

CALIFORNIA HIGH-SPEED TRAIN

Environmental Impact Report /
Environmental Impact Statement

DRAFT

Fresno to Bakersfield

Supplemental Historic Property Survey Report

July 2012



**Supplemental
Historic Property Survey Report**

Prepared by:

URS/HMM/Arup Joint Venture

July 2012

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
APN	Assessor's Parcel Number
Arup	project engineer
ASR	Archaeological Survey Report
AT&SF	Atchison, Topeka and Santa Fe
Authority	California High-Speed Rail Authority
BHPC	Bakersfield Historic Preservation Commission
BNSF	BNSF Railway
B.F.A	Bachelor of Fine Arts
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act of 1969
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FRA	Federal Railroad Administration
GIS	Geographic Information System
GPS	Global Positioning System
HASR	Historic Architectural Survey Report
HMF	heavy maintenance facility
HPSR	Historic Property Survey Report
HST	high-speed train
M.A.	Master of Arts
M.S.	Master of Science
MOA	Memorandum of Agreement

NAHC	Native American Heritage Commission
n.d.	no date
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	California Office of Historic Preservation
PA	Programmatic Agreement
project	Fresno to Bakersfield Section of the California High-Speed Train Project
PTE	permission to enter
QI	Qualified Investigator
RPA	Registered Professional Archaeologist
sASR	Supplemental Archaeological Survey Report
Section 106 PA	Section 106 Programmatic Agreement for the HST Project
SF&SJV	San Francisco and San Joaquin Valley Railway
SHPO	State Historic Preservation Officer
sHPSR	Supplemental Historic Property Survey Report
SJCOC	San Joaquin Cotton Oil Company (SJCOC)
Southern Pacific	Southern Pacific Railroad
SR	State Route
UPRR	Union Pacific Railroad
URS	URS Corporation
USGS	U.S. Geological Survey
WPA	Works Progress Administration

Chapter 1.0

Description of the Undertaking

1.0 Description of the Undertaking

1.1 Project Introduction

As per Section VI[C][4] of the Section 106 Programmatic Agreement (Section 106 PA) (Authority and FRA 2011b), a supplemental Historic Properties Survey Report and Archaeological Survey Report (ASR) are required if there are changes to the Area of Potential Effects (APE) that includes either properties not exempt from evaluation or involves area that may include additional historical properties within the APE. Therefore, the following supplemental report—henceforth referred to as the *California High-Speed Train Fresno to Bakersfield Supplemental Historic Property Survey Report (sHPSR)*—describes efforts to identify and evaluate cultural resources that may be affected by the California High-Speed Train (HST) Project, Fresno to Bakersfield Section, for alternatives that were introduced after the October 2011 distribution of the *California High-Speed Train Fresno to Bakersfield Historic Property Survey Report (HPSR)* (Authority and FRA 2011f) to the State Historic Preservation Office (SHPO). The findings provided in the October 2011 ASR were reviewed and concurred with by the SHPO (OHP 2012). This supplemental is being prepared in conjunction with the recirculation of the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS), which also addresses the changes to the APE with respect to its potential to affect historic properties.

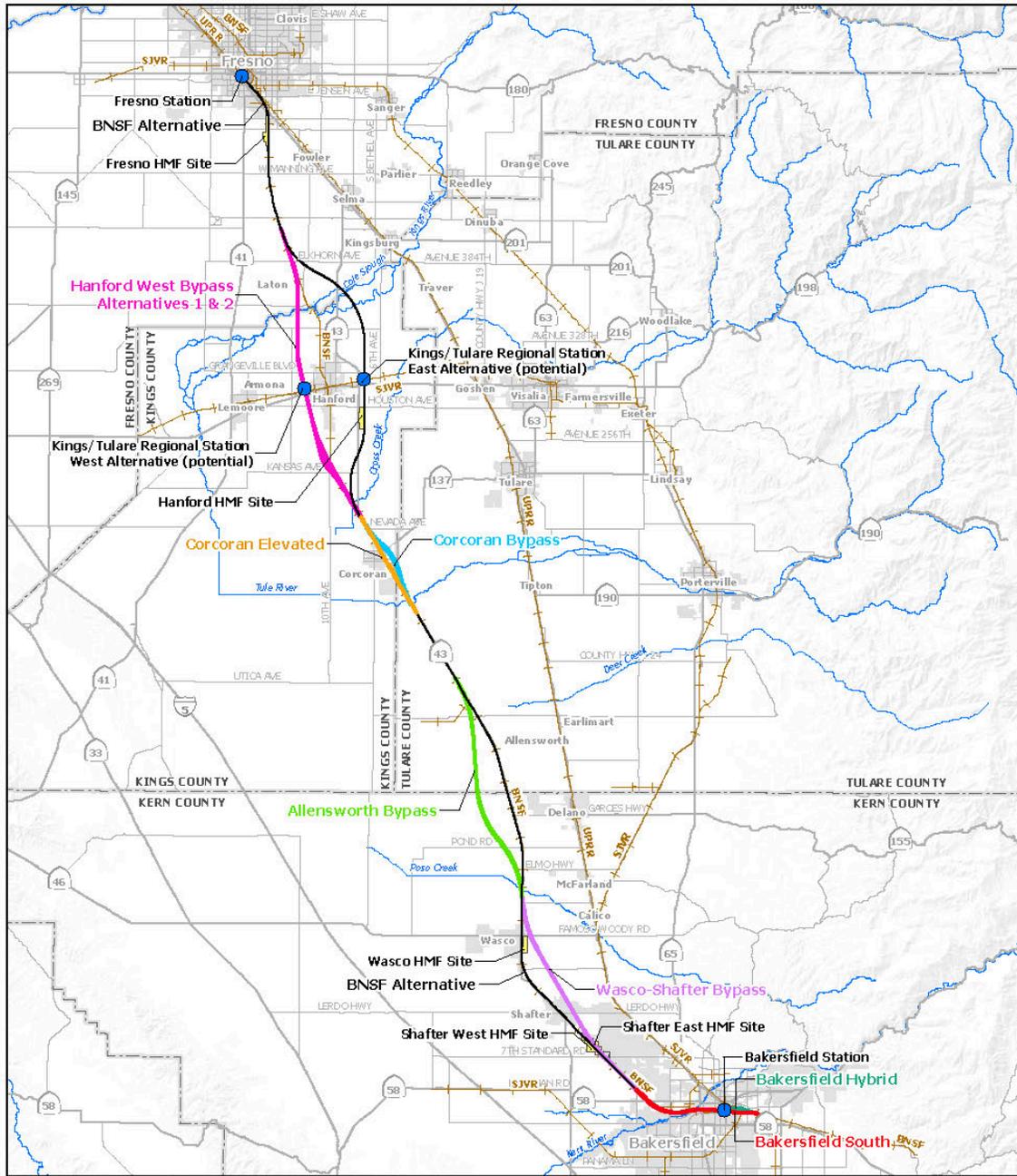
While the HPSR (Authority and FRA 2011f) addressed the overall project that consisted of a series of alternative alignment footprints from Fresno to Bakersfield (Figure 1-1; Appendix A), this particular document focuses on the addition of the revised BNSF Railroad (BNSF) Alternative, Hanford West Bypass 1 and Hanford West Bypass 2 alternatives, and the Bakersfield Hybrid Alternative between Fresno to Bakersfield. The revisions to the project along the BNSF are manifold throughout the length of this alternative and represent a required shift in the distance between the existing infrastructure of the BNSF and the proposed HST to 102 feet from the previously examined 25-foot separation. The following supplemental report only addresses cultural resources associated with those aspects of the project that have changed since the October 2011 version of the HPSR. As such, this report will refer to the original HPSR, as appropriate, for details covering the environmental, cultural, and geological settings.

Refer to the HPSR (Authority and FRA 2011f) for details regarding the project elements related to the heavy maintenance facilities (HMFs), the Corcoran Bypass Alternative, the Allensworth Bypass Alternative, the Wasco-Shafter Bypass Alternative, and the Bakersfield South Alternative.

1.2 Project Alternatives

1.2.1 Alignment Alternatives

This section describes the additional alternative alignments of the Fresno to Bakersfield HST Section. The project EIR/EIS for the Fresno to Bakersfield HST Section examines alternative alignments, stations, and HMF sites within the general BNSF Railway corridor. Discussion of the HST project alternatives begins with a single continuous alignment (the BNSF Alternative) from Fresno to Bakersfield, which has been revised. Descriptions of the additional alternative alignments that deviate from the revised BNSF Alternative for portions of the route then follow. The alternative alignments that deviate from the revised BNSF Alternative were selected to avoid environmental, land use, or community issues identified for portions of the revised BNSF Alternative (see Figure 1-1).



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2012

May 31, 2012

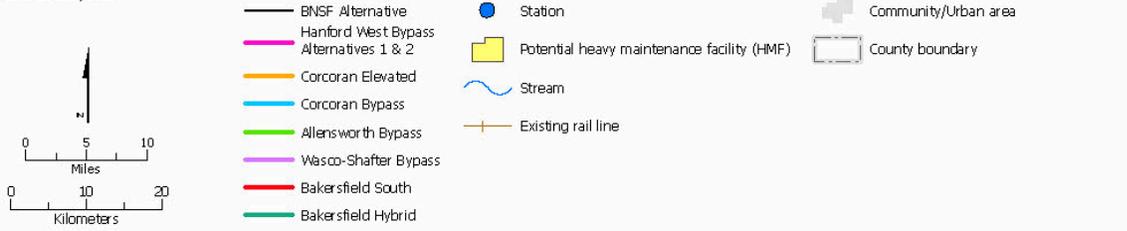


Figure 1-1
 Fresno to Bakersfield HST alignments

1.2.1.1 Revised BNSF Alternative

An important objective of the project is to align HST tracks adjacent to existing transportation corridors. The BNSF Alternative is designed to follow the existing BNSF Railway corridor adjacent to the BNSF mainline right-of-way as closely as practicable. Minor deviations from the BNSF Railway route are necessary to accommodate design requirements; namely, wider curves are necessary to accommodate the speed of the HST compared to the existing lower-speed freight line track alignment. Where there would not be a shared right-of-way, the BNSF Alternative now includes a provision for a 102-foot separation of the HST track centerline from the BNSF Railway track centerline.

A 102-foot separation between the centerlines of BNSF Railway and HST tracks is provided wherever feasible and appropriate. In urban areas where a 102-foot separation could result in substantial displacement of businesses, homes, and infrastructure, the separation between the BNSF Railway and HST was reduced. The areas with reduced separation require protection to prevent encroachment on the HST right-of-way, in the event of a freight rail derailment. Protection consists of a swale, berm, or wall, depending on the separation.

1.2.1.2 Hanford West Bypass 1 and 2 Alternative

The Hanford West Bypass 1 Alternative would parallel the BNSF Alternative from East Kamm Avenue to approximately East Elkhorn Avenue in Fresno County. At East Conejo Avenue where the BNSF Alternative crosses to the eastern side of the BNSF Railway tracks to pass the city of Hanford to the east, the Hanford West Bypass 1 Alternative would continue south on the western side of the BNSF Railway tracks. The Hanford West Bypass 1 would diverge from the BNSF Railway corridor just south of East Elkhorn Avenue and ascend onto an elevated structure just south of East Harlan Avenue, crossing over the Kings River complex and Murphy Slough, and passing the community of Laton to the west. The elevated structure would be approximately 0.8 mile in length and reach a maximum height of approximately 40 feet to the top of the rail. The Hanford West Bypass 1 Alternative would return to grade just north of Dover Avenue. The alignment would continue at-grade, curve gently to the east, and travel between the community of Armona to the west and the city of Hanford to the east. The Hanford West Bypass 1 Alternative would rejoin the BNSF Railway corridor on its western side at about Lansing Avenue. The alignment would then ascend onto another elevated structure, traveling over Cross Creek and special aquatic features that exist north of Corcoran. The elevated structure would span approximately 3 miles and reach a maximum height of approximately 20 feet to the top of the rail. This alignment would return to grade just north of Nevada Avenue and would connect to the BNSF Alternative traveling through Corcoran at-grade, on the western side of the BNSF Railway corridor. The total length of the Hanford West Bypass 1 Alternative would be approximately 28 miles.

