

3.5 Cultural Resources and Tribal Cultural Resources

3.5.1 Introduction

This section describes the regulatory and environmental setting for cultural resources in the vicinity of the Proposed Project and the Atwater Station Alternative. It also describes the impacts on cultural resources that would result from implementation of the Proposed Project and the Atwater Station Alternative and mitigation measures that would reduce significant impacts, where feasible and appropriate. Appendix L-1, *Historical Resources Inventory and Evaluation Report*, and Appendix L-2, *Archaeological Inventory Report*, contain additional technical information for this section.

Cultural resources include historic buildings and structures, historic districts, historic sites, prehistoric and historic archaeological sites, and other precontact or historic-aged buildings, districts, objects, sites, and structures and artifacts.¹ *Historical resource* is a California Environmental Quality Act (CEQA) term that includes both archaeological and built cultural resources (described in Section 3.5.4.1, *Methods for Analysis*). Section 3.5.2, *Regulatory Setting*, further defines *historical resources* in relation to their recognition under CEQA. Cumulative impacts on cultural resources, in combination with planned, approved, and reasonably foreseeable projects, are discussed in Chapter 4, *Other CEQA-Required Analysis*.

3.5.2 Regulatory Setting

This section summarizes federal, state, regional, and local regulations related to cultural resources and applicable to the Proposed Project and the Atwater Station Alternative.

3.5.2.1 Federal

Because federal permits would be required for the Proposed Project and the Atwater Station Alternative, compliance with the following applicable laws are required.

- Section 106 of the National Historic Preservation Act (NHPA) (16 United States Code [U.S.C.] 470 et seq.)
- Archaeological and Historic Preservation Act (16 U.S.C. 469–469(c)-2)
- Archaeological Resources Protection Act (16 U.S.C. 470(a)-11)
- American Indian Religious Freedom Act (42 U.S.C. 1996)
- Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001–3013)
- American Antiquities Act (16 U.S.C. 431–433)

¹ Impacts on paleontological resources, such as vertebrate, invertebrate, or plant fossils, are discussed in Section 7, *Geology and Soils*.

1 **3.5.2.2 State**

2 **California Public Resources Code**

3 Archaeological and historical sites are protected pursuant to a wide variety of state policies and
4 regulations, as enumerated under the California Public Resources Code (Cal. Public Res. Code).
5 Cultural resources are recognized as nonrenewable resources and receive additional protection
6 under the Cal. Public Res. Code and CEQA.

- 7 ● Cal. Public Res. Code Sections 5020–5029.5 continued the former Historical Landmarks
8 Advisory Committee as the State Historical Resources Commission. The commission oversees
9 the administration of the California Register of Historical Resources (CRHR) and is responsible
10 for the designation of State Historical Landmarks and Historical Points of Interest.
- 11 ● Cal. Public Res. Code Sections 5079–5079.65 define the functions and duties of the Office of
12 Historic Preservation (OHP). The OHP is responsible for the administration of federally and
13 state-mandated historic preservation programs in California and the California Heritage Fund.
- 14 ● Cal. Public Res. Code Sections 5097.9–5097.991 provide protection to Native American
15 historical and cultural resources and sacred sites and identify the powers and duties of the
16 Native American Heritage Commission (NAHC). These sections also require notification to
17 descendants of discoveries of Native American human remains and provide for treatment and
18 disposition of human remains and associated grave goods.

19 If Native American human remains are identified within the cultural resources study area (also
20 known as the *CEQA study area*, as defined in Section 3.5.3, *Environmental Setting*) and located on
21 non-federal lands (including private lands), the project must follow the procedures set forth under
22 Section 5097.98.

23 **California Environmental Quality Act**

24 Guidelines for the implementation of CEQA define procedures, types of activities, persons, and
25 public agencies required to comply with CEQA. State CEQA Guidelines Section 15064.5(b) prescribes
26 that project effects that would “cause a substantial adverse change in the significance of an historical
27 resource” are significant effects on the environment. Substantial adverse changes include physical
28 changes to both the historical resource and its immediate surroundings. State CEQA Guidelines
29 Section 15064.5 provides specific guidance for determining the significance of impacts on historical
30 resources (CEQA Guidelines § 15064.5(b)) and unique archaeological resources (CEQA Guidelines §
31 15064.5(c) and Pub. Resources Code § 21083.2). Under CEQA, these two categories of resources are
32 called “historical resources” whether they are of post-contact or pre-contact age.

33 CEQA Guidelines define three ways that a property may qualify as a historical resource for the
34 purposes of CEQA review:

- 35 1. The resource is listed in or determined eligible for listing in the CRHR. Properties that are listed
36 in or eligible for listing in the NRHP are considered eligible for listing in the CRHR and thus are
37 significant historical resources for the purpose of CEQA (Cal. Public Res. Code 5024.1(d)(1)).
- 38 2. The resource is included in a local register of historical resources, as defined in Cal. Public Res.
39 Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the
40 requirements of Cal. Public Res. Code Section 5024.1(g), unless the preponderance of evidence
41 demonstrates that it is not historically or culturally significant.

- 1 3. The lead agency determines the resource to be significant, as supported by substantial evidence
2 in light of the whole record (14 Cal. Code Regs., Division 6, Chapter 3, 15064.5(a)).

3 **California Register of Historical Resources**

4 Cal. Public Res. Code Section 5024.1 establishes the CRHR, which is a list of all California properties
5 considered by CEQA to be significant historical resources. The CRHR also includes all properties
6 listed or determined eligible for listing in the National Register of Historic Places (NRHP), including
7 properties evaluated under Section 106 of the NHPA.

8 The CRHR regulations govern the nomination of resources to the CRHR (Title 14 of the California
9 Code of Regulations [Cal. Code Regs.] § 4850). The regulations set forth the criteria for eligibility, as
10 well as guidelines for assessing historical integrity and resources that have special considerations.
11 The criteria for listing in the CRHR are similar to those of the NRHP. A historical resource may be
12 determined to be significant at the local, state, or national level under one or more of the following
13 four criteria to be eligible:

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

20 Aside from meeting at least one CRHR criterion, a potential historical resource must also retain its
21 historic integrity. The CRHR definition of “integrity” and its special considerations for certain
22 properties are slightly different than those for the NRHP. Integrity is “the authenticity of an
23 historical resource’s physical identity evidenced by the survival of characteristics that existed
24 during the resource’s period of significance.” The CRHR further states that eligible resources must
25 “retain enough of their historic character or appearance to be recognizable as historical resources
26 and to convey the reasons for their significance,” and lists the same seven aspects of integrity used
27 for evaluating properties under the NRHP criteria (Office of Historic Preservation 2001).

28 **California Health and Safety Code—Treatment of Human Remains**

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

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

36 **Assembly Bill 52**

37 AB 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California Native
38 American tribes as part of CEQA and equates significant impacts on tribal cultural resources with

1 significant environmental impacts (Public Resources Code [PRC] Section 21084.2). PRC Section
2 21074 defines tribal cultural resources as follows:

- 3 • Sites, features, places, sacred places, and objects with cultural value to descendant communities
4 or cultural landscapes defined in size and scope that are:
 - 5 ○ Included in or eligible for listing in the California Register of Historical Resources (CRHR);
6 or,
 - 7 ○ Included in a local register of historical resources.
- 8 • A resource determined by the lead agency, in its discretion and supported by substantial
9 evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.

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

16 AB 52 defines a “California Native American Tribe” (Tribe) as a Native American tribe located in
17 California that is on the contact list maintained by the Native American Heritage Commission (PRC
18 Section 21073). Under AB 52, formal consultation with Tribes is required if a Tribe has previously
19 requested to be informed by the lead agency of proposed projects and if the Tribe, upon receiving
20 notice of the project, accepts the opportunity to consult within 30 days of receipt of the notice. AB 52
21 also requires that consultation, address project alternatives and mitigation measures for significant
22 effects, if specifically requested by the Tribe. Any information submitted by a Tribe during the
23 consultation process is considered confidential and is not subject to public review or disclosure. It
24 will be published in a confidential appendix to the environmental document unless the Tribe
25 consents to disclosure of all or some of the information to the public.

26 The notice of preparation (NOP) for the Proposed Project was issued on January 10, 2018, as such
27 this project is subject to the requirements of AB 52.

28 **3.5.2.3 Regional and Local**

29 SJRRC, a state joint powers agency, proposes improvements located within and outside of the Union
30 Pacific Railroad (UPRR) right-of-way (ROW). The Interstate Commerce Commission Termination Act
31 (ICCTA) affords railroads engaged in interstate commerce considerable flexibility in making
32 necessary improvements and modifications to rail infrastructure, subject to the requirements of the
33 Surface Transportation Board.² ICCTA broadly preempts state and local regulation of railroads and
34 this preemption extends to the construction and operation of rail lines. As such, activities within the
35 UPRR ROW are clearly exempt from local building and zoning codes and other land use ordinances.
36 The Proposed Project outside of the UPRR ROW and the Atwater Station Alternative, however,
37 would be subject to regional and local plans and regulations. Though ICCTA does broadly preempt
38 state and local regulation of railroads, SJRRC intends to obtain local agency permits for construction

² ACE operates within a ROW and on tracks owned by the UPRR, which operates interstate freight rail service in the same ROW and on the same tracks.

1 of facilities that fall outside of the UPRR ROW even though SJRRC has not determined that such
2 permits are legally necessary and such permits may not be required.

3 Appendix G of this EIR, *Regional Plans and Local General Plans*, provides a list of applicable goals,
4 policies, and objectives from regional and local plans of the jurisdictions in which the Proposed
5 Project and the Atwater Station Alternative are located. Section 15125(d) of the CEQA Guidelines
6 requires an environmental impact report to discuss “any inconsistencies between the proposed
7 project and applicable general plans, specific plans, and regional plans.” These plans were
8 considered during the preparation of this analysis and were reviewed to assess whether the
9 Proposed Project and the Atwater Station Alternative would be consistent³ with the plans of
10 relevant jurisdictions. The Proposed Project and the Atwater Station Alternative would be generally
11 consistent with the applicable goals, policies, and objectives related to cultural resources identified
12 in Appendix G.

13 **3.5.3 Environmental Setting**

14 This section describes the environmental setting related to cultural resources by geographic
15 segment for the Proposed Project and the Atwater Station Alternative. For the purposes of this
16 analysis, the CEQA study area for cultural resources is referred to the *study area* for both
17 archaeological resources and built environment resources. The information presented in this
18 section is summarized from Appendix L-1 and Appendix L-2.

19 The study area for cultural resources is defined as follows.

- 20 ● The study area for archaeological resources is the environmental footprint of the Proposed
21 Project and the Atwater Station Alternative and consists of those areas affected by physical
22 changes, including both horizontal surface disturbance and vertical subsurface disturbance.
- 23 ● The built environment resources study area primarily falls within an existing railroad right of
24 way that connects the cities of Ceres, Turlock, Livingston, Atwater, and Merced through
25 predominantly agricultural land.

26 The area of direct impact was delineated to include all impacts on built-environment historical
27 resources that may result from construction and operation of the Proposed Project and the
28 Atwater Station Alternative. Physical, visual, auditory, and vibrational impacts are considered
29 potential direct impacts because these all have the potential to alter the resource or its
30 immediate surroundings such that its historical significance would be impaired.

31 The area of direct impact includes the environmental footprint for the Proposed Project and the
32 Atwater Station Alternative, which includes all of the demolition and construction activities.

33 In addition to the environmental footprint, the area of direct impact generally extends one
34 parcel around proposed above-grade features to account for potential visual, atmospheric, or
35 audible impacts. The exceptions to the one parcel buffer around new proposed project facilities
36 include the following conditions:

- 37 ○ Where substantial linear features, such as waterways, roadways, or railroad tracks separate
38 project features from nearby built-environment resources, the area of direct impact does

³ An inconsistency with regional or local plans is not necessarily considered a significant impact under CEQA, unless it is related to a physical impact on the environment that is significant in its own right.

1 not extend the one parcel buffer from the facility, unless there was a compelling reason to do
2 so.

