

CHAPTER 11 – PALEONTOLOGICAL, CULTURAL, AND HISTORICAL RESOURCES

This chapter presents the environmental effects of each Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) alternative on paleontological resources and on cultural and historical resources. Paleontological resources are fossilized remains of plants and animals and may include bones, teeth, shells, and leaves found in geologic (rock) formations.

Historical resources are defined by the State of California as “any object, building, structure, site, area, or place, which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (Public Resource Code (PRC) section 5021.1(b)). Similarly, the term “historic property” is defined under the National Historic Preservation Act (NHPA) to include any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. The term “historic property” includes artifacts, records, and material remains that are related to and located within such properties. Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may also be historic properties eligible for inclusion in the NRHP (36 CFR 800.16(l)(1)).

The term “cultural resources” covers a wider range of resources than “historical resources” and “historic properties,” such as sacred sites, archeological collections, or archaeological sites not eligible for the federal NRHP or not eligible for the California Register of Historical Resources (CRHR). Cultural resources can include prehistoric archaeological sites, prehistoric artifacts, and tribal cultural resources.¹

11.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

This section describes the regulatory and physical environmental setting for paleontological, cultural, and historical resources within the Planning Area.

11.1.1 Regulatory Framework

Several federal, state, and local agency requirements apply to the identification, avoidance, and treatment of paleontological, cultural, and historical resources within the Planning Area. This section summarizes the statutes, regulations, policies, and agency planning documents that are relevant to the approval, permitting, or implementation of the alternatives analyzed in this EIS/EIR. This section also identifies any relevant federal permits or other entitlements that must

¹ Under the California Environmental Quality Act (CEQA), a tribal cultural resource is defined as a site feature, place, cultural landscape, sacred place, or object, which is of cultural value to a tribe and is either: (1) on or eligible for the CRHR or a local historic register, or (2) the CEQA lead agency, at its discretion, chooses to treat the resource as a tribal cultural resource.

be obtained prior to implementing the alternatives. To the extent possible, the analyses or studies required by these regulations and policies are integrated into the environmental effects analyses presented in Section 11.2 (40 CFR 1502.25).

11.1.1.1 Federal

National Environmental Policy Act

The definition of “effects” in the National Environmental Policy Act (NEPA) regulations includes adverse and beneficial effects on historic and cultural resources (40 CFR 1508.8). Therefore, the “Environmental Consequences” section of an EIS (see 40 CFR 1502.16(f)) must analyze potential effects to historic or cultural resources that could result from the proposed action and each alternative. As discussed in Section 3.8, in considering whether an alternative may “significantly affect the quality of the human environment,” a federal agency must consider, among other things:

- Unique characteristics of the geographic area such as proximity to historic or cultural resources (40 CFR 1508.27(b)(3)), and
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (40 CFR 1508.27(b)(8)).

Therefore, because historic properties are a subset of “cultural resources,” they are one aspect of the “human environment” defined by NEPA regulations. The NEPA regulations also require that “To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the National Historic Preservation Act (40 CFR 1502.25(a)).”

The federal government has a unique relationship with Indian tribes derived from the Constitution of the United States, treaties, Supreme Court decisions, and federal statutes. Consultation with an Indian tribe must recognize the government-to-government relationship between the federal government and Indian tribes, and should be conducted in a sensitive manner respectful of tribal sovereignty (36 CFR 800.2(c)(2)(ii)(B) and (C)). Under NEPA, federal agencies are encouraged to consult with Indian tribes early in the NEPA planning process, and to invite Indian tribes to be cooperating agencies in preparation of an EIS, when potential effects are on a reservation or affect tribal interests. Tribal consultations under NEPA can include effects to treaty, trust, and other natural resource issues, as well as to cultural resources in general, whether or not they meet the specific definition of historic property under the NHPA. The NEPA review of an action may also include the federal government’s responsibilities under Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations; EO 13175, Consultation and

Coordination with Indian Tribal Governments; the American Indian Religious Freedom Act; and related statutes and policies that have a consultation component.

National Historic Preservation Act

The NHPA (16 U.S.C. 470 et seq.) establishes the nation’s policy for historic preservation and sets in place a program for the preservation of historic properties. Pursuant to the NHPA, the State Historic Preservation Officer (SHPO) advises and assists, as appropriate, federal agencies in carrying out their historic preservation responsibilities. Section 106 of the NHPA (NHPA 106) requires federal agencies to take into account the effects of their undertakings on cultural resources that are, or may be, eligible for inclusion in the NRHP. An undertaking is a project, activity, or program under the direct or indirect jurisdiction of a federal agency. Such jurisdiction includes funding an action in whole or in part; carrying out an action by or on behalf of a federal agency; issuance of a federal permit, license, or approval; and state or local regulation administered under a delegation or approval by a federal agency. As such, implementation of a habitat conservation plan (HCP) and issuance of an Endangered Species Act (ESA) Incidental Take Permit are an undertaking and subject to compliance with NHPA 106. Other federal actions, including issuing authorizations or permits or under the Clean Water Act (CWA), must also fulfill the requirements of NHPA 106.

NHPA 106 also requires federal agencies to afford the SHPO, tribal historic preservation officers, and the public a reasonable opportunity to comment on their undertakings. The U.S. Fish and Wildlife Service (USFWS) may use the public involvement procedures under NEPA or under other program requirements to satisfy NHPA public involvement requirements. The USFWS is also responsible for providing a project description as well as an effects analysis and determination to the SHPO and to any affected Tribes. Cultural resources are a relevant factor in a NEPA analysis, and both NHPA and NEPA regulations encourage coordination and incorporation of NHPA consultation with the NEPA process. There is overlap, but there are also differences, in the implementing regulations for NHPA 106 (36 CFR 800) and implementing regulations for NEPA (40 CFR 1500–1508; 43 CFR 46) with regard to conducting an effects analysis. Section 6 of the NHPA addresses potential effects to historic properties associated with the federal undertaking (36 CFR 800.16(y)), while NEPA considers a broader categories of resources that includes historic properties and other aspects of the human environment (40 CFR 1508.14; 40 CFR 1508.8(b)).

The USFWS’s responsibilities under NHPA 106 are to identify historic properties that may be affected, and to take into account the effect of issuance of an Incidental Take Permit and implementing the HCP conservation program on these properties. The implementing regulations for NHPA 106 (at 36 CFR Part 800), define how the 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 regulations implementing NHPA 106 require federal agencies to consult the SHPO, and these stakeholders:

- Tribal Historic Preservation Officers, if applicable;
- Federally recognized Indian tribes, including Native villages and Native Hawaiian organizations, if applicable;
- Local governments, if the action may affect historic properties within their jurisdiction;
- Applicants for federal permits, licenses, or assistance;
- Representatives from interested organizations, private citizens, and the public; and
- The Advisory Council on Historic Properties (ACHP) when circumstances warrant its participation.

Federal agencies and these consulting parties strive to reach agreement on measures to avoid, minimize, and mitigate adverse effects on historic properties and to find a balance between project goals and preservation objectives. Because NHPA regulations allow the federal agencies to coordinate with other programs, in states with cultural resource requirements that meet NHPA goals, the state consultations can be incorporated into USFWS reviews to minimize duplicative effort by the USFWS and HCP permit applicants. In California, the Office of Historic Preservation reviews projects and programs to ensure that they comply with federal and state historic preservation laws, and that projects are planned in ways that avoid, minimize or mitigate adverse effects to cultural or historical resources.

Compliance with the NHPA 106 process involves the following steps (see 36 CFR 800 Subpart B):

- Initiate consultation and public involvement, including with Tribal Historic Preservation Officer(s) if applicable.
- Identify the area of potential effect (APE).
- Identify historic properties.
- Evaluate historic properties.
- Assess effects on historic properties.
- Resolution of Adverse Effects Consult with the SHPO regarding adverse effects on historic properties, resulting in a memorandum of agreement (MOA).
- Coordinate with requirements of NEPA review.
- Submit the MOA to the federal ACHP.
- Proceed in accordance with the MOA.

A key step in the process is determination of the “area of potential effects” associated with a potential undertaking (i.e., a proposed HCP). 36 CFR 800.16(d) defines the APE as “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking.” The APE includes the areas where the USFWS would authorize take; areas where the USFWS influenced the project through negotiation of the avoidance, minimization, and mitigation measures; and activities associated with their implementation.

The regulations for implementing NHPA 106 directs the USFWS to make a “reasonable and good faith effort” to identify historic properties in consultation with the SHPO, the Tribal Historic Preservation Officers, and tribes, taking into consideration the magnitude and nature of the undertaking and degree of Federal involvement” (36 CFR 800.4(b)(1)). The identification effort includes, but is not limited to, a scientific literature review of the previous archaeological, historical, and historic structural resource information for a given APE.

The NHPA 106 process normally concludes with an agency finding of “no historic properties affected,” “no adverse effect,” or “adverse effects” that are resolved through avoidance, minimization, or mitigation.” For undertakings with adverse effects, the federal agency usually executes a legally binding document, an MOA or Programmatic Agreement, that stipulates the resolution of adverse effects agreed to by the signatories. In the rare circumstances where there is a failure to reach an agreed-upon solution, the ACHP issues formal advisory comments to the head of the federal agency, and the head of the agency must then take into account and respond to those comments.

NHPA under CWA 404 Actions: The permitting or authorization of projects by the U.S. Army Corps of Engineers (USACE) under CWA 404 is a federal undertaking that is subject to compliance with NHPA 106. The USACE follows procedures contained in 33 CFR 325, Appendix C (*Procedures for the Protection of Historic Properties*) to fulfill the requirements set forth in the NHPA, in other applicable historic preservation laws, and in presidential directives as they relate to the regulatory program of the USACE (33 CFR Parts 320-334). In addition to the requirements of the NHPA, all historic properties are also subject to consideration under the USACE’s NEPA processes (33 CFR Part 325, Appendix B), and the USACE’s public interest review requirements contained in 33 CFR 320.4. Therefore, historic properties are included as a factor in the district engineer’s decision on each CWA 404 permit application.

If the project or activity is found to have an “adverse effect” on NRHP-designated historic properties, the district engineer will coordinate with the SHPO to seek ways to avoid or reduce effects on designated historic properties. At any time during CWA 404 permit processing, the district engineer may consult with the involved parties to discuss and consider

possible alternatives or measures to avoid or minimize adverse effects of a proposed activity in accordance with the procedures described in 33 CFR Part 325, Appendix C. If the consultation results in a mutual agreement among the SHPO, the permit applicant, and the district engineer regarding the treatment of designated historic properties, then the district engineer may formalize that agreement either through special conditions added to the CWA 404 permit and/or by signing an MOA with these parties. Such MOA will constitute the comments of the SHPO and the ACHP. The criteria involved in making an adverse effect determination are described fully in 33 CFR Part 325, Appendix C.

