

3.4 Cultural and Paleontological Resources

This section describes the regulatory and environmental settings for cultural and paleontological resources in the Plan Area. Impacts that would result from implementing the proposed action and alternatives are described in Chapter 4, *Environmental Consequences*, along with mitigation measures to reduce impacts, where appropriate.

3.4.1 Regulatory Setting

Federal—Cultural Resources

Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties and afford State and tribal historic preservation offices, and the public, a reasonable opportunity to comment on such undertakings. The implementing regulations for Section 106 of the NHPA, at 36 Code of Federal Regulations (CFR) 800, define how the U.S. Fish and Wildlife Service (USFWS) can meet these requirements through a consultation process. The goal of consultation is to identify historic properties potentially affected by the federal undertaking, assess its effects, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.

The USFWS's permit issuing officer has the obligation to fulfill Section 106 consultation requirements. Issuance of an incidental take permit and implementation of the habitat conservation plan's (HCP's) conservation requirements for Covered Species is a "federal undertaking." USFWS may use its public involvement procedures under NEPA or other program requirements to satisfy the public involvement requirements for the NHPA. Cultural resources are a NEPA factor, and the NHPA regulations encourage coordination and incorporation of NHPA consultation with the NEPA process. Also, early coordination is advantageous as voluntary adoption of compliance requirements by the applicant may streamline NEPA (i.e., reducing uncertainty and managing for it through surveys and proper preservation may decrease the level of analysis from an EIS to a mitigated environmental assessment).

The USFWS may establish, in consultation with the Advisory Council on Historic Preservation, alternative consultation procedures. Although these have not been established USFWS-wide, Regions and field offices may develop local consultation procedures with their corresponding State and tribal historic preservation offices. As noted above, the NHPA regulations allow USFWS to coordinate with other programs. Some States' cultural resource requirements have similar NHPA goals and can be coordinated to meet both State and federal needs. These State consultations can be incorporated into USFWS review to minimize duplicative effort by the USFWS and HCP applicants. As such, the Permit Applicants have developed a *Draft Cultural Resources Management Plan (CRMP)* (Placer County 2016a) for the Plan (referred to as the *PCCP* in the CRMP). For Covered Activities that have the potential to affect historic properties, the applicants or project proponents under their jurisdictions, will follow the procedures identified in the CRMP, which includes the following nine-step process:

1. Define the Area of Potential Effects.
2. Conduct a records search with the Information Center (IC) of the California Historical Resources Information System (CHRIS) for previous surveys and documented cultural resources in the area.
3. Conduct a sacred-lands search with the Native American Heritage Commission (NAHC).
4. Provide written notification of the proposed project to the Native American contacts obtained from the NAHC.
5. Conduct a cultural resources field survey commensurate with the level of the undertaking's potential to affect historic properties.
6. Record newly identified cultural resources.
7. Determine eligibility of newly identified sites under the criteria for inclusion in the NRHP.
8. Develop a report that includes survey and site descriptions, site inventory forms, determinations of eligibility of cultural resources under the NRHP, and management recommendations. The report shall also include a project location map specifically identifying where the proposed activities will occur to support a determination of effect; map(s) of the area surveyed and where previously and newly identified sites are located; figures; tables; photographs; and copies of Information Center, NAHC, and tribal correspondence.
9. Identify avoidance, other protection measures, or mitigation measures for sites determined significant.

Other agencies that may take actions related to the PCCP may implement Section 106 compliance according to that agency's policies and procedures.

Other federal agencies may implement and follow their own procedures for ensuring Section 106 NHPA compliance, or they may utilize the process identified above. The U.S. Army Corps of Engineers is expected to follow its implementing regulations at 33 CFR 325, Appendix C.

National Register of Historic Places Eligibility Criteria

Resources that are eligible for listing in the NRHP possess the quality of significance in American history, architecture, archaeology, and/or culture and possess integrity of location, design, setting, materials, workmanship, feeling, and/or association. To be eligible for listing, resources must possess significance in one or more of the following criteria.

- Association with events that have made a contribution to the broad pattern of our history.
- Association with the lives of people significant in our past.
- Embody the distinct characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.
- Have yielded, or are likely to yield, information important in prehistory or history (36 CFR 60.4).

As mentioned above, eligibility for listing in the NRHP requires that a resource not only meet one of the four significance criteria but that it also possesses integrity. *Integrity* is the ability of a property to convey its significance. The evaluation of a resource's integrity must be grounded in an

understanding of that resource's physical characteristics and how those characteristics relate to its significance.

Federal—Paleontological Resources

Paleontological Resources Act of 2009

The Paleontological Resources Act of 2009 (Pub. L. No. 111-11, Subtitle D) includes provisions for the protection and preservation of paleontological resources. The law also prohibits the collection of paleontological resources from federal land without a permit, except in the case of noncommercial collecting that complies with other regulations for that federal land.

State—Cultural Resources

California Register of Historical Resources

A cultural resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if any of the following apply.