- 3 ○ The installation of new railroad tracks, within the existing railroad right of way, does not
4 require a one-parcel buffer surrounding the project area to account for potential impacts.
5 The installation of an additional parallel track within the existing right of way does not have
6 the potential to impact built-environment cultural resources that already have an extant
7 railroad within the setting because such changes would be consistent with the visual,
8 atmospheric, or audible setting that existed during the historic period.
- 9 ○ The one-parcel boundary does not extend around all proposed built features where the
10 existing setting was already altered and the proposed changes are consistent with the
11 existing setting. Specifically, the built-environment study area does not include a one-parcel
12 boundary around new parking lots where the proposed parking lot replaces existing paved
13 areas or modern buildings and where the setting is already significantly altered.

14 The study areas for archaeological resources and built environment resources for the Proposed
15 Project and the Atwater Station Alternative are provided in Appendices L-1 and L-2.

16 This section also includes a general discussion of the research conducted and methods employed for
17 the technical reports (Appendices L-1 and L-2) that aid in the analysis of cultural resources. The
18 records search conducted for the technical reports included a review of previously conducted
19 cultural resources studies and recorded archaeological and built environment resources. This
20 research also informed the prehistoric, ethnographic, and historic settings for cultural resources
21 within the region where the Proposed Project and the Atwater Station Alternative are located.
22 Detailed descriptions of known archaeological and built environment CEQA resources within the
23 study area are presented in Section 3.5.3.3, *Summary of Known CEQA Historical Resources and*
24 *Unevaluated Resources*.

25 **3.5.3.1 Cultural Resource Data Sources**

26 **Archaeological Resources**

27 **Records Search**

28 ICF cultural resources staff performed an on-site records search at the California Historical
29 Resources Information System (CHRIS) at the Central Coast Information Center (CCIC) on February
30 7, 2018. An updated records search was conducted by CCIC staff on July 7, 2020. For the purposes of
31 this analysis the records search study area was defined as the environmental footprint for Proposed
32 Project and the Atwater Station Alternative, plus a 0.25-mile search radius.

33 The archaeological study area has been subject to 56 cultural resources studies. Two of these studies
34 identified archaeological resources within the archaeological study area and are included in Table
35 3.5-1.

1 **Table 3.5-1. Cultural Resources Studies that Identified Archaeological Resources in the**
2 **Archaeological Study Area.**

Study Number	Author	Date	Title	Findings
ME-02759	B. Hatoff, B. Voss, S. Waechter, S. Wee, and V. Bente	1995	<i>Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project; Final. [multivolume report]</i>	This study identified P-24-000087 adjacent to the APE.
ST-03995	W.J. Nelson	2000	<i>Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.</i>	This study identified P-50-001923 (CA-STA-420H) within the study area

3 Two resources with archeological components were identified within or immediately adjacent to the
4 APE (Appendix L-2). These resources are included in the Table 3.5-2.

5 **Table 3.5-2. Archaeological Resources within or Adjacent to the Archaeological Study Area.**

Primary	Trinomial	Significance (as per record)
P-24-000087	N/A	This resource has been determined ineligible for listing to either the CRHR or the NRHP.
P-50-001923	CA-STA-420H	This resource has not been formally evaluated for listing to either the CRHR or the NRHP.

6 An additional four resources with archaeological resources were identified within 0.25-mile of the
7 archaeological study area. These resources consist of concrete foundations associated with
8 residential and agricultural buildings. All four resources have been heavily impacted and partially
9 removed by the expansion of the Highway 99.

10 **Desktop Geoarchaeological Review**

11 Geoarchaeological research was performed through a geologic and archaeological literature review.
12 The purpose of the geoarchaeological sensitivity model was to identify portions of the
13 archaeological study area with elevated archaeological sensitivity. Two models were developed that
14 represent where Project-related ground disturbance has the potential to encounter previously
15 undocumented archaeological sites. The buried site potential model focuses on the landform age and
16 depositional context. This model indicated that those portions of the archaeological study area that
17 were located on Holocene-aged depositional landforms or located in areas within 1,000 meters of a
18 fresh water source and on a relatively level gradient were considered to have elevated buried
19 archaeological sensitivity.

20 The geoarchaeological model indicates that 15 percent of the archaeological study area has elevated
21 sensitivity for containing buried archaeological resources, and 28 percent of the archaeological
22 study area has elevated potential to contain archaeological resources regardless of whether they are
23 surface exposed or buried.

24 The majority of the archaeological study area maintains moderate sensitivity for buried
25 archaeological resources. In a few areas, the archaeological study area—particularly in the vicinity
26 of the Merced River, Bear Creek, the Jordan Canal in Atwater, and areas between Atwater and
27 Merced—retains both general sensitivity for the presence of prehistoric archaeological resources

1 (i.e., close to fresh water, flat to gently sloping topography) and sensitivity for buried archaeological
2 resources (i.e., presence of Holocene-aged alluvial landforms).

3 A detailed description and geoarchaeological sensitivity figures are included in Appendix L-2.

4 **Pedestrian Survey**

5 To complete the identification of archaeological resources in the study area, reconnaissance surveys
6 were completed by ICF archaeologists. A pedestrian survey was conducted during the periods of
7 June 8-11 and 15-17, 2020. Due to the location of portions of the Proposed Project on active rail
8 lines, the survey was conducted outside of the active track with special care taken not to affect the
9 track. The survey was not conducted in areas that were inaccessible in this manner. Outside of the
10 UPRR ROW, these area were surveyed from public ROW, where possible.

11 During survey, the ground surface was examined for indications of archaeological resources. The
12 general morphological characteristics of the ground surface were inspected for indications of
13 subsurface deposits that may be manifest on the surface, such as ditch banks and road cuts.
14 Whenever possible, the locations of subsurface exposures caused by such factors as rodent activity,
15 water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of
16 buried deposits. Ground visibility was generally poor, with much of the Proposed Project area
17 covered by railroad ballast. No subsurface investigations or artifact collections were undertaken
18 during the pedestrian survey. The survey did not result in the identification of archaeological
19 resources.

20 **Native American Consultation**

21 SJRRC is not aware of any notification submitted to the agency from local California Native
22 Americans tribes requesting consultation on individual projects. However, the agency recognizes
23 that the tribal communication and input important for identifying archaeological and tribal cultural
24 resources. Out of an abundance of caution, the SJRRC requested a list of local California Native
25 American tribal groups with cultural affiliation with the geographic region of the Project. On June 9,
26 2020, ICF contacted the NAHC to request a review of the Sacred Lands File and a list of individuals
27 who may have information or interest regarding the Project. The request contained location details,
28 Project maps, a general description of the Project, and a request for any additional information they
29 may have about potential archaeological resources or sensitive areas within the archaeological
30 study area. The NAHC responded on June 10, 2020, with a list of four Native American contacts. The
31 NAHC also noted that a search of the Sacred Lands File did not indicate the presence of sacred lands
32 in the vicinity of the archaeological study area.

33 Letters containing Project details and a location map were sent to the following individuals:

- 34 ● William Leonard, Chairperson – Southern Sierra Miwuk Nation
- 35 ● Valentin Lopez – Amah Mutsun Tribal Band
- 36 ● Timothy Perez, MLD Contact – North Valley Yokuts Tribe
- 37 ● Katherine Perez, Chairperson – North Valley Yokuts Tribe

38 Letters were sent via email to Mr. Lopez, Mr. Perez, and Ms. Perez and via certified letter to Mr.
39 Leonard. These letters are considered formal notification of a proposed project as required under
40 CEQA, specifically Public Res. Code Section 21080.3.1 and Chapter 532 Statutes of 2014 (Assembly

1 Bill 52). None of the tribal groups notified requested to consult of the project. A record of this
2 correspondence can be found in Appendix L-2.

3 **Built Environment Resources**

4 Cultural resources staff conducted background research to identify known, previously recorded, or
5 evaluated historic-period properties in the built-environment study area. Staff reviewed the records
6 search results from the CCIC as well as previously completed surveys and reports, historic maps, and
7 historic property databases/historical resource inventories. Additional background research
8 included a review of listed historical resources on the OHP website (such as the listings of the
9 California Historical Landmarks, Points of Historical Interest, and CRHR listings), California
10 Department of Transportation Historic Bridge Inventory, local agency register listings, State
11 Historical Resource Commission minutes, and NRHP listings on file with the National Park Service.

12 Cultural resources staff sent letters requesting information concerning historical resources located
13 in or near the built-environment study area to various groups, including local special interest
14 groups, historical societies, preservation groups, archives, and genealogical organizations in January
15 2020. One response was received requesting additional mapping and cultural resources staff
16 provided the requested mapping. No other responses have been received. Archival and historic
17 research was conducted using published literature on local and regional history, cultural resource
18 databases, archive and library collections, and online resources regarding the history of the built-
19 environment study area and Central Valley region. Due to the constraints associated with the
20 COVID-19 pandemic, no in-person research was conducted at any archival repositories.

21 Built environment reconnaissance surveys for the Proposed Project and the Atwater Station
22 Alternative were completed by individuals who meet the professional qualifications under the SOI's
23 Standards for Architectural History and History. Built environment surveys were completed on June
24 12, 2020 and January 19, 2021.

25 **3.5.3.2 Prehistoric, Ethnographic, and Historic Conditions**

26 The following prehistoric and ethnographic sections are summarized from Appendix L-2. Historic
27 overview sections are summarized from Appendix L-1. The Proposed Project traverses and is
28 located in two counties (Stanislaus and Merced Counties), five incorporated cities (Ceres, Turlock,
29 Livingston, Atwater, Merced), and unincorporated county areas within the Central Valley.

30 **Prehistoric Setting**

31 The Central Valley is a very large and flat valley located between the Siskiyou Mountains on the
32 north and Tehachapi Mountains on the south. It extends approximately 430 miles from north to
33 south and averages around 50 miles in width. It is divided into two major physiographic provinces,
34 which are separated by the Delta. The Sacramento Valley, drained by the southward-flowing
35 Sacramento River, lies to the north, and the San Joaquin Valley, drained by the northward-flowing
36 San Joaquin River, lies to the south (Alt et al. 2016). The presence of this abundant fresh water has
37 resulted in a well-watered region, one of the most diverse and productive environmental zones in
38 California (Rosenthal et al. 2007:147).

39 The archaeology of the Central Valley is as varied as the area is extensive, including a full range of
40 hunter-gatherer adaptations from the earliest, technologically conservative, low-density colonizers
41 to the most recent, technologically elaborate, and densely packed populations that were present at

1 historic contact (Rosenthal et al. 2007:147). While the comparative framework for Central Valley
2 archaeology established by Bennyhoff and Fredrickson (1994) and Fredrickson (1973, 1974) is
3 designed to incorporate a wide range of local and regional traditions, it has not been systematically
4 applied outside the Sacramento Valley. As a result, the following discussion uses a simple
5 classification based on Fredrickson's (1973, 1974) California adaptation of the Willey and Phillips
6 (1958) period and stage integrative scheme, which includes the Paleo-Indian, Lower Archaic, Middle
7 Archaic, Upper Archaic, and Emergent periods.

8 Archaeological deposits associated with the Paleo-Indian (cal 11,550–8500 B.C.) Pleistocene
9 landscape have been either destroyed or buried beneath more recent alluvial deposits (Rosenthal et
10 al. 2007:151; White 2003b), but basally thinned and fluted projectile points (cal 11,500 and 9550
11 B.C.) found at scattered surface locations offer evidence of human occupation in the Central Valley
12 (Rosenthal et al. 2007:151). Following the Paleo-Indian Period, the Lower Archaic (cal 8500–5550
13 B.C.) was characterized by mostly isolated finds, including stemmed points, chipped stone crescents,
14 and early concave base points found along ancient shores (Fenenga 1992; Wallace and Riddell
15 1991), but few sites dating to this period have been identified in the Central Valley. During the
16 Middle Archaic (cal 5550–550 B.C.) the climate became warmer and drier (Rosenthal et al.
17 2007:152), and sites suggest sedentism, as indicated by refined and specialized tool assemblages
18 and a wide range of non-utilitarian artifacts, abundant trade objects, and plant and animal remains
19 indicative of year-round occupation (Moratto 1984; Ragir 1972; Schulz 1970, 1981; White 2003a,
20 2003b). The Upper Archaic (cal 550 B.C.–A.D. 1100) is characterized by another change in climate
21 conditions—this time to a cooler, wetter, and more stable climate, and the subsequent development
22 of new technologies, including new types of bone tools and bone implements, and widespread
23 manufactured goods such as *Haliotis* (abalone) ornaments and ceremonial blades (Bennyhoff and
24 Fredrickson 1994; Fredrickson 1974; Moratto 1984).

