleontological resources occur throughout the Altamont Hills. All are vertebrate fossil sites, mostly containing fragmentary records of large vertebrates, including the extinct camel (*Camelidae*), horse (*Equus* sp.), giant ground sloth (*Xenarthra*), tapir (*Tapirus* sp.), and mammoth (*Mammuthus* sp.). The presence of mammoth suggests a Pleistocene, rather than Holocene, age for the fossil assemblage.

Identification of Paleontological Resource Sensitivity

The Impact Mitigation Guidelines Revisions Committee of the Society for Vertebrate Paleontology (SVP) has published Standard Guidelines that include procedures for the investigation, collection, preservation, and cataloguing of fossil-bearing sites. The Standard Guidelines identify the two key phases of paleontological resource protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects. SVP defines the level of potential as one of four sensitivity categories for sedimentary rocks: High, Undetermined, Low, and No Potential (Society for Vertebrate Paleontology, 2010). These categories are described below.

- **High Potential.** Assigned to geologic units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered; and sedimentary rock units suitable for the preservation of fossils (“e.g., middle Holocene and older, fine-grained fluvial sandstones...fine-grained marine sandstones, etc.”). Paleontological potential consists of the potential for yielding abundant fossils, a few significant fossils, or “recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data.”

¹ From BART to Livermore Extension Draft Program Environmental Impact Report, PBS&J 2009.

- **Undetermined Potential.** Assigned to geologic units “for which little information is available concerning their paleontological content, geologic age, and depositional environment.” In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.
- **Low Potential.** Field surveys or paleontological research may allow determination that a geologic unit has low potential for yielding significant fossils, e.g., basalt flows. Mitigation is generally not required to protect fossils.
- **No Potential.** Some geologic units have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Mitigation is not required.

The undivided Quaternary deposits in the Planning Area fit the definition of High Potential for paleontological resources.

Tribal Consultation

As part of preparing the proposed Plan and this EIR, a request was made on May 30, 2017 to the Native American Heritage Commission (NAHC) to conduct a search of the sacred lands file. The search did not indicate the presence of additional Native American cultural resources within the Planning Area. The NAHC response listed six tribes that may have historic ties to the Planning Area, and letters of inquiry were sent to the six tribal representatives; however, no responses were received.

Additionally, the Ione Band of Miwok Indians was contacted on May 30, 2017 to request any information that the tribe may have regarding tribal cultural resources located in the Planning Area. To date, no response has been received.

REGULATORY SETTING

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act (NHPA) is the most prominent federal law dealing with historic preservation. The NHPA establishes guidelines to “preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice.” The NHPA includes regulations specifically for federal land-holding agencies, but also includes regulations (Section 106) which pertain to all projects that are funded, permitted, or approved by any federal agency and which have the potential to affect cultural resources. All projects that are subject to the National Environmental Policy Act (NEPA) are also subject to compliance with Section 106 of the NHPA. At the federal level, the Office of Historic Preservation (OHP) carries out reviews under Section 106 of the NHPA.

National Register of Historic Places

NHPA authorizes the Secretary of the Interior to establish a National Register of Historic Places (National Register, or NRHP), an inventory of districts, sites, buildings, structures, and objects sig-

nificant on a national, State, or local level in American history, architecture, archeology, engineering, and culture. The National Register is maintained by the National Park Service, the Advisory Council on Historic Preservation, State Historic Preservation Office, and grants-in-aid programs.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 to provide for the protection of Native American graves. The act conveys to Native Americans of demonstrated lineal descent, the human remains, including the funerary or religious items, that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. NAGPRA makes the sale or purchase of Native American remains illegal, whether or not they were derived from federal or Native American lands.

State Regulations

California Environmental Quality Act

CEQA states that if implementation of a project would result in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (14 California Code of Regulations [Cal. Code Regs.] § 15064.5, 15126.4). Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined.

Section 15064.5 of the CEQA Guidelines define three ways that a property can qualify as a significant historical resource for the purposes of CEQA review:

1. If the resource is listed in or determined eligible for listing in the California Register of Historical Resources (described below);
2. If the resource is included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code, or is identified as significant in a historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code unless a preponderance of evidence demonstrates that it is not historically or culturally significant; or
3. If the lead agency determines the resource to be significant as supported by substantial evidence (California Code of Regulations, Title 14, Division 6, Chapter 3, section 15064.5).

Properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) are also considered eligible for listing in the CRHR (Public Res. Code § 5024.1(d)(1)) and, thus, are significant historical resources for the purpose of CEQA. According to CEQA, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment (14 Cal. Code Regs. § 15064.5(b)). CEQA includes in its definition of historical resources “any object [or] site ... that has yielded or may be likely to yield information important in prehistory” (State CEQA Guidelines § 15064.5[3]), which is typically interpreted as including fossil materials and other paleontological resources. In addition, destruction of a “unique paleontological resource or site or unique geologic feature” constitutes a significant impact under CEQA (State CEQA Guidelines Appendix G).

California Register of Historic Resources

The State Historic Preservation Office maintains the California Register of Historic Resources (California Register). Historic properties listed, or formally designated for eligibility to be listed, on the National Register are automatically listed on the California Register (PRC Section 5024.1). State Landmarks and Points of Interest are also automatically listed. The California Register can also include properties designated under local preservation ordinances or identified through local historic resource surveys.

For a historical resource to be eligible for listing on the California Register, it must be significant at the local, state, or national level under one or more of the following four criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- It is associated with the lives of persons important to local, California, or national history;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (California Public Resources Code).

Assembly Bill (AB) 52, Public Resources Code Section 21074

With the adoption of AB 52 (effective 2015), impacts to tribal cultural resources must also be addressed under CEQA. As defined in Public Resources Code Section 21074, a tribal cultural resource is a site, feature, place, cultural landscape, sacred place, or object with cultural value to a “California Native American tribe,” that is either on, or eligible for inclusion in, the California Register of Historic Resources or a local historic register, or is a resource that the lead agency, at its discretion and supported by substantial evidence, determines should be treated as a tribal cultural resource. AB 52 also provides both federal and non-federally recognized tribes the right to formal consultation with project lead agencies. Letters of inquiry were sent to the tribal representatives and to date, no response has been received from the seven tribes.

California State Senate Bill (SB) 18

The California State SB 18 requires local governments, both city and county, to consult with Native American tribes during early, program-level land use planning in order to more effectively protect tribal culture. SB 18 provides tribes an opportunity to participate in local, program-level land use decisions before project-level land use designations are made by local governments. Letters of inquiry were sent to the tribal representatives and to date, no response has been received from the seven tribes.

California Government Code Section 65040.2(g)

California Government Code Section 65040.2(g) provides guidelines for consulting with Native American tribes for the following: (1) the preservation of, or the mitigation of impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code; (2) procedures for identifying through the Native American Heritage Commission (NAHC) the ap-

propriate California Native American tribes; (3) procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects; and (4) procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of those places, features, and objects.

California Public Resources Code

Sections 5097–5097.6 of the California Public Resources Code outline the requirements for cultural resource analysis prior to the commencement of any construction project on State lands. The State agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. This section was amended in 1987 to require consultation with the California NAHC whenever Native American graves are found. Violations for the taking or possessing remains or artifacts are felonies.

The Public Resources Code Section 5097.9-991, regarding Native American heritage, outlines protections for Native American religion from public agencies and private parties using or occupying public property. Also protected by this code are Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property.

California Health and Safety Code

Section 7052 of the California Health and Safety Code makes the willful mutilation, disinterment, or removal of human remains a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

Under Section 8100 of the California Health and Safety Code (Health & Saf. Code), six or more human burials at one location constitute a cemetery. Disturbance of Native American cemeteries is a felony (Health & Saf. Code § 7052).

Section 7050.5 of the Health & Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must then contact the NAHC, which has jurisdiction pursuant to Public Res. Code Section 5097.

Local Regulations

City of Livermore General Plan

The City of Livermore General Plan Community Character Element includes goals relating to historic resources protection, rehabilitation of historic structures, protection of archaeological/paleontological sites, historic resources inventory, planning and historic preservation, and public awareness through visitor programs, plaques and markers, and education. The General Plan includes policies to evaluate known resources in the environmental assessment process, consider cultural resources in the City's planning efforts, and protect known historical resources and any previously undocumented resources that may be encountered during future activities. The element also includes policies to encourage local private and non-profit organizations to promote and protect historic and cultural resources.