The Hanford West Bypass 1 Alternative includes a design option where the alignment would be below-grade between Grangeville Boulevard and Houston Avenue. The alignment would travel below-grade in an open cut with side slopes as it transitions to a retained-cut profile, approximately 40 feet below ground level. As the alignment transitions back to grade just north of Houston Avenue, the open-cut profile would be used once more. The alignment would cross State Route (SR) 198 and several local roads. South Peach Avenue, East Clarkson Avenue, East Barrett Avenue, Elder Avenue, and South Tenth Avenue would be closed at the HST right-of-way, while the other roads would be realigned and/or grade-separated from the HST with overcrossings/undercrossings. Grade separations at Grangeville Boulevard, 13th Avenue, and West Lacey Boulevard would be determined based on the alignment design option selected (at-grade or below-grade).

The potential Kings/Tulare Regional Station–West Alternative would be located along this alignment, east of Thirteenth Avenue between Lacey Boulevard and the SJVR railroad spur. This potential station includes an at-grade and below-grade design option as well.

The Hanford West Bypass 2 Alternative would be the same as the Hanford West Bypass 1 Alternative from East Kamm Avenue to just north of Jackson Avenue where the Hanford West Bypass 2 would curve away from the Hanford West Bypass 1 to the east. The Hanford West Bypass 2 Alternative would then travel over Kent Avenue, the BNSF Railway right-of-way, and Kansas Avenue on an elevated structure approximately 1.5 miles in length. The structure would reach a maximum height of 55 feet to the top of the rail before returning to grade north of Lansing Avenue and continuing along the BNSF Railway corridor. Similar to the Hanford West Bypass 1 Alternative, the Hanford West Bypass 2 Alternative would travel over Cross Creek and the special aquatic features located north of Corcoran and return to grade north of Nevada Avenue; however, the Hanford West Bypass 2 would be located on the eastern side of the BNSF Railway tracks in order to connect to either the Corcoran Elevated Alternative or the Corcoran Bypass Alternative, described below. Like the Hanford West Bypass 1 Alternative, the total length of the Hanford West Bypass 2 Alternative would be approximately 28 miles.

The Hanford West Bypass 2 Alternative includes the same below-grade design option between Grangeville Boulevard and Houston Avenue as the Hanford West Bypass 1 Alternative, as well as the either at-grade or below-grade potential Kings/Tulare Regional Station–West Alternative. Similar to the Hanford West Bypass 1 Alternative, Hanford West Bypass 2 would cross SR 198 and several local roads. Road closures would be the same as those for the Hanford West Bypass 1, and roadway modifications at Grangeville Boulevard, 13th Avenue, and West Lacey Boulevard would depend on the alignment design option selected.

1.2.1.3 Bakersfield Hybrid Alternative

From Rosedale Highway (SR 58) in Bakersfield, the Bakersfield Hybrid Alternative would follow the Bakersfield South Alternative and parallel the BNSF Alternative at varying distances to its north. At approximately A Street, the Bakersfield Hybrid Alternative would diverge from the Bakersfield South Alternative, cross over Chester Avenue and the BNSF right-of-way in a southeasterly direction, then curve back to the northeast to parallel the BNSF Railway tracks towards Kern Junction. After crossing Truxtun Avenue, the alignment would curve to the southeast to parallel the Union Pacific Railroad (UPRR) tracks to its terminus at Oswell Street. As with the BNSF and Bakersfield South alternatives, the Bakersfield Hybrid Alternative would begin at-grade and become elevated starting at Country Breeze Place through Bakersfield to Oswell Street. Dedicated wildlife crossing structures would not be required because this alternative would be elevated to the north and south of the Kern River.

The Bakersfield Hybrid Alternative would be approximately 12 miles long and would cross many of the same roads as the BNSF and Bakersfield South alternatives. This alternative includes the Bakersfield Station–Hybrid Alternative.

1.2.2 Station Alternatives

The additional alternatives to the Fresno to Bakersfield HST Section would include a new station in Hanford and a new station in Bakersfield.

Stations would be designed to address the purpose of the HST, particularly to allow for intercity travel and connection to local transit, airports, and highways. Stations would include the station platforms, a station building, and an associated access structure, as well as lengths of bypass tracks to accommodate local and express service at the stations. All stations would contain the following elements:

- Passenger boarding and alighting platforms.
- Station head house with ticketing, waiting areas, passenger amenities, vertical circulation, administration and employee areas, and baggage and freight-handling service.
- Vehicle parking (short-term and long-term) and “kiss and ride.”¹
- Motorcycle/scooter parking.
- Bicycle parking.
- Waiting areas and queuing space for taxis and shuttle buses.
- Pedestrian walkway connections.

1.2.2.1 Kings/Tulare Regional Station Alternative

The potential Kings/Tulare Regional Station–West Alternative would be located east of 13th Avenue and north of the San Joaquin Valley Railroad on the Hanford West Bypass 1 and 2 alternatives in the vicinity of Hanford. The station would be located either at-grade or below-grade depending on which Hanford West Bypass alignment design option is chosen.

The at-grade Kings/Tulare Regional Station–West Alternative would include a station building of approximately 100,000 square feet with a maximum height of approximately 36 feet. The entire site would be approximately 48 acres, including 6 acres designated for the station, bus bays, short-term parking, and kiss-and-ride areas. Approximately 5 acres would support a surface parking lot with approximately 700 spaces. An additional 3.5 acres would support two parking structures with a combined parking capacity of 2,100 spaces.

The below-grade Kings/Tulare Regional Station–West Alternative would include a station building of approximately the same size and height. The below-grade station site would include the same components as the at-grade station option on the same number of acres; however, the station platform would be located below-grade instead of at ground level. Approximately 4 acres would support a surface parking lot with approximately 600 spaces and an additional 4 acres would support two parking structures with a combined parking capacity of 2,200 spaces.

1.2.2.2 Bakersfield Hybrid Station Alternative

The Bakersfield Station–Hybrid Alternative would be in the same area as the North and South Station alternatives, and located at the corner of Truxtun and Union Avenue/SR 204 on the Bakersfield Hybrid Alternative. The station design includes an approximately 57,000 square-foot main station building and an approximately 5,500 square-foot entry concourse located north of the BNSF Railway right-of-way. The station building would have two levels with a maximum height of approximately 95 feet. The first floor would house the concourse, and the platforms and guideway would be on the second floor. Additionally, a pedestrian overcrossing would connect the main station building to the north entry concourse across the BNSF right-of-way.

The entire site would be approximately 24 acres, with 15 acres designated for the station, bus transit center, short-term parking, and kiss-and-ride areas. Approximately 4.5 of the 24 acres would support three parking structures with a total capacity of approximately 4,500 cars. Each parking structure would be seven levels; one with a planned capacity of 1,750 cars, another with a capacity of 1,315 cars, and the third with a planned capacity of 1,435 cars. An additional 460 parking spaces would be provided in surface lots covering a total of approximately 4.5 acres of the station site. Access to the station site would be from Truxtun and Union avenues, as well as from Hayden Court. Under this alternative, the BNSF Railway track runs through the station site,

¹ “Kiss-and-ride” refers to the station area where riders may be dropped off or picked up before or after riding the HST.

and the main station building and majority of station facilities would be sited south of the BNSF Railway right-of-way.

1.3 Definition of the Area of Potential Effects

Section 106 requires that an Area of Potential Effects (APE) be defined for the project. An APE is defined in 36 Code of Federal Regulations (CFR) Section 800.16(d) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking; it may be different for different kinds of effects caused by the undertaking and different types of resources. Given the inherent differences in archaeological and historic architectural resources, distinct APEs were developed for each of these resource classes. Map sets that show the extent of these different APEs are provided in Appendix A. For the HST project, the APE for archaeological resources and historic architectural resources was established in consultation with the project engineer (Arup) and the Authority. The SHPO concurred with the approach regarding the delineation of the APE on June 28, 2010 (Stratton 2010), in accordance with the *Section 106 Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train Project* (Section 106 PA).

1.3.1 Archaeological APE

As with the ASR version of the APE, the archaeological APE for the sASR is defined as the project footprint, which is the area of horizontal and vertical ground disturbance expected during construction of the undertaking. Ground-disturbing activities include grading, cut and fill, easements, staging areas, utility relocations, and biological mitigation areas. All subsequent changes to the alignment have been related to its lateral position on the landscape or to the addition or removal of certain elements of the alignment.

The archaeological APE reported in this sASR document reflects the most current configuration of the project alignments. As mentioned in Section 1.0, the APE had been modified due to project engineering changes to the project footprint since the ASR was submitted to the SHPO in October 2011. The modifications to the APE were made in a manner consistent with the parameters for delineation discussed above.

The majority of the alignment footprint changes represent minor changes from the October 2011 ASR configuration, in terms of the BNSF alignment, but the changes occur up and down the length of the alignment (see Appendix A). On the other hand, the Hanford West alignment alternative is a new addition to the set of alignment alternatives that was not included in the October 2011 ASR (see Appendix A).

1.3.2 Historic Architectural APE

The revised APE for historic architectural resources for this Supplemental Historic Property Survey Report (HPSR) was established in consultation with the project engineer (Arup) and the Authority to ensure all historic architectural resources, potentially directly or indirectly affected, were included.² The APE will continue to be revised as planning proceeds to reflect refinements to the proposed rail alignment alternatives and as engineering revisions become available. Maps showing the current APE are provided in Appendix A.

² Please refer to the original HPSR for the APE as of October 2011 (Authority and FRA 2011b). A copy of SHPO concurrence in that APE is provided in Appendix B of this Supplemental HPSR.

The APE for historic architectural resources was defined according to the parameters of Attachment B of the Section 106 PA (a copy of the PA is provided in Appendix E). All parcels within the APE that contain buildings, structures, or objects more than 50 years of age at the time of the survey were subject to intensive-level study or were deemed to be *streamlined documentation properties*, as defined in the Section 106 PA. The historic architectural resources APE for the Fresno to Bakersfield Section includes all legal parcels intersected by the proposed right-of-way, construction of proposed ancillary features (such as grade separations or maintenance facilities), and construction staging areas. If historic architectural resources existed on a large rural parcel within 150 feet (46 meters) of the proposed HST right-of-way, or if it was determined that the resources on that parcel were otherwise potentially affected by the project, the entire parcel was included in the APE. If historic architectural resources on a large rural parcel were more than 150 feet (46 meters) away from the proposed HST at-grade right-of-way and were otherwise not potentially affected by the project, the APE boundary was set at 150 feet (46 meters) from the right-of-way. In these cases, resources outside the APE on that parcel did not require further survey. This methodology for establishing the Historic Architectural APE follows both standard practices for the discipline and Attachment B of the Section 106 PA.

The historic architectural resources APE also includes parcels adjacent to those intersected by the proposed HST project if the historic architectural resources on those parcels may be indirectly affected. For the California High-Speed Train Project, a key phrase in the APE definition in the Section 106 regulations is "may cause alterations in the character or use of historic properties." Some sections of the undertaking may introduce rail service where none existed during the historic era, for example along a highway or through agricultural fields. For such sections, the undertaking is more likely to change the character or use of a historic property, and the APE is drawn to include legal parcels or historic architectural resources properties that might be affected by changes to their setting and the introduction of visible or audible elements. Other potential effects that were considered when delineating the APE included, but were not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a property; isolating a property from its setting; visual, audible, or atmospheric intrusions; shadow effects; damage from vibrations; and change in access or use.

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Chapter 2.0

Summary of Findings

2.0 Summary of Findings

This chapter summarizes the project, the purpose of the Supplemental HPSR, the archaeological resources evaluated, and the historic architectural resources evaluated.

2.1 Purpose of Supplemental Historic Property Survey Report

This Supplemental HPSR has been prepared as part of the continued compliance of the project proponent, the Authority, and the lead federal agency, the FRA, with Section 106 of the National Historic Preservation Act (NHPA) and the implementing regulations of the Advisory Council on Historic Preservation, as these pertain to federally funded undertakings and their impacts on historic properties. The Supplemental HPSR follows the procedures set forth in the Section 106 PA (Authority and FRA 2011b) (see Appendix E). The Supplemental HPSR also assists the Authority and FRA in complying with CEQA and the CEQA Guidelines, as they pertain to historical resources, for this project. The Supplemental HPSR has been prepared as part of this compliance to address refinements to the project alternatives since the preparation of the original HPSR in October 2011.³

The purpose of this Supplemental HPSR is (1) to present the APE for archaeology and historic architectural resources for the project, as refined since the previous HPSR was completed in October 2011; (2) to identify known and potential historic properties within that APE, and (3) to present the historic status and the findings of evaluations of significance of the historic properties identified within the refined APE.⁴

A separate document called the Supplemental Historic Architectural Survey Report (sHASR) was prepared to document historic architectural resources that are not listed, nor eligible for listing, in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), but that required evaluation to fulfill Section 106 and CEQA obligations (Authority and FRA 2012b). Similarly, a separate document called the Supplemental Archaeological Survey Report (sASR) has been prepared to document archaeological inventory efforts and archaeological properties that do not appear to be eligible for the NRHP.