25 During the Emergent Period (cal A.D. 1000 to historic) a relatively stable climate compared to the
26 earlier periods emerged and is associated with the use of the bow and arrow over the dart and atlatl
27 (Bennyhoff 1994). Increased variation in burial types and furnishings suggests more complex social
28 developments (Atchley 1994; Bennyhoff and Fredrickson 1994; Milliken and Bennyhoff 1993).
29 Other characteristics of the Emergent Period include increasingly varied subsistence practices, a
30 greater distribution of raw obsidian cobbles (as opposed to central biface manufacturing facilities),
31 and a decentralization in the production of shell beads (Rosenthal et al. 2007:159).

32 **Ethnographic Setting**

33 The Northern Valley Yokuts are the historical occupants of the central and northern San Joaquin
34 Valley, and their territory extended from near where the San Joaquin River makes a big bend
35 northward to a line midway between the Calaveras and Mokelumne Rivers (Wallace 1978:462).
36 Villages were typically located along primary water sources, such as the San Joaquin River, and the
37 Northern Valley Yokuts gained much of their livelihood through fishing, hunting waterfowl, and
38 harvesting of acorns, tule root, and seeds (Wallace 1978:464). Most settlements, or at least the
39 principal ones, were built atop low mounds, on or near the banks of large watercourses, for
40 protection against spring flooding (Schenck 1926:132; Schenck and Dawson 1929:308; Cook
41 1960:242, 259, 285). Each tribe had a headman, and populations averaged around 300 people.
42 Family houses were round or oval, with a conically shaped pole frame sunk into the ground and
43 covered with tule mats, and each village typically had a community lodge and a sweathouse (Wallace
44 1978:465).

1 The Northern Valley Yokuts suffered great population decline and cultural breakdown when they
2 were drawn into the mission system. Compelled to work at unfamiliar tasks and subjected to the
3 severe discipline of mission life, many of the neophytes deserted the missions and returned to their
4 traditional homes, from which they were usually brought back, by force when necessary (Wallace
5 1978:468). The Northern Valley Yokuts population were nearly decimated due to exposure to
6 European-borne diseases and harsh living conditions. Descendants of these groups are active in
7 maintaining their traditions and advocating for Native American issues today.

8 **San Joaquin Valley Historic Overview**

9 Early European exploration of the coastal and inland trade routes of what became California began
10 in the 1500s, but more than a century passed before Spain mounted a concerted colonization effort.
11 The historical era in California begins with Spanish colonization and is often divided into three
12 distinctive chronological and historical periods: the Spanish or Mission Period (1542–1821), the
13 Mexican or Rancho Period (1821–1848), and the American Period (1848 to the present). After
14 Mexican independence in 1821, rule transitioned to the newly established country of Mexico. The
15 United States took control of California after the Mexican-American War in 1848 with the signing of
16 the Treaty of Guadalupe Hidalgo. California became a state in 1850, and the development patterns in
17 the state during the late nineteenth century were characterized by increases in agricultural
18 ventures, ranching, mining, and settlement.

19 Explorers, soldiers, missionaries, and ranchers characterized Spain’s colonization effort, although
20 the realities of settling a remote region repeatedly undermined Spain’s theory and official policy on
21 colonization (Rice et al. 1988). The Spanish government and subsequently the Mexican government
22 issued rancho land grants to reward soldiers, promote settlement in California, and encourage
23 agricultural and ranching enterprises. However, as late as the 1840s, after almost a century of effort,
24 the region’s economy remained colonial, its institutions fragmented, its military power negligible,
25 and its population sparse (Rice et al. 1988). The bulk of the more than 800 rancho grants were
26 bestowed during the Mexican Period (Perez 1996).

27 Although exploration of the San Joaquin Valley occurred in the latter half of the Spanish period
28 between 1772 and 1817, it was not until the Mexican Period that Europeans and Euroamericans
29 began settling in the region (U.S. Bureau of Land Management 2011). Within the study area, there
30 are no built environment features that still exist in the San Joaquin Valley overlaps with the study
31 area. Rancho Pescadero-Grimes, established in 1843, is in San Joaquin County near the present-day
32 community of Tracy from the Spanish or Mission Period (1542–1821) or the Mexican or Rancho
33 Period (1821–1848).

34 **Railroads**

35 At the start of the American Period, development and new settlement in California were
36 concentrated north of the San Joaquin Valley as a result of the Gold Rush, which began in 1848.
37 Settlement increased in the San Joaquin Valley when the Transcontinental Railroad was constructed
38 through the area in 1869. The railroad provided easy passenger travel and efficient commercial
39 transport of goods to and from large urban centers such as San Francisco and Sacramento. In San
40 Joaquin County, Lathrop and Manteca were major railroad stops by 1871 and 1873, respectively,
41 and Tracy, located west of the CEQA study area, was established in 1882 around the junction of
42 three rail lines—the San Francisco Bay Area (Bay Area) to San Joaquin County line, the northern line
43 to Martinez County, and the southern line to Los Angeles. In Stanislaus County, several communities

1 developed along the railroad, including Salida (1869), Modesto (1870), Turlock (1871), and Ceres
2 (1874).

3 Construction of the San Joaquin Valley mainline of the Southern Pacific Railroad (SPRR), which was
4 originally known as the San Joaquin Valley Railroad, began in 1869. The railroad branched off the
5 transcontinental line at the newly established town of Lathrop in San Joaquin County. From 1870 to
6 1880, the population of the San Joaquin Valley increased by 40 percent (U.S. Census Bureau 1900),
7 and the SPRR established 50 stations in the San Joaquin Valley, 24 of which became town sites. Eight
8 of those sites became major towns, including Modesto, Turlock, and Merced (Carothers 1934;
9 Angermeier 1968; Smith 1976). Other railroads also were important to the area including the
10 Tidewater Southern Railway, the Western Pacific Railroad, and the Central Pacific Railroad. The
11 emerging rail networks enabled the San Joaquin Valley communities to expand and thrive, although
12 the shift from locomotive to truck transport during the mid-1900s caused a decline in growth.
13 However, beginning in the 1970s, growth from the Bay Area spurred another wave of development
14 for the region.

15 **Agriculture and Irrigation**

16 Several irrigation districts were established in the San Joaquin Valley throughout the late nineteenth
17 and early twentieth centuries. Irrigation districts during this time were cooperative public and
18 private entities with large geographic territories established to overcome water distribution
19 problems and boundary limitations established by cities and municipalities. Several of those
20 districts are relevant to this study, including the South San Joaquin Irrigation District in San Joaquin
21 County; the Turlock Irrigation District (TID) and Modesto Irrigation District (MID) in Stanislaus and
22 Merced Counties; and the Merced Irrigation District in Merced County.

23 Local farmers established the South San Joaquin Irrigation District in 1909 (South San Joaquin
24 Irrigation District 2016). The district serviced the surrounding communities of Escalon, Manteca,
25 and Ripon, and sought to secure additional water resources and further develop the irrigation and
26 water supply system.

27 The TID and MID were formed to serve the northern portion of the San Joaquin Valley in Stanislaus
28 and Merced Counties. The TID principally supplied Turlock and the MID primarily served Modesto.
29 Construction of canals, dams, and other ditches were undertaken following the districts' formation
30 in 1887; however, building the entire system was a slow process. By 1909, over 100,000 acres were
31 irrigated within the TID (Truth Publishing Company 1909). Similarly, with obstacles to development
32 removed, the MID was able to complete construction of the Modesto Dam in 1911 and create
33 152 miles of canals and 44 miles of drainages between 1904 and 1919 (Adams and Bedford 1921).

34 The Merced Irrigation District was created in 1919, although irrigation in southern Merced County
35 began nearly 25 years earlier. Under the ownership of C.H. Huffman, a prominent local farmer, and
36 Charles F. Crocker, a banker and railroad magnate, miles of canals were constructed, and irrigation
37 was provided from Livingston to Merced, totaling almost 50,000 acres (Merced Irrigation District
38 2016). In 1922, the Merced Irrigation District purchased the current system from the Crocker-
39 Huffman Land and Water Company. After the purchase, the district began several projects, including
40 the construction of the district's first dam, the Exchequer Dam (completed in 1926), providing
41 hydroelectric power, and extending the canal system (Merced Irrigation District 2016; Office of the
42 Federal Registrar 1970). During the 1960s, the district was able to secure a license from the Federal
43 Power Commission to expand power and irrigation networks along the Merced River, resulting in

1 the construction of the second Exchequer Dam in 1964 and the McSwain Dam in 1967 (Merced
2 Irrigation District 2016).

3 Early Manteca farmers grew melons from the sandy soils until the South San Joaquin Irrigation
4 District diverted water from the Stanislaus River in 1914, which enabled crop diversity with
5 almonds, walnuts, alfalfa, grapes, and pumpkins. In Stanislaus County, wheat production in Turlock
6 was declining at the turn of the century because grain production had exhausted the once-fertile
7 soil. With the completion of new dams and system of canals, different crops were grown and
8 renewed the region's agricultural success. Similarly, Modesto farmers transitioned from alfalfa fields
9 to fruit orchards and vineyards, many of which still dominate the landscape today as a result of the
10 1904 construction of several laterals (drainage canals and irrigation canals) by the MID. Irrigation in
11 Merced County enabled expansion of its grain-heavy agricultural industry to the cultivation of
12 grapes, peaches, plums, citrus fruits, olives, figs, nuts, and a variety of vegetables.

13 The diversification and intensification of farming in the San Joaquin Valley led to large agricultural
14 communities being established during the twentieth century. In addition to being able to grow a
15 wide variety of crops in the state, California was also quickly becoming the cattle and dairy hub of
16 the American West.

17 **Highways and Roads**

18 Several early-twentieth-century state highways were important to the development and growth of
19 the San Joaquin Valley. Perhaps the most important is State Route (SR) 99, designated in 1926.
20 During the early twentieth century, plans were made to connect different parts of California with a
21 state highway system, which included a route from the Oregon state line through the Sacramento
22 and San Joaquin Valleys to Los Angeles. The adoption of the interstate system and construction of
23 Interstate (I-) 5 and other interstate routes during the 1960s truncated SR 99, which now runs from
24 near Wheeler Ridge in Kern County to Red Bluff in Tehama County.

25 Automobiles and the construction of state highways, particularly SR 99 and later I-5, were
26 contributing factors to the growth and development of the San Joaquin Valley during the twentieth
27 century. SR 99 was a major roadway that connected San Joaquin Valley agricultural towns to larger
28 urban markets. This roadway became especially important when the transportation of goods
29 transitioned from freight to refrigerated trucks. By the 1960s, I-5 offered a more direct route
30 through the state between San Diego and the Oregon border (California Highways 2016b).

31 As part of the state highway system, a road connecting Oakland in the Bay Area with Stockton in the
32 San Joaquin Valley was planned via Altamont Pass. In 1957, the Bureau of Public Roads approved
33 plans for the North Tracy Bypass connecting I-5 and I-580 along the northern border of Tracy west
34 of the study area (California Highways 2016a). Construction of the new I-205 freeway was
35 completed and opened to traffic in 1970.