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

To be considered a *historical resource* for the purpose of CEQA, the resource must also have *integrity*, which is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance (14 California Code of Regulations 4852[b]). Integrity is generally evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is eligible for listing in the CRHR.

Public Resources Code Section 21083.2

A *unique archaeological resource* is defined in Section 21083.2 of the California Public Resources Code (PRC) 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.

- It is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory.
- It can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions.
- It has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind (PRC Section 21083.2).

In most situations, resources that meet the definition of a unique archaeological resource also meet the definition of *historical resource*. Consequently, it is current professional practice to evaluate cultural resources for significance based on their eligibility for listing in the CRHR. For the purposes of this CEQA cultural resources study, a resource is considered significant if it meets the CRHR eligibility (significance and integrity) criteria.

California Health and Human Safety Code, Section 7050.5

With respect to the potential discovery of human remains, Section 7050.5 of the California Health and Human Safety Code states the following.

- (a) Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public Resources Code [PRC]. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the [PRC] or to any person authorized to implement Section 5097.98 of the [PRC].
- (b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the [PRC]. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.
- (c) If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission [NAHC].

Of particular relevance to historical resources is subsection (c), requiring the coroner to contact the NAHC within 24 hours if discovered human remains are thought potentially to be of Native American origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants (MLDs), if possible, and recommendations for treatment of the remains. Also, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under California law (PRC Section 5097.99).

Public Resources Code Section 5097.9

PRC Section 5097.9 states that no public agency or private party on public property shall “interfere with the free expression or exercise of Native American Religion.” The code further states the following.

No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine ... except on a clear and convincing showing that the public interest and necessity so require.

County and city lands are exempt from this provision, except for parklands larger than 100 acres.

Assembly Bill 52

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California Native American tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts (PRC 21084.2). PRC Section 21074 defines tribal cultural resources as follows:

- Sites, features, places, sacred places, and objects with cultural value to descendant communities or cultural landscapes defined in size and scope that are either:
 - Included in or eligible for listing in the CRHR
 - Included in a local register of historical resources.
- 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 PRC Section 5024.1.

Sacred places can include Native American sanctified cemeteries, places of worship, religious or ceremonial sites, and sacred shrines. In addition, both unique and non-unique archaeological resources, as defined in PRC Section 21083.2, can be tribal cultural resources if they meet the criteria detailed above. The lead agency relies upon substantial evidence to make the determination that a resource qualifies as a tribal cultural resource when it is not already listed in the CRHR or a local register.

AB 52 defines a *California Native American Tribe* (Tribe) as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission (PRC 21073). Under AB 52, formal consultation with Tribes is required prior to determining the level of environmental document if a Tribe has requested to be informed by the lead agency of proposed projects and if the Tribe, upon receiving notice of the project, accepts the opportunity to consult within 30 days of receipt of the notice. AB 52 also requires that consultation, if initiated, address project alternatives and mitigation measures for significant effects, if specifically requested by the Tribe. AB 52 states that consultation is considered concluded when either the parties agree to measures to mitigate or avoid a significant effect on tribal cultural resources, or when either the Tribe or the agency concludes that mutual agreement cannot be reached after making a reasonable, good-faith effort. Under AB 52, any mitigation measures recommended by the agency or agreed upon with the Tribe may be included in the final environmental document and in the adopted mitigation monitoring program if they were determined to avoid or lessen a significant impact on a tribal cultural resource. If the recommended measures are not included in the final environmental document, then the lead agency must consider the four mitigation methods described in PRC Section 21084.3 (PRC 21082.3[e]). Any information submitted by a Tribe during the consultation process is considered confidential and is not subject to public review or disclosure. It will be published in a confidential appendix to the environmental document unless the Tribe consents to disclosure of all or some of the information to the public.

Consultation requirements under AB 52 only apply to projects with notices of preparation (NOPs) issued after July 1, 2015. Because this EIS/EIR NOP was issued prior to July 1, 2015, as described in Chapter 1, consultation requirements under AB 52 do not apply to this EIS/EIR.

State—Paleontological Resources

Public Resources Code Sections 5097.5 and 30244

Several sections of the PRC also protect paleontological resources. Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted express permission. Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

Local—Cultural Resources

Placer County General Plan

Excerpted below are the relevant goal, policies, and implementation program from the *Placer County General Plan* that pertain to cultural resources (Placer County 2013).

Goal

5.D. To identify, protect, and enhance Placer County's important historical, archaeological, paleontological, and cultural sites and their contributing environment.

Policies

5.D.1. The County shall assist the citizens of Placer County in becoming active guardians of their community's cultural resources.

5.D.2. The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.

5.D.3. The County shall solicit the views of the Native American Heritage Commission, State Office of Historic Preservation, North Central Information Center, and/or the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.

5.D.4. The County shall coordinate with the cities and municipal advisory councils in the County to promote the preservation and maintenance of Placer County's paleontological and archaeological resources.

5.D.5. The County shall use, where feasible, incentive programs to assist private property owners in preserving and enhancing cultural resources.

