

4.5 Cultural Resources

This section analyzes impacts to historical, archaeological, and paleontological resources, as well as human remains, within the SJCOG region.

4.5.1 Setting

a. Background Setting

Prehistoric

The prehistoric populations of San Joaquin County included the Miwok in the north and Northern Valley Yokuts in the south.

Miwok populations focused their settlements alongside the waterways of the Sierra Nevada north from the Cosumnes River south to the Calaveras River and in California's central valley as far west as Mount Diablo. Miwok villages were the primary political unit and consisted of as many as two dozen to several hundred individuals. Miwok subsistence relied upon hunting, fishing, and the gathering of acorns (Levy 1978).

Northern Valley Yokuts populations were concentrated along waterways in the San Joaquin River. Settlements were typically composed of single-family dwellings, sweathouses, and ceremonial structures. Subsistence revolved around water resources in the San Joaquin Valley, with a focus on salmon and acorns (Wallace 1978).

Historic

Early explorers visited the San Joaquin valley with some frequency, though no missions or settlements were established until relatively late after European contact. Eighteenth-century explorers included Pedro Fages in 1772, Juan Bautista de Anza in 1776, and Francisco Eliza in 1793. Mission reconnaissance expeditions were led by Gabriel Moraga in 1806 and 1808, Father Ramon Abella in 1811, Jose Antonio Sanchez in 1811, and Father Narciso Duran in 1817 though no missions were ever established in California's central valley.

Jedediah Strong Smith was most likely the first American to traverse the San Joaquin Valley when he opened the Sacramento Trail in the late 1820s. He reported back to the Hudson Bay Fur Company, who founded the settlement of French Camp south of the modern city of Stockton in 1828.

Throughout the Spanish and Mexican periods, San Joaquin County remained largely unsettled. Following the gold rush, settlement of the area increased as the agricultural potential of the area was recognized and railroad development throughout the area provided direct access. When California gained statehood in 1850, San Joaquin was established as one of the original counties. The early San Joaquin Valley economy was focused on cattle-raising and dry farming. By the early 1900s, irrigation had replaced dry farming and the region emerged as a leader in the agricultural and dairy industry. Throughout the 20th and 21st centuries, San Joaquin County has remained largely agricultural.

Paleontological Resources

Paleontological resources, also known as fossils, are the remains, traces or imprints of once-living organisms preserved in rocks or sediment. Paleontological resources are commonly found in

sedimentary rock units. Paleontological sites are normally discovered in cliffs, ledges, steep gullies, or along wave-cut terraces where vertical rock sections are exposed. Fossil material may be exposed by a trench, ditch, or channel caused by construction.

Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into the geologic deposits (formations) within which fossils are buried and physically destroy the fossils. Since fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey.

Invertebrate fossils in microscopic form such as diatoms, foraminifera, and radiolarians can be so prolific as to constitute major rock material in some areas. Invertebrate fossils normally are marine in origin, widespread, abundant, fairly well preserved, and predictable as to fossil sites. Therefore, the same or similar fossils can be located at any number of sites throughout central California. Vertebrate fossil sites are usually found in non-marine or continental deposits. Vertebrate fossils of continental material are usually rare, sporadic, and localized. Scattered vertebrate remains (mammoth, mastodon, horse, ground sloth, camel, and rodents) have been identified from the Pleistocene non-marine continental terrace deposits in various locations throughout the SJCOG region. Therefore, the SJCOG region contains areas of high paleontological sensitivity.

Cultural Resources Inventory

To compile a listing of recognized significant historic and prehistoric resources within San Joaquin County, information was obtained from the State Office of Historic Preservation. The statewide Historical Resources Inventory (HRI) is not available for public review according to the *California Historical Information System Information Center Rules of Operation Manual* (Section III.A). The HRI would be consulted after the determination of an Area of Potential Effect under project-level analysis of RTP/SCS transportation projects.