In making the decision about a permit application, in accordance with 33 CFR 320.4, the USACE district engineer shall weigh all factors, including the effects of the undertaking on historic properties and any comments of the ACHP and the SHPO, and any views of other interested parties. The district engineer will add permit conditions to avoid or reduce effects on historic properties that he determines are necessary in accordance with 33 CFR 325.4. In reaching his determination, the district engineer will consider the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716). If the district engineer concludes that permitting the project would result in the irrevocable loss of important scientific, prehistoric, historical, or archeological data, the district engineer, in accordance with the Archeological and Historic Preservation Act, will advise the Secretary of the Interior of the extent to which the data may be lost if the undertaking is permitted, any plans to mitigate such loss that will be implemented, and the permit conditions that will be included to ensure that any required mitigation occurs.

NHPA and Tribes. Under the NHPA, consultation with Indian tribes and Native Hawaiian organizations is mandatory. These consultations focus on identifying and evaluating historic properties, assessing effects, and, where appropriate, resolving adverse effects to those properties. Consultation is required with any Indian tribe or Native Hawaiian organization that may attach religious and cultural significance to historic properties that may be affected by a proposed undertaking, regardless of whether the property is located on or off tribal lands. Tribal consultation under NEPA can include effects to treaty, trust, and other natural resource issues, as well as to cultural resources in general, whether or not they meet the specific definition of a historic property under the NHPA.

Federal Land Policy Management Act

The Federal Land Policy Management Act (43 U.S.C. 1701 et seq.) requires the Secretary of the Interior to manage public lands in such a way that will protect the quality of scientific, scenic, historical, and archaeological values.

Antiquities Act

The Antiquities Act (16 U.S.C. 431 et seq.) establishes criminal penalties for unauthorized destruction or appropriation of “any historic or prehistoric ruin or monument, or any object of antiquity” on federal lands.

Executive Order 11593, Protection and Enhancement of the Cultural Environment

Executive Order 11593 (President Nixon 1971) requires federal agencies to administer cultural properties under their control and to initiate measures necessary to direct federal agency policies, plans, and programs in such a way that federally owned sites are preserved and maintained. In addition, this Executive Order also required federal agencies, in consultation with the ACHP (16 U.S.C. 4701), to institute procedures to ensure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance.

Executive Order 13007, Indian Sacred Sites

Executive Order 13007 (President Clinton 1996) requires federal land-managing agencies to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to: (1) accommodate access to and ceremonial use of Native American sacred sites by Native American religious practitioners, and (2) avoid adversely affecting the physical integrity of such sacred sites. It also requires federal agencies to maintain confidentiality of sacred sites where appropriate.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (16 U.S.C. 1996) establishes a national policy to protect and preserve the inherent right of Native Americans and other indigenous groups to exercise their freedom to believe, express, and exercise their traditional religions, including, but not limited to, access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonial and traditional rites. Federal agencies must obtain the views of Indian leaders and consider when a proposed land use might conflict with traditional Native American religious beliefs or practices and seek to avoid unnecessary interference with Native American religious practices during the implementation of an action. Potential conflict between an action and Native American religious practices does not bar federal agencies from approving a proposed land use or carrying out a proposed action.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (Public Law 101–601; 25 U.S.C. 3001 et seq.) describes the rights of Native American lineal descendants and Native American

tribes with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, with which they can show a relationship of lineal descent or cultural affiliation. One major purpose of this act (Sections 5–7) is to require that federal agencies and museums receiving federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. Once lineal descent or cultural affiliation has been established, lineal descendants normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long-term curation, according to the wishes of the lineal descendent(s) or culturally affiliated tribe(s).

The second major purpose of the act is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands. The act requires that Native American tribes be consulted whenever archaeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on federal or tribal lands (Section 3). Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act (Section 3(c)(1)).

Archaeological and Historic Preservation Act

The Archaeological and Historic Preservation Act (16 U.S.C. 469–469c2) “specifically provides for the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or destroyed as the result of ...any alteration of the terrain caused as a result of any federal construction project or federally licensed activity or program.” Because the project includes issuance of federal permits under the ESA and CWA, this act would apply to the action alternatives. Under this act, a federal agency may request the Secretary of the Interior to undertake the recovery, protection, and preservation of historical and archeological data (including preliminary survey, or other investigation as needed, and analysis and publication of the reports resulting from such investigation), or it may, with funds appropriated for such project, program, or activity, undertake such activities.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (16 U.S.C. 470a et seq.) provides civil and criminal penalties for the unauthorized excavation, removal, damage, alteration, or defacement of any archaeological resource located on public lands or Indian lands unless permitted in accordance with Section 4 of the Archaeological Resources Protection Act.

11.1.1.2 State**California Environmental Quality Act**

The California Environmental Quality Act (CEQA) of 1970, as amended, (PRC Section 21000), requires state and local agencies to identify and reduce, if feasible, significant effects of land use decisions, including those to cultural resources.

CEQA Guidelines (Sections 1427, 15064.4(b), 15064.5, 15064.7, 15126.4, and Appendix G, Section V) collectively recognize the potential effects of development to resources and the need for preservation. Under CEQA, public agencies must consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to CEQA, Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” CEQA, Section 21083.2, requires agencies to determine whether proposed projects would have effects on “unique archaeological resources.”

“Historical resource” is a CEQA term with a defined statutory meaning (PRC Section 21084.1 and CEQA Guidelines, Sections 15064.5(a) and 15064.5(b)). The definition includes any resource listed in or determined to be eligible for listing in the CRHR (see below).

The CEQA Guidelines, Section 15064.5(c), also provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or the definition of a unique archaeological resource. If the site meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of PRC Section 21083.2.

CEQA Guidelines, Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered and that the County coroner be called in to assess the remains. If the County coroner determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as identified in a timely manner by the NAHC. CEQA Guidelines, Section 15064.5, directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Discretionary projects would be subject to environmental review consistent with CEQA. As part of the CEQA review process, the local land use authority (e.g., Sacramento County, Galt, or Rancho Cordova) would make a determination as to whether a project-level cultural resource analysis is warranted. The project-level analysis could include, for example, a cultural records and literature search, pedestrian surveys, architectural analysis, extended phase one

evaluations, including subsurface testing programs, and/or data recovery operations. During future CEQA review of projects, any potential site-specific effects on cultural resources would be identified, and any necessary avoidance or mitigation measures to reduce potential effects would be recommended, as appropriate.

The EIS/EIR cultural resources study follows the basic guidelines presented in PRC Section 5024.1; CEQA Guidelines Section 15064.5, and Sections 21083.2 and 21084.1 of the CEQA statute (described below).

California Public Resources Code Section 5024.1

PRC Section 5024.1 authorizes the establishment of the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources on the California Register were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP. See NRHP eligibility criteria at 40 CFR 60.4.

In order to be determined eligible for listing in the CRHR, a property must be significant at the local, state, or national level under one or more of four significance criteria:

- 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.
- Associated with the lives of persons important to local, California, or national history.
- 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.
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

California Public Resources Code, Section 5021.1

PRC Section 5021.1 provides a definition for such things as a "historical resource" and "substantial adverse change" (to such resources). Historical resources are defined as "any object, building, structure, site, area, or place, which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC 5021.1(b)).

California Public Resources Code, Section 5097.5

PRC Section 5097.5 provides that unlawful removal or destruction of archaeological or paleontological resources from sites on public land is a misdemeanor, except with the express permission of the public agency having jurisdiction over the lands. As used in this section, “public lands” is defined as “lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or agency thereof.”

California Public Resources Code, Section 5097.98

PRC Section 5097.98 discusses the procedures to be followed upon the discovery of human remains, including immediately securing the site of the remains and establishing a safe distance around them to allow for negotiation between the land owner and consulting tribal parties.

California Public Resources Code, Sections 5097.99 and 5097.991

PRC Sections 5097.99 and 5097.991 establish that unlawful removal of Native American items of cultural patrimony or human remains is a felony, and that it is the policy of the state to repatriate Native American human remains and grave goods.

Senate Bill 297

Senate Bill 297 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction; and establishes the NAHC to resolve disputes regarding the disposition of such remains. This bill has been incorporated into the CEQA Guidelines (Section 15064.5(e)).

Assembly Bill 52

Assembly Bill 52 expands the provisions CEQA (PRC Section 21000) to provide California Native American tribes, including those that are not federally recognized, an opportunity to engage in formal consultation with public agencies considering approval of projects that could result in impacts to “tribal cultural resources.” Assembly Bill 52 applies to projects with a Notice of Preparation of an EIR, or a Negative Declaration or Mitigated Negative Declaration issued on or after July 1, 2015 (note, because the Notice of Preparation associated with this EIS/EIR was released prior to July 1, 2015, the lead agency is not required to comply with this new regulation).

Health and Safety Code

Section 7050.5 of the Health and Safety Code establishes that any person who “knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any

location” without authority of the law is guilty of a misdemeanor. In the event of discovery of any human remains outside of a cemetery, there shall be no further excavation or disturbance until the County coroner is notified. If the coroner determines the remains are Native American, or believes they may be Native American, the NAHC shall be notified within 24 hours.

11.1.1.3 Local

Sacramento County General Plan

The *Sacramento County General Plan Conservation Element* (Sacramento County 2011) states under Section VI, Cultural Resources, the following goal and six objectives that address the protection of cultural resources within the County:

Goal: Promote the inventory, protection, and interpretation of the cultural heritage of Sacramento County, including historical and archaeological settings, sites, buildings, features, artifacts and/or areas of ethnic historical, religious or socio-economic importance.

Objectives:

1. Comprehensive knowledge of archaeological and historic site locations.
2. Attention and care during project review and construction to ensure that cultural resource sites, either previously known or discovered on the project site, are properly protected with sensitivity to Native American values.
3. Structures with architectural or historical importance preserved to maintain contributing design elements.
4. Known cultural resources protected from vandalism, unauthorized excavation, or accidental destruction.
5. Properly stored and classified artifacts for ongoing study.
6. Public awareness and appreciation of both visible and intangible historic and cultural resources.

The Conservation Element contains the following policies that help implement the goal and objectives, as well as address paleontological resources:

CO-150: Utilize local, state and national resources, such as the North Central Information Center (NCIC), to assist in determining the need for a cultural resources survey during project review.

CO-153: Refer projects with identified archaeological and cultural resources to the Cultural Resources Committee to determine significance of resource and recommend

appropriate means of protection and mitigation. The Committee shall coordinate with the Native American Heritage Commission in developing recommendations.

CO-154: Protection of significant prehistoric, ethnohistoric, and historic sites within open space easements to ensure that these resources are preserved in situ for perpetuity.

CO-155: Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archaeological significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project developer shall provide the burden of proof that off-site reinterment is the only feasible alternative. Reinterment shall be the responsibility of local tribal representatives.

CO-157: Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.

CO-158: As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

CO-159: Request a Native American Statement as part of the environmental review process on development projects with identified cultural resources.

CO-161: As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

CO-162: Projects located within areas known to be sensitive for paleontological resources should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards, and procedures.

CO-163: Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

CO-169: Restrict the circulation of cultural resource location information to prevent potential site vandalism. This information is exempt from the "Freedom of Information Act."

Galt General Plan

The *Galt General Plan Policy Document* (Galt General Plan) (Galt 2009) includes two goals and the following policies that address the protection of cultural and paleontological resources within the City.

