

4. 11 CULTURAL AND PALEONTOLOGICAL RESOURCES

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INTRODUCTION

This section considers and evaluates the potential impacts of the proposed City of Madera General Plan Update on cultural and paleontological (fossil) resources. Cultural resources include historic buildings and structures, historic districts, historic sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. Paleontological resources include vertebrate, invertebrate, or plant fossils.

This Draft Environmental Impact Report (DEIR) uses technical information and analyses from previous studies which are supported by the State CEQA Guidelines (see Sections 15148 [Citation] and 15150 [Incorporation by Reference]).

CONCEPTS AND TERMINOLOGY FOR EVALUATION OF CULTURAL RESOURCES

The following definitions are common terms used to discuss the regulatory requirements and treatment of cultural resources:

Cultural resources is the term used to describe several different types of properties: prehistoric and historical archaeological sites; architectural properties such as buildings, bridges, and infrastructure; and resources of importance to Native Americans.

Historic properties is a term defined by the National Historic Preservation Act (NHPA) as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on, the National Register of Historic Places (NRHP), including artifacts, records, and material remains related to such a property.

Historical resource is a California Environmental Quality Act (CEQA) term that includes buildings, sites, structures, objects, or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance and is eligible for listing or is listed in the California Register of Historical Resources (CRHR).

Paleontological resource is defined as including fossilized remains of vertebrate and invertebrate organisms, fossil tracks and trackways, and plant fossils. A unique paleontological site would include a known area of fossil-bearing rock strata.

4.11.1 EXISTING SETTING

PREHISTORY

There is a long history of regional archaeological research for the project area. The earliest archaeological surveys in the San Joaquin Valley date to the 1920s and were accomplished by Gifford and Schenck (1926) and Schenck and Dawson (1929). This work was followed in 1941 by Hewes' survey of a 160-mile-long stretch of the central San Joaquin Valley and the adjacent foothills of the Sierra Nevada range. Subsequent research broadened both the scope and database of earlier work and also became more systematic and intensive. Some of this more recent research includes work at Little Panoche Reservoir (Olsen and Payen, 1969) and Buchanan Reservoir (Moratto, 1972).

The prehistory of the San Joaquin Valley is generally divided into three periods (Wallace, 1978; Moratto, 1984). The first period is characterized by big game hunting and is dated approximately 8,000 years ago. The second period is dated from approximately 5,000 B.P. (Before Present) to A.D. 1200 and is characterized by a shift in subsistence strategy from hunting

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to the collection of plant resources. This shift in economic pursuits is evidenced in typical artifact assemblages from this period that include seed-grinding implements. The third period dates from approximately A.D. 1200 to 1700 and represents habitation of the area by Yokuts.

Olsen and Payen (1969) presented a cultural chronology for the eastern edge of the San Joaquin Valley based on their investigations at Little Panoche Reservoir. They identified the Positas Complex, 5,300–2,800 B.P.; Pacheco Complex, 2,800 B.P.–A.D. 300; Gonzaga Complex 300 A.D.–1000; and Panoche Complex, 1500–1850. Similarly, Moratto (1972) presented a cultural chronology for the eastern edge of the San Joaquin Valley and foothills of the southern Sierra Nevada based on investigations at Buchanan Reservoir. Moratto identified the Chowchilla Phase, 2,300 B.P.–A.D. 300, Raymond Phase A.D. 300–1500, and Madera Phase 1500–1850.

The Pacheco, Gonzaga, and Panoche Complex and the Raymond and Madera Phase are generally characterized by the use of relatively small projectile points that are probably associated with the introduction of the bow and arrow and an economic shift toward increasing exploitation of plant resources including the acorn. The Panoche Complex and Madera Phase also appear to represent occupation of the area by ethnographically documented groups of Native Americans.

ETHNOGRAPHY

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. Because records from that era are limited, it is difficult to obtain and verify information about Native American groups. Kroeber (1925, 1936) subdivided California into four subculture areas: Northwestern, Northeastern, Southern, and Central. The Planning Area is within the Central subculture area, which includes the territory of Northern Valley Yokuts, North Fork Mono during their seasonal migrations, and potentially Miwoks.

Northern Valley Yokuts inhabited the Central Valley surrounding the San Joaquin River from Mendota in the south to the area between the Calaveras and Mokelumne rivers in the north (Wallace, 1978). According to Latta (1977) the City of Madera and the surrounding area are within the territory of the Ausumne group of Northern Valley Yokuts.