5.D.6. The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a Countywide cultural resource data base, to be maintained by the Division of Museums.

5.D.7. The County shall require that discretionary development projects are designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.

5.D.8. The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

5.D.9. The County shall use the State Historic Building Code to encourage the preservation of historic structures.

5.D.10. The County will use existing legislation and propose local legislation for the identification and protection of cultural resources and their contributing environment.

5.D.11. The County shall support the registration of cultural resources in appropriate landmark designations (i.e., National Register of Historic Places, California Historical Landmarks, Points of Historical Interest, or Local Landmark). The County shall assist private citizens seeking these designations for their property.

5.D.12. The County shall consider acquisition programs (i.e. Placer Legacy Open Space and Agricultural Conservation Program) as a means of preserving significant cultural resources that are not suitable for private development. Organizations that could provide assistance in this area include, but are not limited to, the Archaeological Conservancy, the Native American community, and local land trusts.

Implementation Program

5.4. The County shall prepare, adopt, and implement procedures for review and approval of all County-permitted projects involving ground disturbance and all building and/or demolition permits that will affect buildings, structures, or objects 45 years of age or older.

Placer County Code

Cultural and historic resources are addressed in Chapter 15 (Building and Development), Article 15.60 of the Placer County Code, Chapter 17 (Zoning), Article 17.52 and Chapter 18 (Environmental Review), Article 18 Appendix A. Chapter 15, Article 15.60 provides guidance for the protection, enhancement, perpetuation, and use of cultural resources. Specific sections of the Placer County Code identify the establishment of a historical advisory board (Article 15.60.030.A), the establishment of an official County register of cultural/historical resources and districts (Article 15.60.060), and future cultural/historical district and cultural/historical preservation plans (Article 15.60.140).

Chapter 17, Article 17.52 establishes “combining districts” that further refine regulatory requirements for each zone district in the county. Section 17.52.070 establishes a “Design Historical” (-Dh) combining district for “areas, places, sites, structures or uses that have special historical interest”. Properties that have a -Dh combining districts are required to obtain approval of a design review for new construction, the modification of existing historical buildings or the demolition of structures within the district. The -Dh combining district also has unique parking and setback standards to account for the non-conforming conditions that may be present in areas that were constructed prior to 1920.

Sutter County General Plan

Excerpted below are the relevant goal and policies from the *Sutter County General Plan* that pertain to cultural resources (Sutter County 2011).

Goal

ER 8. Identify, protect, and enhance Sutter County's important cultural and paleontological resources to increase awareness of the County's heritage.

Policies

ER 8.1 Identification. Identify cultural resources, which include prehistoric, historic, paleontological, and archeological resources, throughout the County to provide adequate protection of these resources.

ER 8.2 Preservation. Ensure the preservation of significant cultural and paleontological resources, including those recognized at the national, state, and local levels. (ER 8-A through ER 8-D)

City of Lincoln General Plan

Excerpted below are the relevant goal and policies from the *City of Lincoln General Plan* that pertain to cultural resources (City of Lincoln 2008:7-8 through 7-10).

Goal

OSC-6. To preserve and protect existing archaeological, historical, and paleontological resources for their cultural values.

Policies

OSC-6.1 Evaluation of Historic Resources. The City shall use appropriate State and Federal Standards in evaluating the significance of historical resources that are identified in the City.

OSC-6.2 Historic Structures and Sites. The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures.

OSC-6.3 Archaeological Resources. The City shall support efforts to protect and recover archaeological resources.

OSC-6.4 Historical Resources Inventory. The City shall prepare a historical resources inventory and use State and Federal Standards in evaluating historical resources for their significance.

OSC-6.5 Mitigation Monitoring for Historical Resources. The City shall develop standards for monitoring of mitigation measures established for the protection of historical resources prior to development.

OSC-6.6 State Historic Building Code. The City shall establish construction standards for the protection of historic resources during development and use the State Historic Building Code for designate properties.

OSC-6.7 Discovery of Archaeological Resources. In the event that archaeological resources are discovered during site excavation, grading, or construction, work on the site will be suspended until the significance of the features can be determined by a qualified archaeologist. If significant resources are determined to exist, the archaeologist shall make recommendations for protection or recovery of the resource.

OSC-6.8 Archaeological Resource Surveys. Prior to project approval, the City shall require project applicant to have a qualified professional archaeologist conduct the following activities within the area of potential effects (APE): (1) conduct a record search at the North Central Information Center located at California State University Sacramento and other appropriate historical repositories to determine the extent of previously recorded sites and surveys within the project area, and to develop a historical context within which sites can be evaluated for significance, (2) conduct a field survey to locate, map, and record prehistoric and historic resources, and (3) prepare cultural resource inventory and evaluation reports meeting California Office of Historic Preservation Standards to

document the results of the record search and field survey, and to provide significance evaluations and management recommendations for any identified historical resources within the APE.