36 **World War II—Era Industry and Postwar Development**

37 Transit networks connected the San Joaquin Valley to the rest of the nation and the world, enabling
38 the region to play a major role in World War II efforts. War-related industries and activities brought
39 thousands of people to the San Joaquin Valley. Established in 1942, the San Joaquin Depot had
40 distribution facilities at three separate locations—Tracy, Sharpe (Lathrop), and Stockton's Rough
41 and Ready Island (California Military Department 2016). The depots received, stored, and shipped
42 supplies throughout the United States and the Pacific overseas combat areas.

1 During World War II, the government-ordered wartime internment of Japanese Americans depleted
2 Japanese-American communities across the United States. Japanese-American internees were
3 evacuated and taken to temporary assembly centers where they were processed and later relocated
4 to larger internment camps. Temporary assembly centers for Japanese-American internees were
5 established throughout the San Joaquin Valley in Stockton, Turlock, Salinas, Merced, Fresno, and
6 Tulare, one of which overlaps with the study area in Turlock. The Stanislaus County Fairgrounds in
7 Turlock operated as a temporary assembly center from April to August 1942. Over 3,500 detainees
8 from the Sacramento River Delta and Los Angeles areas were held at this location before being
9 transported to a permanent internment camp in Gila, New Mexico (Burton et al. 2000).

10 New agricultural, industrial, and real estate industries emerged in San Joaquin, Stanislaus, and
11 Merced Counties after the war and resulted in residential and population growth. Since then, the San
12 Joaquin Valley has experienced sporadic periods of residential development; however, the
13 landscape has generally maintained its rural character since the 1960s.

14 **House Trailers, Mobile Homes, and Manufactured Homes**

15 House trailers, mobile homes, and manufactured homes reflect various forms of prefabricated or
16 site-fabricated housing that collectively emerged as viable, affordable alternatives to permanent
17 homeownership in the post-World War II era. Although popular and manufactured in high volumes
18 in California from the 1940s through the 1970s, these forms of housing were an outgrowth of the
19 moveable recreational dwellings that have enjoyed popularity since the 1930s. Such “house trailers”
20 had metal chassis that allowed them to be towed from place to place. Although they had modest
21 amenities compared to permanent houses, housing demand after World War II—the time in which
22 Minimal Traditional and Ranch homes were built en masse across California—prompted families to
23 consider temporarily living in house trailers. House trailers were inexpensive compared to even the
24 lower end of the permanent housing market spectrum, but their primary appeal during this time
25 was the transitional residential option they offered. House trailers formed “camps” or “parks” in
26 undesirable locations on the outskirts of cities and towns, where zoning regulations allowed. The
27 resulting boom of trailer construction through the 1950s led to the state Division of Housing
28 establishing guidelines for the organization and operation of trailer parks, which the Division of
29 Housing hoped would inform municipal standards for permitting such developments (SurveyLA
30 2016:4–8, 10).

31 As such developments proliferated across California, the house trailer began to gain legitimacy as a
32 permanent housing option. Trailer manufacturers updated their designs to reflect more of the
33 trappings of a permanent home. Trailer homes of the 1950s had porches, integrated restrooms, and
34 more sophisticated doors and windows. To provide additional living space, designers expanded the
35 standard 8-foot length for some models to 10 feet. This significant shift coincided with a new
36 “mobile home” classification—a distinct form of housing manufactured with wheels connected to a
37 chassis but intended to be moved only to its receiving site and not relocated further. Accordingly,
38 mobile home parks increased their available lot sizes, provided basic utilities, introduced curvilinear
39 streets, and promoted landscaping to better replicate the feeling of a contemporaneous, more
40 traditional housing tract (SurveyLA 2016:9–11).

41 By the late 1960s, mobile homes housed more than 6 million Americans. Despite their popularity
42 and affordability, a social stigma against mobile homes persisted. Manufacturers developed designs
43 for a new housing type, the “modular home” or “manufactured home,” intended to remain on a
44 single site, rather than be conveyed behind a vehicle. Manufactured homes lacked wheels. The

1 components of each home were generally shipped to the owner’s parcel and quickly assembled on-
2 site (SurveyLA 2016:11–12).

3 **Auto-Oriented Roadside Commercial Architecture**

4 The automobile’s arrival permanently transformed the landscape of the United States. Quick
5 expansion of roadway systems changed both the way the country’s residents and visitors traveled as
6 well as how they shopped. From shopping malls to highway attractions with 50-foot-tall signage,
7 auto-oriented commercial architecture evolved in concert with transportation development to
8 become a ubiquitous building type throughout the United States.

9 The commercial architecture positioned near roadways changed rapidly in the twentieth century.
10 Influential lobbying groups encouraged lawmakers to enhance auto-oriented infrastructure and
11 move away from rail lines—a decision that gave travelers the ability to stop and go at their leisure,
12 making them an emergent target demographic for advertisers and business owners. Municipal
13 governments began privileging the automobile over pedestrians through widening streets and
14 installing directional lights. Dense, walkable “Main Streets” gave way to large thoroughfares, which
15 changed how people traveled and where they shopped (Liebs 1995:16–17).

16 Once roadway improvements made automobile travel more feasible, roadside businesses targeting
17 this traffic proved their viability during the 1920s and into the Great Depression. Commercial
18 development persisted in areas like the Miracle Mile in Los Angeles—an iconic strip running from
19 downtown Los Angeles to Santa Monica—while roadside shacks offered cross-country migrants
20 places to rest, eat, and service their vehicles (Liebs 1995:20–21). Sizeable postwar investment into
21 the interstate system and suburbanization solidified the nation’s relationship to the automobile and
22 its role in commercial activities. In the words of landscape historian Chester H. Liebs: “By the early
23 1950s, almost anything could be bought along the roadside” (Liebs 1995:5).

24 As roads and highways proliferated in the first decades of the twentieth century, they connected
25 communities and encouraged longer-range travel. Alongside this expansion came the growth of
26 roadside commercial enterprises. Within this environment, businesses had defined land use and
27 siting criteria, including setbacks, driveways, and parking lots to ensure drivers could easily and
28 safely access them. Along cluttered frontage roads, programmatic architecture became
29 advantageous. Although few examples remain, California, in particular, was once home to buildings
30 shaped like hats, shoes, and animals to advertise a service or a product or to simply attract attention
31 (Society for Architectural Historians 2020; Novak 2012).

32 Consumers’ increased reliance on the automobile resulted in architects creating elongated building
33 forms utilizing architectural elements from Art Deco. Designers stretched shops, motels, gas
34 stations, and restaurants along blocks and incorporated large bay windows to make goods visible
35 from roadways. Dramatic rooflines, unique building massing, bright color palettes, and large
36 expanses of glass became common along roadways, notably embodied in mid-century Googie
37 architecture. Highly stylized Googie restaurants and coffee shops with large, bright signs attracted
38 automobiles from highways and roadways throughout the country (Society of Architectural
39 Historians 2020; Novak 2012).

40 In remote areas alongside interstate highways small groupings of auto-oriented modern
41 architecture are ubiquitous, contributing to the character of roadsides across the United States.
42 These buildings vary in mass and shape and rely on both building form and conspicuous signage to
43 attract drivers. Business chains use uniformity across the country to ensure passing travelers

1 quickly recognize a familiar restaurant or gas station. Roadside outdoor attractions use classic
2 campground architectural tropes, such as wooden A-frame buildings, whereas novelty gift shops or
3 museums use programmatic buildings or large statues to advertise their goods or present travelers
4 with a photo opportunity. In thinly inhabited regions, property owners still use such buildings
5 formerly located along two-lane highways that predate the interstate system.

6 **Gas and Service Stations**

7 Like gas stations, automobile service stations evolved during the early twentieth century. First
8 referred to as service stations in 1910 and operated by large automobile companies, blacksmiths, or
9 independent shop owners, these auto repair stations were initially separate from gas fueling
10 stations. By the 1920s, as automobile ownership increased, service stations could not keep up with
11 demand. Gas filling stations incorporated auto repair elements like grease pits, flat tire repairs, and
12 replacement parts, to their available services. At the end of the 1920s, “the gas station was evolving
13 into a hybrid of filling station and repair garage, and the neighborhood service station was born”
14 (Liebs 1995:102). In the late 1920s, hybrid gas-and-service stations often contained two buildings,
15 forming an L- or U-shaped station surrounding a central gas pump station, a short-lived layout. By
16 the start of the Depression, the gas and service station format was condensed into one building, with
17 pumps on the building’s exterior. Often, these buildings had a rectangular footprint and included an
18 office, utility room, restroom, and space for auto servicing. Shortly after, pumps were moved away
19 from the main building and onto an adjacent island to shift cars away from the building’s exterior
20 and provide more space. By the late 1930s, gas and service stations, such as Texaco, utilized both the
21 Streamline Moderne and International architectural styles to display services to motorists through
22 large storefront windows, with service bays located within a box station or oblong box building.
23 Large windows allowed motorists to view auto repair supplies, such as cans of oil and stacks of tires,
24 and service bays displayed car maintenance in action. Signage also played a notable role in
25 advertising gas-and-service station services. Stations often labeled bays with signage for washing or
26 lubrication or the names of other services. Stations of this era typically contained parallel
27 streamlines that wrapped around the building’s upper façades or parapets. Although the popular gas
28 and service stations included full automobile services, some were built without pumps; these office-
29 only stations cost less to construct (Liebs 1995:102–106).

30 Starting in the 1950s, a stepped design for service stations came into fashion. With these designs,
31 the service station was taller than the office portion of the building. This architectural development
32 served a utilitarian function; the greater height of the service station accommodated a hydraulic car
33 lift—a system first patented in 1925. Similar to gas stations, many of the service stations of the post-
34 World War II era were designed in the Mid-Century Modern and International styles, including
35 concrete blocks, flat rooflines with extended overhangs, large canopies with thin metal post
36 supports, wide expanses of glass windows, horizontal bands that wrapped around the rooflines of
37 the stepped service station, and tall, stand-alone signage. Steel and white porcelain enamel was
38 another typical Mid-Century Modern cladding material, used from the 1950s-1970s. Service stations
39 with ranch-inspired elements emerged in the 1950s, featuring front-gabled, low-pitched rooflines
40 and extended eaves, metal-framed windows, wood and brick wall cladding, and large canopies
41 (Texas Department of Transportation 2016:7-3, 7-5, 7-8; Rotary Lift 2020).

42 In the late 1960s and early 1970s, auto repair became a popular at-home pastime, making service
43 stations less important. Specialty shops, too, began selling auto repair items, causing the gas
44 stations’ service-related lines of business to decline. In the 1970s, the popularity of Urich’s design
45 for the self-service station steadily rose as new independent gas stations emerged. The older gas-

1 and-service stations struggled, but updated their stations to meet changing consumer needs, slowly
2 adding a few self-service islands. By the mid-1970s, many gas-and-service stations transformed
3 their out-of-date auto service buildings into a variety of commercial and service businesses,
4 including shops, restaurants, offices, and convenience stores. This design has come to be known as
5 the “store with gas” concept or “dual fuel depot” (Liebs 1995:113–115).

6 **City of Livingston**

7 The first settler of Livingston was David Baldwin Chedester, a wagon master, who settled in the area
8 in 1862. After Chedester, a trickle of additional settlers came to area and it started out life as a
9 railway station named Cressy after one of the local large landowners. With a saloon, clothing store,
10 and grain warehouse, the small community supported an adventurous group of railway workers,
11 gold seekers and farmers. Cressy was renamed Livingston in 1872 after a famous African explorer,
12 Dr. Livingston, and the first plat of the town was also filed at this time. In the year following, local
13 boosters made an unsuccessful attempt to make the Livingston the county seat of Merced (City of
14 Livingston n.d.).

15 The town grew slowly until a combination of land speculation and irrigation improvements enticed
16 more people to move to the area in the early 20th century. Since then, agricultural has been the
17 prime industry of the community. The town was incorporated in 1922 and has served as a
18 commercial hub for farms in the immediate vicinity. As of 2010, it had a population of 13,058
19 (Outcalt 1925:366, 376; City of Livingston N.D.).