Goal HRE-1: To preserve and maintain sites and structures that serve as significant, visible connections to Galt’s social, cultural, economic, and architectural history.

Goal HRE-4: To encourage the identification, protection, and enhancement of Galt’s archaeological resources for their cultural values.

HRE-4.1: Archaeological Resource Surveys. For future development projects on previously unsurveyed lands, the City requires that a project applicant have a qualified archaeologist conduct the following activities: (1) conduct a record search at the North Central Information Center located at California State University, Sacramento and other appropriate historical repositories, (2) conduct field surveys where appropriate, and (3) prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports). These requirements shall be completed prior to the approval of the specific project.

HRE-4.2: Native American Resources. The City shall consult with Native American representatives regarding cultural resources to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties. Consistent with State requirements, consultation shall occur at the onset of an amendment to the City’s General Plan or a specific plan.

HRE-4.3: Discovery of Archaeological Resources. In the event that archaeological/paleontological resources are discovered during site excavation, the City shall require that grading and construction work on the project site be suspended until the significance of the features can be determined by a qualified archaeologist/paleontologist. The City will require that a qualified archaeologist/paleontologist make recommendations for measures necessary to protect a site or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials.

HRE-4.4: Discovery of Human Remains. Consistent with CEQA Guidelines (Section 15064.5), if human remains of Native American origin are discovered during development project construction, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). 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 Sacramento County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
- b. If the remains are of Native American origin,
 1. The descendants of the deceased Native Americans have made a timely 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
 2. 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.

Rancho Cordova General Plan

The *Rancho Cordova General Plan* (Rancho Cordova 2006a) includes one goal, one policy, and two actions that address the protection of cultural and paleontological resources within Rancho Cordova.

Goal CHR.1: Identify and preserve the history of Rancho Cordova for future generations.

CHR.1.3: Establish review procedures for development projects that recognize the history of the area in conjunction with state and federal laws.

Action CHR.1.3.1. Require historic resources and paleontological studies (e.g., archaeological and historical investigations) for all applicable discretionary projects, in accordance with CEQA regulations. The studies should identify paleontological, historic, or cultural resources in the project area, determine their eligibility for inclusion in the California Register of Historical Resources, and provide mitigation measures for any resources in the project area that cannot be avoided.

Action CHR.1.3.2. Incorporate the following two conditions in applicable permits for all discretionary projects:

The Planning Department shall be notified immediately if any cultural resources (e.g., prehistoric or historic artifacts) or paleontological resources (e.g., fossils) are uncovered during construction. All construction must stop in vicinity of the find and an archaeologist that meets the Secretary of the Interior's Professional Qualifications

Standards in prehistoric or historical archaeology or a paleontologist shall be retained to evaluate the finds and recommend appropriate action.

The Planning Department shall be notified immediately if any human remains are uncovered and all construction must stop in vicinity of the find. The Planning Division shall notify the County Coroner according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Paleontological Resources

Consideration of paleontological resources is required by CEQA, as described above. However, no state or local agencies have specific jurisdiction over paleontological resources. No state or local agency requires a paleontological collecting permit to allow for the recovery of fossil remains discovered as a result of construction-related earth moving on state or private land. However, Sacramento County, Galt, and Rancho Cordova each have General Plan policies/actions that address the protection of paleontological resources.

11.1.2 Existing Conditions of Paleontological, Cultural, and Historical Resources

This section provides a brief cultural history of the general region, including a description of prehistoric trends, ethnographic populations (i.e., Native Americans), and the historical context (Euro-American settlement and development). These descriptions provide context to understand the type, existing conditions, and general areas where cultural resources may be present in the Planning Area.

The existing "affected environment" that is reviewed under NEPA includes aesthetic, historic, and cultural resources, as these terms are commonly understood. As stated earlier, the "cultural resources" that are part of the existing affected environment of a study area include a broader array of properties than just the "historic properties" defined by Section 106. Section 106 is concerned exclusively with impacts to historic properties (prehistoric or historic districts, sites, buildings, structures, objects, and properties of traditional religious and cultural importance to an Indian tribe) that meet the NRHP criteria (40 CFR 60.4). Therefore, cultural resources that are not eligible for listing in the NRHP must also be included and considered in a NEPA review. These could include resources such as cultural institutions, resources that embody cultural practices, or sacred sites that do not otherwise meet the federal definition of a historic property.

11.1.2.1 Paleontological Resources

There are at least five recorded sites in Sacramento County that have revealed fossil vertebrate remains dating back to 100,000 years ago, including one location within the Planning Area at the Teichert aggregate plant on Kiefer Boulevard (Sacramento County 2011). A search of the University of California, Berkeley, Museum of Paleontology collections database conducted for the Rancho Cordova General Plan EIR (Rancho Cordova 2006b) did not identify any evidence of the existence of paleontological resources or potential resources in Rancho Cordova or in the Rancho Cordova sphere of influence (Rancho Cordova SOI).

As discussed in Section 5.1.2, most of the Planning Area is directly underlain by alluvial and sedimentary deposits that have been eroded from the adjacent mountain ranges and that make up the Sacramento Valley floor. While many of these deposits are too young to support paleontological resources, the soils below these deposits may be older and more sensitive for paleontological resources. Older Quaternary deposits of the Pleistocene age, such as the Modesto–Riverbank Formation, are widespread in the County and have been known to include paleontological resources.

11.1.2.2 Regional Prehistoric Context

The earliest known occupants of the Planning Area are from the Pre-Archaic Period (10,000–8,500 BC) based on fossil remains found in deep alluvial sediments. These fossils indicated the presence of large game animals that were likely hunted for food (Connector JPA 2012). Few archaeological sites from this period have been found in California, suggesting a small, widely dispersed population. These population conditions are likely influenced by the fact that the final Ice Age of the Pleistocene (1.8 million to about 10,000 years ago) was just ending; however, glaciers still existed in the Sierra Nevada, and conditions in general were much cooler and wetter than today, making the mountains an inhospitable habitat for humans (Chartkoff and Chartkoff 1984, as cited in Sacramento County 2012).

With the end of the Pleistocene, during the Early to Middle Archaic Period (8,500–4,000 BC), the climate began a warming and drying trend that lasted for several thousand years. People adapted to these changes by shifting their foraging emphasis away from hunting and increasing their use of plant resources, as evidenced by a marked increase in the presence of plant processing tools on archaeological sites dated to this time period. Another major change in subsistence came in the Late Archaic Period (4,000–2,000 BC) with the discovery of a method to remove the tannins from acorns, allowing this nearly ubiquitous nut to become a staple food for the indigenous people of California. It allowed people to gather and store large surpluses of food, which led to an increase in group size and population densities along with a less nomadic lifestyle. Sophisticated cultures developed in the Planning Area,

comparable to those found in farming areas in other parts of North America (Chartkoff and Chartkoff 1984, as cited in Sacramento County 2012).

Prehistoric sites, some of which are known to contain human remains, are located in the Planning Area along the American River, as well as elsewhere in the County (Rancho Cordova 2006b).

11.1.2.3 Local Prehistoric Context

The earliest evidence of the prehistoric inhabitants of the Planning Area comes from a single, deeply buried site in the bank of Arcade Creek (located just north of the Planning Area boundary), which contained grinding tools and large, stemmed projectile points. The points and grinding implements suggest an occupation date of sometime between 6,000 and 3,000 BC (Wallace 1978, as cited in Sacramento County 2012). However, it was not until after about 3,500 BC, in the late Archaic Period, that people began to move into the San Joaquin and Sacramento Valleys in any significant numbers (Chartkoff and Chartkoff 1984, as cited in Sacramento County 2012).

The earliest permanent settlement of the Delta region of the Sacramento River is called the Windmill Tradition and is known primarily from burial sites containing relatively elaborate grave goods (Chartkoff and Chartkoff 1984, Ragir 1972, Wallace 1978, as cited in Sacramento County 2012). The Windmill Tradition reflects the amplification of cultural trends begun in the Middle Archaic, as seen in the proliferation of finished artifacts, such as projectile points, shell beads, and pendants. Stone mortars and pestles, milling stones, and bone tools such as fishhooks, awls, and pins are also present. Based on linguistic evidence, it has been suggested that the Windmill culture was ancestral to several historic tribes in the Central Valley, including the Penutian-speaking Nisenan. The Windmill Tradition lasted until about 1,000 BC. Around 1,000 BC, subsistence strategies in the Planning Area changed to reliance on acorns and salmon (Chartkoff and Chartkoff 1984, Elsasser 1978, as cited in Sacramento County 2012). Culturally, this has been dubbed the Cosumnes Tradition (1,700 BC–AD 500), and appears to be an outgrowth of the Windmill Tradition (Ragir 1972, as cited in Sacramento County 2012).

11.1.2.4 Tribal Presence in the Planning Area

The Planning Area is located within the territory that could have been occupied by the ethnographic Nisenan or Plains Miwok (Sacramento County 2012).

Nisenan. The Planning Area is in the southwestern portion of the territory occupied by the Nisenan. The Nisenan lived along the Sacramento River, primarily in large villages with populations of several hundred each. Between the Sacramento River and the foothills, the grassy plains were largely unsettled, used mainly as a foraging ground. Residence was generally centered around the residence of the husband's family or tribe, but couples had choice in the matter (Wilson and Towne 1978, as cited in Sacramento County 2012). Politically, the Nisenan

were divided into “tribelets,” made up of a primary village and a series of outlying hamlets, presided over by a more-or-less hereditary chief (Kroeber 1976, Wilson and Towne 1978, as cited in Sacramento County 2012).

Plains Miwok. At the time of European contact, the Eastern (Plains) Miwok tribe occupied the Planning Area and vicinity. Archaeological investigations at sites on South Stone Lake (CA-SAC-65 and CA-SAC-145) indicate a considerable reliance on fishing for subsistence among the prehistoric populations. Each Plains Miwok tribelet was an independent political entity and functioned primarily within recognized tribelet boundaries. Large, multilineal villages were concentrated on rises along watercourses. In addition to gathering resources, the Plains Miwok obtained wild tobacco, planted tobacco seeds, and cultivated the plants (Schulz and Simons 1973, Schulz et al. 1979, as cited in Sacramento County 2010).

The only federally recognized tribe in the Planning Area is the Wilton Rancheria, which are descendants of the Plains Miwok. The Wilton Rancheria became federally recognized in 2009. The tribe’s indigenous territory encompasses Sacramento County. The Wilton Rancheria occupies approximately 39 acres near the community of Wilton, and the 39-acre area is excluded from the Planning Area because it is sovereign tribal land. Four other tribes located outside the Planning Area could have an interest in cultural resources located within the Planning Area. These are the United Auburn Indian Community (Nisenan and Miwok), the Lone Band of Miwok Indians (Miwok), the Buena Vista Rancheria (Miwok), and the Shingle Springs Band of Miwok Indians (Nisenan and Miwok).