This Supplemental HPSR (as well as the sHASR and sASR) will be submitted to the California State Historic Preservation Officer (SHPO) for review. The SHPO will review and evaluate the adequacy of the refined APEs and the identification and evaluation findings of the studies. To facilitate review for the various cultural disciplines, the sections within this report are divided into separate subsections for archaeological resources and historic architectural resources. Upon SHPO concurrence with the eligibility determinations, future documents will present the findings of the effects analysis and propose appropriate mitigation for any adverse effects on historic properties that are identified in a Findings of Effect report. The results of these studies will be used as the basis for the identification of cultural resources in the Revised Draft EIR/EIS that is being prepared for the Fresno to Bakersfield Section of the HST System.

³ The previous technical studies for the built environment were the *California High-Speed Train Fresno to Bakersfield Historic Property Survey Report (HPSR)* (Authority and FRA 2011f) and the *California High-Speed Train Fresno to Bakersfield Historic Architectural Survey Report (HASR)* (Authority and FRA 2011a).

⁴ Please refer to the original HPSR for a summary of the findings as of October 2011 (Authority and FRA 2011f). A copy of the SHPO concurrence in that study is provided in Appendix B of this Supplemental HPSR.

2.2 Archaeological Resources Summary of Findings

Background research and an archaeological survey were conducted to identify archaeological resources that may be affected by the proposed Fresno to Bakersfield Section of the California HST Project for alternatives that were introduced after the October 2011 distribution of the California High-Speed Train Fresno to Bakersfield Archaeological Survey Report (ASR) (Authority and FRA 2011b) to the State Historic Preservation Office (SHPO). The findings provided in the October 2011 ASR was reviewed and concurred with by the SHPO (OHP 2012). This supplemental is being prepared in conjunction with the recirculation of the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS), which also addresses the changes to the APE with respect to its potential to affect historic properties. The background research included the identification of cultural resources formally recorded with the California Historical Resources Information System (CHRIS) housed at the Southern San Joaquin Valley Information Center, California State University, Bakersfield, and the Sacred Lands File of the Native American Heritage Commission (NAHC). In addition, historical maps were reviewed for evidence of previously unrecorded historic-era archaeological resources. The historic context was developed through a bibliographic review of pertinent research to establish the overall archaeological and historic context. This bibliographic review included relevant geomorphic and geoarchaeological literature pertinent to defining the potential for buried archaeological resources within the archaeological APE (Appendix A).

The records search revealed 23 previously recorded archaeological resources within a 0.25-mile (0.4-kilometer) buffer of the APE for the project. Three of these resources are within the archaeological APE, but neither of these resources is considered a historic property or a historic resource. No archaeological resources listed in, or previously determined to be eligible for, the NRHP are within the archaeological APE. No sites listed in the NAHC's Sacred Lands file are within the archaeological APE.

Pedestrian surveys of portions of the archaeological APE for which permission to enter (PTE) had been obtained were conducted by a team of URS Corporation (URS) archaeologists between February 15 and April 8, 2010. A subsequent survey was conducted August 16 to August 18, 2010, that incorporated several changes to the proposed route of the Fresno to Bakersfield Section. The APE was defined as the limits of direct impact of the proposed project; the APE includes the existing BNSF Railway (BNSF) right-of-way and the proposed construction easements. For the current project design, this APE constitutes an area of 7,891 acres. Permission to enter was obtained for approximately 49%, or 3,855 acres, of this area. Besides restrictions on entry, portions of the APE could not be surveyed because of crop cover, vegetation, or urbanization. As a result, 65%, or 2,521-acres, of the PTE area was surveyed. This acreage represents 32% of the total area of the APE. However, 386 acres of the BNSF right-of-way (which were not included in the PTE acreage described above) were surveyed within the footprint APE. Therefore, a total of 2,907 acres (37% of the APE) were subject to pedestrian surveys. The field surveys completed to date have identified a total of three archaeological sites within the archaeological APE. These sites have been evaluated for listing in the National Register of Historic Places; the results of these evaluations are recorded on California Department of Parks and Recreation (DPR) 523 forms. All three sites were found to lack sufficient integrity to be eligible for the National Register (see *Fresno to Bakersfield Section: Archaeological Survey Report (ASR)* [Authority and FRA 2011e]).

2.3 Historic Properties Summary of Findings

The refined APE for historic architectural resources is described in section 1.5.2 and shown in Appendix A; the tables in Chapters 6.0 and 7.0 indicate the map identification numbers for the historic architectural resources inventoried and evaluated in this study. Those tables also cross-

reference the map identification numbers (Map ID #s) to the Assessor's Parcel Numbers (APNs). The property evaluations are presented on DPR 523 forms and DPR 523 Update forms as well as copies of previously prepared recordation forms (Appendix C). The remainder of this summary outlines the conclusions of the supplemental inventory and evaluation of historic architectural resources in the APE for the project.

The refined APE for historic architectural resources for this project contains 13 properties containing buildings and structures that are either known historic properties (identified by previous studies), that required inventory and evaluation because they had not been previously evaluated, or that required updated documentation. The historic properties are located in Fresno, Kings, and Kern counties and were constructed in or before 1961. This Supplemental HPSR assists in achieving project compliance with Section 106 by soliciting SHPO concurrence with the findings of the inventory and evaluation of these resources.

Of the 13 historic properties addressed in this Supplemental HPSR, 1 is a contributor to a property listed in the NRHP, 1 is a contributor to a previously determined eligible historic property, and 2 were previously determined eligible for listing in the NRHP. The other 9 properties are evaluated under NRHP and CRHR criteria for the first time in this report and are eligible for listing in the NRHP. A summary of the findings for the historic architectural resources addressed in this Supplemental HPSR is as follows (definitions of the status codes are provided in Appendix D):

- One (1) property is a contributor to a listed historic property (Status Code 3).
- Two (2) properties were previously determined eligible for listing in the NRHP (Status Code 2).
- One (1) property is a contributor to a previously determined eligible property (Status Code 2).
- Nine (9) properties are eligible for listing in the NRHP and CRHR (Status Code 3) and were identified for the first time as part of the current survey.

All 13 of these historic architectural resources have either been listed in, were previously determined eligible for, or meet the criteria for listing in the NRHP. All of these historic architectural resources were also evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and are considered historical resources for the purposes of CEQA.

The historic architectural resources that met the Section 106 PA definition of *streamlined documentation properties*, as well as those that required evaluation but were not found eligible for listing in the NRHP or CRHR, were surveyed and presented as part of the Supplemental HASR submittal for this project (Authority and FRA 2012b).

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Chapter 3.0

Consulting Parties and Public Participation

3.0 Consulting Parties and Public Participation

The Section 106 PA sets forth the procedures for public participation and involvement in the Section 106 process for the project. The public, local agencies, and other interested parties have the opportunity to comment on the findings of the historic property surveys at public meetings and through review of the Draft and Final EIS/EIR documents (see Appendix E for a copy of the Section 106 PA, Section V). Consulting parties, who may include other federal, state, regional, or local agencies that may have responsibilities for historic properties and may want to review reports and findings for an undertaking within their jurisdiction, will be invited to participate in undertakings covered by the Section 106 PA (Section V, Part B).

3.1 Historic Properties: Interested Parties

Please refer to the original HPSR (Authority and FRA 2011f) for copies of the letter informing parties interested in the historic architectural resources of this project and copies of responses received as of October 2011. The recipients of the letters include such interested parties as area planning agencies, local government planning departments and/or historic preservation programs, historical societies, and museums, in compliance with the consultation requirements of NHPA and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800). Any future correspondence submitted or received regarding historic architectural resources will be included with subsequent technical documents, as appropriate. Continued consultation with the cities of Fresno and Bakersfield regarding historic properties will be included with the Fresno to Bakersfield Section Memorandum of Agreement (MOA).

3.2 Native American Consultation

Adhering to the requirements of the Section 106 PA for the California HST, the FRA and the Authority have initiated consultation with the Native American Heritage Commission for purposes of conducting a search of its Sacred Lands File and obtaining lists of Native American contacts. Given the changes to the project alignment since the original Sacred Lands File request was submitted, the FRA and the Authority initiated consultation with these contacts by letter on June 22, 2012. Those contacted were provided information about the proposed project alternatives and were requested to supply information about any traditional cultural properties that could be affected by the project. The FRA and Authority are expected to continue consultation through the completion of the Section 106 process. Further details regarding the Native American consultation since the submittal of the October 2011 HPSR are provided in Table 3.2-1.

Table 3.2-1
 Native American Consultation and Communication

Action	Date	Summary	Type
<p>Letter sent from FRA to federally recognized tribes informing them of the Authority staff's recommendation of the "Hybrid" Alternative as the preferred route for the Merced to Fresno Section of the HST System.</p>	<p>December 12, 2011</p>	<p>Responses received from the Pala Tribal Historic Preservation office (December 29, 2011) and the Shingle Springs Rancheria Band of Miwok Indians (January 5, 2012).</p>	<p>Informal</p>
<p>Public Meeting Regarding Preferred Alternative.</p>	<p>December 13, 2011</p>	<p>Representatives from all tribal entities, including federally recognized tribes, groups, and individuals identified by the NAHC and through coordination efforts over the past 2 years, were invited to this meeting via telephone outreach and mailings.</p>	<p>Informal</p>
<p>Letter from the Authority inviting all local, state, and federal tribes to an informational meeting to discuss the staff-recommended Preferred Alternative for the Merced to Fresno Section of the HST System. Subsequent follow-up phone calls and/or emails were made to all invitees to encourage attendance.</p>	<p>December 21, 2011</p>	<p>Informational meeting invitation to all local, state, and federal tribes to discuss the staff-recommended Preferred Alternative for the Merced to Fresno Section of the HST System. Other topics noted for discussion included: updates and changes to the project since July 2011; updates and status of cultural resources investigations; discussion of potential impacts on known archaeological sites; strategies for conducting archaeological surveys in areas where access was denied; processes for future involvement in the MOA; input on the presence of traditional cultural sites or sensitive areas within the project area; and tribal concerns and comments.</p>	<p>Informal</p>

Table 3.2-1
 Native American Consultation and Communication

Action	Date	Summary	Type
<p>Authority and FRA-hosted informational meeting with Native American tribes and groups regarding the selection of the "Hybrid" alternative as the preferred route for the Merced to Fresno Section of the HST System, status of technical reports and compliance documents, and to obtain input from interested Native American groups and individuals.</p>	<p>January 10, 2012</p>	<p>Representatives from all tribal entities including federally recognized tribes, groups, and individuals identified by the NAHC and through coordination efforts over the past 2 years were invited to this meeting via telephone outreach and mailings.</p> <p>Meeting convened by the Authority in Fresno, California, to update tribal representatives regarding the status of cultural resources investigations and to request input regarding concerns and/or interests. Questions and concerns were offered by attendees regarding the confidentiality of site information, monitoring during construction, and repatriation of human remains.</p> <p>Representatives from the following non-federally recognized tribal groups attended the meeting: Chowchilla Tribe of Yokuts, Eshom Valley Band of Wuksachi/Michahai, Amah Mutsun Tribal Band of Costanoan/Ohlone. Also in attendance was one person with Yaqui/Apache affiliation. No federal tribes attended this meeting.</p>	<p>Informal</p>

Table 3.2-1
 Native American Consultation and Communication

Action	Date	Summary	Type
<p>Email and phone conversation between the Authority and the Chairman/Speaker of the Eshom Valley Band of Indians.</p>	<p>January 11, 2012</p>	<p>Authority sent email providing information requested by the Chairperson during the January 10, 2012, meeting. Authority received phone call in response to the email. The Eshom Valley Chairman indicated that his area of concern was the Fresno to Bakersfield Section of the HST. His primary concerns pertained to the treatment and disposition of human remains and confidentiality of cultural resources.</p>	<p>Informal</p>
<p>Email from Authority to Chairperson of the Amah Mutsun Tribal Band of Costanoan/Ohlone Indians.</p>	<p>January 11, 2012</p>	<p>Authority sent email providing information requested by the Chairperson during the January 10, 2012, meeting. Authority staff has had multiple conversations with the Amah Mutsun Chairperson since this time. It was confirmed by the Chairperson that he is interested in the San Jose to Merced Section of the HST. His primary concerns pertained to the confidentiality of cultural resources, the treatment of human remains, Native American monitoring, and the avoidance of important Native American sites by the HST project.</p>	<p>Informal</p>