Table 14 presents identified cultural resources within San Joaquin County. Included in each table are sites listed online by the Office of Historic Preservation (OHP) on the National Register of Historic Places (National Register; NRHP), sites designated as a California State Landmark, sites listed in the California Register of Historical Resources (California Register, CRHR), and those that are considered California Points of Historical Interest. The NRHP, authorized by the National Historic Preservation Act (NHPA), lists the Nation's significant cultural resources. Resources listed in the NRHP are protected under the NHPA. The CRHR is maintained by the State Office of Historic Preservation and lists cultural resources important to the history of California, which are protected under CEQA. California Points of Historical Interest are resources that are of local significance. This list is limited to what is presented in the OHP's online database and is not exhaustive.

Table 14 Historical Resources in San Joaquin County

City or Community	Resource Name	National Register	State Landmark	California Register	Point of Historical Interest
Clements	Lone Star Mill		X		
French Camp	California Chicory Works		X		
French Camp	French Camp		X		
Lathrop	Eldon H. Gordon House				X
Lockeford	Elliott Cemetery				X
Lockeford	Harmony Grove Church				X
Lockeford	Liberty Cemetery				X
Lockeford	Locke House and Barn	X			
Lockeford	Locke's Meat Market	X			
Lockeford	Locke's Ford		X		
Lockeford	Old Lockeford School				X
Lodi	Hotel Lodi	X			
Lodi	Lodi Arch	X	X		
Lodi	Morse-Skinner Ranch House	X			
Lodi	Terminous Culling Chute	X			
Lodi	Theodore H. Beckmen Ranch House				X
Lodi	Women's Club of Lodi	X			
Ripon	Markham Hotel			X	
Ripon	New Hope		X		
Stockton	Hotel Stockton	X			
Stockton	Burial Place of John Brown (Juan Flaco)		X		
Stockton	Cole's Five Cypress Farm	X			
Stockton	Commercial and Savings Bank	X			
Stockton	El Dorado Elementary	X			
Stockton	Elks Building	X			
Stockton	Farmer's and Merchant's Bank				
Stockton	Fox California Theater	X			
Stockton	Benjamin Holt House	X			
Stockton	I.O.O.F. Lodge	X			
Stockton	Nippon Hospital	X			
Stockton	Oak Lawn/Shippee Home Ranch			X	
Stockton	Old Weber School	X			
Stockton	Reuel Colt Gridley Monument		X		
Stockton	Moses Rodgers House	X			
Stockton	Site of First Building in Present City of Stockton		X		
Stockton	Sperry Office Building	X			
Stockton	Sperry Union Flour Mill	X			

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City or Community	Resource Name	National Register	State Landmark	California Register	Point of Historical Interest
Stockton	Stockton Developmental Center		X		
Stockton	Stockton Savings and Loan Society Bank	X			
Stockton	Temple Israel Cemetery		X		
Stockton	Temporary Detention Camps for Japanese Americans- Stockton Assembly Center		X		
Stockton	Tretheway Block	X			
Stockton	U.S. Post Office	X			
Stockton	Weber Point		X		
Stockton	Weber School, Multi-National Multi-Lingual Center				X
Stockton	Western Pacific Railway Depot			X	
Thornton	Benson's Ferry		X		
Thornton	Site of Mokelumne City		X		
Tracy	Bank of Italy	X			
Tracy	Bank of Tracy	X			
Tracy	Carnegie		X		
Tracy	Corral Hollow		X		
Tracy	First Landing Place of Sailing Launch Comet		X		
Tracy	First Transcontinental Railroad- Site of Completion of Pacific Railroad		X		
Tracy	John Ohm House	X			
Tracy	Site of San Joaquin City		X		
Tracy	Tracy City Hall and Jail	X			
Tracy	Tracy Inn	X			
Tracy	West Side Bank	X			
Unincorporated	Site of Battle between forces under General Vallejo and San Joaquin Valley Native Americans		X		
Unincorporated	Trail of the John C. Fremont 1844 Expedition		X		
Woodbridge	I.O.O.F. Hall	X			
Woodbridge	San Joaquin Valley College		X		
Woodbridge	Site of Wood's Ferry and Wood's Bridge		X		
Woodbridge	Town of Woodbridge		X		
Woodbridge	Woodbridge Masonic Lodge No. 131	X			

Source: California Office of Historic Preservation, website, 2017

b. Regulatory Setting

A cultural resource may be designated as significant by national, State, or local authorities. In order for a resource to qualify for listing in the NRHP or the CRHR it must meet one or more identified criteria of significance. A resource may qualify for NRHP listing if it:

- a. Is associated with events that have made a significant contribution to the broad patterns of our history;
- b. Is associated with the lives of persons important in our past;
- c. 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
- d. Has yielded, or may be likely to yield, information important in prehistory or history.