11.1.2.5 European Settlement History and Context

The Spanish arrived on the central California coast in 1769, and by 1776, the Miwok territory bordering the Nisenan on the south had been explored by Jose Canizares. In 1808, Gabriel Moraga crossed Nisenan territory, and in 1813, a major battle was fought between the Miwok and the Spaniards near the mouth of the Cosumnes River. Though the Nisenan appear to have escaped being removed to missions by the Spanish, they were not spared the ravages of European diseases. California became part of Mexico in 1821, when Mexico achieved its independence from Spain. In 1827, American trapper Jedediah Smith traveled along the Sacramento River and into the San Joaquin Valley to meet other trappers of his company who were camped there, but no permanent settlements were established by these fur trappers (Thompson & West 1880, as cited in Sacramento County 2012). In 1833, an epidemic (probably malaria) raged through the Sacramento Valley, killing an estimated 75% of the native population. When John Sutter erected his fort at the future site of Sacramento in 1839, he had little difficulty getting the few Nisenan survivors to settle nearby. As discussed in Section 1.3.1, the discovery of gold in 1848 at Sutter’s Mill, near the Nisenan village of Colluma (now Coloma) on the south fork of the American River in El Dorado County, drew thousands of miners to the region, and led to widespread killing of Nisenan tribal members and the virtual destruction of traditional Nisenan culture. By the 1930s, no Nisenan remained who could

remember the days before the arrival of the Euro-Americans (Wilson and Towne 1978, as cited in Sacramento County 2012).

The town of Sacramento was laid out by John Sutter in the fall of 1848, and developed as a supply center for gold miners (Gudde 1969, as cited in Sacramento County 2012). California became a state in 1850, as a result of the major increase in population that resulted from the gold rush of 1849 (Old Sacramento Foundation Inc. 2001, Lawson 2002, as cited in Sacramento County 2012). The Sacramento Valley Railroad was completed from Sacramento to Folsom in 1856 (FEDSHRA 2007, as cited in Sacramento County 2012). It facilitated shipment of goods from Sacramento to the mining areas to the east.

As discussed in Section 1.3.1, as the population in California continued to increase after the Gold Rush, so did the expansion of agricultural lands (both grazing and croplands) in the Planning Area, both to feed California residents and as a profitable export industry. During the early part of the twentieth century, agricultural and grazing lands dominated the landscape of Sacramento County interrupted only by small pockets of urbanization. By the 1940s and 1950s after World War II, Sacramento County experienced a rapid increase in population relative to before the war, with a majority of new urban and suburban development occurring within the Planning Area near the City of Sacramento and in smaller cities such as Folsom and Galt.

11.1.2.6 Potential for Cultural Resources to be Discovered in the Planning Area

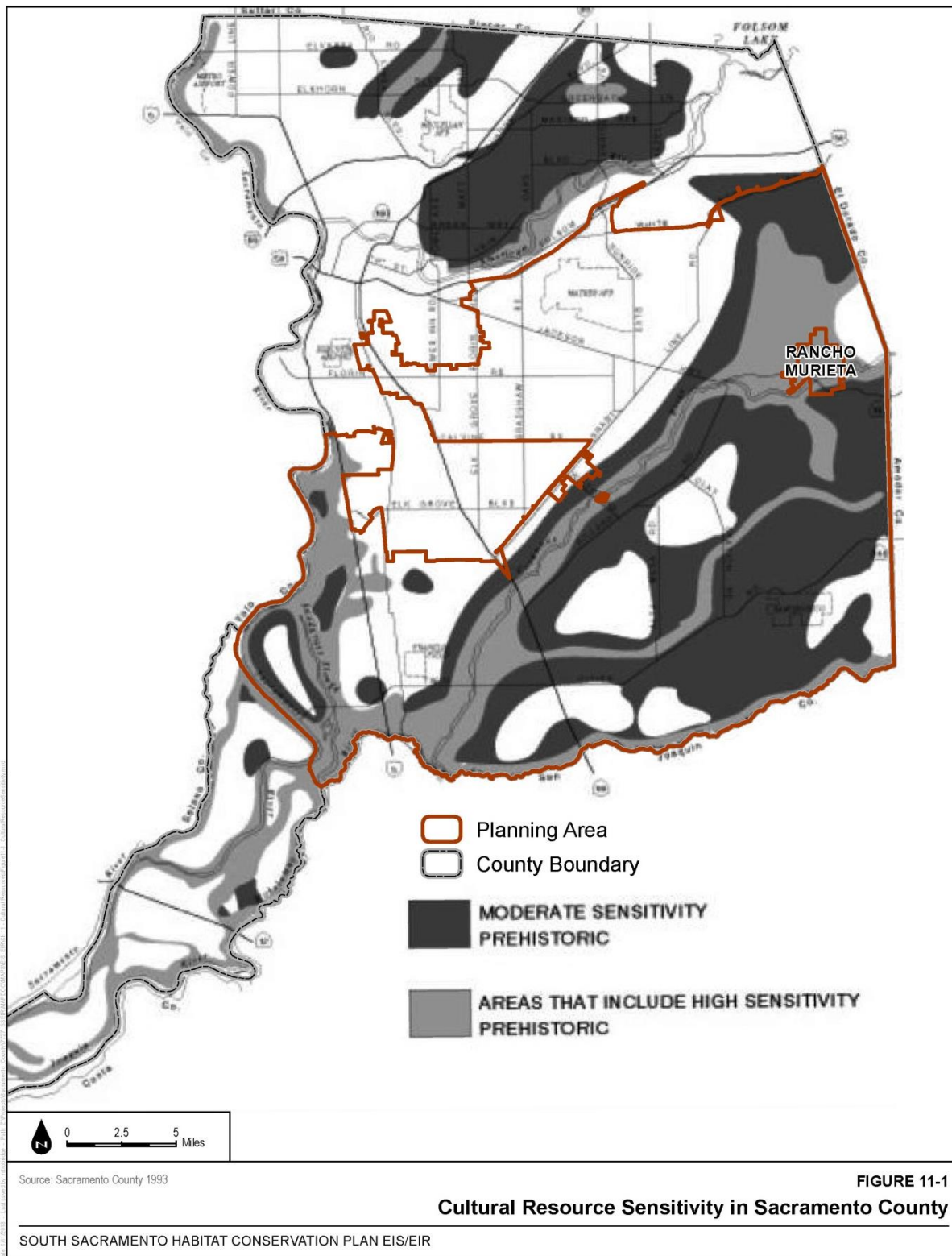
Based on the brief review presented above, the lead agencies expect that various types of cultural resources, including historic properties, may be encountered within the Planning Area.

According to the Sacramento County General Plan, the portions of the Planning Area that are likely or extremely likely to contain high sensitivity and moderate sensitivity² for existing prehistoric sites are located near the larger water courses (see Figure 7-4), such as the Cosumnes River and Laguna Creek, Snodgrass Slough, Beach and Stone Lakes, and in the legal Delta area³ (Figure 11-1) (Sacramento County 2010). Therefore, land cover types with high sensitivity for prehistoric cultural resources include the stream/creek land cover type, the natural riparian land cover types (mixed riparian woodland and mixed riparian scrub), and the valley grassland uplands near these larger waterways. These are consistent with the areas identified by Sacramento County as being moderate or high sensitivity for cultural resources (Figure 11-1) (Sacramento County 1993). Out of the 627 previously recorded prehistoric resources in the unincorporated areas of the County, 7 are currently listed on the NRHP and/or the CRHR.

² A copy of a 1993 map was included in the *Sacramento County General Plan of 2005–2030* (Sacramento County 2011), with no changes. Cultural resources sensitivity is another way to describe the likelihood of cultural resources being present within a particular area.

³ As defined in the Delta Protection Act (Section 12220 of the State Water Code), and shown on Figure 4-1.

Figure 11-1 Cultural Resource Sensitivity in Sacramento County



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A records search conducted for the Rancho Cordova General Plan EIR (Rancho Cordova 2006b) identified eight prehistoric sites and one prehistoric/historic site within Rancho Cordova and its SOI. Most of the prehistoric sites in Rancho Cordova and its SOI are located along the American River outside the Planning Area and along creeks both inside and outside the Planning Area. Some of the sites in Rancho Cordova or its SOI are known to contain human remains, and several of the prehistoric sites in Rancho Cordova or its SOI are eligible for inclusion in the NRHP and the CRHR. Archival research conducted for the Galt General Plan EIR indicates that most prehistoric settlement in Galt and the Galt SOI was focused within 1,000 feet of major waterways, especially the Cosumnes River, and along the Dry Creek corridor (Galt 2008a).

Known historical sites in the Planning Area, including historic properties listed on or known to be eligible for the NRHP, tend to be concentrated in developed areas. These include areas along old travel routes such as the Jackson Highway, the Central California Traction Railroad, and the Southern Pacific Railroad routes, and along rivers and in streambeds. The Planning Area, including Galt, Rancho Cordova, and the unincorporated areas of Sacramento County, has 18 historical sites listed on the NRHP and/or the CRHR (Table 11-1). Although there are only 15 historical resources currently listed on the NRHP and 3 on the CRHR, several other sites that have been determined eligible for listing but have never gone through the formal process of officially listing the resource in the NRHP and/or the CRHR. The 18 resources that are currently listed consist of historical structures, such as the Brewster Building in Galt, historic ranches, and large multi-component historic districts, such as the Walnut Grove Chinese-American Historical District.

Table 11-1. Planning Area Historical Sites that are Currently Listed on the National Register of Historic Places or on the California Register of Historical Resources

Name on NRHP or CRHR	Listing	Location	Date Listed/Notes
Alta Mesa Farm Bureau Hall	NRHP #86003577	10195 Alta Mesa Road, Wilton	January 7, 1987 The hall was destroyed by fire in 1987, although the detached restroom building still stood
American River Grange Hall No. 172	NRHP #96001079	2720 Kilgore Road, Rancho Cordova	October 10, 1996
Brewster Building	NRHP #00000981	201 Fourth St., Galt	August 16, 2000
Brewster House	NRHP #78000740	206 Fifth St., Galt	June 23, 1978
John Stanford Brown House	NRHP #04000733	13950 CA 160, Walnut Grove	July 28, 2004
Delta Meadows Site	NRHP #71000175	Locke	November 5, 1971
Fifteen Mile House–Overland Pony Express Route	CRHR #698	White Rock & Gold Valley Roads, Rancho Cordova	September 11, 1959
Grave of Alexander Hamilton Willard	CRHR #657	Franklin Cemetery, Franklin	September 26, 1958
Imperial Theatre	NRHP #82000980	Market St., Walnut Grove	October 29, 1982
Isleton Chinese and Japanese Commercial Districts	NRHP #91000297	Bounded by River Road and Union, E, and H Sts., Isleton	March 14, 1991
Locke Historic District	NRHP #71000174	Bounded on the west by the Sacramento River, on the north by Locke Road, on the east by Alley St., and on the south by Levee St., Isleton	May 6, 1971
Rosebud Ranch	NRHP #79000521	North of Hood	December 31, 1979
Runyon House	NRHP #00001270	12865 River Road, Courtland	October 27, 2000
Sheldon Grist Mill	CRHR #439	Meiss Road and Hwy 16, Sloughhouse	June 2, 1949
Walnut Grove Chinese–American Historic District	NRHP #90000484	Bounded by C, Tyler, and Bridge Sts., and River Road, Walnut Grove	March 22, 1990
Walnut Grove Commercial/Residential Historic District	NRHP #90000551	Browns Alley and River Road., Walnut Grove	April 12, 1990
Walnut Grove Gakuen Hall	NRHP #80000837	Pine and C Sts., Walnut Grove	June 17, 1980
Walnut Grove Japanese–American Historic District	NRHP #90000483	Bounded by Winnie St., Tyler St., C St., and River Road, Walnut Grove	March 22, 1990

Some prehistoric and historical cultural resources are buried and would only be discovered by activities and projects that include earth-moving activities. As discussed in Section 11.2.1, prior environmental documents prepared for projects proposed in the Planning Area, including the Cordova Hills EIR (Sacramento County 2012) and the Capital SouthEast Connector Project EIR (Connector JPA 2012), identified prehistoric and historic-era cultural

resources within their proposed project footprints that were not listed on the NRHP or CRHR. Therefore, it is likely that other unknown cultural resources are present within the undeveloped areas of the Planning Area. Table 11-2 includes types of cultural resources expected to be present within the currently undeveloped portions of the Planning Area. Considering the long and complex history of human settlement in the Planning Area, historical resources that may be encountered are diverse, including buildings, structures, and objects, as well as historical and archaeological sites and artifacts. Descriptions of these general types of cultural resources are provided in Table 11-2.