20 **Spanish Revival Style**

21 The Spanish Revival style was popular in California from about 1915-1940. The style was
22 popularized by the 1915 Panama-California Exposition in San Diego, and its popularity peaked in the
23 1920s and early 1930s. Defining elements of the style include a low-pitched roof with little or no
24 eave overhang, red tile roofing, wall cladding that is typically stucco. Typical elaborations include
25 carved low-relief window and door surrounds, decorative tile wall or floor treatments, chimneys,
26 often tiled roofs, and decorative iron hardware including sconces, door handles, and knockers
27 (McAlester 2017:520-534).

28 **Craftsman Architecture**

29 The peak construction period of the National style of Folk Houses dates to c. 1850 through c. 1930,
30 reflective of expanding railroad networks that distributed regional (mainly Northeastern American)
31 architectural styles and building materials across the country. The gable-front house in the National
32 style benefitted from this expanded communication and transportation network, becoming a
33 dominant folk form through the early 20th century. Two principal forms dominate, influenced by the
34 location of the home, with many urban examples including a narrow two-story footprint with
35 steeply pitched roofs. A related inspiration, and one more common to rural areas, came with the
36 Craftsman movement (particularly c. 1910-c. 1930), which commonly employed this form for the
37 style. Elements of Craftsman-inspired National houses include a double-width, single-story form and
38 low-pitched roofs, narrow columns on a covered porch, sometimes reaching across the full building
39 width. National-styled homes often omitted some of the tell-tale signs of high-style Craftsman
40 homes, lacking decorative false brackets under the gable and wide square columns or piers with an
41 unbroken line into the ground (McAlester 2013:474-476, 483).

3.5.3.3 Summary of Known CEQA Historical Resources and Unevaluated Resources

Archaeological Resources

As described in Section 3.5.3.1, the record search conducted at the CCIC identified two previously recorded archaeological resources within and directly adjacent to the archaeological study area. Both of the resources consist of historic-era resources. One resource (P-24-000087) was previously determined ineligible for listing to either the CRHR or the NRHP. The other resource [P-50-001923 (CA-STA-420H)] has not been subject to formal evaluation.

An intensive archaeological inventory of the study area was performed in June 2020. The railroad alignment is heavily disturbed and covered over by ballast, and no new or previously recorded archaeological resources were identified during survey. However, there remains the potential for previously unrecorded resources to be present beneath the railroad grade, specifically in areas determined to retain high sensitivity for buried archaeological resources as depicted in Appendix L-2.

P-50-001923 (CA-STA-420H) was revisited during pedestrian survey and found to be heavily disturbed with all diagnostic artifacts removed. While this resource may have minimal surface constituents, it is unknown whether this resource has a subsurface component. Although this resource may have previously been disturbed, this resource has not been evaluated and construction in the area could disturb this archaeological resource.

Built Environment

A built environment reconnaissance survey of the built-environment study area for the Proposed Project and the Atwater Station Alternative was conducted in June 2020 and January 2021. The built-environment study area contains historic-period buildings and structures related to transportation, irrigation and agriculture, auto-oriented commercial development, commercial buildings (including theaters, gas and service stations, light industrial buildings, warehouses), municipal development, and residential development. In addition, the survey identified a World War II-era temporary detention camp for Japanese Americans. Railroad-related properties throughout the built-environment study area include segments of the SPRR's San Joaquin Valley Railroad mainline. An in-depth discussion of these historical resources, including their locations (assigned Map ID numbers), is provided in Appendix L-1.

Overall, 65 historic-period built-environment resources were identified in the built-environment study area. Historic-period resources were defined as properties 45 years old or older at the time of the built environment reconnaissance survey and properties less than 45 years old with exceptional significance.

- 33 resources were previously recorded
 - 26 resources were identified by CHRIS records searches
 - 7 resources were identified through supplemental research
- 32 resources were newly recorded as part of the Proposed Project and the Atwater Station Alternative

Of the 65 historic-period resources in the built-environment study area:

- 1 • 4 resources are listed in or eligible for the NRHP, CRHR, and/or local registers, either as
2 individual resources or contributors to a district, and are considered historical resources for the
3 purposes of CEQA.
- 4 • 61 resources are ineligible for the NRHP, CRHR, and/or local registers.
- 5 ○ 2 of those resources were demolished after their original recording and are no longer
6 extant.
- 7 Table 3.5-3 provides information on the four built-environment historical resources located within
8 the built-environment study area for the Project.

1 **Table 3.5-3. CEQA Historical Resources (Built Environment) in the CEQA Study Area**

Map ID# ^a	Resource Identifier	Address/Resource Name, Type, Description	City, County	Period of Significance	Current Evaluation CHR Status Code	Applicable Criteria	Nearest Project Facility
2018-67	P-24-000097	SPRR Mainline	Multiple	1868-1874	3S, 3CS	NRHP A CRHR 1	Ceres to Merced Extension Alignment
2018-47	P-50-000527 CHL No. 934	Temporary Detention Camps for Japanese Americans-Turlock Assembly Center	Turlock, Stanislaus County	1942	1CL	NRHP A CRHR 1	Turlock Station
2018-43	P-50-000073; CA-STA-4226H	Turlock Irrigation District – Lateral No. 5	Stanislaus and Merced Counties	1887-1925	3S, 3CS	NRHP A, C CRHR 1, 3	Ceres to Merced Extension Alignment
2018-50	P-24-001909	Merced Irrigation District System (ditches, canals, laterals, wells, pumping plants, dams, reservoirs, and hydroelectric facilities throughout Merced County), district and contributor: Martin Lateral	Merced County	1919-1957	3D, 3CD	NRHP A CRHR 1	Ceres to Merced Extension Alignment

Notes:

^a Map ID#s correspond to location of resources provided in Appendix L-1.

NRHP = National Register of Historic Places

CRHR = California Register of Historical Resources

CHR = California Historical Resource

CHR Status Codes (California Office of Historic Preservation 2003)

1CL = Automatically listed in the CRHR—Includes State Historic Landmarks 770 and above

2S = Individual property determined eligible for NRHP by the Keeper. Listed in CRHR.

2D2 = Contributor to a district determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR.

2S2 = Individual property determined eligible for NRHP by a consensus through Section 106 process. Listed in CRHR.

3S = Appears eligible for NRHP as an individual property through survey evaluation.

3CS = Appears eligible for CRHR as an individual property through survey evaluation.

5S1 = Individual property that is listed or designated locally.

1 One resource is located within the built-environment study area near the Turlock Station.

2 • **Temporary Detention Camps for Japanese Americans-Turlock Assembly Center; P-50-**
3 **000527; CHL No. 934; Map ID# 2018-47**

4 The Stanislaus County Fairgrounds in Turlock were the site of a temporary detention camp for
5 Japanese Americans in 1942. It was one of 12 camps or “assembly centers” established in
6 California after President Franklin D. Roosevelt signed Executive Order 9066, which authorized
7 the evacuation of all persons of Japanese ancestry from the West Coast to inland relocation
8 centers. Because these relocation centers were not yet ready for occupation in 1942, the U.S.
9 government established temporary detention camps at existing facilities, such as racetracks,
10 fairgrounds, and labor camps, that had open space for housing, immediate availability of water
11 and power, and central locations with access to major roadways and railroads for the eventual
12 transfer to the relocation centers. Existing structures were adapted for camp use and temporary
13 barracks buildings and barbed wire perimeter fences were hastily constructed. For the
14 remainder of World War II, the fairgrounds were used by the U.S. Army as a rehabilitation
15 center. After the war, the property was once again used as the county fairgrounds (Burton et al.
16 2000; Okamura 1980).

17 The Turlock camp is one of nine camps in California that were located at existing fairgrounds
18 (the Stanislaus County Fairgrounds were established in 1927). A comparison of a historic map of
19 the Turlock camp and historic and current aerial photos indicates that almost all the buildings
20 and structures that were present on the site in the 1940s were demolished by the late 1950s.
21 One building in the southern part of the fairgrounds may date to the detention camp era but it is
22 located nearly 0.25 mile from the Turlock Station. The fairground’s arched main entry gate,
23 which was constructed in 1929 with steel and river boulders, is not directly associated with the
24 temporary detention camp. Historic photos indicate that the Army modified the steel arch of the
25 gate when the facility was used as a rehabilitation center, and current photographs indicate that
26 the steel arch was later replaced (Burton et al. 2000; Okamura 1980; Stanislaus County Fair
27 2018).

28 The Temporary Detention Camps for Japanese Americans-Turlock Assembly Center is registered
29 as California Historical Landmark No. 934 and is significant under CRHR Criterion 1 as one of
30 the sites of the first phase of Japanese American internment in California during World War II.
31 However, only one building that may date to the 1940s appears to remain extant on the
32 fairgrounds. The resource retains integrity of location, which is the key aspect of integrity for
33 the historical resource to convey its significance. The subsequent changes have diminished its
34 integrity of design, materials, workmanship, feeling, association, and setting. However, the
35 property remains largely unchanged since nomination as a California Historical Landmark in
36 1980. The character-defining features include its proximity to railroad transportation, its open
37 spaces embodying desirable locations for establishing temporary detention centers, and its
38 relative isolation from other large population centers within California. The Period of
39 Significance for the property is April 1942-August 1942.

40 Three built environment historical resources were identified within the built-environment study
41 area for the Ceres to Merced Extension Alignment.

1 • **Central Pacific Railroad (San Joaquin Valley Main Line or Eastern Line)/ Southern Pacific**
2 **Railroad San Joaquin Valley Main Line; P-24-000097; Map ID #2018-67⁴**

3 The previous studies of the San Joaquin Valley Main Line have noted the important role the line
4 played not just in the commerce of the region but the broad role the railroad played in the
5 pioneering era of settlement, with the Southern Pacific creating towns wholesale that today
6 serve as major population centers in the San Joaquin Valley, such as Merced. The San Joaquin
7 Valley Main Line served as the first all-weather transportation system within the valley, and
8 eventually connected Southern California with both the San Joaquin Valley and Sacramento, as
9 well as points east. The importance of this first line in the area is therefore of premier
10 importance to the agricultural, commercial, and community development of this region. Without
11 it, many towns, other rail lines, industries, and agriculture within the valley would not have
12 developed in the same way.

13 The Southern Pacific San Joaquin Valley Main Line is eligible for listing in the NRHP and CRHR as
14 an individual resource under Criterion A/1, at the local level of significance, as the premier
15 pioneer railroad throughout the eastern San Joaquin Valley. Character-defining features for the
16 resource include the railroad's alignment through the San Joaquin Valley, its continued function
17 as a railroad, its heavy-gauge single track, and its setting within the rural and urban areas of the
18 eastern San Joaquin Valley. The resource retains sufficient integrity to its period of significance.
19 The resource retains its key aspects of integrity; its alignment (location), use (association), and
20 setting are intact. The rail line remains a single track through the Proposed Project area and
21 extending into studied portions of the line. The period of significance dates to the construction
22 of the line throughout the San Joaquin Valley, 1868-1874, when the line's current alignment was
23 built.

24 • **Turlock Irrigation District, Lateral No. 5 as a district contributor; P-50-000073; Map ID #**
25 **2018-43**

26 The TID system is significant under Criteria A/1 as an early canal system built under the Wright
27 Act of 1887 that was pivotal for Stanislaus County's water development, agricultural
28 development, and water conveyance development. As a contributor to the multi-component
29 system, Lateral No. 5 is significant at the local level under NRHP Criterion A and CRHR Criterion
30 1. The period of significance is 1887-1925. The character-defining features of the Lateral No. 5
31 segment in the built-environment study area are the lateral's consistent alignment relative to its
32 earliest construction, its setting within a rural, agricultural environment, and the lateral's
33 function as a working water conveyance system within the wider TID System. The boundary for
34 the canal segment follows the footprint of the canal and its banks.

35 • **Merced Irrigation District System, Martin Lateral segment as a district contributor; P-24-**
36 **001909; Map ID# 2018-50**

37 MID System is significant under NRHP Criterion A or CRHR Criterion 1, at the local level of
38 significance, as an early canal system built within the context of the Wright Act of 1887 and for
39 its associations with Merced County's water development, agricultural development, and water
40 conveyance development. The MID System is significant under NRHP Criterion A and CRHR
41 Criterion 1. The evaluation of the whole system to determine which components are
42 contributors to the district is outside the scope of this Project. However, of the 12 potential

⁴ This is the historic name for the existing Union Pacific Railroad (UPRR) Fresno subdivision railroad.