A cultural resource is also designated as significant if it is a unique *archaeological resource*, which is defined in § 21083.2(g) as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

CEQA Guidelines

Because San Joaquin County has not adopted its own guidelines for the analysis of impacts to cultural resources, the State CEQA Guidelines are appropriate for determining the significance of impacts. According to these guidelines, a “historical resource” can be defined by one of several criteria: listing or eligibility for listing in the CRHR; listing in a local register of historic resources; or historical significance according to the four NRHP criteria described above.

4.5.2 Impact Analysis

a. Methodology and Significance Thresholds

For the purpose of this discussion, the term cultural resource broadly includes historical, archaeological, and paleontological. The significance of a cultural resource impact is determined by whether that resource meets the criteria discussed above. Where the significance of a site is unknown, it is presumed to be a significant resource for the purpose of the impact evaluation in this EIR. Listings of historical resources in San Joaquin County were obtained from the State Office of Historic Preservation. Potential areas of disturbance associated with the 2018 RTP/SCS projects were compared to the identified historical sites listed on Table 14 to determine whether an impact may occur.

Appendix G of the State CEQA Guidelines identifies the following criteria for determining whether a project’s impacts would have a significant impact on cultural and historic resources:

1. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;
2. Cause a substantial adverse change in the significant of an archaeological resource pursuant to §15064.5;
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
4. Disturb any human remains, including those interred outside of formal cemeteries.

According to the CEQA Guidelines § 15126.4(b)(3), public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered for a project involving such an archaeological site:

- a. Preservation in place (avoidance) is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
- b. Preservation in place may be accomplished by, but is not limited to, the following:
 - Planning construction to avoid archaeological sites;
 - Incorporation of sites within parks, greenspace, or other open space;
 - Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.
 - Deeding the site into a permanent conservation easement.
- c. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code.
- d. Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented and that the studies are deposited with the California Historical Resources Regional Information Center.

b. Project Impacts and Mitigation Measures

This section describes generalized cultural resources impacts associated with the projects anticipated under the 2018 RTP/SCS. Due to the programmatic nature of the 2018 RTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation and land use projects is not possible at this time. In general, however, implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the 2018 RTP/SCS could result in the impacts as described in the following section.

Threshold 1: Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5

IMPACT CR-1 IMPLEMENTATION OF PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED BY THE 2018 RTP/SCS COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN OR DISTURB KNOWN AND UNKNOWN HISTORICAL RESOURCES AS DEFINED IN CEQA GUIDELINES SECTION 15064.5. IMPACTS TO HISTORICAL RESOURCES WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Projects that may be located in proximity to historical resources or include repair or replacement of potentially historical structures (e.g. bridges) have the potential to directly or indirectly impact historical resources. Such improvements may alter the integrity of historical resources. Project-specific analysis would be required as individual projects are proposed.

In addition, the 2018 RTP/SCS also contains a future land use scenario that envisions infill development near transit. This land use scenario focuses future development within existing urbanized areas. There are no specific development projects pursuant to the land use scenario envisioned by the 2018 RTP/SCS identified currently, so a site-specific evaluation is not possible. However, because future infill near transit could be located near or adjacent to existing historic structures, the integrity of such structures could be indirectly or directly impacted as a result. Moreover, if future infill near transit would involve redevelopment/demolition of existing structures, it is possible that such structures could have historical significance (as determined by site-specific evaluation) given the presence of structures that are over 50 years old within the SJCOG region, particularly within existing urbanized areas. Redevelopment or demolition could result in the permanent loss of historic structures. Similarly, while proposed transportation projects would not impact known historic structures, it is possible that such projects may require reconstruction or demolition of transportation infrastructure or other structures that are over 50 years old, and which may be considered historically significant as determined by site-specific evaluation. Such reconstruction or demolition could result in the permanent loss of historic structures. Impacts would be potentially significant.