Table 11-2. Types of Cultural Resources Potentially Occurring in the Planning Area

Resource Type	Description	Example
Building	Structures created principally to shelter or assist in carrying out any form of human activity. May also refer to a historically and functionally related unit (e.g., courthouse and jail).*	Houses, barns, churches, factories, and hotels.
Structure	The term "structure" is used to describe a construction made for a functional purpose rather than creating human shelter.	Mines, bridges, and tunnels.
Object	The term "object" is used to describe those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed, as opposed to a building or a structure. Although it may be moveable by nature or design, an object is associated with a specific setting or environment. Objects should be in a setting appropriate to their significant historic use, role, or character. Objects that are relocated to a museum are not eligible for listing in the CRHR.	Fountains, monuments, maritime resources, sculptures, and boundary markers.
Site	A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historical, cultural, or archaeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric event, and if no buildings, structures, or objects marked it at that time.	Trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, rock art, historic period refuse deposits, and archaeological remains of historic period settlement.
Isolates	An isolate is a cultural item (typically found in archaeological contexts), that does not meet the criteria used to define a site.	Isolates may include prehistoric artifacts such as arrow points or milling stones, historic items such as bottle glass, and even certain ranching features such as cattle troughs if they are designated by the study as isolated features.

Note: * It is common to consider buildings over 50 years in age as potentially eligible as a historic resource; however, regulations do not restrict younger buildings from being designated as historic resources.

11.2 ENVIRONMENTAL CONSEQUENCES/ ENVIRONMENTAL IMPACTS

11.2.1 Methodology for Assessing Impacts of Each Alternative on Paleontological, Cultural, and Historical Resources

The Environmental Consequences/Environmental Impact section identifies and describes the potential impacts of the actions and projects associated with each EIS/EIR alternative on the paleontological, cultural, or historical resources in the Planning Area. Potential ways that the EIS/EIR alternatives could directly impact cultural resources would be through ground-disturbing activities (e.g., construction of new urban development or associated infrastructure), which could disturb unknown subsurface cultural resources. The projects and activities expected under each alternative are described in Chapter 2.

No systematic archaeological survey of Sacramento County has been conducted, including the 317,655-acre EIS/EIR Planning Area (Figure 1-1). However, records searches were conducted to prepare the Sacramento County, Rancho Cordova, and Galt General Plans and to prepare the impact analysis in the General Plan EIRs (see Section 3.4); to prepare the other EIRs described in Section 3.4; and to prepare EIRs for the five large Master Plans (see Sections 2.3.3 and 2.3.4). In addition, cultural resource studies conducted for individual projects within the Planning Area were reviewed, and the Sacramento County planning staff was consulted.

The Sacramento County General Plan EIR analyzed impacts of urban development within approximately 307,142 acres of the Planning Area; the Rancho Cordova General Plan EIR analyzed impacts of urban development within approximately 42,944 acres of the Planning Area; and the Galt General Plan EIR analyzed impacts of urban development within approximately 7,354 acres of the Planning Area.⁴ The Sacramento County General Plan mapped general locations of cultural resource sensitivity within the Planning Area (Figure 11-1). Similarly, the Rancho Cordova General Plan EIR (Rancho Cordova 2006b) mapped areas of cultural sensitivity in zones around each creek and stream in that study area. The Galt General Plan EIR (Galt 2008a) noted that riparian areas were especially sensitive for cultural resources, but did not attempt to map areas of cultural sensitivity.

Two approaches were used to estimate the effects of each EIS/EIR alternatives on cultural resources. First, the map from the Sacramento County General Plan (Figure 11-1) was used to estimate the potential for urban development to disturb cultural resources in the Planning Area. To do that, the expected locations of planned and expected future urban development

⁴ Because the Sacramento County General Plan EIR analyzed impacts within the Galt SOI and a portion of Rancho Cordova, there is approximately 33,000 acres of overlap between the area analyzed in the Sacramento General Plan EIR and the Galt and Rancho Cordova General Plan EIRs.

for each alternative (Chapter 2) were compared to the map from the Sacramento County General Plan (Figure 11-1), and areas where planned and expected future urban development overlapped with areas of moderate or high cultural resource sensitivity were noted. In addition, geographic information system (GIS) methodology (Section 3.6.5), which was used to quantitatively estimate the direct impacts of each EIS/EIR alternative on land cover types with higher cultural resource sensitivity (Section 11.1.2.6). To do this, GIS datasets of future projects and activities expected under each EIS/EIR alternative were digitally overlaid (compared) to GIS datasets of stream/creek and riparian land covers land cover types.

However, these analyses only quantify or describe the potential impacts to areas previously determined by the County to have high cultural resource sensitivity. Although these analyses are useful to identify differences between the alternatives, additional cultural resources can be “unknown” or undiscovered because the Planning Area has been inhabited or used by Native American peoples for many thousands of years. Therefore, it is possible or even likely that all of the areas historically inhabited or used by the Plains Miwok or Nisenan tribes have not been discovered. In addition, artifacts or human remains also could have also been transported to future development sites from outside the areas of known habitation by natural forces such as floods or animals, or included in fill material that was excavated from one area and deposited in another during construction activities. Accordingly, site-specific studies must be conducted to increase confidence about the cultural resources present a future urban development project sites; however, even after a site-specific study is done, unknown resources could still be unearthed during ground-disturbing construction activities. Therefore, although the EIS/EIR analysis of each alternative notes when an alternative would result in less disturbance to culturally sensitive areas, the EIS/EIR cannot conclude that the alternative would necessarily result in less impact to cultural resources.

In addition, as discussed in Section 3.4 and earlier in Section 11.1.1.3, the EIR documents previously prepared for the General Plans of Sacramento County, Galt, and Rancho Cordova (Sacramento County 2010; Galt 2009b; Rancho Cordova 2006b) analyzed direct and cumulative impacts of urban growth planned within their jurisdictions, including impacts to paleontological, cultural, and historical resources. When the impact analysis or conclusions provided in these General Plan EIR documents were determined by the lead agencies to be appropriate for use in the analysis of the EIS/EIR alternatives, a brief summary or description of the incorporated information or analysis is provided in Sections 11.2.1, 11.2.2, or 11.2.3.

It is appropriate to consider impacts to some environmental resources within the context of other impacts occurring in the surrounding landscape, community, or region (see Section 3.6.2). The lead agencies determined that an appropriate geographic scale for evaluating the impacts of each EIS/EIR alternative on cultural and historic resources should include the Sacramento Area Council of Government’s six-county region (SACOG 2016), which includes Sacramento,

Placer, El Dorado, Sacramento, Sutter, Yolo, and Yuba Counties. This cumulative study area was selected to capture the combined historic territories of the Plains Miwok and the Nisenan Native American tribes (refer to Section 11.1.2.4).

As discussed in Section 3.7, the Chapter 11 cumulative analyses of impacts to paleontological and cultural resources will consider: (1) the effects of past and present urban development within the Planning Area (see Existing Conditions in Section 11.1.2) and within the larger six-county study area, and (2) future impacts expected from reasonably foreseeable “other” projects in the Planning Area (see Section 3.7) and reasonably foreseeable “other” projects within the larger six-county study area. The cumulative analysis of each EIS/EIR alternative will then consider whether the incremental impacts of the alternative on paleontological and cultural resources would be significant (i.e., cumulatively considerable).

As discussed previously in Sections 1.6.4 and 3.6.1, the description and scope of each EIS/EIR alternative (Chapter 2) does not include local approvals or entitlements for individual, site-specific, urban development projects or activities. Accordingly, the analysis presented in this EIS/EIR does not provide project-level CEQA or NEPA coverage for the impacts of future Covered Activities on paleontological, cultural, or historical resources, and this EIS/EIR does not function as a programmatic or umbrella CEQA or NEPA document for regional development and infrastructure projects. This EIS/EIR evaluates only the adverse and beneficial environmental effects associated with the decisions of the lead agencies that are described in Section 1.5.

11.2.1.1 Determination of Impact Significance

As discussed in Section 3.8.1, the criteria used to evaluate the significance of each alternative’s impacts on paleontological, cultural, and historical resources are based on Appendix G of the CEQA Guidelines, the definition of adverse impact under NHPA 106 (see 36 CFR 800.5(a)(1)), and on typical thresholds used to evaluate impacts in recent EIRs prepared by Sacramento County. Based on these sources, a significant adverse impact could occur if the alternative would:

1. Result in a substantial adverse change in the significance of a historical or archaeological resource, as defined as defined in CEQA Guidelines Section 15064.5.
2. Directly or indirectly alter any of the characteristics of a historic property that qualifies the property for listing in the NRHP, in a manner that would diminish the integrity of the historic property’s location, design, setting, materials, workmanship, feeling, or association.
3. Disturb any human remains, including those interred outside of formal cemeteries.
4. Directly or indirectly destroy a unique paleontological resource or site.

Appendix G of the CEQA Guidelines does not provide suggested criteria for determining a beneficial effect. The following criteria were developed by the lead agencies. A beneficial impact could occur if the alternative would:

1. Discernibly reduce adverse changes in the significance of a historical or archaeological resource, as defined as defined in CEQA Guidelines Section 15064.5.
2. Discernibly reduce alteration of the characteristics and integrity of a property that may qualify it for listing in the NRHP, as defined in 40 CFR 60.4.
3. Discernibly reduce disturbance of any human remains, including those interred outside of formal cemeteries.
4. Discernibly reduce direct or indirect destruction of a unique paleontological resource or site.

The impact analysis for the three EIS/EIR alternatives will consider the context, intensity, and severity of potential impacts to each of these paleontological and cultural resources impact criteria, and will present a separate determination of significance for each of these criteria.