The basic social and economic group of Northern Valley Yokuts is the family or household unit, with the nuclear and/or extended family forming a corporate unit. These basic units were combined into distinct, named village or hamlet groups which functioned as headquarters of a localized patrilineage (Wallace, 1978). Lineage groups were important political and economic units that combined to form tribelets numbering between 300 and 500 persons. Each tribelet had a chief or headman who exercised political control over the villages that comprised it. The office of tribelet chief was hereditary, with the chieftainship being the property of a single patrilineage within the tribelet.

Subsistence activities of Northern Valley Yokuts included hunting, fishing, and collection of plant resources, particularly acorns. They built a variety of structures including residential dwellings, ceremonial structures, and semi-subterranean sweat lodges (Wallace, 1978). The typical dwelling was a thatched house covered by brush, grass, or tules. A variety of flaked and ground stone tools (e.g., knives, arrow and spear points, and rough cobble and shaped pestles) were common among Northern Valley Yokuts. Obsidian was a highly valued material for tool manufacture and was generally imported. Northern Valley Yokuts also engaged in trading relationships with surrounding groups for commodities such as salt, marine shells, and basketry.

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North Fork Mono inhabited the San Joaquin Valley and Sierra foothills, migrating from their foothills homeland down to the Valley for hunting and fishing, working with other tribes along the way, such as the Yokuts and Miwoks (Tatum, 2006).

Euroamerican contact with Native American groups living in the Central Valley of California began during the last half of the eighteenth century. At this time, the attention of Spanish missionaries shifted away from the coast, and its dwindling Native American population, to the missionization of interior populations such as Northern Valley Yokuts, North Fork Mono, and Miwoks. The efforts of the Spanish to missionize the Native American population began a history of destructive Euroamerican interactions with Native Americans that eventually led to the loss of traditional Native American culture.

HISTORIC PERIOD

Initial expeditions into the San Joaquin Valley were exploratory in nature but were soon followed by campaigns to either convert and/or relocate Native Americans to missions. Missions dominated the social, political, and economic lives of both Spanish and Native Americans across much of California during the Spanish Period (ca. 1769–1821). Many Native American groups, however, were reluctant to adapt to the mission “system” and convert to Catholicism. This factor, in combination with the onset of many European diseases, virtually ended the traditional lifeways of many Native American groups in California.

The Mexican Period (ca. 1821–1848) in California was an outgrowth of the Mexican Revolution, and its accompanying social and political views affected the mission system. In 1833 the missions were secularized and their lands divided among the *Californios* as *ranchos* in the form of land grants. The *ranchos* facilitated the growth of a semi-aristocratic group that controlled large *ranchos* or land grants. Local Native American populations, who were essentially used as forced labor, worked on these large tracts of land. This was a period of growing antagonism of Native Americans toward Euroamericans and also decline in Native American populations due to both disease and abuse.

The American Period (ca. 1848–present) in California history began with the end of the Mexican-American War and the signing of the Treaty of Guadalupe Hidalgo in 1848. The onset of this period, however, did not improve the economic condition of most Native American populations. For example, militia groups such as the Mariposa Battalion were established to “control” Native Americans (Crampton, 1957). The Mariposa Battalion reports armed encounters with Native Americans in the upper drainage of the Kings and Kaweah Rivers (Crampton, 1957). The *rancho* system also generally remained intact until 1862–1864 when a drought forced many landowners to sell off or subdivide their holdings. At this time open ranges began to be fenced and the economy started to shift from cattle ranching to dairy farming and agriculture based on new crops such as wheat. Regardless of a change of economic focus, the plight of Native American populations remained, at best, relatively unchanged. In 1851 and 1852, the U.S. Senate rejected treaties between the government and Native Americans, and during this time period military reserves were established to maintain various groups (Heizer, 1974). Subsequent conflicts regarding reservation lands and local and federal recognition continue to the present day.

The Gold Rush was the catalyst for major settlement and development of the region. As miners migrated south from the Columbia-Sonora goldfields, many settled on the valley floor. Madera County encompasses a fairly large area from west to east, including the foothill region, the plains, and the high Sierra. Although each region offered its own resources and opportunities,

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the mountains were tapped for their enormous timber reserves. The population increased steadily as the Central Pacific Railroad established lines in the San Joaquin Valley in 1872.

Rising demand for timber prompted the construction of a vast flume that ran 63 miles from the Soquel Basin into the valley (Hoover et al., 1996). Built in 1874, the flume made it possible to move millions of feet of lumber annually. The flume was originally planned to end at Borden, a community already established along the Central Pacific Railroad. However, high property prices and land level issues prompted mill investors to locate elsewhere (Madera County Historical Society, 2007). The new end-point for the flume was named Madera, Spanish for "wood" or "timber."