Table 3.2-1
 Native American Consultation and Communication

Action	Date	Summary	Type
Phone call from Chairperson of Chowchilla Tribe of Yokuts to Authority cultural resources staff.	January 12, 2012	As a follow-up to the January 10, 2012, tribal information meeting, the Chowchilla Tribal Chairperson indicated that he would be sending a map of his tribal territory and would be contacting Authority cultural resources staff when he is ready to schedule a meeting.	
Authority sent a request to the NAHC for a third Sacred Lands Search and an updated list of tribal contacts.	February 24, 2012	A third inquiry was sent to the NAHC requesting the most updated contact information for both federal and non-federal tribes specific to the Merced to Fresno Section of the HST System for consultation on the development of the MOA.	Information request
Response from NAHC to Authority	March 8, 2012	The NAHC responded, indicating that a search of the Sacred Lands File revealed that Native American cultural resources were not identified in the project APE, but that such resources had been identified nearby. An updated list of local Federal and non-Federal tribes for the Merced to Fresno Section was provided by the NAHC.	Response to information request
Letter sent from the FRA to federally recognized tribes within Merced, Madera, and Fresno counties requesting face-to-face consultation, invitation to participate as consulting party to the MOA for treatment of historic properties, and request for comments on the draft FOE pursuant to the PA.	March 14, 2012	Letter sent certified return receipt; six of seven return receipts have been received to date. As of the date of preparation of this EIR/EIS, one tribe, the California Valley Miwok Tribe, has accepted the invitation to be a Section 106 consulting party.	Request for Formal Consultation

Table 3.2-1
 Native American Consultation and Communication

Action	Date	Summary	Type
Letter sent from the Authority to all non-federally recognized tribal entities soliciting input on the draft FOE document, as well as inviting participation in the development of the MOA and treatment plans.	March 14, 2012	Letter sent certified return receipt; 8 of 10 return receipts received to date. As of the date of preparation of this EIR/EIS, two tribes, the North Fork Mono Tribe and the Chowchilla Tribe of Yokuts, have accepted the invitation to be a consulting party on the development of the MOA and Treatment Plans.	Formal invitation to participate in the development of the MOA/Treatment Plan.
Acronyms and Abbreviations APE = Area of Potential Effects Authority = California High-Speed Rail Authority EIR/EIS = Environmental Impact Report/Environmental Impact Statement FRA = Federal Railroad Administration FOE = Finding of Effects HST = high-speed train MOA = Memorandum of Agreement NAHC = Native American Heritage Commission PA = Programmatic Agreement			

Chapter 4.0

Summary of Identification Effort

4.0 Summary of Identification Effort

The details regarding the approach to the identification effort are presented in the *California High-Speed Train Fresno to Bakersfield Historic Property Survey Report* (Authority and FRA 2011f) and the *California High-Speed Train Fresno to Bakersfield Archaeological Survey Report* and Authority and FRA 2011e). Chapter 4.0 describes the efforts to update previous work to identify cultural resources and provide context for any newly identified resource within the revised APE.

4.1 Archaeological Resources

This section describes the background literature review, the records search, the survey methods and implementation, the framework for identifying archaeological properties, and Native American communications.

4.1.1 Background Literature Review

A review of relevant literature and sources on San Joaquin Valley prehistory, ethnography, and history was undertaken to develop a broad context of the cultural evolution and archaeological record for this area of California. Literature related to the natural and physiographic setting was also reviewed as relevant to the prehistoric archaeological record. This research involved library database searches, reviews of texts that encompass the entire state, such as *California Archaeology* (Moratto 1984) and *California Prehistory* (Rondeau et al. 2007), archaeological reports more directly relevant to the southern San Joaquin Valley, and readings on landscape ecology and paleoecology. The results of the literature review are summarized in Chapter 5.0, Historic Context, and used as the basis for the context within which to evaluate potential historic properties.

4.1.2 Records Search

In the fall of 2009, URS performed a digital scan of the Southern San Joaquin Valley Information Center (SSJVIC) Resource and Reports U.S. Geological Survey (USGS) 7.5-minute quadrangles that intersect with the Fresno to Bakersfield Section. Each quad was georeferenced to real-world coordinates and placed in a geographic information system (GIS) environment to allow for accurate digitization of the individual resources and reports recorded on the maps. In March 2011, each quadrangle used in the original records search was updated to ascertain whether any newly identified resources have been submitted to the SSJVIC since September 2009 when the quadrangles were originally scanned. The results of this update are incorporated into the results below. URS reviewed the digital quadrangles for resources and survey reports of the newly added project area.

The following references were also reviewed:

- National Register of Historic Places – Listed Properties and Determined Eligible Properties.
- Directory of Properties in the Historic Property Data File for Fresno, Kings, Tulare, and Kern Counties (OHP 2009).
- *California Inventory of Historic Resources* (OHP 1976).
- *California Points of Historical Interest* (OHP 1992).
- *California Historical Landmarks* (OHP 1996).
- *Handbook of North American Indians*, Volume 8, California (Heizer 1978).
- Sanborn Maps in urban areas.
- Historic USGS quadrangles.
- Local General Plan documents for Fresno, Kings, Tulare, and Kern counties.

A total of 23 previously recorded archaeological resources are within 0.25 mile of the APE. The changes to the APE resulted in changes to the resources with the identified sites presented in the ASR, as shown in Table 6-1. Of these sites, four previously recorded sites are in the current (May 2012) APE (see Table 6-2), and two were not previously addressed in the ASR as being within the APE. One of the four previously recorded sites, P-16-000084, was recorded as an isolate and therefore will not be considered further. The three additional sites-CA-KIN-69H, CA-TUL-473, and HW-JR-1-were identified in the APE either through background research or field efforts that do not appear to contain values or conditions that would make them eligible for listing in either the NRHP or CRHR.

No previously recorded archaeological properties listed in or determined to be eligible for listing in the NRHP and within the archaeological APE were identified as a result of the background research.

4.1.3 Survey Methods and Implementation

The identification plan entailed pedestrian surveys of the project alignment APE for the newly revised areas. Archaeologists meeting the professional qualifications of the Secretary of the Interior's Standards for Archaeologists and meeting the definition of Qualified Investigator (QI), as per the Section 106 PA, conducted the identification and evaluation of archaeological resources for the Fresno to Bakersfield Section of the HST. The principal constraint on the pedestrian surveys was obtaining entry to private parcels of land that intersect with the archaeological APE. Before the surveys, a third-party right-of-way consultant, Bender Rosenthal, Inc., conducted a project-wide effort to secure PTE to privately held land. The Bender Rosenthal team provided lists of parcels for which PTE had been obtained and any special conditions to the access. URS integrated these lists into both field mapping and GPS units to provide field staff spatial information regarding where the pedestrian surveys were authorized. In many cases, access was not granted. The parcel owners who granted access for the surveys represented approximately 49% of the project footprint acreage (i.e., the APE). The remaining parcel owners either did not respond or did not grant access to their land.

Given differences in ground surface visibility across the APE, mainly due to factors such as vegetation cover or urban development (paving, etc.), variability in field survey methods was employed. The paramount objective was to perform the field surveys efficiently, while maximizing the opportunity for observation of archaeological manifestations. However, in every instance the actual field circumstances dictated the most appropriate survey technique that balanced efficiency and the potential for detecting archaeological phenomena (Banning et al. 2006). All efforts were made to survey 100% of the accessible parts of the APE; however, exceptions were taken in the field in areas that were deemed unsafe or where the visibility of the surface was minimal or nonexistent and precluded the discovery of cultural resources. These areas included dense underbrush, stands of poison oak, areas of heavy agricultural cover, areas recently dusted with pesticides, areas of concentrated feeding operations, and areas that were paved or under water.

The urbanized segments of the Fresno to Bakersfield Section were surveyed using a combination of techniques that depended on the nature of the field condition. In some instances, areas of exposed ground within an otherwise heavily urbanized area were closely inspected. However, by and large, the urbanized areas provided little visibility with respect to surface manifestations of archaeological deposits, and were treated as such.

To address the possibility of buried historic-era cultural deposits in urbanized settings, URS obtained a set of historic-era fire insurance maps called Sanborn maps for the historically urbanized areas that intersect with the California HST project alignment. The map set, which has been fully georeferenced, serves as a digital map tool (EDR 2010). The map set was reviewed to

determine the sensitivity/potential for buried historic-era deposits within the project footprint. This effort is described in further detail in the ASR (Authority and FRA 2011e). No archaeological historic properties were identified as a result of this effort.

In areas under active cultivation, the survey transects followed, if feasible, the direction of the rows. In areas where rows were planted obliquely to the direction of the APE, a zigzagging approach was employed. In general, planted and fallow agricultural fields were surveyed at 10- to 15-meter (33- to 49-foot) transect intervals. As discussed above, this method was sometimes not feasible due to adverse conditions or variability in ground surface visibility. In these cases, the survey method that maximized ground surface inspection was employed.

In areas within the BNSF right-of-way (which is considered to be 50 feet [15 meters] on either side of the centerline of the tracks) and other rail rights-of-way, the degree of disturbance within portions of the right-of-way precluded an examination of the native surface; hence the native surface was not surveyed as intensely as areas of open land. These heavily disturbed portions of the existing rail rights-of-way included the rail prism and ballast, where the potential for archaeological deposits is assumed to be low enough not to warrant unnecessarily narrow transects.

4.1.4 Framework for Identifying Archaeological Properties

The field procedures that guided the identification of archaeological sites encountered relied on the *Fresno-Bakersfield Archaeological Identification and Evaluation Plan* (Authority and FRA 2011c), the Section 106 PA (Authority and FRA 2011b), and the standards of professional practice of archaeology. The framework described here served as the overarching approach to identifying the resources encountered in the field for the project; this framework also served as the guidance for establishing historical property exemptions, for establishing the criteria for what constitutes an "isolate" and a "site," and for establishing the process for the initial evaluation of a given resource. The following properties are exempt from evaluation, as specified in Attachment D of the Section 106 PA and based on the professional judgment of the QIs in the area of archaeology:

- Isolated prehistoric finds consisting of fewer than three items per 100 square meters (1,076 square feet).
- Isolated historic finds consisting of fewer than three artifacts per 100 square meters (1,076 square feet) (e.g., several fragments from a single glass bottle are one artifact).
- Refuse scatters less than 50 years old (scatters containing no material that can be dated with certainty as older than 50 years).
- Features less than 50 years old (those known to be less than 50 years old through map research, inscribed dates, etc.).
- Isolated refuse dumps and scatters over 50 years old that lack specific associations.
- Isolated mining prospect pits.
- Placer mining features with no associated structural remains or archaeological deposits.
- Foundations and mapped locations of buildings or structures that are more than 50 years old with few or no associated artifacts or eco-facts, and with no potential for subsurface archaeological deposits.
- Building and structural ruins and foundations less than 50 years old.

This exemption process does not include archaeological sites, traditional cultural properties, or other cultural remains or features that may qualify as contributing elements of districts or landscapes. The lead archaeological surveyor was authorized to exempt the above-listed archaeological property types and features. The sites or deposits that were exempted were documented in field notes but not reported in any of the technical documents.

In all other cases, the survey crews sought to identify cultural resources that exist in the archaeological APE in accordance with 36 CFR 800.4(a)(2-4) and 36 CFR 800.4(b). This process also followed the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716) and was consistent with the directions in the Section 106 PA.

4.2 Historic Architectural Resources

Historic architectural resources consist of buildings, structures, and/or objects, as well as districts, systems, or historic cultural landscapes. Property types can include buildings as well as engineering features (e.g., dams, canals, railroads) or objects such as statues or fountains. When historic architectural resources appear eligible for listing, are determined eligible for listing, or have been listed in the NRHP, they are called *historic properties*. CEQA and the CEQA guidelines use the term *historical resources* for these properties and for resources eligible for the CRHR. For the purposes of this report, which will be summarized in the EIR/EIS for the project, the term *historic properties* will be used to refer to historic architectural resources that are listed, determined eligible for, or that appear to be eligible for listing in the NRHP, and the term *historical resources* will be used for those eligible for or listed in the CRHR only. The term *historic architectural resources* will apply generically to these resources regardless of historic status.

4.2.1 Known Historic Properties and Previous Surveys

Architectural historians who meet the professional qualifications of the Secretary of the Interior's Standards for Architectural History and who meet the definition of QI according to the Section 106 PA conducted the identification and evaluation of historic architectural resources for the Fresno to Bakersfield Section of the HST.