11.2.2 No Action/No Project Alternative

The No Action/No Project Alternative is described in Section 2.2.

11.2.2.1 Direct and Indirect Effects of the Alternative

Much of the estimated total 35,532 acres of future urban development expected under the No Action/No Project Alternative (Section 2.2) is also described and analyzed in the Sacramento County General Plan, the Galt General Plan, and the Rancho Cordova General Plan (see Section 3.4 and Section 11.2.1). Therefore, many of the cumulative effects on paleontological and cultural resources from future urban development within the Chapter 11 study area, including the Planning Area, were evaluated in the General Plan EIRs and the other EIRs listed in Section 3.4.

As discussed in Section 3.4 and in Section 11.2.1, the three General Plan EIRs used different study periods—ending in 2030 (Galt 2009b), in 2050 (Rancho Cordova 2006b), and 2030 (Sacramento County 2010), and the 50-year study period for this EIS/EIR ends in 2065 (Section 3.6.3). The Galt and Rancho Cordova General Plan EIRs analyzed buildout of their jurisdictions. However, additional urban development would occur within Sacramento County after the 2030 end of the General Plan EIR study period, until the expected buildout of the Urban

Development Area (UDA)⁵ at end of this EIS/EIR's study period in 2065. Consequently, the lead agencies considered the impact analysis and the conclusions incorporated by reference from the General Plan EIRs, along with the effects of the additional urban development activities and projects included in the description of each EIS/EIR alternative. The lead agencies extrapolated that the impacts of the additional urban development in the latter part of the 50-year EIS/EIR study period, including potential impacts to paleontological and cultural resources, would be similar to the impacts of urban development implemented in the early part of the EIS/EIR study period, which was analyzed in the General Plan EIRs.

The impact analysis presented in the *City of Galt General Plan Update: 2030 Final EIR* (Galt General Plan EIR)(Galt 2009b), determined that within the City of Galt and the Galt SOI:

- Historic resources, including structures and sites in the City's downtown area, may be vulnerable to urban development projects and activities associated with the planned buildout described in the Galt General Plan. The General Plan policies establish a framework for the preservation of Galt's historic resources and promote historic preservation, which will help avoid, minimize, and mitigate project impacts to historical resources. However, even with project implementation of the Galt General Plan policies, the Galt General Plan EIR determined that impacts of planned urban development are significant and unavoidable;
- Cultural resources, paleontological resources, and/or human remains could be damaged or inadvertently unearthed during ground-disturbing activities associated with the planned buildout described in the Galt General Plan. However, future project compliance with state laws and with the Galt General Plan policies that promote the protection of these resources (see Section 11.1.1) would ensure impacts to existing cultural resources, paleontological resources, or human remains would be less than significant (Galt 2008, pp. 9-1 to 9-8).

The Galt General Plan EIR assumed full buildout of the existing Galt city limits and the Galt SOI by the end of the General Plan EIR's study period.

⁵ As discussed in Section 1.1.1, the term Urban Development Area (UDA) is used by the EIS/EIR to discuss all lands where urban development Covered Activity projects or activities could occur under the action alternatives. Therefore, the term "UDA" means all lands within the County's Urban Service Boundary (USB) that are also within the Planning Area (including lands within the Rancho Cordova city limits that are within the Planning Area), all lands within Galt's city limits, and all lands within the City of Galt's SOI (see Figure 1-1).

The *City of Rancho Cordova General Plan Final EIR* (Rancho Cordova General Plan EIR) (Rancho Cordova 2006b), determined that within Rancho Cordova and its SOI:

- Existing historic resources and cultural resources may be vulnerable to urban development projects and activities associated with the planned buildout described in the Rancho Cordova General Plan. Compliance with Rancho Cordova General Plan policies that promote the protection of these resources (see Section 11.1.1) would help to reduce impacts to historic resources and cultural resources. However, even with project implementation of the Rancho Cordova General Plan policies, the Rancho Cordova General Plan EIR determined that impacts to prehistoric and historic cultural resources, and human remains would be significant and unavoidable (Rancho Cordova 2006c, pp. 4.11-5 to 4.11-19).
- Paleontological resources could be damaged or inadvertently unearthed during ground-disturbing activities associated with the planned buildout described in the Rancho Cordova General Plan. Future project compliance with Rancho Cordova General Plan policies that promote the protection of these resources (see Section 11.1.1) would ensure impacts to paleontological resources would be reduced to less than significant (Rancho Cordova 2006c, pp. 4.11-5 to 4.11-19).

The Rancho Cordova General Plan EIR assumed full buildout of Rancho Cordova and the Rancho Cordova SOI by the end of the General Plan EIR's study period.

The impact analysis presented in the *Capital SouthEast Connector Project Final Program Environmental Impact Report* (Connector EIR) (Connector JPA 2012), determined that construction and operation of the Capital Southeast Connector:

- Could result in significant impacts to cultural resources from construction in areas where cultural resources are present. Project-level mitigation measures identified in the Connector EIR would reduce these impacts to less than significant; however, in areas of the Capital Southeast Connector right-of-way footprint where avoidance of cultural resources is not possible, impacts would remain significant and unavoidable (Connector JPA 2012, pp. 6-13 to 6-15).
- Could result in significant impacts to human remains due to ground disturbance during construction. A mitigation measure requiring construction to stop if human remains are encountered would reduce this potential impact to less than significant (Connector JPA 2012, pp. 6-15 to 6-16).

The impact analysis presented in the *Final Environmental Impact Report: Sacramento County General Plan Update* (Sacramento County General Plan EIR) (Sacramento County 2010), determined that within Sacramento County:

- Historic resources and cultural resources may be vulnerable to planned urban development projects and activities associated with buildout of the Sacramento County General Plan. Compliance with Sacramento County General Plan policies would avoid or minimize impacts to cultural resources associated with future planned development in unincorporated Sacramento County. However, direct and indirect impacts would still occur to existing cultural and historic resources, resulting in a significant and unavoidable impact.
- Impacts to important cultural resources existing in areas identified in the Sacramento County General Plan EIR as “new growth areas,” (includes the Jackson Highway Corridor⁶ and Grant Line East area), would also result in significant and unavoidable impacts.
- Paleontological resources may be at risk for unintentional destruction during construction of planned urban development (residential, commercial, and industrial), during construction of associated infrastructure; and during the expansion of existing mining operations, resulting in significant and unavoidable impacts (Sacramento County 2010, pp. 15-22 to 15-34).

The Sacramento County General Plan EIR analyzed the effects of ground-disturbing projects and activities resulting from infill development of all acreage within the current 223,193-acre Urban Policy Area, combined with development in two “New Growth Areas” that total approximately 20,000 acres.⁷ Approximately 43,719 acres of the current Urban Policy Area overlaps with the EIS/EIR Planning Area. However, the Sacramento County General Plan EIR did not address the potential to disturb human remains.

As discussed earlier, additional urban development would occur within Sacramento County after the 2030 end of the Sacramento County General Plan EIR study period, until the expected full buildout of the UDA at end of this EIS/EIR’s study period in 2065. This additional urban development within the UDA would result in additional effects on existing cultural, historical,

⁶ The Sacramento County General Plan EIR’s proposed project (Sacramento County 2010) included development within a designated “Jackson Highway Corridor New Growth Area” that was not a part of the alternative ultimately selected by Sacramento County. However, Sacramento County is currently processing proposed Master Plans in the Jackson Highway Corridor, so the conclusions of the Sacramento County General Plan EIR’s analysis of this proposed project are applicable to the EIS/EIR No Action/No Project Alternative.

⁷ The two “New Growth Areas” were Jackson Highway Corridor (approximately 12,000 acres) and Grant Line East (approximately 8,000 acres). The Jackson Highway Corridor encompasses land on the northern and southern sides of Highway 16, beginning at South Watt Avenue and ending at Sunrise Boulevard. Grant Line East begins on the eastern side of Grant Line Road and ends at the Sacramento County USB.

and paleontological resources present in the Planning Area, especially inside the UDA where all new urban development would occur. The areas of highest cultural sensitivity in Sacramento County are generally along the larger waterways, which are located outside the UDA (Figure 11-1)(Sacramento County 1993). However, as described in Section 11.1.2.6, unknown cultural resources have potential to be present anywhere in the Planning Area. Therefore, the additional urban development (which would occur after the 2030 end of the Sacramento County General Plan EIR study period, until the buildout of the UDA at end of this EIS/EIR's study period in 2065) would add to the already significant and unavoidable effects on cultural resources previously identified in the Sacramento County General Plan EIR, described earlier.

Additionally, as explained above and in Section 2.2.2, approximately 1,900 acres of planned urban development would be shifted or displaced from inside the Mather Core Recovery Area (MCRA) to one or more locations outside the current Sacramento County USB boundary under the No Action/No Project Alternative. Based on the map of prehistoric cultural resource sensitivity in Sacramento County (Figure 11-1):

- The potential displacement areas in the northeast of the Planning Area and east of Galt have moderate prehistoric cultural resource sensitivity.
- The area surrounding Rancho Murieta and the area near Wilton have high prehistoric cultural resources sensitivity.
- The area south of Elk Grove has low prehistoric cultural resource sensitivity.

By shifting or displacing development from the MCRA (an area of low prehistoric cultural resource sensitivity), to areas with moderate or high prehistoric cultural sensitivity, the No Action/No Project Alternative could result in more impact to prehistoric cultural resources than was analyzed in the Sacramento County General Plan EIR. However, this impact analysis of the No Action/No Project Alternative assumes that all future development projects would comply with applicable policies and regulations identified in the General Plans for Rancho Cordova and Sacramento County (see Section 11.1.1.3).

All future projects and activities that require local permits, approvals, or entitlements (e.g., planning entitlements such as rezones, lot line splits, and subdivision maps) over the 50-year EIS/EIR study period would be required to comply with the Sacramento County, Galt, or Rancho Cordova policies for paleontological and cultural resources (see Section 11.1.1.3). These local policies require future projects to avoid or minimize impacts to cultural, paleontological, or historical resources. If full avoidance of cultural, paleontological, or historical resources is not feasible, Sacramento County, Galt, or Rancho Cordova policies require projects to incorporate additional mitigation measures before permits or entitlements. Examples of project-level mitigation measures to address unavoidable impacts to paleontological and cultural resources include data recovery, curation of recovered materials, repatriation of human remains and/or grave goods, and documentation of

results. In some cases, these mitigation measures would fully mitigate for the effects of a project. However, for many individual projects, the effects on cultural resources would remain significantly adverse after mitigation. Therefore, the No Action /No Project Alternative, including the 1,900 acres of displaced development outside the UDA and the expected buildout of the UDA over the 50-year EIS/EIR study period, would add to the already significant impacts to paleontological, cultural, and historic resources that were identified in the Sacramento County, Galt, and Rancho Cordova General Plan EIRs presented earlier.