1 contributors that intersect the built-environment study area, the Martin Lateral was identified
2 as a contributor.

3 The Martin Lateral is a contributor to the MID System, which is significant at the local level
4 under NRHP Criterion A and CRHR Criterion 1, with a period of significance of c. 1876-1957. The
5 character-defining features of the Martin Lateral segment are the lateral's consistent alignment
6 relative to with its earliest construction its setting within a rural, agricultural environment, and
7 the lateral's function as a working water conveyance system within the wider MID System. The
8 boundary for the canal segment follows the footprint of the canal and its banks.

9 **3.5.4 Impact Analysis**

10 This section describes the environmental impacts of the Proposed Project and the Atwater Station
11 Alternative on CEQA historical resources. It describes the methods used to evaluate the impacts and
12 the thresholds used to determine whether an impact would be significant. Measures to mitigate
13 significant impacts are provided, where appropriate.

14 **3.5.4.1 Methods for Analysis**

15 Existing data pertaining to both historic built resources and archaeological resources were studied
16 to determine the presence of cultural resources within the study area and to assess the impacts of
17 the Proposed Project and the Atwater Station Alternative on those resources. Impacts were
18 considered significant if construction or operation could cause a substantial adverse change in the
19 significance of a historical resource. Substantial changes could be caused by direct and indirect
20 impacts.

21 Activities that cause direct impacts on archaeological resources are typically associated with
22 construction, including ground disturbance, or the material or physical alteration of the
23 environment for excavation, staging, heavy equipment usage and movement, drilling, demolition,
24 and relocation. Direct impacts on built environment resources result from physical changes to a
25 property (such as demolition, physical alterations, or a partial ROW acquisition that could change
26 the historic setback of built environment historical resources within a parcel), that would affect the
27 character-defining features and integrity of the resource that conveys its significance. Other direct
28 impacts to built-environment resources include those impacts that affect the setting and feeling of
29 the historic resource, including visual, sound, and vibration impacts or changes resulting from
30 construction or operation of the Proposed Project or the Atwater Station Alternative.

31 Potential indirect impacts include all potential impacts that may result from the construction of the
32 Proposed Project but would occur later in time or would be further removed in distance. Potential
33 indirect impacts on archaeological resources would primarily result from increased human activity
34 or population growth in the vicinity. Such activity could lead to increased construction and
35 recreation in the area, which could potentially damage archaeological resources. Potential indirect
36 impacts on built-environment historical resources would similarly result from changes in human
37 activities. Both increased use could cause impacts, or decreased use could cause an impact through
38 neglect. No potential for indirect impacts were identified at the time of preparing the Draft EIR.

39 The following impact analysis has been completed for the purposes of CEQA and considers the
40 impacts of the Proposed Project and the Atwater Station Alternative on the historical resources
41 identified in the study area. The impact analysis considers whether the Proposed Project and the
42 Atwater Station Alternative would cause a substantial change in the significance of the identified

1 historical resources. The impact analysis assesses the temporary and permanent direct and indirect
 2 impacts from construction and operations and analyzes if the impacts are significant or less than
 3 significant. In general, impacts would be in the form of permanent impacts from the construction of
 4 the Proposed Project and the Atwater Station Alternative, as opposed to its operations.

5 **3.5.4.2 Thresholds of Significance**

6 The State CEQA Guidelines Appendix G (14 Cal. Code Regs. 15000 et seq.) has identified significance
 7 criteria to be considered for determining whether a project could have significant impacts on
 8 cultural resources and tribal cultural resources. An impact would be considered significant if
 9 construction or operation of the project would have any of the following consequences.

10 For cultural resources:

- 11 • Cause a substantial adverse change in the significance of a historical resource as defined in
 12 Section 15064.5.
- 13 • Cause a substantial adverse change in the significance of an archaeological resource pursuant to
 14 Section 15064.5.
- 15 • Disturb any human remains, including those interred outside of formal cemeteries.

16 For tribal cultural resources:

- 17 • Cause a substantial adverse change in the significance of a tribal cultural resource as defined in
 18 Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is
 19 geographically defined in terms of the size and scope of the landscape, sacred place, or object
 20 with cultural value to a California Native American tribe, and that is:
 - 21 ○ Listed or eligible for listing in the California Register of Historical Resources, or in a local
 22 register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - 23 ○ A resource determined by the lead agency, in its discretion and supported by substantial
 24 evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public
 25 Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public
 26 Resources Code Section 5024.1, the lead agency shall consider the significance of the
 27 resource to a California Native American tribe.

28 **3.5.4.3 Project Impacts and Mitigation Measures**

Impact CUL-1	Construction and operations of the Proposed Project would not directly or indirectly cause a substantial adverse change in the significance of a built environment historical resource.
Level of Impact	Less than significant impact

30 **Impact Characterization and Significance Conclusion**

31 **Proposed Project**

32 All proposed facilities (Ceres to Merced Extension Alignment, Turlock Station, Livingston Station,
 33 Merced Station, and Merced Layover & Maintenance Facility) have the potential to affect built
 34 environment historic resources directly or indirectly in the study area. Table 3.5-4 lists the built

1 environment historical resources located within the CEQA study area for the Project and
2 summarizes the potential impacts on these resources.

3 The Turlock Station would directly affect the Temporary Detention Camp for Japanese Americans-
4 Turlock Assembly Center (Map ID# 2018-47) as a result of construction of new parking areas and a
5 pedestrian bridge within the immediate setting of the resource, with a portion of the pedestrian bridge
6 within the northernmost corner of the historical resource's boundary. Built as a temporary facility,
7 the Temporary Detention Camp was next used as a rehabilitation center for the army before the
8 demolition of the buildings associated with the detention facility. At the time of nomination to the
9 CRHR in 1980, the site looked much as it does today. In 1980, there was little extant historic fabric
10 from the period of significance, since nearly all of the detention camp had been demolished. The
11 demolition of the site is not surprising, given the now-illegal nature of the activities conducted there,
12 which are commemorated with a memorial at the north gate of the site. The resource retains
13 integrity of location, which is the key aspect of integrity for the historical resource to convey its
14 significance. The ephemeral and temporary nature of the site means that design, materials,
15 workmanship, feeling, association, and setting are not key aspects of integrity for this resource to
16 convey its significance. The character-defining features include its proximity to railroad
17 transportation, its open spaces embodying desirable locations for establishing temporary detention
18 centers, and its relative isolation from other large population centers within California. The Period
19 of Significance for the property is April 1942 through August 1942. The construction of the Turlock
20 Station, within the setting of the historical resource and slightly within the northern boundary, would
21 not diminish the integrity of the historical resource. The setting has been altered with post-World-
22 War-II development surrounding the fairgrounds and with the development of the fairgrounds itself,
23 after the temporary facilities were demolished. Furthermore, the construction of the Turlock Station
24 would not impede the public's ability to understand the significance of the Temporary Detention
25 Camp. The construction of the Turlock station would cause a less-than-significant impact on the
26 Temporary Detention Camp for Japanese Americans-Turlock Assembly Center.

27 The Ceres to Merced Extension Alignment would directly affect three built environmental historical
28 resources: Central Pacific Railroad (San Joaquin Valley Main Line or Eastern Line)/ Southern Pacific
29 Railroad San Joaquin Valley Main Line (Map ID# 2018-67), Turlock Irrigation District, Lateral No. 5
30 as a district contributor (Map ID# 2018-43), and Merced Irrigation District System, Martin Lateral
31 segment as a district contributor (Map ID# 2018-50).

32 The Ceres to Merced Extension Alignment would directly affect the Central Pacific Railroad (San
33 Joaquin Valley Main Line or Eastern Line)/ Southern Pacific Railroad San Joaquin Valley Main Line
34 (Map ID# 2018-67).⁵ Within the resource boundary, the Ceres to Merced Extension Alignment
35 would construct a second mainline tracks, spur turnouts, modification of undercrossings,
36 modification of at-grade crossing, and construction of new culverts and bridges, all within the
37 existing railroad right-of-way. The construction of these improvements would not affect any of the
38 resource's character-defining features. The resource's alignment through the San Joaquin Valley
39 would remain intact, as would the resource's functioning as an active railroad. The addition of a
40 second set of tracks would not affect the existing railroad tracks, which would remain in place. The
41 railroad has existing second tracks interspersed throughout the resource, so an additional set of
42 parallel tracks is consistent with the existing setting. The resource's setting within rural and
43 agricultural areas of the eastern San Joaquin Valley would not be affected by the Ceres to Merced
44 Extension Alignment. The Ceres to Merced Extension Alignment would not affect the resource's key

⁵ This is the historic name for the existing Union Pacific Railroad (UPRR) Fresno subdivision railroad.

1 aspects of integrity, which are its location, association, and setting. The Ceres to Merced Extension
2 Alignment would cause a less-than-significant impact on the Central Pacific Railroad (San Joaquin
3 Valley Main Line or Eastern Line)/ Southern Pacific Railroad San Joaquin Valley Main Line.

4 The Ceres to Merced Extension Alignment would directly affect the Turlock Irrigation District,
5 Lateral No. 5 (Map ID# 2018-43) by upgrading the existing siding track into mainline track within
6 the setting of, and spanning over, the historical resource. The integrity of Lateral No. 5's character-
7 defining resources, which include the lateral's consistent alignment relative to its earliest
8 construction, its setting within a rural, agricultural environment, and the lateral's function as a
9 working water conveyance system within the wider Turlock Irrigation District System, would not be
10 diminished by the Ceres to Merced Extension Alignment. Lateral No. 5 would retain its key aspects
11 of integrity, which include its location, feeling, and setting. The alteration of one feature within the
12 historical resource's setting, modifying the siding track as a mainline track, would not diminish the
13 resource's integrity. The Ceres to Merced Extension Alignment would not impact the Turlock
14 Irrigation District, Lateral No. 5.

15 The Ceres to Merced Extension Alignment would directly affect the Merced Irrigation District
16 System, Martin Lateral segment as a district contributor (Map ID# 2018-50) by adding a new
17 mainline track and a box culvert extension within the setting of, and spanning over, the historical
18 resource. The integrity of Martin Lateral's character-defining resources, which include the lateral's
19 consistent alignment relative to its earliest construction, its setting within a rural, agricultural
20 environment, and the lateral's function as a working water conveyance system within the wider
21 Merced Irrigation District System, would not be diminished by the Ceres to Merced Extension
22 Alignment. The Martin Lateral would retain its key aspects of integrity, which include its location,
23 feeling, and setting. The alteration of one feature within the historical resource's setting, modifying
24 the siding track as a mainline track, would not diminish the resource's integrity. The Ceres to
25 Merced Extension Alignment would not impact the Merced Irrigation District System, Martin Lateral
26 segment as a district contributor (Map ID# 2018-50).

27 The Turlock Station, Livingston Station, Merced Station, and Merced Layover & Maintenance Facility
28 would directly affect the Central Pacific Railroad (San Joaquin Valley Main Line or Eastern Line)/
29 Southern Pacific Railroad San Joaquin Valley Main Line (Map ID# 2018-67). Within the boundary
30 and setting of the resource, the Proposed Project would construct parking areas, platforms,
31 pedestrian crossings (at-, above-, and below-grade), modified track spurs, maintenance and layover
32 facilities, and signage. The construction of these improvements would not affect any of the
33 resource's character-defining features. The resource's alignment through the San Joaquin Valley
34 would remain intact, as would the resource's functioning as an active railroad. The addition of
35 boarding platforms would not affect the existing railroad tracks, which would remain in place. The
36 railroad has existing stations interspersed throughout the resource, so additional stations are
37 consistent with the existing setting. The resource's setting within rural and agricultural areas of the
38 eastern San Joaquin Valley would not be affected by the construction of the Turlock Station,
39 Livingston Station, Merced Station, and Merced Layover & Maintenance Facility. The Turlock Station,
40 Livingston Station, Merced Station, and Merced Layover & Maintenance Facility would not affect the
41 resource's key aspects of integrity, which are its location, association, and setting. The Turlock
42 Station, Livingston Station, Merced Station, and Merced Layover & Maintenance Facility would cause
43 a less-than-significant impact on the Central Pacific Railroad (San Joaquin Valley Main Line or
44 Eastern Line)/ Southern Pacific Railroad San Joaquin Valley Main Line.