As discussed in section 4.1.2, URS conducted records searches for this project at the Southern San Joaquin Valley Information Center; URS shared the relevant results regarding historic architectural resources with QIs. All previously recorded resources and previous surveys within a 1.25-mile (2.01-kilometer) radius of the HST alternative alignments were digitized.

The following references were also reviewed for built environment resources:

- National Register of Historic Places – Listed Properties and Determined Eligible Properties (NPS March 2012)
- Directory of Properties in the Historic Property Data Files for Kern, Kings, Tulare, and Madera Counties (OHP 2011).
- California Inventory of Historic Resources (OHP 1976).
- California Points of Historical Interest (OHP 1992).
- California Historical Landmarks (OHP 1996).
- Sanborn Maps in urban areas (see list of maps under Sanborn Map and Publishing Company in Chapter 8.0, References).
- Historic U.S. Geological Survey (USGS) quadrangles.

The records searches performed at the SSJVIC between February 2010 and December 2011 revealed only 15 previously recorded architectural resources on file within the search area. The search area for this project was a 500-foot radius of the alignment centerline that was adopted

for record searches prior to the field surveys. These searches revealed only 15 architectural resources because most of the area within the APE has not been previously surveyed for historic architectural resources, and not all architectural surveys are submitted to the Information Center. Of the 15 resources, only 1 was listed in the NRHP—the Shafter Railroad Depot, in Kern County. The other historic properties identified in the records search were three canals found locally eligible and a State Historic Landmark marker. The other resources identified in the search results had been found not eligible for listing in the NRHP, had been destroyed, or had not been fully evaluated. The resources reported in the search results that had not been fully evaluated were added to the Supplemental HASR survey population.

In addition to the SSJVIC results, QIs also reviewed the CHRIS lists for Fresno, Kings, Tulare, and Kern counties, as well previous cultural resources reports found in local planning offices and libraries. This effort identified resources that were previously found ineligible for the NRHP and/or CRHR and that did not require further study. (These properties are included in the Supplemental HASR.)

Due to the scope and magnitude of the proposed project, the historical context of the project corridor vicinity, and the limited results of the SSJVIC records search, extensive field survey and background research was undertaken to thoroughly identify historic architectural resources within the APE. The project QIs noted any additional potential historic architectural resources during fieldwork, reviewed local registers and lists of historic properties while conducting research in local repositories, and consulted with local government planning staff to thoroughly account for previously identified historic properties and to include them in the Supplemental HPSR survey population.

4.2.2 Field and Research Methods

Project QIs conducted intensive-level field survey and field research for preparation of this Supplemental HPSR between November 2011 and April 2012. Consistent with the Section 106 PA and the *Fresno-Bakersfield Historic Architecture Identification and Evaluation Plan* (Authority and FRA 2011d), QIs conducted an intensive-level survey of known historic properties and historic architectural resources that were 50 years of age or older at the time of the survey within the refined APE. All field surveys and inventories were conducted from public thoroughfares, except in cases where the property owners were contacted and agreed to provide entry to properties not adequately visible from a public thoroughfare. This access was arranged in the manner specified in the project protocol for such contact, and the inventory was completed.

Once the refined APE for historic architectural resources was defined (see section 1.5.2), QI staff conducted intensive-level survey of the area to account for all buildings, structures, and objects found within the APE. This survey took into account known resources and identified any additional resources that were required to be surveyed for the Supplemental HPSR, including resources that did not appear in the S SSJVIC search results or properties that appeared to be potentially eligible for listing in the NRHP or CRHR. These potentially eligible properties became the survey population for this Supplemental HPSR and were subject to intensive-level surveys. (Properties that met the Section 106 PA criteria for streamlined documentation properties and those that required evaluation but were not likely to be eligible for listing in the NRHP or CRHR are addressed in the Supplemental HASR for this project.)

QIs conducted field research in conjunction with the field survey and refined those research efforts in accordance with the results of the survey. QIs also continued property-specific research to confirm specific construction dates and to narrow estimated dates of construction, including background research done through the commercial database of First American Real Estate Solutions and through review of historic plat maps and current USGS topographic maps, county assessor records, historic aerial photographs, and other documents.

The historical overview presented in this report and the property-specific research conducted for the significance evaluations were based on a wide range of primary and secondary material gathered by QIs. Research on the historic themes and survey population was conducted in both archival and published records including, but not limited to the following:

- Beale Memorial Library (Bakersfield).
- Fresno Historic Preservation Program, Fresno Planning Office.
- California State University, Fresno, Special Collections.
- Kings County Assessor.
- Kern County Assessor and Recorder.
- California State Archives and Library.
- Bancroft Library (University of California, Berkeley);
- Shields Library (University of California, Davis);
- maps and plans obtained from California Department of Transportation (Caltrans) District 6 (Fresno).
- Caltrans Transportation Library and History Center (Sacramento).

Research also included reviews of CHRIS listings; California Historical Landmarks and Points of Historical Interest publications and updates; and NRHP, CRHR, and local register listings, as well as published and digital versions of U.S. Census Bureau information, including population schedules (1850–1940) and agricultural schedules (1850–1880). In addition, research included reviews of previous cultural resources reports, historic-period maps, aerial photography, local- and state-level historical resource lists, public documents such as deeds and assessment records and city directories, and various newspaper and journal articles.

Chapter 5.0

Historic Context

5.0 Historic Context

This chapter describes the environmental and cultural setting for the area that represents the Hanford West Bypass area (see Figure 1-1). The remaining geographic area that represents the majority of the project, including the revised BNSF Alternative and the Bakersfield Hybrid Alternative, has already been addressed in the *California High-Speed Train Fresno to Bakersfield Archaeological Survey Report* (Authority and FRA 2011e).

5.1 Natural Setting

The study area for the Hanford West Bypass area and the corresponding area of the BNSF Alternative of the California HST is at the southern end of California's San Joaquin Valley. The San Joaquin Valley is bounded by the Sacramento–San Joaquin River Delta to the north, the Sierra Nevada to the east, the Tehachapi Mountains to the south, and the Coast Range to the west. The western slope of the Sierra Nevada is the source for rivers and streams that cross the San Joaquin Valley (Gronberg et al. 1998). The San Joaquin Valley is divided into two hydrologic sub-basins: the San Joaquin sub-basin to the north and the Tulare sub-basin to the south. Rivers of the San Joaquin sub-basin join the San Joaquin River as it drains into the Sacramento River and flows into San Francisco Bay. The rivers of the Tulare sub-basin, from the Kings River south, have no natural perennial surface outlet, and in the past these drainages formed large, shallow, semi-permanent inland lakes. Only in years of exceptional rainfall did water cross the divide and enter the San Joaquin sub-basin.

5.2 Prehistoric Setting

There is a long history of archaeological research in the southern San Joaquin Valley that informs the present understanding of the prehistory of the region. Much of the early research was focused on the material remains of the late prehistoric and ethnographic periods. In the last decade of the nineteenth century, professional and amateur archaeologists began investigating the numerous "Indian mounds" of the region. C.H. Merriam collected a large coiled basket that contained the mummified body of a child from within a rock shelter near Bakersfield (Heizer 1951:30). Other materials collected by Merriam from the rock shelter included another basket, a net manufactured from the fibers of the milkweed, hemp cordage, portions of a rush mat, and fragments of a rabbit-skin blanket. In February 1909, N.C. Nelson of the University of California Archaeological Survey recovered a cache of baskets and other artifacts from a dry arroyo in the Elk Hills (Moratto 1984:174).

In 1899, 1909, 1923, 1924, and 1925, test excavations took place at more than 20 different sites [REDACTED], all focusing on the recovery of burials and grave goods from large village sites (Gifford and Schenck 1926; Hartzell 1992:122). Gifford and Schenck, of the University of California, published their volume on the archaeology of the southern San Joaquin Valley in 1926. The report included the documentation of approximately 40 sites, the results of their excavation of 9 sites, and the examination of private collections. They concluded that the only discernible change in, or addition to, the culture of the southern San Joaquin Valley is represented by steatite in the "slough and lake regions" (Gifford and Schenck 1926:118). This apparent lack of change in material culture resulted in their claim that the cultural remains recovered seemed to be as readily assignable to the "last century as to the last millennium" (Gifford and Schenck 1926:118). These early assumptions regarding the lack of change over time in the archaeological record were, in part, the result of poor dating techniques as well as sampling bias resulting from over-dependence on large, highly visible recent archaeological sites that dominate surface contexts in the region. (See the geoarchaeological discussion in the ASR.)

This work was followed in the 1930s through 1960s by limited excavations in the southern San Joaquin Valley, [REDACTED], by various researchers, including the Smithsonian Institute, Wedel, von Werlhof, Warren, and Fredrickson; these excavations also focused on larger village and burial sites (Schiffman and Garfinkel 1981:3-4). During the Depression years of 1933 and 1934, the Civil Works Administration excavated five sites (two middens, two cemeteries, and a small grave site) next to the [REDACTED]. The midden sites, CA-KER-39 and CA-KER-60, exhibited stratified deposits that represented both prehistoric and protohistoric/ethnographic occupations. Materials recovered from the two cemeteries, CA-KER-40 and CA-KER-41, appeared contemporaneous with materials from the upper deposits of CA-KER-39 and -60, suggesting that they may have been the burial grounds for the inhabitants of the midden sites. Reported upon by Wedel (1941), this investigation stands as the "most intensive scientific excavation work so far in the southern San Joaquin Valley" (Moratto 1984:188).

CA-KER-39 and CA-KER-40 were subsequently found to be components of a much larger site, CA-KER-116. Excavated in the mid-1960s by Fredrickson and Grossman (1977), CA-KER-116 was found to contain a deeply buried component that was not identified by Wedel. Situated at depths of greater than 2.8 meters (9.2 feet), this component was dated to circa 6250 B.C. (Moratto 1984:99, 188).

From an archaeological perspective, research conducted within the southern San Joaquin Valley has resulted in the identification and definition of a number of temporal components, periods, or phases that reflect prehistoric human lifeways and land use patterns. This research has predominately focused on sites situated [REDACTED] (Fredrickson and Grossman 1977; Gifford and Schenck 1926; Hartzell 1992; Riddell 1951; Walker 1947; Wedel 1941) and in the [REDACTED] (Angel 1966; Hewes 1941; Siefkin 1999). The early comprehensive surveys of the San Joaquin Valley revealed clusters of sites in areas near wetland, river, or lacustrine resources.

Wedel's (1941) investigations resulted in the definition of a general chronological framework based on stratigraphic analyses and comparison of artifact assemblages. A two-phase sequence, composed of a pre-European late occupation and an earlier cultural complex, was proposed (Wedel 1941). The early complex was correlated to the Oak Grove Culture of the Santa Barbara Coast, dated alternately at 2,000 to 4,000 years ago (Meighan 1955) and 4,000 to 7,000 years ago (Heizer 1964). The late complex was clearly separated from the earlier one by both stratigraphy and artifact types. Wedel (1941) subdivided the late complex into two phases: the early late phase and the later protohistoric period. Wedel suggested that the early late phase began about A.D. 1400 and reflected a simple complex with similarities to the Tulare Basin to the north. The later protohistoric period, dating to after A.D. 1500, revealed a strong influence from Santa Barbara coastal cultures.

Additional investigations were conducted in the mid-1960s [REDACTED] at CA-KER-116 (Fredrickson and Grossman 1977), a small part of an extensive occupation zone that parallels the shoreline for about 2 miles (Fredrickson 1986). Incorporating data from both Wedel's (1941) study and his own work from the 1960s, Fredrickson (1986) has since proposed a four-phase cultural sequence for the [REDACTED]

The earliest occupation is represented by a meager inventory of distinctive artifacts, which include a ground stone atlatl spur, three crescents, and fragments of several crude, leaf-shaped projectile points (Fredrickson 1986). Radiocarbon age determinations provided three dates of suggested cultural association: two dates were 6250 B.C. and the third was 5650 B.C. (Fredrickson 1986; Fredrickson and Grossman 1977). Fredrickson (1986) notes that while similar style artifacts were recovered from Paleo-Indian period contexts at Tulare Lake (Riddell and

Olsen 1969), similar conclusions regarding such antiquity at CA-KER-116 should not be made in the absence of corroborative stratigraphic data.

The ensuing phase is represented by sparse remains that reflect an early milling stone assemblage with a possible cultural relationship to the Oak Grove and other milling stone complexes of southern California (Fredrickson 1986). Hallmark attributes include handstones, milling stones, flake scrapers, and extended burial posture. This phase remains undated, but inferences may be drawn from the milling stone horizon elsewhere in southern California, which began as early as 5000 B.C. and persisted for 3,000 years or more (Fredrickson 1986).