With the construction of the flume, Madera grew significantly, and in 1876 the California Lumber Company officially laid out the town (Hoover et al., 1966). The Town of Madera became the county seat when the county was established in 1893 (Hoover et al., 1996).

KNOWN CULTURAL RESOURCES IN THE GENERAL PLAN UPDATE PLANNING AREA

Previous archaeological and historical investigations have covered only about 5 percent of the City of Madera Planning Area. These investigations identified 54 historic buildings/structures and a historic site (i.e., remnants of a building/structure).

Areas of Potential Cultural Resources and Interest

There are likely cultural artifacts that can be found along waterways in the Central Valley, including the City of Madera area, items left over from native tribes such as handmade fishing and food gathering tools. Places centered on waterways were used for fishing, hunting, and other food resources. In addition, the waterways historically were made useful as a mode of transportation between settlements. Three of the known historic buildings/structures within the Planning Area are either listed in or eligible for listing in the National Register of Historic Places (NRHP) (**Table 4.11-1**). A cultural resource listed in the NRHP is also included in the California Register of Historical Resources (CRHR).

TABLE 4.11-1
HISTORICAL RESOURCES IN THE CITY OF MADERA GENERAL PLAN UPDATE PLANNING AREA

Site Number	Site Identification	Year Built	Location	NRHP Eligibility Status
P-20-002516	Madera County Courthouse	1900	210 W. Yosemite Avenue	Listed
P-20-002497	Luther Burbank School	1925	328 Madera Avenue	Eligible
P-20-002494	Dixie Motel	1934	1100 S. Gateway Drive	Eligible

KNOWN PALEONTOLOGICAL RESOURCES IN THE GENERAL PLAN UPDATE PLANNING AREA

Paleontology is the study of prehistoric life, including organisms' evolution and interactions with each other and their environments. Paleontological resources include fossil remains, as well as fossil localities and formations that have produced fossil material. These resources can be important educational resources and are nonrenewable once destroyed. Therefore CEQA offers protection for these sensitive resources and requires that they be addressed during the EIR process.

A search of the University of California Museum of Paleontology (UCMP) collections database identified 199 locations in Madera County where paleontological resources have been identified. The majority (192) of these were discovered at the Fairmead Landfill which is approximately 18 miles northwest of the General Plan Update Planning Area (City of Madera, 2009). The database search did not identify any paleontological resources in the Planning Area, and the geography and geology of the area suggest that it most likely does not contain fossil resources.

4.11.2 REGULATORY FRAMEWORK

STATE

California Environmental Quality Act

Under CEQA, public agencies must consider the effects of their actions on both "historical resources" and "unique archaeological resources." Pursuant to Public Resources Code 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." Section 21083.2 requires agencies to determine whether proposed projects would have effects on "unique archaeological resources."

"Historical resource" is a term with a legally defined meaning (Public Resources Code, Section 21084.1 and State CEQA Guidelines, Section 15064.5 [a], [b]). As defined by state law, "historical resource" includes any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). 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.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (Pub. Resources Code, Section 5024.1 and California Code of Regulations, Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process (Public Resources Code 5024.1 [g]), lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (Public Resources Code, Section 21084.1 and State CEQA Guidelines, Section 15064.5 [a][3]). Following CEQA Guidelines Section 21084.5 (a) and (b) a historical resource is defined as any object, building, structure, site, area, place, record, or manuscript that:

- a) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and
- b) Meets any of the following criteria:

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

Archaeological resources may also qualify as "historical resources" and Public Resources Code 5024 requires consultation with the Office of Historic Preservation when a project may impact historical resources located on State-owned land.

For historic structures, State CEQA Guidelines Section 15064.5, subdivision (b)(3), indicates that a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) shall mitigate impacts to a level of less than significant. Potential eligibility also rests upon the integrity of the resource.¹ Integrity is determined through considering the setting, design, workmanship, materials, location, feeling, and association of the resource.

CEQA also requires lead agencies to consider whether projects will impact "unique archaeological resources." Public Resources Code Section 21083.2, subdivision (g), states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options under Section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a "unique archaeological resource").

Advice on procedures to identify cultural resources, evaluate their importance and estimate potential effects is given in several official publications, such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested

¹"Integrity" is the retention of the resource's physical identity that existed during its period of significance.

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persons and corporate entities, including, but not limited to, museums, historical commissions, associations and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains.

Section 7050.5(b) of the California Health and Safety code specifies protocol when human remains are discovered. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

State CEQA Guidelines Section 15064.5, subdivision (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 must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the Native American Heritage Commission. 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.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the State CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5, subdivision (f), these provisions should include "an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."