Mitigation Measures

In general, prior to commencement of any action, development or land use changes on lands subject to federal jurisdiction or for projects involving federal funding, a cultural resource survey and an environmental analysis must be prepared. Historic resources are also protected under the regulations of the National Historic Preservation Act and the Department of Transportation Act of 1966. County and city sponsored projects would be subject to local ordinance requirements, including General Plan provisions that protect cultural resources.

To minimize impacts to cultural resources, for transportation projects under their jurisdiction, SJCOG shall, and transportation project sponsor agencies can and should, implement the following mitigation developed for the 2018 RTP/SCS program where applicable for transportation projects that result in impacts to historic resources. The County and cities in the SJCOG region can and should implement these measures, where relevant to land use projects implementing the 2018 RTP/SCS.

CR-1 Historical Resources Impact Minimization

Prior to individual project permit issuance, the project sponsor of a 2018 RTP/SCS project involving earth disturbance or construction of permanent above ground structures or roadways shall prepare

a map defining the Area of Potential Effects (APE). This map shall indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will help in determining whether known historical resources are located within the impact zone. If a structure greater than 45 years in age is within the identified APE, a survey and evaluation of the structure(s) to determine their eligibility for recognition under State, federal, or local historic preservation criteria shall be conducted. The evaluation shall be prepared by an architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards. The evaluation shall comply with CEQA Guidelines section 15064.5(b). Study recommendations shall be implemented, which may include, but would not be limited to, the following:

- Realign or redesign projects to avoid impacts on known historic resources where possible.
- If avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings.
- Comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect historic resources.

Significance After Mitigation

Redevelopment or demolition that may be required to implement transportation improvements and/or infill development may result in the permanent loss of historic structures. While implementation of Mitigation Measure CR-1 would reduce impacts to the extent feasible, some project-specific impacts may be unavoidable. Whether this impact is significant would in part be dependent on local review and findings that determine the potential significance of historic structures that may be adversely affected by a specific project action.

Threshold 2: Cause a substantial adverse change in the significant of an archaeological resource pursuant to §15064.5
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IMPACT CR-2 IMPLEMENTATION OF PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED BY THE 2018 RTP/SCS COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN OR DISTURB KNOWN AND UNKNOWN ARCHEOLOGICAL RESOURCES AS DEFINED IN CEQA GUIDELINES SECTION 15064.5. IMPACTS TO ARCHAEOLOGICAL RESOURCES WOULD BE SIGNIFICANT BUT MITIGABLE.

It is known that archeological resources are present throughout San Joaquin County. Therefore, it is possible to encounter known and unknown archeological resources as a result of implementation of transportation improvement projects pursuant to the 2018 RTP/SCS. Many of the improvements proposed under the 2018 RTP/SCS consist of minor expansions of existing facilities that would not involve construction in previously undisturbed areas. However, depending on the location and extent of the proposed improvement and ground disturbance, known and/or unknown archeological resources could be impacted. Projects that may impact previously undisturbed areas could adversely impact archeological resources by exposing them to potential vandalism or causing displacement from the original context and integrity. Project-specific analysis would be required as individual projects are proposed.

In addition, the 2018 RTP/SCS contains a future land use scenario that envisions infill near transit and within existing urbanized areas. As a result, encroachment into undisturbed areas would be reduced when compared to land use scenario that does not focus future development within existing urbanized areas, thereby reducing the potential for impacts to known or unknown archaeological or paleontological resources in undisturbed areas. However, it is possible that archaeological resources could be located on or near future infill development sites. Project grading and excavation for infill sites may disturb these undiscovered resources. Impacts to archaeological resources would therefore remain potentially significant.