OSC-6.9 Native American Resources. The City shall consult with Native American representatives, including appointed representatives from United Auburn Indian Community, to discuss concerns regarding potential impacts to cultural resources and to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties. Coordination with the Native American Heritage Commission should begin at the onset of the review of a proposed project.

OSC-6.10 Discovery of Human Remains. Consistent with CEQA Guidelines (Section 15064.5), if human remains are discovered during project construction, it is necessary to comply with state laws relating to prohibitions on disinterring, disturbing, or removing human remains from any location or other than a dedicated cemetery (California Health and Safety Code Section 7050.5). If any human remains are discovered or recognized in any location on the 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:

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

If the coroner determines that the remains are Native American origin,

1. The coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.
 2. The NAHC shall identify the person or persons it believes to be the most likely descendent (MLD) for the deceased Native American.
 3. The MLD shall have an opportunity to make 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.
- B. 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.
- C. The County has notified the United Auburn Indian Community (UAIC) Tribal Council and solicited their input.

Local—Paleontological Resources

Placer County General Plan

Excerpted below are the relevant goal and policies from the *Placer County General Plan* that pertain to paleontological resources (Placer County 2013).

Goal

5.D. To identify, protect, and enhance Placer County's important historical, archaeological, paleontological, and cultural sites and their contributing environment.

Policies

5.D.2. The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.

5.D.4. The County shall coordinate with the cities and municipal advisory councils in the County to promote the preservation and maintenance of Placer County's paleontological and archaeological resources.

5.D.6. The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a Countywide cultural resource data base, to be maintained by the Division of Museums.

5.D.7. The County shall require that discretionary development projects are designed to avoid potential impacts to significant paleontological or cultural resources whenever possible.

Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.

Placer County Code

Paleontological resources are addressed in Chapter 15 (Building and Development), Article 15.60 of the Placer County Code. This article provides protection of scientifically important natural features, which include significant geological, botanical or paleontological object(s).

Sutter County General Plan

Excerpted below are the relevant goal and policies from the *Sutter County General Plan* that pertain to paleontological resources (Sutter County 2011).

Goal

ER 8. Identify, protect, and enhance Sutter County's important cultural and paleontological resources to increase awareness of the County's heritage.

Policies

ER 8.1 Identification. Identify cultural resources, which include prehistoric, historic, paleontological, and archeological resources, throughout the County to provide adequate protection of these resources.

ER 8.2 Preservation. Ensure the preservation of significant cultural and paleontological resources, including those recognized at the national, state, and local levels. (ER 8-A through ER 8-D)

City of Lincoln General Plan

Excerpted below are the relevant goal and policy from the *City of Lincoln General Plan* that pertain to paleontological resources (City of Lincoln 2008).

Goal

OSC-6. To preserve and protect existing archaeological, historical, and paleontological resources for their cultural values.

Policy

OSC-6.7 Discovery of Archaeological/Paleontological Resources. In the event that archaeological/paleontological resources are discovered during ground disturbing activities, the City shall require that grading and construction work within 100 feet of the find shall be suspended until

the significance of the features can be determined by a qualified professional archaeologist/paleontologist as appropriate. The City will require that a qualified archeologist/paleontologist make recommendations for measures necessary to protect the find; or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials, as appropriate.

3.4.2 Environmental Setting

Cultural Resources

Prehistoric Setting

The history of human occupation and use of the Sacramento Valley and northern Sierra Nevada foothills is characterized by a number of related trends taking place throughout the last 10,000 years. Archaeologically visible cultural patterns can be attributed to responses to gradual changes in climate, resource availability, and human population growth. The cultural responses to these changes include technological specialization, resource intensification, sedentism, and the development of regional economic networks. The prehistory of these two geographic areas follows similar but varying temporal outlines, depending on the geographic area under consideration.

Sacramento Valley

It is probable that humans have inhabited the Sacramento Valley for the last 10,000 years. However, evidence of early occupation is likely deeply buried under alluvial sediments deposited during the late Holocene, although rare archaeological remains of the early period have been identified in and around the Central Valley. Early archaeological manifestations are categorized as the Farmington Complex, which is characterized by core tools and large, reworked percussion flakes.

Later periods are better understood because of more abundant representation in the archaeological record. Fredrickson (1973:7-6) identified three general patterns of cultural manifestations for the period between 4500 B.P. and 2000 B.P.: the Windmill Pattern (4500–3000 B.P.), the Berkeley Pattern (3500–2500 B.P.), and the Augustine Pattern (2500–2000 B.P.).

Ethnographic Setting

Generally, Placer County is located within the lands occupied and used by the Nisenan, or Southern Maidu. The language of the Nisenan is classified in the Maidu family of the Penutian linguistic stock and within the Nisenan language were three main dialects identified by geographic regions: the Southern Hill Nisenan, the Northern Hill Nisenan, and the Valley Nisenan (Kroeber 1925; Shipley 1978). The western boundary of Nisenan territory was the western bank of the Sacramento River with the eastern boundary was “the line in the Sierra Nevada mountains where the snow lay on the ground all winter” (Littlejohn 1928:10-15). Generally, the Nisenan territory spanned along the drainages of the American, Bear, Yuba, and lower Feather Rivers (Kroeber 1925).