45 In conclusion, the Proposed Project would cause a less-than-significant impact to built historical
46 resources.

Atwater Station Alternative

The Atwater Station Alternative would directly affect the Central Pacific Railroad (San Joaquin Valley Main Line or Eastern Line)/Southern Pacific Railroad San Joaquin Valley Main Line (Map ID# 2018-67). Within the boundary and setting of the resource, the Atwater Station Alternative would construct parking areas, platforms, a pedestrian tunnel, pedestrian improvements, and signage. The construction of these improvements would not affect any of the resource’s character-defining features. The resource’s alignment through the San Joaquin Valley would remain intact, as would the resource’s functioning as an active railroad. The addition of boarding platforms would not affect the existing railroad tracks, which would remain in place. The railroad has existing stations interspersed throughout the resource, so additional stations are consistent with the existing setting. The resource’s setting within rural and agricultural areas of the eastern San Joaquin Valley would not be affected by the construction of the Atwater Station Alternative. The Atwater Station Alternative would not affect the resource’s key aspects of integrity, which are its location, association, and setting. The Ceres to Merced Extension Alignment would cause a less-than-significant impact on the Central Pacific Railroad (San Joaquin Valley Main Line or Eastern Line)/ Southern Pacific Railroad San Joaquin Valley Main Line. In conclusion, the Atwater Station Alternative would cause a less-than-significant impact to built historical resources. There would be no difference between the proposed Livingston Station and the Atwater Station Alternative (both would result in a less-than-significant impact).

Table 3.5-4. Summary of Project Improvement Impacts on CEQA Historical Resources (Built Environment)

Map ID#	Resource Identifier	Address/Resource Name, Type, Description	City, County	Nearest Project Facility	Impacts
2018-67	P-24-000097	SPRR Mainline	Multiple Counties	All proposed facilities and the Atwater Station Alternative	Direct, LTS impact
2018-47	P-50-000527 CHL No. 934	Temporary Detention Camps for Japanese Americans-Turlock Assembly Center	Turlock; Stanislaus County	Ceres to Merced Extension Alignment, Turlock Station	Direct, LTS impact
2018-43	P-50-000073; CA-STA-4226H	Turlock Irrigation District – Lateral No. 5	Stanislaus and Merced Counties	Ceres to Merced Extension Alignment	Direct, LTS impact
50	P-24-001909	Merced County/Merced Irrigation District (ditches, canals, laterals, wells, pumping plants, dams, reservoirs, and hydroelectric facilities throughout Merced County) district and contributor: Martin Lateral	Merced County	Ceres to Merced Extension Alignment	Direct, LTS impact

Notes:

^a Map ID#s correspond to location of resources provided in Appendix L-1.

LTS = less-than-significant

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Impact CUL-2	Construction and operation of the Proposed Project could cause a substantial adverse change in the significance of an archaeological resource or tribal cultural resource.
Level of Impact	Potentially significant impact
Mitigation Measures	CUL-2.1: Conduct cultural resources awareness training CUL-2.2: Implement cultural resources monitoring plan CUL-2.3: Conduct archaeological monitoring CUL-2.4: Implement procedures in case of inadvertent archeological discoveries CUL-2.5: Conduct archaeological testing CUL-2.6: Implement avoidance and protection measures
Level of Impact after Mitigation	Less than significant impact

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Impact Characterization

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Proposed Project

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The Proposed Project is generally located on lands that have been previously disturbed or within the existing UPRR ROW. Previous disturbance does not preclude the potential to affect cultural deposits, and, therefore, areas of heightened cultural sensitivity remain.

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There are no known archaeological resources present within study areas for the Turlock Station, Livingston Station, Merced Station, or the Merced Layover & Maintenance Facility. One known but unevaluated archaeological resource (P-50-001923 [CA-STA-420H]) was identified within or directly adjacent to the Ceres to Merced Extension Alignment. The Ceres to Merced Extension Alignment has the potential to affect known archaeological resources directly or indirectly within the archaeological study area. Resource P-50-001923 (CA-STA-420H) is located within the Ceres to Merced Extension Alignment and was revisited during pedestrian survey and the site was noted to be heavily disturbed and that all diagnostic artifacts had been removed. While this resource may have minimal surface constituents, it is unknown whether this resource has a subsurface component. Although this resource may have been previously disturbed, this resource has not been evaluated and construction in the area could disturb archaeological resources. This is a potentially significant impact.

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In addition, portions of the Ceres to Merced Extension Alignment, the Merced Layover & Maintenance Facility, and Merced Station are in the vicinity of the Merced River, Bear Creek, and the Jordan Canal, which are identified as areas with high general prehistoric archaeological resource sensitivity and high buried archaeological resource sensitivity. Therefore, construction of these facilities may disturb previously undocumented archaeological resources, which would constitute a potentially significant impact. Although the Proposed Project would primarily be located within disturbed areas where there have been multiple previous episodes of excavation and construction, previous disturbance does not preclude the potential to affect archaeological deposits. Portions of the Ceres to Merced Extension Alignment, the Merced Layover & Maintenance Facility, and Merced Station have been identified within areas of heightened cultural sensitivity and thus impacts on unknown archaeological resources may occur. While portions of the Ceres to Merced Extension Alignment, Turlock Station, and Livingston Station are not located within areas of high archaeological sensitivity, the potential remains to encounter unanticipated deposits during ground

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1 disturbance of these proposed facilities. Encountering significant archaeological resources or tribal
2 cultural resources during construction of the Proposed Project would result in a significant impact
3 related to a known and unknown archaeological resources.

4 **Atwater Station Alternative**

5 There are no known archaeological resources present within study areas for the Atwater Station
6 Alternative. The Atwater Station Alternative is not located within area of high general prehistoric
7 archaeological resource sensitivity and high buried archaeological resource sensitivity. Nonetheless,
8 the potential remains to encounter unanticipated deposits during construction of the Atwater
9 Station Alternative, including significant archaeological resources or tribal cultural resources. This
10 would be a potentially significant impact.

11 There is no difference between the proposed Livingston Station and the Atwater Station Alternative.
12 There are no known archaeological resources present within study areas for both stations and
13 neither station is located in an area with high archaeological sensitivity. Both would result in a less
14 than significant impact after mitigation.

15 **Mitigation Measures**

16 Mitigation Measures CUL-2.1, CUL-2.4, and CUL-2.6 would apply to all facilities proposed for the
17 Proposed Project and the Atwater Station Alternative. Mitigation Measures CUL-2.2 and CUL-2.3
18 would apply to a portion of the Ceres to Merced Extension Alignment, the Merced Station, and the
19 Merced Layover & Maintenance Facility, as these facilities are located in areas identified as
20 archaeologically sensitive. Mitigation Measures CUL-2.5 would apply to the portion of the Ceres to
21 Merced Extension alignment where it encounters P-50-001923 (CA-STA-420H).

22 **Mitigation Measure CUL-2.1: Conduct cultural resources awareness training**

23 Prior to construction (any ground-disturbing activity), the construction contractor personnel
24 who will work onsite will attend a preconstruction cultural resources awareness tailboard
25 training session provided by the contractor. The training will address measures to avoid or
26 protect artifacts and archaeological features, cultural resources identification, as well as the
27 mandatory procedures to follow should potential cultural resources be exposed during
28 construction.

29 **Mitigation Measure CUL-2.2: Implement cultural resources monitoring plan**

30 This mitigation measure would apply only to the portions of the Project that are identified as
31 archaeologically sensitive by the geoarchaeological sensitivity mapping (see Appendix L-2 of the
32 Draft EIR). Please note that the information contained in the geoarchaeological sensitivity
33 mapping is confidential. As such, the mapping is not included in the Draft EIR.

34 Prior to construction (any ground-disturbing activity), an archaeological monitoring plan will be
35 prepared and will identify areas for archaeological monitoring. This plan will include details
36 regarding the protocols and procedures for archaeological monitoring, unanticipated
37 discoveries, and the treatment of human remains. SJRRC will review and approve the plan prior
38 to any ground-disturbing activities.

1 Mitigation Measure CUL-2.3: Conduct archaeological monitoring

2 This mitigation measure would apply only to the portions of the Project that are identified as
3 archaeologically sensitive by the geoarchaeological sensitivity mapping (see Appendix L-2 of the
4 Draft EIR). Please note that the information contained in the geoarchaeological sensitivity
5 mapping is confidential. As such, the mapping is not included in the Draft EIR.

6 During construction (any ground-disturbing activity), SJRRC or its contractor(s) will be
7 responsible for providing archaeological and tribal monitoring of ground-disturbing
8 construction activities with potential to affect archaeological remains in areas that have been
9 identified as archaeologically sensitive. Archaeological sensitivity is based on areas in close
10 proximity to known archaeological sites; areas identified by the tribal consulting parties as
11 sensitive; and/or geo-archaeological analysis.

**12 Mitigation Measure CUL-2.4: Implement procedures in case of inadvertent archeological
13 discoveries**

14 During construction (any ground-disturbing activity), should there be an unanticipated
15 discovery, work will stop within 100 feet of the discovery, and the construction contractor will
16 call a qualified archaeologist to assess the significance of the find and to recommend appropriate
17 measures. Should the discovery include human remains, all parties will comply with federal and
18 state regulations and guidelines regarding the treatment of human remains, including relevant
19 sections of NAGPRA (3(c)(d)), California Health & Saf. Code Section 8010 et seq., and Cal. Public
20 Res. Code Section 5097.98, and consult with NAHC, tribal groups, and the State Historic
21 Preservation Officer.

22 Mitigation Measure CUL-2.5: Develop and Implement an Archaeological Testing Plan.

23 Prior to construction (any ground-disturbing activity), SJRRC will retain a qualified
24 archaeologist to prepare an Archaeological Testing Plan (ATP). The ATP will be implemented to
25 assess the extent and significance of the previously recorded archaeological resources (P-50-
26 001923 [CA-STA-420H]) identified within the archaeological study area. The ATP should include
27 the following items:

- 28 • Background and anticipated resource types
- 29 • Research questions that can be addressed by the collection of data from the defined
30 resource types
- 31 • Field Methods and Procedures
- 32 • Cataloging and Laboratory Analysis
- 33 • Findings and Interpretation

34 The ATP will be implemented to determine the extent of P-50-001923 (CA-STA-420H) within
35 any area where ground disturbance is proposed. The results of the study will be summarized
36 into a technical document that will determine whether further study is necessary. The technical
37 document will also determine whether additional mitigation will be needed and implement
38 additional studies if needed. All technical documents will be submitted to the Northwest
39 Information Center (NWIC) of the California Historical Resources System (CHRIS), Rohnert Park,
40 CA.

1 **Mitigation Measure CUL-2.6: Implement avoidance and protection measures**

2 Changing the rail alignment to avoid any newly discovered sites identified during project related
3 ground disturbance is likely infeasible; however, access areas and laydown sites may be
4 relocated should their location be found to be on archaeological sites. All avoidance and
5 protection measures for archaeological resources will be delineated on construction drawings
6 by the construction contractor.

7 **Significance with Application of Mitigation**

8 Due to the presence of the existing UPRR ROW and track, pavement, urban overlay, and property
9 acquisition/permission-to-enter issues in the study area, evaluation of P-50-001923 (CA-STA-420H)
10 through archaeological testing is not feasible.