The next cultural phase, the late period (ca. A.D. 900 – A.D. 1500), is separated from the milling stone complex by millennia, as no assemblage has been found along the southwestern lakeshore to fill in the presumed occupational gap (Fredrickson 1986). Based on stylistic and technological differences in artifact forms, Fredrickson (1986) has tentatively divided the late phase into two subphases: the earlier subphase and the later subphase. The earlier subphase is distinguished by split-punched and whole spire-lopped *Olivella* beads and crudely made leaf-shaped points. The later subphase is defined by more finished and rough-disk *Olivella* beads and by a local bead-making industry, which may have used rare whole-shell *Olivella* (Fredrickson 1986). Small quantities of asphaltum⁵ are noted, as are hopper mortars and clay-lined roasting ovens filled with freshwater clamshell; steatite is rare.

5.2.1 Ethnographic Setting

The present-day southern San Joaquin Valley is in the homeland of the Southern Valley Yokuts (Wallace 1978b:448, 449), a geographic division of the much larger Yokuts linguistic group, who occupied the entire San Joaquin Valley and adjoining Sierra Nevada foothills (Kroeber 1907, 1925, 1963; Latta 1977; Newman 1944). Yokutsan is one of four Penutian linguistic stocks, which included Costanoan (Ohlonean); Miwok (Utian); Wintu, Nomlaki, and Patwin (Wintuan); and the Maidu, Nisenan, and Koncow (Maiduan) (Shipley 1978).

In contrast to the typical California cultural grouping known as the tribelet, the Yokuts were organized into "true tribes" in that each had "a name, a dialect, and a territory" (Heizer and Whipple 1971, 370). Kroeber (1925:474) estimated that as many as 50 Yokuts tribes may have originally existed, but that only 40 were "sufficiently known to be locatable" at the time of the survey. Each tribe inhabited an area averaging "perhaps 300 square miles," or about the distance one could walk in any direction in half a day from the center of the territory. Some Yokuts tribes only inhabited a single village, while others occupied several (Kroeber 1925:474–475).

The Southern Valley Yokuts territory was centered near the basins of Tulare, Buena Vista, and Kern lakes, their connecting sloughs, and the lower portions of Kings, Kaweah, Tule, and Kern rivers. Sixteen subgroups, each speaking a different dialect of the Yokut language, made up the Southern Valley Yokuts; they included the Apyachi, Choynok, Chunut, Chuxoxi, Hewchi, Hometwoli, Hoyima, Koyeti, Nutunutu, Pitkachi, Tachi, Telamni, Tulamni, Wechihit, Wowol, and Yawelmani. Three of the groups—the Chunut, Tachi, and Wowol—claimed the shores of Tulare Lake, and the Nutunutu inhabited the swampy area north of Tulare Lake and south of Kings River. The Wimilchi, Wechihit, and Apyachi occupied the area to the north of Kings River, with the Apyachi living near the river's outlet on the western side of the valley and the Wimilchi and Wechihit living to the east. The Choynok occupied an area east of Tulare Lake in the Kaweah River delta, southwest of the area occupied by the Telamni and the Choynok groups. The Koyeti's territory was in the swampy sloughs of the Tule River. The Tulamni occupied Buena Vista Lake,

⁵ A naturally occurring tar used as a binding agent.

and the Chuxoxi lived in the channels and sloughs of the Kern River delta. The Hometwoli occupied the area surrounding Kern Lake, and the Kawelmani lived to the northeast near Kern River and Poso Creeks (Wallace 1978b:449).

Subsistence strategies focused on fishing, hunting waterfowl, and collecting shellfish, seeds, and roots. Fish species commonly hunted included lake trout, chubs, perch, steelhead, salmon, and sturgeon. Waterfowl were mainly caught in snares and nets. Plant foods played a key part in the diet of the Yokuts; the most important resource was tule, whose roots and seeds were eaten. Other plant foods included various species of grasses, clover, fiddleneck, and alfilaria. Acorns were not readily available, and groups often journeyed into foothill zones to trade for the nut (Wallace 1978b: 450).

Southern Valley Yokuts generally placed their settlements on top of low mounds near major watercourses and constructed two types of permanent residences. The first type was an oval single-family dwelling with wooden framing covered by tule mats. The second type was a long, steep-roofed communal residence that housed at least 10 families. Other structures included granaries and a communally owned sweathouse (Wallace 1978b: 450, 451).

Southern Valley Yokuts relied heavily on tule reeds for making woven baskets and mats. Basketry tools, such as awls, were manufactured from bone (Wallace 1978b: 451, 452). Flaked stone implements included projectile points, bifacial and unifacial tools, and edge-modified pieces. Ground stone tools consisted of mortars, pestles, handstones, and millingstones.

5.3 Historic-Era Setting

The historic setting and context that follow provide the appropriate context within which the historic architecture resources were evaluated in this Supplemental HPSR for the Fresno to Bakersfield Section of the HST. Please refer to the original HPSR for additional historical context regarding the Fresno to Bakersfield Section (Authority and FRA 2011f).

Irrigation and transportation systems were the two principal factors in the historic-era development of the region through which the Fresno to Bakersfield Section passes. This region had advantageous environmental conditions but was sparsely inhabited before California statehood. Although the California Gold Rush in the mid-nineteenth century initially stimulated economic development and settlement in the state, it was the advent of irrigated agriculture and the arrival of the first railroad in the 1870s that profoundly reshaped the existing setting to promote agricultural and municipal growth in the Central Valley.

Subsequent events and trends beginning at the turn of the twentieth century—particularly the widespread adoption of the automobile and ensuing highway construction—amplified and extended the development initially brought to the region of the Fresno to Bakersfield Section in the late nineteenth century, while agriculture persisted as a dominant economic force in the area. These themes are discussed below to provide the appropriate context within which the resources of the survey population are evaluated for historic significance.

5.3.1 The Spanish and Mexican Periods

Despite its rich soils and generally favorable weather, the San Joaquin Valley was little settled before the Gold Rush. By the eighteenth century, after more than two centuries of exploring the California coast, the Spanish had established a significant presence in the future state, but that presence was largely confined to settlements on the coast and in nearby valleys. Several Spanish explorers eventually forayed into the San Joaquin Valley in the late eighteenth and early nineteenth centuries to find sites for additional missions, but no permanent settlements resulted from their efforts. Spanish army officer Gabriel Moraga conducted the most extensive expeditions

in the early 1800s. In 1806, Moraga led a group of 25 soldiers from Mission San Juan Bautista across the San Joaquin River near the present-day boundary between Merced and Fresno counties and then north to the Mokelumne River (which Moraga named). The expedition's return route skirted the eastern side of the valley to Tejon Pass. Two years later, traveling from San Jose, Moraga entered the valley once more. He crossed the San Joaquin River and proceeded as far south as the Merced River (Bean and Rawls 1983:25, 31–34, 40–41, 53; Rice et al. 1988:46, 87–95; Durrenberger and Johnson 1976:53; Jelinek [1979] 1982:11–22; Beck and Haase 1974:15–16, 20–22; Hayes 2007:40, 42, 46, 58–59; Clough 1985:12–13).

Little settlement occurred within the San Joaquin Valley during the Mexican period from the 1820s to 1840s, a period when Mexico largely found itself in the position of defending what California settlements it had from native raiding after its successful bid for independence from Spain in 1822. A cycle of raids and reprisals across the coastal mountains continued until the mid-1840s, when non-Mexican, primarily American, settlers took up permanent residence in the San Joaquin Valley and aggressively suppressed native raiding. No historic architectural resources in the Fresno to Bakersfield Section APE survive from the Spanish or Mexican period exploration and early settlement periods (Beck and Haase 1974:21–23; Broadbent 1974:89, 96–97; Cook 1976:229–232; Fountain 2007:80–119; Preston 1981:54–55).

The only Mexican-era land grant intersected by the Fresno to Bakersfield Section is the Rancho Laguna de Tache, which stretched for miles along the northern bank of the Kings River south of present-day Kingsburg and westward toward Riverdale. Grantee Manuel Castro ran cattle on the property and established a bunkhouse for his foreman and vaqueros west of Laton. The bunkhouse was located well to the west of the Fresno to Bakersfield Section. Rancho Laguna de Tache, which persisted for several decades, was among the few Mexican-owned land grants confirmed by the U.S. District Court. The rancho was acquired by land development interests in the 1890s, and as the land was subdivided and sold it became the site of extensive irrigation systems by the turn of the twentieth century. Although the Fresno to Bakersfield Section transects the former rancho, no historic architectural resources from this period survive within the APE (Perez 1996:71; Preston 1981:54–55; Roberts 2005:36–37; USDA Experiment Stations 1901:308–310).

Mexican rule in California came to an end in 1847 when forces of the United States military seized the territory during the Mexican-American War. By this time, almost half of the non-Indian inhabitants of California were Americans who had settled in either coastal towns or, more commonly, established farmsteads in the upper Sacramento Valley, away from Mexican control (Bean and Rawls 1983: 76–82). The absence of settlement in the Central Valley during the Spanish and Mexican periods resulted in fairly low demand for extensive roads and other infrastructure. Neither the Spanish nor the Mexicans had public systems of road construction and maintenance, and most trade was conducted by sea; inland travelers either made use of native trails or cut their own. Nevertheless, two important routes took shape, beginning in the Spanish period: El Camino Real, which ran along the California coast, and El Camino Viejo. Less well known than the coastal route, El Camino Viejo traversed north-south through the length of the west side of the San Joaquin Valley. This route connected what became Los Angeles to the Central Valley and eastern San Francisco Bay Area. The trail descended through San Emigdio Canyon into the southwestern corner of the San Joaquin Valley. From there it skirted the eastern slopes of the Coastal Ranges, leaving the valley through Patterson Pass southwest of Tracy. El Camino Viejo became popular as a cattle and sheep trail from southern California to San Francisco from 1849 to the 1880s. The historic route is west of and outside the APE for the Fresno to Bakersfield Section (Cleland 1941: 28; Latta 1932; Owens 1990:8–10).

5.3.2 Initial American Settlement and Transportation

In the wake of the California Gold Rush, the trickle of immigration into California that began before the Mexican-American War became a torrent. Besides the well-known mining towns that sprang into existence from Humboldt County in the north to Kern County in the south, other communities farther from the gold fields also experienced enormous growth. San Francisco was one of these “instant cities,” but so too were Sacramento and Stockton, which served as supply and shipping centers for the foothill mining districts. These towns and settlements, initially fed by the economic fuel of the Gold Rush, ultimately demonstrated commercial, industrial, and political reasons for surviving the mining boom (Barth 1975: *passim*; Bean and Rawls 1983:84–96; Hoover et al. 1966:14–15; Shinn 1885).

The effects of the Gold Rush and emigration to the new state of California were slower to realize in the upper and lower Central Valley where development was generally more gradual than in urban and coastal areas, partly because of the absence of efficient transportation systems but also because of the concentration of vast tracts of land in the hands of a few. Until the arrival of the railroad in the valley in the 1870s, travelers relied on existing trails and roads—El Camino Viejo, in particular—supplemented by a few new wagon and stage roads and ferries and bridges built during the mid-nineteenth century. The first wagon road, which became known as the Los Angeles-Stockton Road, followed old Indian trails below the Sierra Foothills along the eastern side of the valley, east of the Fresno to Bakersfield HST Section. The general route was surveyed by Lieutenant George Derby in the spring of 1850, and eventually expanded to include many laterals branching off to the mines in the mountains. In the years following, several important ferries and bridges were established on the principal rivers of the valley to assist wagon and stage travel: Gordon’s Ferry on the Kern River; Payne’s Ferry on the Kaweah River; two crossings on the San Joaquin River, one at Brackman’s on the Lower Detour and the other at Jones’ Ferry on the Upper Detour; Pool’s Ferry and Smith’s Ferry on the upper Kings River; and Whitmore’s Ferry on the lower Kings River near Laton (Conkling 1947a: 35-37; Conkling 1947b: 272-327; Preston 1981: 72–73). No historic architectural resources directly associated with these roads, ferries, or staging operations are located within the Fresno to Bakersfield Section study corridor.

Regardless of the means by which travelers moved across the San Joaquin Valley, the valley itself was predominately grazing lands and wheat fields in the mid-nineteenth century—the product of early monopolization of vast tracts of land. Land speculators, stockmen, and ranchers benefited from minimal government oversight and used liberal state and federal land laws to acquire large amounts of public land within the valley. Henry Miller, Charles Lux, and Solomon Jewett, along with speculators and developers such as James B. Haggin, Lloyd Tevis, and William S. Chapman, led this mass acquisition and in many instances came to dominate the physical and social structure of the region. Their holdings, which included acreage in and near the Fresno to Bakersfield Section, had a character of their own: absentee ownership, seasonal labor demands, no crop rotation, employment of dry-farming methods, and speculative returns from an unstable international wheat market (Gates 1975:158–178; Jelinek [1979] 1982:23–38; Thickens 1946:18–19; Zonlight 1979:6–12).