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages usually were located on low rises along major watercourses. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. The Nisenan occupied permanent settlements from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided. Within the Nisenan were the Valley Nisenan, whose economy involved riparian resources, in

contrast to the Hill Nisenan, whose resource base consisted primarily of acorn and game procurement (Wilson and Towne 1978:387–397).

Historic Setting

Although Spaniards and trappers explored areas within Placer County in the early 19th century, Euroamerican influence was not significant in the region until the California Gold Rush (1848–1852). During the Gold Rush, the influx of miners and those who offered support services overwhelmed the indigenous people and natural resources. Mining camps were established throughout the region along gold-bearing streams and rivers, and some developed into economic hubs. In 1851, Placer County was established by combining the southern portions of Yuba and Sutter Counties, and the town of Auburn—known as a hub for mining—was chosen as the county seat. However, because the streams running through the Central Valley portion of Placer County did not cross gold-bearing deposits, the Roseville area did not experience the population boom that occurred in Sacramento and the Sierra foothills (Placer County 2016a).

During the first few years after statehood was granted to California in 1850, much of what is now the Plan Area was given by the United States government to the state and railroads. Because of thin soils and a lack of water, the Roseville area provided only limited agricultural support of the Gold Rush miners. However, other portions of western Placer County were better suited to agriculture (Placer County 2016a).

After the Gold Rush, many miners purchased or homesteaded land and began farming. Lands in the Plan Area were used primarily for grazing and dry farming of crops such as wheat and hay. Ranchers raised cattle on grasslands of the open range and on large ranches. Although wheat production continued, many farmers transitioned into growing nuts and fruits, which became Placer County's most profitable agricultural endeavor. Farmers found the terrain, soil, and climate were favorable for orchard crops, particularly plums, peaches, and pears. In particular, a micro-climate known as the thermal belt provided an annual low mean temperature that was above freezing and which promoted successful citrus and other fruit cultivation. Early fruit growers utilized the warmer air from the thermal belt for the successful cultivation of their fruit and citrus crops on Placer County hillsides (Placer County 2016a).

The introduction of the railroad into Placer County provided ranchers an easily available means of transporting their products to larger markets. The Central Pacific Railroad from Sacramento to Roseville was completed in 1864, and the transcontinental railroad was completed only 5 years later. By 1886, transportation fees had decreased because of competition among the railroads, enabling Placer County fruit growers to greatly expand production. Several other advancements during the 1880s bolstered the fruit industry. Irrigation with water that was transported over long distances encouraged growth of orchards. Refrigerated fruit railroad cars were introduced, which enabled growers to ship their products when ripe and full-flavored, thus increasing demand. In addition, fruit dryers introduced in the 1870s were able to salvage excess fruit, allowing for increased profit margins for growers (Placer County 2016a).

As orchard crops from Placer County were being sold throughout the United States and world markets, fruit quickly became the most valuable cash crop in the county. Wheat prices slowly declined, in part because of commodity competition from successful rice production in the nearby Sacramento Valley, and the vast wheat fields of western Placer County were subdivided for growing orchard crops (Placer County 2016a).

Agriculture activities, particularly the growing of vegetable crops, continued to expand in Placer County into the mid-1900s. In the early 1900s, new canning techniques increased the efficiency of preserving fruits and vegetables. Other new techniques in farming, including the use of gasoline engine-powered tractors, reduced the need for horses on ranch and farm properties. These new technologies made farming on smaller tracts of land more feasible. The overall success of farmers and ranchers in the early 1900s led to an increase in farming families and properties. Many ranching properties of hundreds or thousands of acres were divided and subdivided into smaller tracts of 160 acres or less that could still be farmed successfully. According to Placer County Agricultural Crop Reports, prepared by the county's Agricultural Commissioner, the largest cash crops produced and sold in the county between 1940 and 1960 were primarily plums, pears, peaches, rice, and wheat (Placer County 2016a).

The foothill regions of Placer County became prominent agricultural centers and agricultural production remained the economic backbone of the area for decades (Placer County 2016a). The agricultural industry continued to thrive in Placer County throughout the 20th century and into the 21st century (Placer County 2016a).

The town of Lincoln was surveyed and platted in 1864 on the Central California Railroad line from Folsom to Marysville. The town was named after Charles Lincoln Wilson, who had built the railroad, which reached the town on October 31, 1861. Thanks to several trains passing through daily, the town prospered and grew to approximately 500 residents during the following few years. However, in 1866, the rail stop was moved to Wheatland, cutting off most of the shipping on which Lincoln had relied (Placer County 2016a).