Mitigation Measures

In general, prior to commencement of any action, development or land use changes on lands subject to federal jurisdiction or for projects involving federal funding, a cultural resource survey and an environmental analysis must be prepared. County and city sponsored projects would be subject to local ordinance requirements, including General Plan provisions that protect cultural resources.

For transportation projects under their jurisdiction, SJCOG shall, and transportation project sponsor agencies can and should, implement the following mitigation developed for the 2018 RTP/SCS program where applicable for transportation projects that result in impacts to archeological resources. The County and cities in the SJCOG region can and should implement this measure where relevant to land use projects implementing the 2018 RTP/SCS.

CR-2 Archaeological Resources Impact Minimization

Before construction activities, project sponsors shall retain a qualified archaeologist to conduct a record search at the Northwest Information Center to determine whether the project area has been previously surveyed and whether resources were identified. When recommended by the Information Center, project sponsors shall retain a qualified archaeologist to conduct archaeological surveys before construction activities. Project sponsors shall follow recommendations identified in the survey, which may include, but would not be limited to: subsurface testing, designing and implementing a Worker Environmental Awareness Program (WEAP), construction monitoring by a qualified archaeologist, or avoidance of sites and preservation in place.

In the event that evidence of any prehistoric or historic-era subsurface archaeological features or deposits are discovered during construction-related earthmoving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. If the find is a prehistoric archaeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a testing plan shall be prepared and implemented. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the project sponsor to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics, and other factors, shall recommend additional measures such as the preparation and implementation of a data recovery plan. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area.

Project sponsors shall comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect archaeological resources.

Significance After Mitigation

Implementation of Mitigation Measure CR-2 would reduce potential impacts to archaeological resources to a less than significant level.

Threshold 3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

IMPACT CR-3 IMPLEMENTATION OF PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED BY THE 2018 RTP/SCS COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN OR DISTURB KNOWN AND UNKNOWN PALEONTOLOGICAL RESOURCES AS DEFINED IN CEQA GUIDELINES SECTION 15064.5. IMPACTS TO PALEONTOLOGICAL RESOURCES WOULD BE SIGNIFICANT BUT MITIGABLE.

It is known that paleontological resources are present throughout the SJCOG region. Therefore, it is possible to encounter known and unknown paleontological resources as a result of implementation of transportation improvement projects pursuant to the 2018 RTP/SCS. Many of the improvements proposed under the 2018 RTP/SCS consist of minor expansions of existing facilities that would not involve construction in previously undisturbed areas. However, depending on the location and extent of the proposed improvement and ground disturbance, paleontological resources could be impacted. The projects that would include the development of new infrastructure in previously undisturbed areas; it should be noted and any project overlying a geologic unit with high paleontological sensitivity could result in impacts, regardless of location relative to existing development. It is also possible that construction activities associated with some of the proposed roadway or bridge widening or extension projects could adversely impact paleontological resources by exposing them to potential vandalism or causing displacement from the original context and integrity. Project-specific analysis would be required as individual projects are proposed.

In addition, the 2018 RTP/SCS also contains a future land use scenario that envisions infill near transit and within existing urbanized areas. As a result, encroachment into undisturbed areas would be reduced when compared to land use scenario that does not focus future development within existing urbanized areas, thereby reducing the potential for impacts to known or unknown paleontological resources in undisturbed areas. However, it is possible that paleontological resources could be located on or near future site infill sites. Project grading and excavation for infill sites may disturb these undiscovered resources. Impacts to paleontological resources would therefore be potentially significant.

Mitigation Measures

In general, prior to commencement of any action, development or land use changes on lands subject to federal jurisdiction or for projects involving federal funding, a cultural resource survey and an environmental analysis must be prepared. County and city sponsored projects would be subject to local ordinance requirements, including General Plan provisions that protect cultural resources.

For transportation projects under their jurisdiction, SJCOG shall, and transportation project sponsor agencies can and should, implement the following mitigation developed for the 2018 RTP/SCS program where applicable for transportation projects that result in impacts to paleontological

resources. The County and cities in the SJCOG region can and should implement this mitigation measure where relevant to land use projects implementing the 2018 RTP/SCS.