City of Livermore Historic Resources Inventory

In 1988, the City's heritage preservation community, relying on a State grant, participated in a historic resource survey of approximately 260 properties. The work was overseen by Urban Programmers of San Jose. This inventory has not been formally adopted by the City of Livermore, however is recognized as a valuable resource for preliminary background information about properties' potential historic significance. The geographic scope of the survey is citywide.

Certificate of Appropriateness

Livermore Development Code Chapter 9.02 requires a Certificate of Appropriateness (COA) planning entitlement prior to undertaking the demolition or modification of any structure over 50 years old. COA applications for minor modifications, or modifications to structures that are determined not to be a potential historic resource, or that do not alter any potential character-defining features of a potential historic resource, are reviewed and approved administratively. COA applications that propose major modifications to a potential historic resource, or that could alter the character-defining features of a potential historic resource, as well as all demolition requests for structures over 50 years old, are referred to the City's Historic Preservation Commission for review and determination.

Alameda County General Plan

The Alameda County General Plan consists of several documents that discuss specific geographic areas in detail in the County, as well as general goals, policies, and actions for housing, safety, conservation, open space, noise, and recreation. In 2012, the Alameda County Board of Supervisors adopted a historic preservation ordinance that codifies the definition and maintenance of the Alameda County Register of Historic Resources, how properties can be added or removed from the County register, and what activities may be subject to review. The ordinance also provides incentives for the preservation of historic resources.

Impact Analysis

SIGNIFICANCE CRITERIA

Implementation of the proposed Plan would have a potentially significant adverse impact if it would:

- Criterion 1:** Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Criterion 2:** Cause a substantial adverse change in the significance of an archeological resource pursuant to CEQA Guidelines Section 15064.5;
- Criterion 3:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Criterion 4:** Disturb any human remains, including those interred outside of dedicated cemeteries; or
- Criterion 5:** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

METHODOLOGY AND ASSUMPTIONS

This cultural resources analysis identifies the potential impacts of the proposed Plan on historic properties and resources. This was accomplished through a comprehensive records search at the NWIC of the CHRIS, field reconnaissance, and supplemental historical research. Although the record search identified six archaeological sites and isolates, only one historical archaeological resource was able to be visited from publicly accessible areas during the field reconnaissance. Given the programmatic nature of this analysis, this study did not evaluate this resource for its eligibility for the CRHR or NRHP. The reconnaissance and historical research also identified one historic district, the latter having been previously determined to be eligible for the NRHP and CRHR. This methodology recognizes that not all of the previously documented archaeological resources have

been evaluated for their eligibility for the CRHR or NRHP, and that important cultural resources may be encountered during ground-disturbing construction work on future development projects that involve physical construction. Since the extent of ground disturbance associated with future development is unknown at this time, it is not possible to assess specific cultural resource impacts within the Planning Area. For this reason, the analysis does not distinguish between regulatory conditions for privately- and publicly-owned land. Accordingly, no project-specific reviews or field studies were undertaken for this program EIR.

IMPACTS

Impact 3.13-1 Implementation of the Isabel Neighborhood Plan would cause a substantial change to the significance of a historical resource, defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (Guidelines Section 15064.5). (Significant and Unavoidable)

One property within the Planning Area, the Gandolfo Ranch historic district, was identified as eligible for listing in the National Register of Historic Properties (NRHP) under Criteria A and C.² The farming complex consists of 16 buildings (3 houses and 13 ancillary structures, including a garage, four barns, a tank house/office, and a commercial structure). The buildings were constructed from ca. 1874 to the 1970s. Associated landscape features include trees, shrubs and agricultural fields. The complex is located south of I-580 along E. Airway Boulevard, at the southeast section of the Planning Area. The ranch is most commonly known by the City's residents as a pumpkin patch and corn maze.

The property is unique in its current use as an agricultural complex within a dense urban area surrounded by residential and industrial uses. The agricultural character of the vernacular buildings clustered around a historic farming core are important characteristics of the historical resource. In the proposed Plan, the site of the Gandolfo Ranch is identified for development of residential and park uses. Development of this large agricultural property as proposed would require the parcel to be subdivided into separate lots and roads. The subdivision and development of the property as part of the proposed Plan would result in the demolition, destruction, relocation, and/or alteration of the historical resource such that the significance of the resource would be materially impaired.