Although the railroad and freight economy declined, fruit crops, dry land agriculture, and cattle ranching continued to compose a large part of the early economy in Lincoln. In 1873, several coal beds were discovered, leading to development of such mines as the Lincoln Coal Mine and the Clipper Coal Mine. Large amounts of clay were found within the Lincoln Coal Mine. The clay was of such high quality that Chicago businessman Charles Gladding established Gladding, McBean and Company, which used the clay to manufacture sewer pipe that was distributed throughout California. By the 1890s, the company was also making fire brick, ornamental pottery, chimney pipes, and world-renowned terra cotta facades. In recent times, Gladding, McBean has been a major contributor to the economy of Lincoln, along with Sierra Pacific Industries' sawmill, located just north of Lincoln (Placer County 2016a).

Cultural Resource Type and Sensitivity

Archaeological Resources

Previous studies in the general region provide reasonable expectations for the range of archaeological property types likely to occur in western Placer County. Recorded prehistoric site types include habitation (long-term occupation) sites, limited occupation sites, hunting/processing camps, lithic reduction stations, quarries, rock art sites, bedrock milling features, and burial locations. Sites may be classified as more than one type. For example, habitation sites may be associated with rock art. The most common prehistoric sites found in the western Placer County area are temporary occupation sites. Ethnographic site types mirror prehistoric site types but display artifacts or features that indicate contact and interaction with Euroamerican populations. Historic period archaeological site types and features include the remains of mining camps,

farmsteads, ranches, railroad features, structures and linear features (e.g., roads and trails), camps, privies, and refuse scatters.

The prehistoric archaeological sensitivity of western Placer County is generally considered high, particularly in areas near water sources or on terraces along watercourses. In particular, major watersheds in the Sierra Nevada foothills possess river and stream terraces that are rich in archaeological resources. In the Sacramento Valley, land along the margins of the American, Bear, and Sacramento Rivers and other major waterways are rich in prehistoric archaeological resources, although such resources are usually found on natural rises that would have protected the inhabitants from frequent floods. Additional prehistoric deposits may be buried in similar locations—in natural buried contexts such as under alluvial deposits and in cultural buried contexts such as below or within constructed levees.

The locations of historic period archaeological sites are more difficult to predict because historical populations had greater ease of transportation and were not dependent on proximity to water and vegetal resources as prehistoric populations. Nevertheless, historic period sites are likely to be located near areas that were used for farming, ranching, mining, settlement, or transportation corridors.

Historic Resources

Historic period cultural resources that may be present in the Plan Area are associated with the themes represented by the historic events summarized above (mining, transportation, agriculture, and municipalities). Concentrations of historic resources are expected adjacent to transportation corridors (historic highways, railroads, and navigable waterways); on rural ranch lands (irrigation features such as ditches and canals); in areas of natural resources extraction (rock, soil, mineral, and timber); and within historic neighborhoods and business districts. The characterization provided at the end of this section of the types of historic resources in the county is based on a review of the California Historic Resources Inventory (HRI) and listings of California State Historical Landmarks and California Points of Historical Interest.

The HRI is maintained by the State Office of Historic Preservation, and identifies properties that have been surveyed, as well as properties that appear eligible, have been determined eligible for listing, or are listed in the NRHP or CRHR. In general, listing a property in the NRHP involves submission of a formal nomination form that requires concurrence from SHPO, the State Historical Resources Commission, and the Keeper of the National Register. Properties that are evaluated and found, with SHPO concurrence, to be eligible for listing under one or more of the NRHP criteria but are never nominated are afforded the same protections for federally funded projects as listed properties. Properties listed or found eligible for listing in the NRHP are also automatically eligible for the CRHR. The HRI also includes buildings that have been identified as historically significant by local government agencies. The property types listed in the HRI are typically non-archaeological in nature (for confidentiality reasons) and encompass numerous architectural and engineering features associated with such themes.

Of the resources listed in the HRI in western Placer County, 76 properties have been listed on the NRHP (State Office of Historic Preservation 2012). The property types that are typically found in western Placer County include the following:

- **Ranching and agriculture:** roads, fences/rock walls, farmhouses, barns, ancillary buildings, irrigation ditches, ponds, windmills, tankhouses, and silos.

- **Mining:** mine shafts, quarries, adits, tailings, water conveyance ditches, reservoirs, mining equipment, and building ruins.
- **Hydroelectric power:** dams, reservoirs, canals, pumps, transmission lines, siphons, and roads.
- **Early transportation:** roads, railroads, trails, tunnels, and bridges.
- **Rural and urban development:** residential structures, shops, churches, community buildings, cemeteries, and schools.

Paleontological Resources

Local Geology

The geology of the Plan Area is shown on Figure 3.4-1.

The topography of the Plan Area is directly related to its geology. The lower elevations, which are in valley portion of the Plan area, are characterized by relatively young alluvial deposits. The Pleistocene age deposits of the Riverbank, Modesto, and Turlock Lake Formations are widespread in the Central Valley portion of the Plan Area. Younger Holocene deposits, such channel and levee deposits, are found overlying these deposits in drainages and in scattered locations. Higher in the valley to the east is the Tertiary age Merhten Formation, which is an andesitic conglomerate and sandstone.