The California Gold Rush and subsequent emigration stimulated commerce, agriculture, manufacturing, lumbering, and countless other economic pursuits statewide. In the middle decades of the nineteenth century, a scattered network of small towns serving both travelers and agriculturalists began to appear throughout the San Joaquin Valley. The most notable community south of Stockton was Visalia, founded in 1852. Within 15 years, Bakersfield—at the southern end of the Fresno to Bakersfield Section—emerged as a thriving town in its own right (Moehring 2004:29). Examples of such pre-railroad settlements near the Fresno to Bakersfield HST Section include Kingston, at the site of Whitman’s Ferry on the Lower Kings River, and Grangeville, a rural community located in the Mussel Slough area west of Hanford. Most of the

permanent town settlements in the region, however, did not occur until after the coming of the railroad.

5.3.3 The Arrival of the Railroads

The expansive territory of California, its limited inland navigation and road systems, and its remoteness from the populous East, made railroads vital to the state's early economic development. Nowhere in California was this truer than in the Central Valley, where railroad construction coupled with irrigation development brought settlement, growth, and prosperity. In the years since statehood, some 200 railroads have been constructed and operated in California. The Fresno to Bakersfield Section parallels some of these railroads along its route through the San Joaquin Valley, including the Atchison, Topeka and Santa Fe (AT&SF) line (now owned by the BNSF Railway), and farther to the east, the first rail line to enter the region, the Southern Pacific Railroad (now owned by Union Pacific Railroad). The Southern Pacific mainline, built southward into the San Joaquin Valley in the 1870s, is largely east of the Fresno to Bakersfield Section, except in the cities of Fresno and Bakersfield. The study corridor does, however, intersect the former Southern Pacific's "cross-valley" branch line, built westward from the mainline junction at Goshen through Mussel Slough country in 1877. Much of the Fresno to Bakersfield Section closely parallels the AT&SF mainline, which did not reach the San Joaquin Valley until the late 1890s. The railroads established stations that spawned many valley communities, such as the Southern Pacific cities of Fresno and Hanford (platted by the railroad) and the AT&SF cities of Corcoran and Shafter (founded by independent land developers). Existing towns that the railroad bypassed struggled to survive, and many dwindled away. Both the AT&SF and the Southern Pacific continued to add branch lines and to acquire competitors well into the twentieth century.

The Southern Pacific Railroad was the first major railroad to build through the Central Valley. The company was the descendant of the Central Pacific Railroad established by Sacramento merchants Charles Crocker, Mark Hopkins, Collis P. Huntington, and Leland Stanford. Popularly known as the "Big Four," these men had joined forces in 1863 to construct the western portion of the Transcontinental Railroad line (completed in 1869), and ultimately connected the line to shipping points in the San Francisco Bay Area. After establishing that link, they turned their attention to the south where a rail line was needed to tap the wheat-producing region of the San Joaquin Valley and open the sparsely settled southern portion to development. Although other investors formed a rail corporation and surveyed the initial line, the Central Pacific ultimately gained majority control of the San Joaquin Valley rail route in 1868. On October 12, 1870, the various competing lines were officially consolidated into a corporation known as the Southern Pacific Railroad of California, with the Big Four in control of the board of directors (Smith 1939: 203-204; Kraus 1969: passim).

The company pushed the San Joaquin Valley mainline south from Stockton to the Stanislaus River by May 1870, and the first train entered Modesto on May 5, 1870. During early 1872, the Southern Pacific drove southeast through Merced County to Fresno, a railroad town laid out by the Contract and Finance Company, the land-development arm of the Southern Pacific in May 1872, and immediately established scheduled service to the new community. The town was in the center of an 81,000-acre ranch supplied with irrigation and municipal water from Kings River by the Fresno Canal and Irrigation Company. In 1889, Southern Pacific constructed a new Fresno depot in the Queen Anne style of architecture that was popular at the time to replace their original station. This new depot (Map ID #13) is in the APE for this project and is listed in the

NRHP. In 1917, the Pullman Company built a shed adjacent to the depot, and it is also part of the NRHP-eligible Southern Pacific depot property.⁶

The Southern Pacific continued down the valley, locating stations on terms favorable to its interests. Visalia, an existing Tulare County town of nearly 1,000 residents, for instance, was bypassed when its citizens voted not to pay the subsidies that the Southern Pacific demanded. The Big Four chose to continue their southern route from Goshen, west of Visalia, to a point midway between the foothills and Tulare Lake, where the railroad founded the town of Tulare City. Tracks were laid east of the Fresno to Bakersfield Section over the semi-barren, dusty plains to Tipton, reaching Delano Station, an important shipping point for wool and stock, in July 1873 (Figure 5.3-1). In April 1874, work on the line resumed south of Delano to the Kern River, but the Southern Pacific did not enter Bakersfield. Instead, the company laid out a new town called Sumner to the east of the valley's most prosperous community, initiating rail service in August of that year. Sumner was later called Kern, or Kern City, and was eventually annexed to the city of Bakersfield. Now, it is generally known as East Bakersfield and is transected by the Fresno to Bakersfield Section (Bailey 1984: 72–75; Burmeister 1969: 21; Carothers 1934: 47–48, 52–54; Hoover and Kyle 1990: 129; Preston 1981: 128–129; Smith 1976: 175–180; Tinkham 1923: 94).

In 1877, Southern Pacific began construction on the Goshen Division “cross-valley” line, an east-west branch extending from the mainline at Goshen into the fertile Mussel Slough region to the west (Figure 5.3-2). The company laid 40 miles of track passing through its newly founded town of Hanford and terminating at Huron. By 1893, Southern Pacific extended the line to the west toward the Diablo Range, making Coalinga its western terminus. The Goshen Division provided transportation for goods and passengers to isolated western Kings and Fresno counties. Construction of the line resulted in the establishment of new towns Hanford, Armona, and Lemoore, but older Mussel Slough settlements such as Kingston and Grangeville were bypassed and substantially drained of their populations (Williams 1878:279, 285; Brown and Richmond 1940: 179; Smith 1976: 286-287, 309-310). Armona got another boost in 1891 with the arrival of a new regional railroad line, the San Pablo & Tulare Railroad, which the Southern Pacific quickly bought up. The route ran from its southern terminus in Armona north into Fresno County (Thompson 1891, 1892; Preston 1981: 123, 125).

Fresno, Hanford, Sumner, and nearly all the railroad towns that Southern Pacific founded in the Central Valley shared a common layout: a central depot and a uniform plat set at right angles to the rail line. Individual parcels, or lots, were established in a uniform pattern on a rectangular grid set at right angle with the tracks rather than with the surrounding government land survey. Blocks were 400 feet by 320 feet, contained 32 individual lots, and had mid-block alleys 20 feet wide. Commercial arteries were 100 feet wide, and residential streets were 80 feet across. As railroad towns grew, the streets outside the original town plat conformed to the public land surveys and parcel lines of surrounding landowners rather than to the railroad town plat. The legacy is a special hybrid street pattern characteristic of all the valley railroad towns (Smith 1976; Bergman 2009: 9-10, 51-52, 57-58).

⁶ The Pullman Shed is a rare surviving example of this property type, and because it was recently recognized for its historical significance by the City of Fresno, the Fresno Depot historic property information has been updated in this Supplemental HPSR. For more information on the Fresno Southern Pacific Depot property, see the DPR 523 form in Appendix C.



Source: Secretary of War 1873.

Figure 5.3-1

San Joaquin Valley in 1873, showing the progress of Southern Pacific Railroad construction

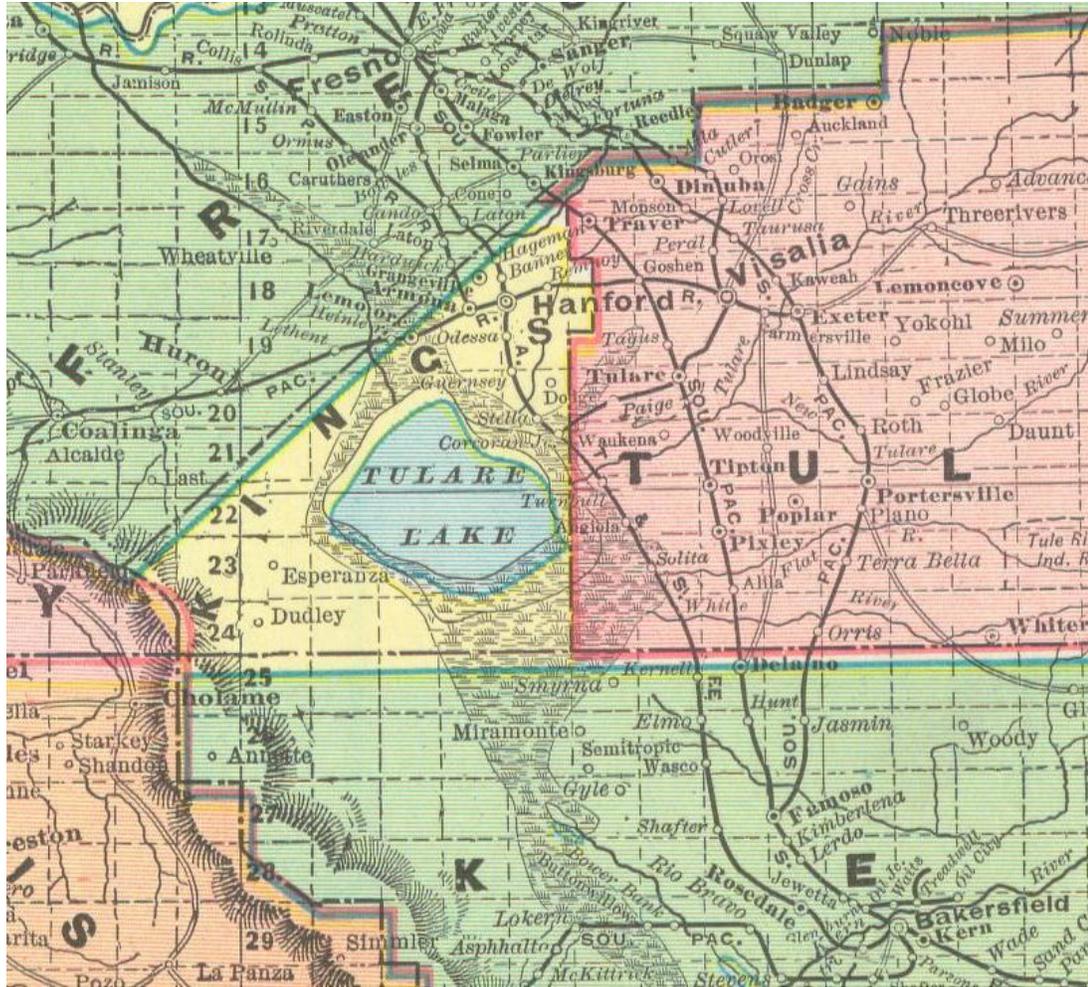
In a brief time, the Big Four and their subsidiaries had created a prodigious railroad empire that transformed California and much of the American West. Nowhere was the transformation more profound than in the San Joaquin Valley where between 1870 and 1880, the population grew by 45% and the acreage of improved land increased by more than 70%. During this period, Southern Pacific also held patent to more than a million acres of San Joaquin Valley land, much of which the railroad company sold to large land developers and speculators. Some land went to small farmers through the efforts of the Southern Pacific Colonization Agency—a business division formed by the railroad to encourage farmers to settle on land that it owned—and some was developed as agricultural colonies, often planned and sponsored by Southern Pacific land agents. Nevertheless, much of the property remained in large tracts, controlled by railroad subsidiaries or sold to the large private companies that were predecessors to today’s “industrial farms” (Orsi 2005: 105-123; Smith 1976: passim).

Wheat was the main agricultural product shipped out of the San Joaquin Valley by the Southern Pacific in its first decade. The advent of irrigated agriculture in the 1880s and 1890s, coupled with the introduction of rail shipping in general and refrigerated rail cars in particular, encouraged the cultivation of more land and a greater diversity of specialty crops. Although wheat remained an important crop in California, farms along the various San Joaquin Valley rail lines produced a remarkable variety of commodities, including table grapes, raisins, stone fruits, almonds, pistachios, tomatoes, and cotton as well as dairy products and cattle (Jelinek [1979] 1982:57–58, 61–78; Preston 1981:121–163).