Historical resources in the City are subject to the Community Character Element of the Livermore General Plan, which includes policies for the identification, protection, and interpretation of cultural resources as discussed in the Regulatory Setting section above. The proposed Plan has included the policies P-PF-18 through P-PF-20 to avoid or minimize impacts to historic resources

² NRHP listing criteria for evaluation states: "The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and a) that are associated with events that have made a significant contribution to the broad patterns of our history; or...c) that embody 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..." (<http://www.achp.gov/nrcriteria.html>).

and any other resource that is subsequently identified as eligible or listed on local, state, or national registries.

Implementation of these policies by future project proponents would generally be expected to reduce potential impacts to historic resources to a less-than-significant level.

However, given that the Gandolfo Ranch is a known historical resource, the site of which would be substantially altered under the proposed Plan, potential impacts to the integrity of this resource would occur. Implementation of policies P-ENV-34 through P-ENV-37 would reduce impacts to the historical resource by requiring the protection, preservation, interpretation, and documentation of such resources. However, even with implementation, a substantial change to the significance of a historical resource would likely occur, and no known feasible policies and mitigation measures are available to reduce the impact to a less than significant level. Therefore, this impact would remain significant and unavoidable.

Proposed Plan Goals and Policies that Reduce the Impact

Parks, Public Facilities, and Infrastructure Chapter

- P-PF-18:** Require that development projects involving the alteration, relocation, or demolition of historical resources include interpretative signage with historical images and information for residents, employees, and passers-by to learn about the property and its significance. The content of the interpretive signage shall be prepared by a qualified Architectural Historian and graphic design professional.
- P-PF-19:** Incorporate elements commemorating Gandolfo Ranch into the park development in order to promote understanding among visitors of the site's historical significance. Such elements may include, but are not limited to, interpretive signage and preserved structures or other character-defining features.
- P-PF-20:** Require, prior to issuance of permits for the alteration, relocation, or demolition of a historical resource, that the project sponsor conduct Historic American Buildings Survey (HABS) and Historic American Landscapes Survey (HALS) Level II documentation.
- The HABS Level II documentation package should include: reproductions of existing drawings, large-format photography of the property and individual contributing buildings and structures, and architectural data forms for all contributing buildings and structures. The Secretary of the Interior's Guidelines for Architectural and Engineering Documentation shall be consulted to determine the content of the HABS submittal.
 - The HALS Level II documentation package should include: large-format photographs of the overall site and individual landscape features, long-form HALS historical report, and archival reproduction of original drawings. If original drawings are not available, a site plan (drawn to scale) shall be prepared for the site. The HALS Guidelines for Historical Reports, Drawings and Photography should be consulted to determine the appropriate content and format of the HALS submittal.

Mitigation Measures

As implementation of the proposed Plan would require the substantial alteration of a known historical resource, no feasible mitigation measures are available that would reduce this impact to below a level of significance.

Impact 3.13-2 Implementation of the proposed Plan would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. (*Less than Significant*)

A single historic archaeological site and five prehistoric sites have been recorded in the Planning Area, as discussed in the Physical Setting section above. None of these resources have been formally evaluated. Potentially unrecorded archaeological resources may also exist in the Planning Area, particularly along Arroyo Las Positas.

Future development projects allowed under the proposed Plan may involve grading, excavation, or other ground-disturbing activities, which could disturb or damage unknown archaeological resources. Although implementation of the proposed Plan may result in actions that could adversely affect archaeological resources, implementation of Policy P-ENV-34 below would minimize or avoid impacts by requiring the protection and preservation of such resources. With implementation of this policy, future development under the proposed Plan would result in less than significant impacts to archaeological resources.

Proposed Plan Goals and Policies that Reduce the Impact

Environmental Resources Chapter

P-ENV-34: When future individual projects are proposed and require site-specific environmental reviews, require project proponent to retain a professional who meets the Secretary of the Interior's standards for archaeology to conduct a project-level study of the proposed action. Such studies will include the following:

- Review of the NWIC records search or conduct an updated records search, if necessary;
- Archaeological pedestrian survey of the proposed project area; and
- Formal evaluation to determine NRHP or CRHR eligibility.

In those instances where it has been determined that unique archaeological resources will be impacted, recommended mitigation measures, including but not limited to, avoidance, preservation in place, and data recovery will be applied.

Mitigation Measures

None required.