As discussed in Section 2.2.2 and 2.2.4, individual projects and activities implemented under the No Action/No Project Alternative would continue to establish new mitigation preserves to meet requirements of ESA, California Endangered Species Act, CWA, and local environmental policies. A total of 23,430 acres of existing natural land covers would be permanently preserved under the No Action/No Project Alternative (Table 2-2). The establishment of new on-site or off-site mitigation preserves alone would not adversely impact paleontological or cultural resources present at the new preserve sites. Likewise, the purchase of credits at an approved mitigation bank, or through an established in-lieu fee program, would not adversely impact paleontological or cultural resources.

As discussed in Section 2.2.4, and Section 8.2.2, approximately 380 acres of stream/creek, freshwater marsh, and riparian land cover types would be preserved under the No Action/No Project Alternative. These aquatic resource land cover types generally have high sensitivity for prehistoric cultural resources (Section 11.1.2.6), and preserving them would prevent adverse effects of constructing new urban development and on the cultural and historic resources that might be present. Approximately 554 acres of riparian land covers would be re-established or established in Planning Area riparian areas under the No Action/No Project alternative (Table 8-5). The re-establishment of a riparian plant community is primarily by planting of tree, shrub, and herbaceous species, and results in minimal ground disturbance.

However, the establishment or re-establishment of 562 acres of vernal pools and swales as compensatory mitigation for projects and activities implemented under the No Action/No Project Alternative (Table 8-5) would require use of heavy equipment, and may require grading or excavation of soil to depths up to 3 feet, which has potential to impact existing paleontological or cultural resources. However, the re-establishment/establishment of vernal pools and swales would occur only on the specific soil types that form seasonal perched aquifers (see Chapter 8), and these soil types are typically not located in floodplains, where cultural resource sensitivity is highest. In addition, these small areas of shallow grading are less likely to disturb unknown cultural resources than the deeper grading that occurs with new urban development projects. Furthermore, future urban development projects and activities would comply with the regulations and local policies and regulations discussed in Section 11.1.1.3 and in the General Plan EIRs, and these existing regulations and policies would

continue to ensure that re-establishment or establishment of wetlands and other waters would not adversely affect cultural resources. Therefore, habitat re-establishment and establishment of vernal pools and swales on mitigation preserves is expected to have a ***Less Than Significant Adverse*** effect on existing cultural, paleontological, or historical resources.

In summary, the additional urban development from buildout of the UDA during the 50-year EIS/EIR study period and the effects of the approximately 1,900 acres of urban development that would be displaced to areas outside the UDA, would result in significant and unavoidable impacts to paleontological, cultural and historic resources. Therefore, the ***Significant and Unavoidable Adverse*** effects to paleontological, cultural, and historic resources identified in the Sacramento County, Galt, and the Rancho Cordova General Plan EIRs would continue under the No Action/No Project Alternative.

11.2.2.2 Cumulative Effects of the Alternative

The past and present urban development and associated infrastructure projects and human activities discussed in Section 3.7.1 and in Section 11.1.2 have damaged or destroyed paleontological and cultural resources within the EIS/EIR Planning Area, especially within the UDA. These past and present alterations have resulted in the existing conditions of the Planning Area (see Section 5.1.2), and represent a significant adverse impact on cultural resources from past and present development. Historical, cultural, and paleontological resources in other parts of the cumulative study area such as Yolo County and Sutter County have also been damaged by ground-disturbing activities of urban development.

The types of reasonably foreseeable “other” projects, activities, and actions described in Section 3.7.2, are similar to the types of past and present actions that occurred in the study area. The foreseeable other actions in the study area (see Section 3.7.2) that were not included in the Section 2.2.2 description of the No Action/No Project Alternative include additional new urban development in the Elk Grove SOI and in Rancho Murieta, development of the Wilton Rancheria Casino, master planned developments inside the UDA named Rio Del Oro and Mather South, further rural residential development outside the UDA, continued urban development of cultivated agricultural lands, major infrastructure projects such as California High-Speed Rail and the California WaterFix, and expansion of the existing National Wild Refuge and the Cosumnes River Preserve (see Section 3.7.2) These reasonably foreseeable other projects in the study area are expected to further impact paleontological and cultural resources. The combined impacts of the past, present, and reasonably foreseeable future projects are a significant cumulative impact to paleontological and cultural resources in the study area.

As discussed in the Section 11.2.2.1 direct and indirect analysis of the No Action/No Project, future projects and activities under the No Action/No Project Alternative would continue to implement applicable regulations and policies discussed in Section 11.1.1. However, although the policies in the Sacramento County General Plan (Sacramento County 2011) and Rancho Cordova General Plan (Rancho Cordova 2006a) are designed to minimize protect impacts to paleontological and cultural resources, additional losses of paleontological and cultural resources would result from the new urban development projects, activities, and actions included in the No Action/No Project Alternative. Therefore, the direct and indirect impacts of the No Action/No Project Alternative would further increase the significant loss of cultural and paleontological resources that already exists in the study area. Therefore, the incremental impacts to cultural and paleontological resources from the No Action/No Project Alternative are significant and cumulatively considerable, and would make a considerable contribution to the previously identified significant cumulative impacts on cultural and paleontological resources from the past, present, and reasonably foreseeable other projects.

11.2.3 Proposed Action/Proposed Project Alternative

The Proposed Action/Proposed Project Alternative is described in Section 2.3.

11.2.3.1 Direct and Indirect Effects of the Alternative

As discussed in Section 2.3, Covered Activities under the Proposed Action/Proposed Project Alternative include the same types of urban development that are anticipated under the No Action/No Project Alternative. Covered Activities implemented under the Proposed Action/Proposed Project would result in new urban development projects and activities on approximately 33,500 acres of existing natural landscapes in the Planning Area (see Section 2.3.3), which is approximately 2,000 fewer acres of new urban development projects on natural landscapes than the No Action/No Project Alternative.

As discussed in Section 2.3.1, the Proposed Action/Proposed Project Alternative would allow urban development Covered Activities within the MCRA portion of the UDA to be implemented consistent with the approved Sacramento County and Rancho Cordova General Plans, without urban development shifting or being displaced to up to four locations outside the current USB boundary. Therefore, the Proposed Action/Proposed Project Alternative does not assume that approximately 1,900 acres of new urban development would be shifted or “displaced” to locations outside of the current USB boundary for Sacramento County. As discussed in Section 11.2.2.2, the four areas where urban development might be displaced under the No Action/No Project are areas of moderate or high sensitivity for cultural resources (Figure 11-1). Therefore, the Proposed Action/Proposed Project may result in fewer disturbances to cultural resources relative to the impact of the No Action/No Project Alternative baseline condition. However,

unknown cultural resources could be present anywhere in the Planning Area (Section 11.2.1), so the EIS/EIR does not assume that effects on cultural resources would be less under the Proposed Action/Proposed Project than under the No Action/No Project Alternative.

As discussed in Section 11.1.1, existing regulations and policies that apply to paleontological and cultural resources, including historic properties and human remains, will continue to be required of urban development Covered Activities over the 50-year permit term.

As discussed in Section 1.5.4, the USACE is developing a multilevel CWA Section 404 permitting program for future SSHCP Covered Activity projects and activities that discharge dredged or fill material to waters of the United States, which would be a federal undertaking under the NHPA. To meet the NHPA 106 requirements, the USACE may develop a Programmatic Agreement with the SHPO specifically to address NHPA 106 compliance for future SSHCP Covered Activities authorized under CWA 404. If this were to occur, as part of developing a Programmatic Agreement, the USACE would also consult with regional Native American tribal contacts, and may consider establishing a MOU with Native American tribes concerning future coordination on the protection of cultural resources. Compared to the impacts expected under the No Action/No Project baseline condition, the MOU developed as part of this process would provide equal or better protection for cultural resources and human remains. The other existing federal, state, and local regulatory requirements would provide protection for paleontological resources and historical resources.

As discussed in Section 2.3.5, the conservation strategy of the Proposed Action/Proposed Project Alternative would include a 36,027-acre interconnected and coordinated SSHCP Preserve System, with 7,162 acres preserved inside the UDA, and 36,027 acres preserved outside the UDA. Any paleontological and cultural resources located within the SSHCP Preserve System would be protected from urban development and associated infrastructure projects. As noted in Section 11.2.2, individual mitigation preserves established under the No Action/No Project Alternative would also protect paleontological and cultural resources. However, under the Proposed Action/Proposed Project, approximately 2,740 acres of stream/creek and riparian habitat would also be protected in preserves, which is approximately three times the acreage of these culturally sensitive areas preserved under the No Action/No Project Alternative.

In addition, under the Proposed Action/Proposed Project, additional stream setback areas would be established between new urban development and UDA streams, creeks, and first and second order tributaries to those streams and creeks. Avoidance and Minimization Measure (AMM) AMM STREAM-2 would require new urban development to be at least 100 feet from the top of each bank of several creeks in the Planning Area, even for creek reaches that are not within preserves. AMM STREAM-1 would require minimum 150-foot setbacks from the top of each bank along Laguna Creek in the UDA. Although the project-by-project approvals and

project mitigation that would occur under the No Action/No Project Alternative (Section 2.2.4) may include some setbacks from creeks and streams, the setbacks required under the Proposed Action/Proposed Project would be larger and would apply to more streams and creeks than the setbacks under the No Action/No Project Alternative. The greater setbacks under the Proposed Action/Proposed Project would limit disturbance of soils in floodplains and riparian areas, which are the areas with the greatest potential for cultural resource presence in the Planning Area (Sacramento County 1993, 2011; Rancho Cordova 2006a; Galt 2008b). The establishment of the Preserve System and requirements for larger stream setbacks would be a **Minor Beneficial** effect as compared to the No Action/No Project Alternative baseline condition,

As described for the No Action/No Project Alternative in Section 11.2.2, vernal pool and swale re-establishment/establishment activities on preserves would include land disturbances up to 3 feet depth. However, the acreage of re-established/established wetlands and other waters, and re-established/established riparian land covers under the Proposed Action/Proposed Project would total approximately 1,740-acres, approximately 50% more acres of re-established/established aquatic resources than under the No Action/No Project Alternative. The additional acreage of re-establishment/establishment under the Proposed Action/Proposed Project would increase the risk of disturbance of unknown cultural resources on preserves, as compared to the No Action/No Project Alternative. However, the re-establishment/establishment of vernal pools and swales would continue to occur only on the specific soil types that form seasonal perched aquifers (see Chapter 8), and these soil types are typically not located in floodplains or riparian areas, where cultural resource sensitivity is highest. In addition, these small areas of shallow grading are less likely to disturb unknown cultural resources than the deeper grading that occurs with new urban development projects. Furthermore, future urban development projects and activities would continue to comply with the regulations and local policies and regulations discussed in Section 11.1.1.3 and in the General Plan EIRs, and these existing regulations and policies would continue to ensure that re-establishment or establishment of aquatic resources would not significantly affect known or unknown cultural resources in the SSHCP Preserve System. In addition, the amount of ground disturbance associated with re-establishment/establishment projects on preserves would remain minimal compared to the ground disturbance from urban development. Therefore, aquatic resource re-establishment/establishment under the Proposed Action/Proposed Project would continue to have a **Less than Significant Adverse** effect on paleontological, cultural, and historical resources, when compared to the impacts of the No Action/No Project Alternative baseline condition.