Senate Bill 18 (Gov. Code, Sections 65352.3 and 65352.4) requires that, prior to the adoption or amendment of a general plan or specific plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction. The City of Madera initiated the consultation process as required under these provisions of the Government Code.

Paleontological resources are classified as non-renewable scientific resources and are protected by state statute (Public Resources Code Chapter 1.7, Section 5097.5, Archeological, Paleontological, and Historical Sites and Appendix G). No state or local agencies have specific

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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 in a project site.

4.11.3 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Following PRC Sections 21083.2 and 21084.1, and State CEQA Guidelines Section 15064.5 and Appendix G, cultural resource impacts are considered to be significant if implementation of the proposed project would result in any of the following:

- Cause a substantial adverse change in the significance of an archaeological resource or a historical resource as defined in PRC section 21083.2 and CEQA Guidelines Section 15064.5, respectively;
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

State CEQA Guidelines Section 15064.5 defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired.

METHODOLOGY

Cultural resources staff at PMC performed all archaeological and historical investigations for the City of Madera General Plan Update. These investigations included a records search conducted by the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield on January 8, 2008, a sacred lands search conducted by the Native American Heritage Commission (NAHC) on November 13, 2007, and consultation with the Native American community.

The record search for the planning area identified 40 previous surveys, 54 historic buildings/structures, and a historic site (i.e., remnants of a building/structure) within it. The previous surveys covered approximately 5 percent of the Planning Area. Three of the known historic buildings/structures within the Planning Area are either listed in or eligible for listing in the National Register of Historic Places and the California Register of Historical Resources. These buildings/structures include the Madera County Courthouse, site P-20-002516, the Luther Burbank School, site P-20-002497, and the Dixie Motel, site P-20-002494.

The sacred lands search did not identify any sensitive Native American cultural resources either within or near the Planning Area. All Native American groups and individuals identified by the NAHC were contacted by letter regarding the project. The City of Madera understands the importance of contacting local tribes and values their participation in the planning process. The City contacted all Native American groups and/or individuals identified on the SB 18 consultation list for the General Plan Update area by the Native American Heritage Commission, and tribes were asked to consult regarding the General Plan Update.

A search of the University of California Museum of Paleontology collections database did not identify any paleontological resources in or near the General Plan Update area. The search of

the UCMP collections database identified 199 locations in Madera County where paleontological resources have been identified. The majority (192) of these were discovered at a single location 20 miles northeast of the General Plan Update area.

PROJECT IMPACTS AND MITIGATION MEASURES

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.1 Implementation of the proposed General Plan Update could result in the potential disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) and human remains. However, policy provisions of the proposed General Plan Update would mitigate potential impacts to these resources. This would be a **less than significant** impact.

Archaeological and historical investigations identified six known cultural resources within the proposed General Plan Update Planning Area. However, comprehensive archaeological and historical investigations have not been conducted for the entire Planning Area. Consequently, adoption of the proposed General Plan Update could impact known cultural resources and undiscovered cultural resources and human remains.

As identified below, the proposed General Plan Update policies and action items in the Historic and Cultural Resources Element include provisions that would ensure cultural resources are protected. Thus, this impact is **less than significant**.

Proposed General Plan Update Policies and Action Items that Provide Mitigation

The following list contains those policies and action items that include specific, enforceable requirements and/or restrictions and corresponding performance standards that assist in mitigating potential cultural resource impacts. Specifically, policies HC-2, HC-5, HC-7, and HC-8 and Action Item HC-5.1 requires the use of the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties for the preservation of historic structures as well as requirements regarding the preservation of the Downtown historic integrity. Action items HC-9.1 and HC-9.2 require the evaluation and mitigation for potential impacts to archaeological sites.

Policy HC-2: The City supports the goals and objectives for the Comprehensive Statewide Historic Preservation Plan for California 2000-2005. (See info box below).

Policy HC-5: Maintain and improve buildings which help contribute to the downtown's historic character.

Action Item HC-5.1: Use the latest Secretary of the Interior's Standards for the Treatment of Historic Properties as a guideline for the preservation of historic buildings. (See info box above.)

Policy HC-7: The City shall require quality architecture that preserves the Downtown's historic integrity. "Franchise architecture" that detracts from the unique and distinctive setting of the Downtown shall not be allowed.

Policy HC-8: Building renovations in the Downtown shall be complementary to the character of historic Downtown architecture.

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Action Item HC-9.1: *In areas identified with a significant potential for containing archaeological artifacts, require completion of a detailed on-site study as part of the environmental review process. Implement all feasible mitigation measures.*

Action Item HC-9.2: *Impose the following conditions on all discretionary projects which may cause ground disturbance:*

“The Planning Department shall be notified immediately if any prehistoric, archaeological, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior’s Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action.”