The higher elevations in the foothills are made up of much older igneous rocks. These rocks, which occur as linear bands, are the Mesozoic age Penryn pluton and Copper Hills Volcanics and the Paleozoic age metavolcanics.

Paleontological Sensitivity of the Geologic Units

Paleontological sensitivity is a qualitative assessment based on the paleontological potential of the stratigraphic units present, the local geology and geomorphology, and other factors relevant to fossil preservation and potential yield. According to the Society of Vertebrate Paleontology (2010), standard guidelines for sensitivity are (1) the potential for a geological unit to yield abundant or significant vertebrate fossils or to yield a few significant fossils, large or small, vertebrate, invertebrate, or paleobotanical remains and (2) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecological, or stratigraphic data (Table 3.4-1).

Table 3.4-1. Paleontological Sensitivity Ratings

Potential	Definition
High	Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecological, taphonomic, biochronologic, or stratigraphic data.
Undetermined	Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources.

Potential	Definition
Low	Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus, will only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule.
None	Some rock units, such as high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g., granites and diorites), have no potential to contain significant paleontological resources. Rock units with no potential require neither protection nor mitigation measures relative to paleontological resources.

Source: Society of Vertebrate Paleontology 2010.

It is also important to recognize that unlike archaeological sites, which are narrowly defined, paleontological sites are defined by the entire extent (both areal and stratigraphic) of a unit or formation. In other words, once a unit is identified as containing vertebrate fossils, or other rare fossils, the entire unit is a paleontological site (Society of Vertebrate Paleontology 2010:2). For this reason, the paleontological sensitivity of geologic units is described and analyzed broadly, rather than being limited to county boundaries.

The University of California Museum of Paleontology (UCMP) database contains five records of vertebrate fossils found in the county (University of California Museum of Paleontology 2016a). These records are for a Pleistocene mammoth near Rocklin; Miocene reptile, mammal, and bony fish near Lincoln; and a late Cretaceous cartilaginous fish.

In addition, numerous fossils have been documented in the Granite Bay area. Paleontologists have collected crinoids, nautilus, sharks and other fish, mollusks, and dinosaur fossils in the Chico Formation (Hilton and Antuzzi N.D.). Paleontologist monitoring a road-widening project collected a large piece of petrified wood from the Lone Formation. This specimen is on display at the Placer County Community Development Resource Center (Placer County 2016b).

Although it is not possible to make a determination of the sensitivity for paleontological resources of each geologic unit because of the Plan Area's size, many of the geologic units in the valley and lower elevations of the foothills are highly sensitive for paleontological resources.

Records for the most widespread geologic formations in the Plan Area are summarized in Table 3.4-2. Most of the valley is immediately underlain by the Riverbank Formation of Late Pleistocene, with some small areas on the western edge of the Plan Area underlain by the Modesto Formation. The eastern edge of the valley is underlain by the Turlock Lake Formation (Wagner et al. 1981) (Figure 3.4-1). These deposits represent sediment eroded from the uplifting Sierra Nevada. California's Pleistocene sedimentary units—especially those that, like the Modesto and Riverbank Formations, record deposition in continental settings—are typically considered highly sensitive for paleontological resources because of the large number of recorded fossil finds in such units throughout the state.