11.2.3.2 Significance of Direct and Indirect Effects

In summary, when compared to the No Action/No Project Alternative baseline condition, the Proposed Action/Proposed Project would:

- Not result in disturbance of up to 1,900 acres outside the UDA identified as “moderate” or “high” cultural resource sensitivity by Sacramento County;
- Provide additional setback preserves along stream, creeks, and riparian areas, which generally have the highest sensitivity for cultural resources in the Planning Area;
- Result in similar effects to existing historical resources and paleontological resources.

Therefore, after considering the significance of impacts from the Proposed Action/Proposed Alternative on all of the impact criteria for paleontological, cultural, and historical resources listed above in Section 11.2.1.1, the Proposed Action/Proposed Project overall would result in a **Minor Beneficial** effect to Planning Area paleontological, cultural, and historical resources, when compared to the impacts that would occur under the No Action/No Project Alternative baseline condition.

11.2.3.3 Cumulative Effects of the Proposed Action/Proposed Project

The effects of past, present, and the reasonably foreseeable other projects on paleontological, cultural, and historical resources in the Planning Area were described above in Section 11.2.2.2, and represent a significant adverse cumulative impact on the paleontological, cultural, and historical resources within the study area. As discussed in Section 11.2.2.1, the incremental direct and indirect effects of the No Action/No Project Alternative were determined to be significant and to be cumulatively considerable, when viewed in connection with the effects of the past, present, and reasonably foreseeable other projects in the study area.

As discussed here, the implementation of the Proposed Action/Proposed Project SSHCP conservation strategy, including the SSHCP AMMs, the SSHCP Aquatics Resources Plan, and the interconnected SSHCP Preserve System is expected to reduce the potential for impacts to cultural resources as compared to the No Action/No Project Alternative. Compared to the No Action/No Project Alternative baseline condition, the Proposed Action/Proposed Project would include less development outside the current Sacramento County USB boundary, where cultural resource sensitivity is higher. The Proposed Action/Proposed Project would also include stream setbacks on streams, creeks, and first and second order tributaries to those streams and creeks. Because stream/creek and riparian areas have greater cultural resource sensitivity, these setbacks would reduce the potential for impacts to cultural resources. Consequently, the incremental effects of the Proposed Action/Proposed Project would have a minor beneficial impact to paleontological, cultural and historical resources when compared to the incremental effects of the No Action/No

Project Alternative baseline condition; therefore, the Proposed Action/Proposed Project does not result in a cumulatively considerable contribution to the significant adverse cumulative impacts on paleontological, cultural, and historical resources. The Proposed Action/Proposed Project would result in a **Minor Beneficial Cumulative** effect to paleontological, cultural, and historical resources compared to the No Action/No Project baseline condition.

11.2.4 Reduced Permit Term Alternative

The Reduced Permit Term Alternative is described in Section 2.4.

11.2.4.1 Direct and Indirect Effects of the Alternative

As described in Section 2.4.3 and Section 3.6.3, the Reduced Permit Term Alternative would include similar types of development in the UDA as the No Action/No Project Alternative. Over the 50-year EIS/EIR study period, the Reduced Permit Term Alternative would result in new urban development projects and activities on approximately 35,358 acres of existing natural land covers in the Planning Area (Table 8-12).

As discussed in Section 2.4.1, the Reduced Permit Term Alternative would allow urban development within the MCRA portion of the UDA to be consistent with the approved Sacramento County and Rancho Cordova General Plans, without urban development shifting or being displaced to up to four locations outside the current USB boundary. Therefore, the Reduced Permit Term Alternative does not assume that approximately 1,900 acres of new urban development would be shifted or “displaced” to locations outside of the current USB boundary for Sacramento County. As discussed above in section 11.2.2, the four areas where urban development might be displaced under the No Action/No Project Alternative are areas of moderate or high sensitivity for cultural resources (Figure 11-1). By not resulting in shifting or displacement of 1,900 acres of urban development to areas outside the UDA, the Reduced Permit Term Alternative would result in fewer disturbances of the areas identified by the County as having moderate or high cultural sensitivity (Figure 11-1) as compared to the No Action/No Project Alternative. However, as explained above in Section 11.2.1, unknown cultural resources could be present anywhere in the Planning Area, so the EIS/EIR does not assume that effects on cultural resources would necessarily be less under the Reduced Permit Term Alternative than under the No Action/No Project Alternative.

The existing regulations and local policy requirements discussed in Section 11.1.1 for cultural resources and human remains, if encountered during ground disturbance, would continue under the Reduced Permit Term Alternative. To meet the requirements of Section 106 for CWA permits, the USACE and the local jurisdictions could develop a Programmatic Agreement for Section 106 consultations with the SHPO in effect during the 30-year permit term of the

Reduced Permit Term Alternative. As part of developing a Programmatic Agreement, the USACE would consult with the local Native American tribes, which may include establishing a MOU with Native American tribes concerning future coordination and the protection of cultural resources. The MOU developed as part of this process would provide equal or better protection for cultural resources and human remains during the 30-year permit term than currently occurs. The other existing federal, state, and local regulatory requirements would provide protections for paleontological resources and historical resources.

As discussed in Section 2.4.5, the Reduced Permit Term Alternative would include an interconnected and coordinated preserve system, established during the 30-year permit term. Any paleontological, cultural, or historical resources present within the SSHCP Preserve System would not be disturbed or destroyed by future urban development. Relative to the No Action/No Project Alternative baseline condition, the 30-year Preserve System would result in a **Minor Beneficial** effect to paleontological, cultural, or historical resources.

However, during years 31–50 of the EIS/EIR study period, project ESA, California Endangered Species Act, and CWA mitigation preserves would be established under the uncoordinated, project-by-project process that currently occurs under the existing conditions and under the No Action/No Project Alternative. Any cultural, paleontological, or historical resources located within these on-site or off-site mitigation preserves would not be directly disturbed by new urban development. In addition, approximately 1,512 acres of stream/creek and riparian land covers would be preserved over the 50-year EIS/EIR study period, approximately double the acreage of these culturally sensitive areas that would be preserved under the No Action/No Project Alternative over the 50-year EIS/EIR study period. As in the No Action Alternative's expected regulatory environment (Section 2.2.2), project use of mitigation and conservation banks to meet CWA404 requirements has become common since 2008, and is expected to continue during years 31–50 of the Reduced Permit Term's 50 year study period)

In addition, during the 30-year permit term of the Reduced Permit Term Alternative, stream setbacks would be established that would require new urban development inside the UDA to be at least 50 feet from the top of the bank of many creeks in the Planning Area, even for creeks that are not within preserves. For the Laguna Creek in the UDA, development setbacks would be a minimum of 150 feet from the top of each bank during the 30-year permit term. Although project-by-project ESA and CWA authorizations under the existing conditions and under the No Action/No Project Alternative may requires small setbacks from creeks, the setbacks required under the Reduced Permit Term Alternative during the 30-year permit term would be larger, and would occur on more streams and creeks than under the No Action/No Project Alternative. The larger stream and creek setbacks established during the 30-year permit of the Reduced Permit Term Alternative would reduce disturbance of soils in riparian areas, which have the greatest cultural resource sensitivity (Sacramento County 1993, 2011; Rancho

Cordova 2006a; Galt 2008b). The Preserve System and requirements for stream setbacks during the 30-year permit term would be a **Minor Beneficial** effect as compared to the No Action/No Project Alternative baseline condition.

As for the No Action/No Project Alternative, aquatic resource re-establishment/establishment activities on preserves could involve land disturbance up to 3 feet deep to construct re-established/established vernal pool wetlands and swales, or for re-establishment/establishment of other waters. However, the acreage of re-establishment/establishment of aquatic resources and riparian land covers under the Reduced Permit Term Alternative would be approximately 40% more than that under the No Action/No Project Alternative. The additional acreage of re-establishment/establishment under the Reduced Permit Term Alternative would increase the risk of disturbance of unknown cultural resources as compared to the No Action/No Project Alternative. However, Covered Activity projects and activities implemented during the 30-year permit term, and during the 50-year EIS/EIR study period, would continue to be required to comply with the existing cultural resource regulations and local policies described above in Section 11.1.1. Therefore, habitat re-establishment/establishment under the Reduced Permit Term Alternative would continue to have **Less Than Significant Adverse** effects on paleontological, cultural, and historical resources when compared to the No Action/No Project Alternative baseline condition.

11.2.4.2 Significance of Direct and Indirect Effects

In summary, when compared to the No Action/No Project Alternative baseline condition, the Reduced Permit Term Alternative would:

- Not result in disturbance of up to 1,900 acres outside the UDA identified as “moderate” or “high” cultural resource sensitivity by Sacramento County;
- Provide 30-years of additional protections for stream, creeks, and riparian areas, which generally have the highest sensitivity for cultural resources in the Planning Area;
- Result in similar effects on historical resources and paleontological resources.

Therefore, after considering the significance of impacts from the Reduced Permit Term Alternative on all of the impact criteria for paleontological, cultural, and historical resources listed in Section 11.2.1, the Reduced Permit Term Alternative would result in **Minor Beneficial** effects to paleontological, cultural, and historical resources when compared to the impacts that would occur under the No Action/No Project Alternative baseline condition.

11.2.4.3 Cumulative Effects of the Alternative

The effects of past, present, and reasonably foreseeable other projects on paleontological, cultural, and historical resources in the Planning Area are described in Section 11.2.2.1, and represent a significant adverse cumulative impact on the paleontological, cultural, and historical resources within the Study Area. As discussed in Section 11.2.2.1, the direct and indirect incremental effects of the No Action/No Project were determined to be significant and cumulatively considerable, when viewed in connection with the effects of the past, present, and foreseeable other projects in the Study Area.

As discussed here, the implementation of the Reduced Permit Term Alternative's conservation strategy, including the SSHCP AMMs, the SSHCP Aquatics Resources Plan, and the interconnected SSHCP Preserve System is expected to reduce the impacts to cultural resources when compared to the No Action/No Project Alternative. Compared to the No Action/No Project Alternative baseline condition, the Reduced Permit Term Alternative would not displace or shift urban development outside the current Sacramento County USB boundary where cultural resource sensitivity is moderate or high (Figure 11-1). The Reduced Permit Term Alternative would also include 30 years of additional setbacks between new urban development and UDA streams, creeks, and first and second order tributaries to those streams and creeks. Because stream/creek and riparian areas have greater cultural resource sensitivity, the 30 years of larger and more numerous setbacks are expected to reduce impacts to cultural resources. Consequently, the direct and indirect incremental effects of the Reduced Permit Term Alternative would have a minor beneficial impact to paleontological, cultural, and historical resources when compared to the incremental effects of the No Action/No Project Alternative baseline condition; therefore, the Reduced Permit Term Alternative would not result in a cumulatively considerable contribution to the significant adverse cumulative impacts on paleontological, cultural, and historical resources. The Reduced Permit Term Alternative would result in a **Minor Beneficial Cumulative** effect to paleontological, cultural, and historical resources, when compared to the No Action/No Project Alternative baseline condition.

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