“All construction must stop if any human remains are uncovered, and the County Coroner must be notified 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.”

The U.S. Secretary of the Interior’s **Standards for the Treatment of Historic Properties** is a set of guidelines that outlines four potential approaches for historic structures: **Preservation**, **Rehabilitation**, **Restoration**, and **Reconstruction**.

- The first treatment, **Preservation**, places a high premium on the retention of all historic fabric through conservation, maintenance and repair. It reflects a building’s continuum over time, through successive occupancies, and the respectful changes and alterations that are made.
- **Rehabilitation**, the second treatment, emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it is assumed the property is more deteriorated prior to work. (Both Preservation and Rehabilitation standards focus attention on the preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.)
- **Restoration**, the third treatment, focuses on the retention of materials from the most significant time in a property’s history, while permitting the removal of materials from other periods.
- **Reconstruction**, the fourth treatment, establishes limited opportunities to re-create a non-surviving site, landscape, building, structure, or object in all new materials.

Source: National Parks Service at www.nps.gov

Mitigation Measures

None required.

Paleontological Resources

Impact 4.11.2 Implementation of the proposed General Plan Update could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations). However, policy provisions of the proposed General Plan Update would mitigate potential impacts to these resources. This would be a **less than significant** impact.

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any paleontological resources within the boundaries of the City of Madera and its Sphere of Influence. The sensitivity of the area for paleontological resources, however, has not been assessed and no formal paleontological investigations were identified for the area. Consequently, implementation of the proposed project could impact undiscovered paleontological resources.

As identified below, the proposed General Plan Update policies and action items in the Historic and Cultural Resources Element include provisions that would ensure paleontological resources are protected. Thus, this impact is **less than significant**.

Proposed General Plan Update Policies and Action Items that Provide Mitigation

Action Item HC-9.2 requires the evaluation and mitigation for fossils uncovered during subsequent project construction activity.

Action Item HC-9.2: Impose the following conditions on all discretionary projects which may cause ground disturbance:

"The Planning Department shall be notified immediately if any prehistoric, archaeological, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action."

"All construction must stop if any human remains are uncovered, and the County Coroner must be notified 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."

Mitigation Measures

None required.

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4.11.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with adoption of the General Plan Update includes proposed, planned, reasonably foreseeable, and approved projects within the region (see Section 4.0), as well as full buildout of the City of Madera General Plan Planning Area as proposed in the General Plan Update (occurring after year 2030). Regional growth and development would contribute to potential conflicts with cultural and paleontological resources. These resources include archaeological resources associated with Native American activities and historic resources associated settlement, farming, and economic development.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.3 Implementation of the proposed General Plan Update along with foreseeable development in the region could contribute to further disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) and human remains. However, policy provisions of the proposed General Plan Update would mitigate its contribution to potential impacts to these resources. This would be a **less than cumulatively considerable** impact.

Cumulative development in the region would result in the loss and/or degradation of cultural resources. These cumulative effects of development on cultural resources would be significant. As less than 5 percent of the Planning Area has been surveyed for cultural resources, there is the potential for future development to uncover previously undiscovered cultural resources because of the area's historic occupation by Native Americans, Spanish, and other groups of settlers. Buildout of the Planning Area could contribute to the cumulative loss of cultural resources in the region.

Proposed General Plan Update Policies and Action Items that Provide Mitigation

The proposed General Plan contains several policies and action items that would mitigate its contribution to this cumulative impact. The reader is referred to Impact 4.11.1 for those policies and action items that contain specific, enforceable requirements and/or restrictions and corresponding performance standards mitigate this impact.

Mitigation Measures

None required.

Paleontological Resources

Impact 4.11.4 Implementation of the General Plan Update along with other foreseeable development in the region could result in the disturbance of paleontological resources (i.e., fossils and fossil formations). However, policy provisions of the proposed General Plan Update would mitigate its contribution to potential impacts to these resources. This would be a **less than cumulatively considerable** impact.

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A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any paleontological resources within the boundaries of the City of Madera and its Sphere of Influence. Regardless, subsequent development of the Planning Area could impact undiscovered paleontological resources. The projects might contribute to the cumulative loss of paleontological resources in the region.

Proposed General Plan Update Policies and Action Items that Provide Mitigation

The proposed General Plan contains Action Item HC-9.2 that requires the evaluation and mitigation for fossils uncovered during subsequent project construction activity. The reader is referred to Impact 4.11.1 for the full text of this action item that would mitigate the proposed General Plan Update's contribution to this impact.

Mitigation Measures

None required.

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