Table 3.4-2. Paleontological Resources by Geologic Unit

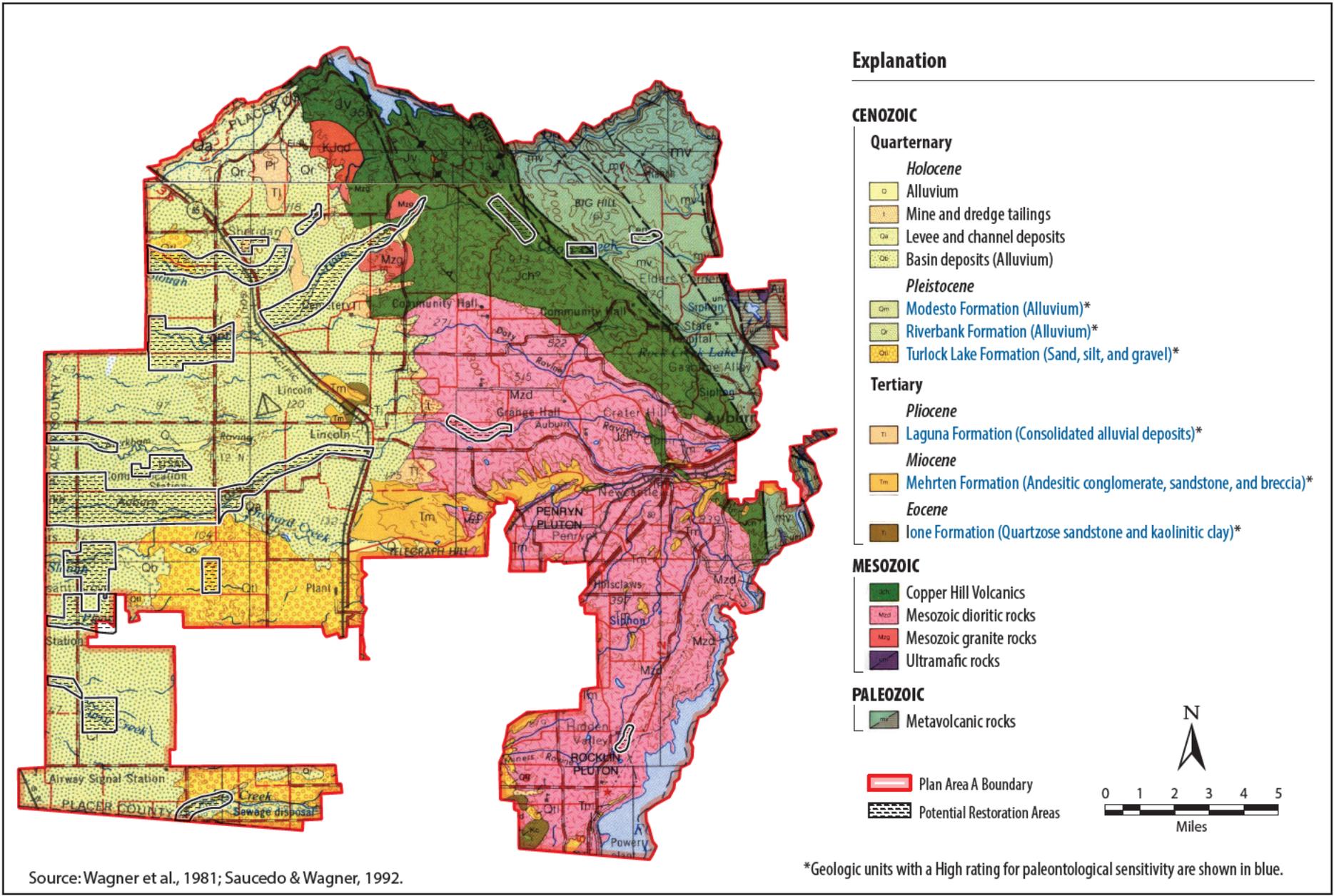
Geologic Unit	Fossils	UCMP Vertebrate Records	Paleontological Sensitivity
Quaternary alluvium (Holocene)	No known fossils (2016b) ^a and likely too young to contain fossils. Holocene materials are not typically evaluated as paleontologically sensitive, because biological remains are not considered fossils unless they are older than 10,000 years.	None	Low
Quaternary levee and channel deposits	Likely too young to contain fossils (2016b)	None	Low
Modesto Formation (Pleistocene)	Include horse, mammoth camel, pocket gopher, bison, and ground sloth (2016c)	27	High
Riverbank Formation (Pleistocene)	Include ground sloth, dire wolf, horse, rabbit, bird, wood rat, bison, camel, coyote, antelope, deer, and mammoth, as well as clam, fish, turtle, frog, snake (2016d)	350 (see note on Turlock Lake Formation below)	High
Turlock Lake Formation (Pleistocene)	Include horses, ground sloths (Jefferson's ground sloth and Harlan's ground sloth), saber-toothed cat, Armbruster's wolf, scimitar-toothed cat, llama, <i>Tetrameryx irvingtonensis</i> Stirton (ancestor to modern pronghorn), deer, camel, mammoth, smooth-tooted pocket gopher, <i>Capromeryx</i> (pronghorn-like ungulates), coyote, <i>Miracinonyx trumani</i> (American cheetah-like cat), turtle, and tortoise (Dundas et al. 1996) (2016e)	228 (recorded as Riverbank Formation but identified as Turlock Lake Formation in Dundas et al. 1996)	High
Laguna Formation (Plio-Pleistocene)	No vertebrate fossils known (2016f); however, the alluvial nature of this unit and its degree of consolidation indicate fossils are likely present	None	High
Mehrten Formation (Tertiary)	Include extinct horse, primitive rhinoceros, camel, and tortoise (2016g)	315	High
Ione Formation (Tertiary)	No vertebrate fossils known but abundant plant fossils related to magnolias, cycads, and lilies (2016h). May contain vertebrate fossils based on depositional environment and preservation potential	No vertebrate records	High
Chico Formation	Include mammals, reptiles, sharks and other fish, and birds	26	High
Penryn pluton (Mesozoic)	Plutonic igneous rock so does not contain fossils	None	None
Copper Hills Volcanics (Mesozoic)	Mainly pillow lava and lava flow so unlikely to contain fossils	None	Low
Metavolcanics (Paleozoic)	Metamorphosed so unlikely to contain fossils	None	Low

^a All dates are references to University of California, Berkeley, Museum of Paleontology (2016a–h, 2018) searches conducted by ICF.

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Source: Wagner et al., 1981; Saucedo & Wagner, 1992.



Figure 3.4-1
Geologic Map of the Plan Area with Paleontological Sensitivity Rating
for Geologic Units with High Rating
 Placer County Conservation Program – EIS/EIR