11 Mitigation Measures CUL-2.1 and CUL-2.4 would require cultural awareness training for
12 construction personnel and implementation of procedures in the event of the unanticipated
13 discovery of archaeological resources or human remains. Mitigation Measures CUL-2.2 and CUL-2.3
14 would require the preparation of a construction monitoring plan that identifies the procedures to
15 follow during archaeological monitoring in the portions of the Project that are identified as
16 archaeologically sensitive by the geoarchaeological sensitivity mapping (see Appendix L-2 of the
17 Draft EIR) or where known archaeological resources are located. Mitigation Measure CUL-2.5 would
18 require archaeological testing to assess the extent and significance of P-50-001923 (CA-STA-420H).
19 Mitigation Measure CUL-2.6 would require implementation of avoidance and protection measures
20 throughout the entire Project in the event that P-50-001923 (CA-STA-420H) or any other new
21 discovered site are determined to be eligible for NRHP or CRHR. Implementation of these mitigation
22 measures would reduce potential impacts from the Proposed Project on archaeological resources
23 and tribal cultural resources to a less-than-significant level.

24 For the same reasons as the Proposed Project, implementation of Mitigation Measures CUL-2.1 and
25 2.4 would reduce the impact on archaeological resources from construction of the Atwater Station
26 Alternative to a less-than-significant level.

Impact CUL-3	Construction of the Proposed Project could disturb human remains, including those interred outside of formal cemeteries.
Level of Impact	Potentially significant impact
Mitigation Measures	CUL-2.1: Conduct cultural resources awareness training CUL-2.4: Implement procedures in case of inadvertent archeological discoveries CUL-3.1: Comply with state laws relating to Native American remains
Level of Impact after Mitigation	Less than significant impact

27 **Impact Characterization**

28 **Proposed Project**

29 The Proposed Project is generally located on lands that have been previously disturbed or within the
30 existing UPRR ROW. Previous disturbance does not preclude the potential to affect cultural deposits
31 and, therefore, areas of heightened cultural sensitivity remain. The Proposed Project would
32 primarily be located within disturbed areas where there have been multiple previous episodes of

1 excavation and construction. However, the potential remains for construction from the Proposed
2 Project to encounter cultural deposits, including human remains.

3 The previously recorded archaeological resources in the study area are not anticipated to contain
4 human remains. However, as discussed in 3.5.3.1 *Cultural Resource Data Sources*, portions of the
5 Ceres to Merced Extension Alignment, the Merced Station, and the Merced Layover & Maintenance
6 Facility are in the vicinity of the Merced River, Bear Creek, and the Jordan Canal, which are identified
7 as areas with high general prehistoric archaeological resource sensitivity and high buried
8 archaeological resource sensitivity. Therefore, construction of these facilities may disturb previously
9 undocumented archaeological resources, including human remains. This is a potentially significant
10 impact.

11 Although portions of the Ceres to Merced Extension Alignment, Turlock Station, and Livingston
12 Station are not located within areas of high general prehistoric archaeological resource sensitivity
13 and high buried archaeological resource sensitivity, the potential remains to encounter
14 unanticipated deposits, including human remains, during ground disturbance of these proposed
15 facilities. In summary, construction of all Proposed Project facilities could result in a potentially
16 significant impact related to the disturbance of human remains.

17 **Atwater Station Alternative**

18 The Atwater Station Alternative is not located within area of high general prehistoric archaeological
19 resource sensitivity and high buried archaeological resource sensitivity. However, the potential
20 remains to encounter unanticipated deposits, including human remains, during ground disturbance
21 of the Atwater Station Alternative. This would be a potentially significant impact.

22 There is no difference between the proposed Livingston Station and the Atwater Station Alternative.
23 Both stations sites are not located in areas of high general prehistoric archaeological resource
24 sensitivity or high buried archaeological resource sensitivity. Both would result in a less than
25 significant impact after mitigation.

26 **Mitigation Measures**

27 Mitigation Measure CUL-2.1, CUL-2.4, and CUL-3.1 would apply to the Proposed Project and the
28 Atwater Station Alternative for potential impacts on human remains.

29 **Mitigation Measure CUL-2.1: Conduct cultural resources awareness training**

30 Refer to measure description in Impact CUL-2.

31 **Mitigation Measure CUL-2.4: Implement procedures in case of inadvertent archeological 32 discoveries**

33 Refer to measure description in Impact CUL-2.

34 **Mitigation Measure CUL-3.1: Comply with state laws relating to Native American remains**

35 If human remains of Native American origin are discovered during construction, it will be
36 necessary to comply with state laws relating to the disposition of Native American burials,
37 which fall under the jurisdiction of the NAHC (Cal. Public Res. Code 5097). If any human remains
38 are discovered or recognized in any location other than a dedicated cemetery, there will be no

- 1 further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie
 2 adjacent human remains, until the following steps are taken:
- 3 • The appropriate county coroner has been informed and has determined that no
 4 investigation of the cause of death is required.
 - 5 • If the remains are of Native American origin:
 - 6 ○ The descendants of the deceased Native Americans have made a recommendation to the
 7 landowner or the person responsible for the excavation work, for means of treating or
 8 disposing of, with appropriate dignity, the human remains and any associated grave
 9 goods as provided in Cal. Public Res. Code Section 5097.98.
 - 10 ○ If the NAHC is unable to identify a descendant or the descendant fails to make a
 11 recommendation within 24 hours after being notified by the NAHC, then no further
 12 action is required.

13 **Significance with Application of Mitigation**

14 Implementation of Mitigation Measures CUL-2.1 and CUL-2.4 would ensure early identification and
 15 protection of unanticipated discoveries during construction. Implementation of Mitigation Measure
 16 CUL-3.1 would require compliance with state laws relating to Native American remains in the event
 17 human remains of Native American origin are discovered during construction. Protocols include
 18 informing the county coroner and contacting the NAHC for identification of descendants.
 19 Implementation of Mitigation Measure CUL-3.1 would reduce potential impacts on human remains
 20 from the Proposed Project to a less-than-significant level.

21 For the same reasons listed above, implementation of Mitigation Measures CUL-3.1 would reduce
 22 the impact on human remains from construction of the Atwater Station Alternative to a less-than-
 23 significant level.

Impact CUL-4	Construction of the Proposed Project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.
Level of Impact	Potentially significant impact
Mitigation Measures	CUL-2.1: Conduct cultural resources awareness training CUL-2.4: Implement procedures in case of inadvertent archeological discoveries CUL-3.1: Comply with state laws relating to Native American remains CUL-4.1: Implement procedures in case of inadvertent tribal cultural resources discoveries
Level of Impact after Mitigation	Less than significant impact

24 **Impact Characterization**

25 **Proposed Project**

26 As described in Section 3.5.3.1, no tribal representatives requested tribal consultation under AB 52
 27 for this project. Thus, no tribal cultural resources were identified in the vicinity of the Proposed
 28 Project.

1 Additionally, as stated above in Impact CUL-2 and CUL-3, no prehistoric archaeological resources,
2 which have the potential to be considered tribal cultural resources, were identified within the
3 archaeological study area. However, as discussed in Section 3.5.3.1 *Cultural Resource Data Sources*,
4 portions of the Ceres to Merced Extension Alignment, the Merced Station, and the Merced Layover &
5 Maintenance Facility are in the vicinity of the Merced River, Bear Creek, and the Jordan Canal, which
6 are identified as areas with high general prehistoric archaeological resource sensitivity and high
7 buried archaeological resource sensitivity. Therefore, construction of these facilities may disturb
8 previously undocumented archaeological resources, which can be considered tribal cultural
9 resources. This is a potentially significant impact.

10 Although portions of the Ceres to Merced Extension Alignment, Turlock Station, and Livingston
11 Station are not located within areas of high general prehistoric archaeological resource sensitivity
12 and high buried archaeological resource sensitivity, the potential remains to encounter previously
13 undocumented archaeological resources, which can be considered tribal cultural resources. In
14 summary, construction of all Proposed Project facilities could result in a potentially significant
15 impact related to tribal cultural resources.

16 **Atwater Station Alternative**

17 The Atwater Station Alternative is not located within area of high general prehistoric archaeological
18 resource sensitivity and high buried archaeological resource sensitivity. However, the potential
19 remains to encounter previously undocumented archaeological resources, which can be considered
20 tribal cultural resources. This would be a potentially significant impact.

21 There is no difference between the proposed Livingston Station and the Atwater Station Alternative.
22 Both stations sites are not located in areas of high general prehistoric archaeological resource
23 sensitivity or high buried archaeological resource sensitivity. Both would result in a less than
24 significant impact after mitigation.

25 **Mitigation Measures**

26 Mitigation Measure CUL-2.1, CUL-2.4, CUL-3.1, and CUL-4.1 would apply to the Proposed Project and
27 the Atwater Station Alternative for potential impacts on tribal cultural resources.

28 **Mitigation Measure CUL-2.1: Conduct cultural resources awareness training**

29 Refer to measure description in Impact CUL-2.

30 **Mitigation Measure CUL-2.4: Implement procedures in case of inadvertent archeological 31 discoveries**

32 Refer to measure description in Impact CUL-2.

33 **Mitigation Measure CUL-3.1: Comply with state laws relating to Native American remains**

34 Refer to measure description in Impact CUL-3.

35 **Mitigation Measure CUL-4.1: Implement procedures in case of inadvertent tribal cultural 36 resources discoveries**

37 In the event that an archaeological resource that could be considered a tribal cultural resource is
38 unexpectedly identified during the course of the Project, and SJRRC or its contractor(s)

1 determines that the Project may cause a substantial adverse change to such a resource, SJRRC or
2 its contractor(s) will employ one or more of the following standard mitigation measures:

- 3 • Consultation with the local tribal groups originally identified during outreach to the NAHC
4 for this Project to determine if the resource is considered a tribal cultural resource.
 - 5 ○ Local tribal groups should be contacted immediately and have 72 hours to respond to
6 requests to consult.
 - 7 ○ If no response is received treatment of the resource will occur under the direction of a
8 qualified archaeologist.
- 9 • Avoidance and preservation of the resource in place, including, but not limited to, planning
10 and construction to avoid the resource and protect the cultural and natural context, or
11 planning greenspace, parks, or other open space, to incorporate the resource with culturally
12 appropriate protection and management criteria.
- 13 • Treating the resource with culturally appropriate dignity, taking into account the tribal
14 cultural values and meaning of the resource, including, but not limited to, the following:
 - 15 ○ Protecting the cultural character and integrity of the resource;
 - 16 ○ Protecting the traditional use of the resource;
 - 17 ○ Protecting the confidentiality of the resource.
- 18 • Permanent conservation easements or other interests in real property, with culturally
19 appropriate management criteria for the purposes of preserving or utilizing the resources
20 or places.
- 21 • Protecting the Resource.

22 **Significance with Application of Mitigation**

23 Implementation of Mitigation Measures CUL-2.1, CUL-2.4, CUL-3.1, and CUL-4.1 would ensure early
24 identification and protection of unanticipated discoveries during project construction and the
25 proper treatment of human remains. Implementation of Mitigation Measure CUL-4.1 would require
26 that additional consultation with local tribal groups occur following inadvertent prehistoric
27 archaeological discoveries. This consultation would allow for the assessment of prehistoric
28 archaeological resources to consider their potential to be tribal cultural resources. Protocols include
29 protection of the resource and contacting the four tribal representatives originally identified by the
30 NAHC and that were notified of the Proposed Project. Mitigation Measure CUL-4.1 would be
31 implemented in tandem with CUL-2.4. Implementation of Mitigation Measure CUL-4.1 would reduce
32 potential impacts on human remains to a less-than-significant level.

33 For the same reasons listed above, implementation of Mitigation Measures CUL-2.1, CUL-2.4, CUL-
34 3.1, and CUL-4.1 would reduce the impact on tribal cultural resources from construction of the
35 Atwater Station Alternative to a less-than-significant level.

36 **3.5.4.4 Overall Comparison of the Proposed Livingston Station and** 37 **Atwater Station Alternative**

38 Overall, there would be no substantial difference in impacts to cultural resources and tribal cultural
39 resources between implementation of the Atwater Station Alternative or the proposed Livingston
40 Station (both are expected to result in less than significant impacts after mitigation).