Impact 3.13-3 Implementation of the proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant*)

A significant impact could occur if geologic units of high or undetermined potential would be disturbed by future development of specific projects. In the context of CEQA, fossils of land-dwelling vertebrates and their environment are considered important (i.e., significant) paleontological resources. Such fossils typically are found in river, lake, and bog deposits, although they may occur in nearly any type of sedimentary sequence. A less than significant impact would occur if future development of specific projects disturbed invertebrate, plant, or microfossils. No impact would occur if the units in the Planning Area had no paleontological potential.

Pleistocene fossils are often abundant and well-preserved (University of California Museum of Paleontology, 2011). However, because the Holocene and Pleistocene deposits are not differentiated, it is not possible to provide a systematic separation of the more sensitive Pleistocene deposits from the less sensitive Holocene deposits. The Tassajara Formation/Livermore Gravels also fit the definition of High Sensitivity for paleontological resources. These are readily identifiable deposits with a discrete age range that does not extend to the Holocene.

As discussed in the setting above, vertebrate fossils have been recovered from geologic units in the Livermore vicinity, making the Planning Area highly sensitive for paleontological resources. Paleontological resources may be present in construction areas at ground surface and at excavation depths in sensitive geologic units. Implementation of Plan Policies P-ENV-35 and P-ENV-36 would avoid potentially significant impacts on paleontological resources from implementation of future projects within the Planning Area. This policy requires future project proponents to engage a qualified paleontologist to monitor for discovery of paleontological resources, evaluate found resources, and prepare and follow a recovery plan if necessary. With these policies, impacts to paleontological resources, site, or unique geological features would be less than significant.

Proposed Plan Goals and Policies that Reduce the Impact

Environmental Resources Chapter

P-ENV-35: Require that all applicants proposing development projects within the Planning Area retain a qualified paleontologist, as defined by the Society for Vertebrate Paleontology, who is experienced in teaching non-specialists, prior to the start of any excavation, drilling, or pile-driving activities. The qualified paleontologist will train all construction personnel who are involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who will evaluate the significance. The qualified paleontologist will also make periodic visits during earthmoving in high sensitivity sites to verify that workers are following the established procedures.

P-ENV-36: Require development to follow the following steps regarding discovery of paleontological resources.

- If paleontological resources are discovered during earthmoving activities, the construction crew will immediately cease work near the find and notify the project applicant. Construction work in the affected areas will remain stopped or be diverted to allow recovery of fossil remains in a timely manner.
- The project applicant will retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines. The recovery plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings.
- Recommendations in the recovery plan that are determined by the project applicant to be necessary and feasible will be implemented before construction activities can resume at the site where the paleontological resources were discovered.

The project applicant will be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented.

Mitigation Measures

None required.

Impact 3.13-4 Implementation of the proposed Plan would not result in a significant disturbance to human remains, including those interred outside of formal cemeteries. (Less than Significant)

Future development projects allowed under the proposed Plan would involve grading, excavation, or other ground-disturbing activities, which could disturb or damage unknown locations of human remains. Implementation of Policy P-ENV-37 would minimize or avoid impacts by requiring the protection and preservation of any human remains discovered during future project activities. With this policy, impacts to human remains would be less than significant.

Proposed Plan Goals and Policies that Reduce the Impact

Environmental Resources Chapter

P-ENV-37: Ensure that all future development in the Planning Area shall occur in accordance with State laws pertaining to the discovery of human remains. Accordingly, if human remains of Native American origin are discovered during project construction, the developer and/or the Planning Department shall comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Pub. Res. Code Sec. 5097). If any human remains are discovered or recognized in any location on a project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- The Alameda County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and

- If the remains are of Native American origin:
 - i. The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98; or
 - ii. The Native American Heritage Commission was unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

Mitigation Measures

None required.

Impact 3.13-5 Implementation of the proposed Plan would not cause a substantial adverse change in the significance of a tribal cultural resource. (No Impact)

As discussed under the Environmental Setting section above, the NAHC and seven Native American tribes were contacted, pursuant to AB 52 and SB 18. To date, no response has been received from the tribes. A sacred lands file search by the NAHC did not indicate the presence of additional Native American cultural resources within the Planning Area. Therefore, there would be no impact to tribal cultural resources within the Planning Area.

Mitigation Measures

None required.

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