CR-3 Paleontological Resources Impact Minimization

The project sponsor of a 2018 RTP/SCS project involving ground disturbing activities (including grading, trenching, foundation work, and other excavations) shall retain a qualified paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology (SVP) standards for Qualified Professional Paleontologist (SVP 2010), to conduct a Paleontological Resources Assessment (PRA). The PRA shall determine the age and paleontological sensitivity of geologic formations underlying the proposed disturbance area, consistent with SVP Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (SVP 2010) guidelines for categorizing paleontological sensitivity of geologic units within a project area. If underlying formations are found to have a high potential (sensitivity) for paleontological resources, the following measures shall apply:

- **Paleontological Mitigation and Monitoring Program.** A qualified paleontologist shall prepare a Paleontological Mitigation and Monitoring Program to be implemented during ground disturbance activity. This program shall outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration (i.e., in what locations and at what depths paleontological monitoring shall be required), salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications.
- **Paleontological Worker Environmental Awareness Program (WEAP).** Prior to the start of ground disturbance activity greater than two feet below existing grade, construction personnel shall be informed on the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.
- **Paleontological Monitoring.** Ground disturbing activity with the potential to disturb geologic units with high paleontological sensitivity shall be monitored on a full-time basis by a qualified paleontological monitor. Should no fossils be observed during the first 50 percent of such excavations, paleontological monitoring could be reduced to weekly spot-checking under the discretion of the qualified paleontologist. Monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources.
- **Salvage of Fossils.** If fossils are discovered, the implementing agency shall be notified immediately, and the qualified paleontologist (or paleontological monitor) shall recover them. Typically fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.
- **Preparation and Curation of Recovered Fossils.** Once salvaged, fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection, along with all pertinent field notes, photos, data, and maps.
- **Final Paleontological Mitigation and Monitoring Report.** Upon completion of ground disturbing activity (and curation of fossils if necessary) the qualified paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring

program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.

Significance After Mitigation

Implementation of Mitigation Measure CR-3 would reduce potential impacts to paleontological resources to a less than significant level.

Threshold 4: Disturb any human remains, including those interred outside of formal cemeteries
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IMPACT CR-4 IMPLEMENTATION OF PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED BY THE 2018 RTP/SCS COULD RESULT IN DAMAGE TO OR DESTRUCTION OF HUMAN BURIALS; HOWEVER, REQUIRED COMPLIANCE WITH EXISTING REGULATIONS WOULD REDUCE IMPACTS TO A LESS THAN SIGNIFICANT LEVEL.

Human burials outside of formal cemeteries often occur in prehistoric archaeological contexts. Therefore, it is possible to encounter unknown human burials as a result of implementation of transportation improvement projects under the 2018 RTP/SCS. Excavation during construction activities in the SJCOG region would have the potential to disturb these resources, including Native American burials.

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 of the California Public Resources Code. The California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction, and established procedures to be implemented if Native American skeletal remains are discovered. Public Resources Code §5097.98 also addresses the disposition of Native American burials, protects such remains, and established the NAHC to resolve any related disputes. Implementation of these regulations would ensure that potential 2018 RTP/SCS impacts to disturbance of human remains, including those interred outside of formal cemeteries would be less than significant.

Mitigation Measures

No Mitigation Measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

c. Cumulative Impacts

Development in the SJCOG region would increase under buildout of the 2018 RTP/SCS by increasing mobility and growth. The increase in growth in previously undisturbed areas contributes to regional impacts on existing and previously undisturbed and undiscovered historical, archaeological, and paleontological resources. While most cultural resources are typically site-specific, with impacts that are project-specific, others may have regional significance; for example, a historical structure that represents the last known example of its kind. For such a resource, cumulative impacts, and the contribution of the 2018 RTP/SCS to them, would be potentially significant. Mitigation measures outlined in this section would reduce impacts associated with 2018 RTP/SCS projects but would

remain significant and unavoidable. When combined with development in other areas surrounding the SJCOG region, cumulative impacts would remain significant and unavoidable, and the 2018 RTP/SCS contribution to them would be cumulatively considerable.

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