Throughout this period, Southern Pacific and its rail and steamboat affiliates held a virtual transportation monopoly in northern California where the company had instituted a rate policy of “all the traffic will bear.” Anti-railroad sentiment was intense, particularly among the businessmen of San Francisco and farmers of the San Joaquin Valley, who organized into associations to fight control of “The Octopus,” as Southern Pacific was derisively dubbed. These groups of merchants, farmers, and other shippers sought lower freight rates and retribution for the Big Four’s oppression of the small landowners of Mussel Slough, who had resisted Southern Pacific’s uncompromising land acquisition tactics during the 1870s and early 1880s.

One of the most effective responses to the hold of “The Octopus” was the establishment of a new rail company known as the San Francisco and San Joaquin Valley Railway (SF&SVJ). The San Francisco Traffic Association, a group of San Francisco merchants who had promoted several waterborne freight operations, decided in 1893 that the only way to free San Francisco and the San Joaquin Valley from the Southern Pacific’s grip was to construct an independent railway from San Francisco Bay down the valley to a connection with the mainline of the Atchison, Topeka & Santa Fe Railway. The SF&SVJ, nicknamed “the People’s Railroad,” would run from Stockton to Bakersfield, generally west of but substantially parallel to the Southern Pacific line. After many financing delays, the state issued a charter for the SF&SVJ on February 25, 1895 (Bergman 2009: 51–53; Brown 1958: 123–125; Rice et al. 1988: 217–236). The new railroad company opened its mainline between Stockton and Fresno in 1896 and pushed south to Hanford, Corcoran, and Shafter the following year. By the time construction reached its southern terminus in Bakersfield in 1898, the SF&SVJ stretched 278 miles (447.4 km) through the San Joaquin Valley, and included a branch loop from Fresno to Corcoran by way of Visalia (Figure 5.3-2). The mainline of the SF&SVJ is now operated by the BNSF Railway, and lies within or closely parallels much of the Fresno to Bakersfield Section.

The new railroad offered an important shipping option for the San Francisco Bay Area and San Joaquin Valley markets, but had no outlet to the south. The SF&SVJ knew that success depended on linking with the Atchison, Topeka & Santa Fe (AT&SF). The AT&SF, also known as the Santa Fe, built a rail line from Kansas to New Mexico in the 1860s, and headed westward to eventually establish a line that would reach Southern California in the 1880s. Construction of the AT&SF reached the California-Arizona border in 1883, where it connected to the newly built Southern Pacific line from San Francisco that terminated in Needles, California. In 1884, the AT&SF leased the Needles-Mojave line from the Southern Pacific, and by 1888 the AT&SF had two coastal terminals in southern California, at San Diego and Los Angeles. The company and its subsidiaries went into receivership during the Panic of 1893, but soon reorganized and in 1897 managed to obtain trackage rights over the Tehachapi Mountains from the Southern Pacific. In the fall of 1898, AT&SF agreed to purchase the common stock of SF&SVJ; the AT&SF could now seamlessly link the San Joaquin Valley to Southern California and the American Southwest (Clark 1958: 145–150; Marshall 1945: 176–195; Snell and Wilson 1968: *passim*; Waters 1950: 93–133).



Source: Cram 1899.

Figure 5.3-2
 Major rail lines between Fresno and Bakersfield in 1899

5.3.4 The Advent of Irrigated Agriculture

While the railroad opened up vast tracts of unoccupied land to settlement, the establishment of irrigation systems was also central to the transformation of the San Joaquin Valley into a remarkably successful agricultural region. That transformation began with the construction of ditch systems that expanded the zone of cultivation beyond nearby river banks to eventually bring vast areas of otherwise arid land into production and make specialty agriculture possible. Expansion and diversification of agriculture worked in concert with railroad development, particularly after completion of the first rail line through the valley itself in the early 1870s, which provided a means for San Joaquin Valley produce to access markets in the Midwest and East. The broader demand for the valley's agricultural output and access to rail transportation increased the importance of some existing communities, such as Bakersfield, and with the arrival of additional rail lines, ushered into existence numerous other towns and communities within and along the Fresno to Bakersfield Section.

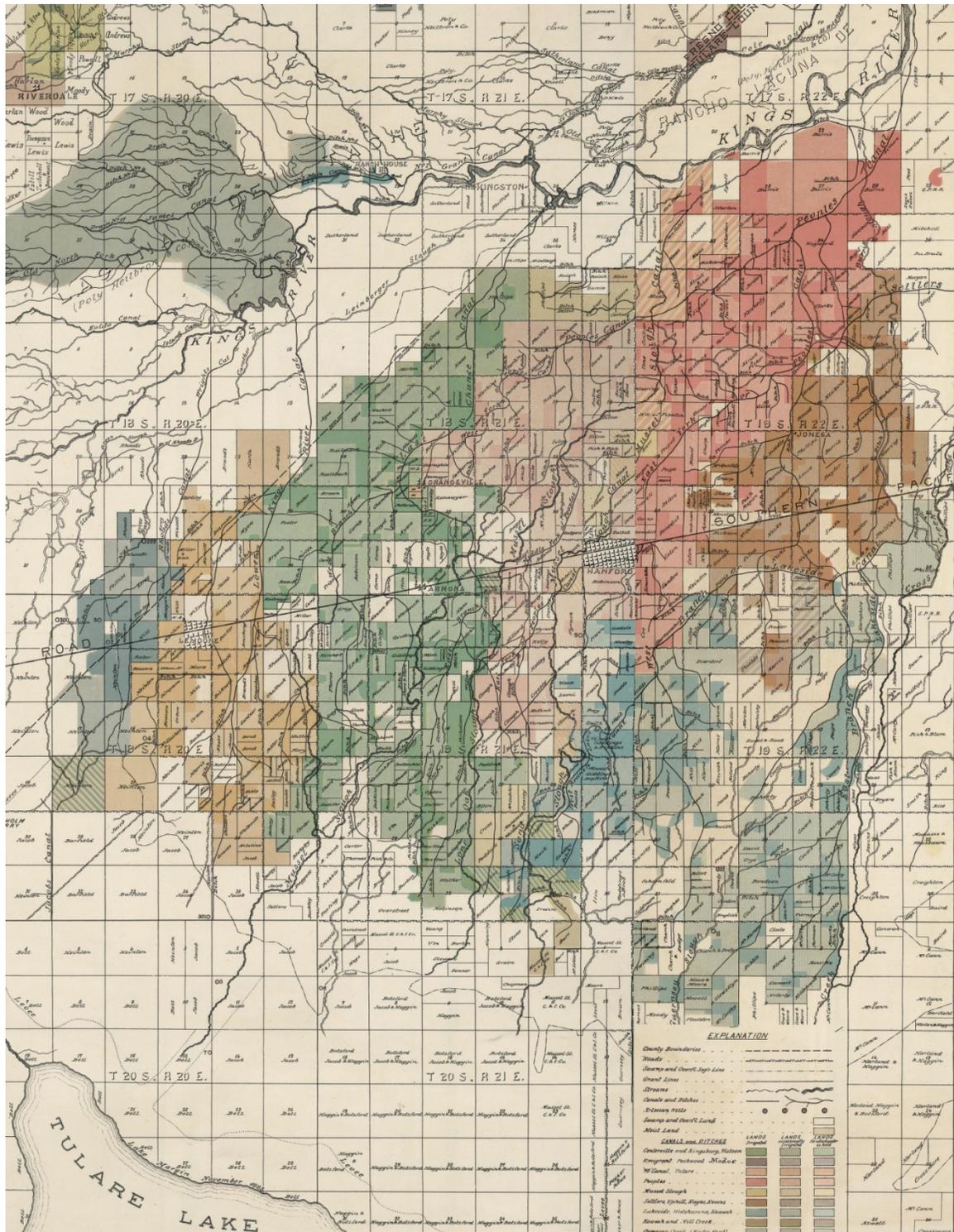
Initially, ranching and dry-farmed wheat cultivation dominated other forms of agriculture in the San Joaquin Valley, and these two land use interests often conflicted. Bonanza wheat production

in the 1870s spurred changes in the law and in 1873 the California state legislature enacted the "No Fence Law," which led to the ascendancy of diversified agriculture over ranching. With this law, farmers were no longer obligated to put up fences to keep roaming livestock out of their fields, and any crop destruction became the responsibility of the rancher who owned the offending livestock. The passage of this legislation also reflected the transition of rural California from a pastoral economy toward a commercial agricultural economy. By the end of the 1880s the wheat boom had faded; irrigated agriculture emerged in its wake and brought with it cultivation of water-thirsty products such as grapes, deciduous fruits, citrus, and alfalfa (Harding 1960: 90-93; Tinkham 1923: 203-206).

The San Joaquin Valley was among the first areas in California that Americans irrigated (see Figures 5.3-1 and 5.3-3). The first irrigation ditches in the valley were built in the 1850s by farmers in the Visalia area, and other early diversions were from the Merced River and San Joaquin River, farther to the north. Diversions in and near the Fresno to Bakersfield Section date to the early 1870s, and they were built by a variety of private and public entities. Private organizations—commercial irrigation companies, land colonies, and mutual water companies—led the water development projects until the early 1880s. Beginning in the late 1880s, public entities, including irrigation districts, county water districts, and later, water storage districts, assumed a greater role in designing, building, and administering irrigation systems in the San Joaquin Valley (Adams 1929: 204; Harding 1960: 83-90; JRP Historical Consulting Services 2000:19-24).

The first cooperative canal companies within the Fresno to Bakersfield Section began organizing in the Mussel Slough area of Kings County in 1872. The Mussel Slough District, later known as the Lucerne District, is located within the fertile bottom lands of the Kings River Delta. The region derives its name from Mussel Slough, a natural waterway that branched off from Kings River and meandered in a generally southwesterly direction, passing to the north of Hanford en route to its drainage at Tulare Lake, south of Lemoore. Although there is no single definition of the boundaries of the Mussel Slough region, the land encompassed roughly equates to the service area of several major canal systems developed in the 1870s, primarily the Lower Kings River Ditch, Last Chance Ditch, and Peoples Ditch (Figures 5.3-3 and 5.3-4) (Baker 1876; Small and Smith 1926: 300-301, 567-568; Preston 1981: 135-138, 146-147; Roberts 2008: 7-8).

The first American-born settlers to permanently inhabit the Mussel Slough territory arrived by the mid-1850s, in the wake of the federal survey that opened up public domain lands to private ownership. The region was still a part of western Tulare and southern Fresno counties at the time, nearly half a century prior to the formation of Kings County in 1893. Settlement was sporadic at first, and until the early 1870s those few who arrived to stake a claim typically ranged cattle or sheep on large, unfenced tracts of grassland. A series of floods and droughts in the 1860s weakened the stock economy statewide and encouraged introduction of dry-farmed grains such as wheat and barley. Mussel Slough towns at this time included Kingston, established in 1856 at Whitman's Ferry on the Kings River across from what is now Laton, and Grangeville, the community center until Hanford's establishment in 1877 (Lapham and Helieman 1901: 477; Brown and Richmond 1940: 95; Preston 1981: 74-76, 85-91, 113-114; Roberts 2008: 101-102).



Source: California State Engineering Department 1885.

Note: The extent of the Mussel Slough region roughly equates to the large central shaded area on the map.

Figure 5.3-3
Irrigated lands surrounding Hanford, south of the Kings River

Intensive settlement of Mussel Slough began in earnest after the introduction of irrigation. The first canal to successfully divert water from the Kings River was the Lower Kings River Ditch, built in 1872 by a mutual irrigation company to serve the lands north and east of Lemoore. Other groups of settlers soon followed suit and formed various irrigation companies. Local farmers north of Hanford incorporated the Peoples Ditch Company in 1873 and completed the first phase of their works by 1879. Other major canal systems developed during the 1870s were the Last Chance Ditch, which provided Kings River water to Grangeville farms, and the Settlers Ditch, which drew water from Cross Creek to irrigate lands east and northeast of Hanford (Grunsky 1898: 62-69; Menefee and Dodge 1913: 192-196).⁷

The network of Mussel Slough irrigation canals—like Peoples Ditch and Last Chance Ditch that cross the APE for this project—was at the center of long-standing contention between local farmers and the principal landowner of the area, the Southern Pacific. The story of the controversy that ultimately led to the Mussel Slough Tragedy, as well as the details of the deadly conflict that cost the lives of seven men in the spring of 1880s, have been well told in many historical accounts, but a brief summary of the incident follows to provide context for the various canals and related historic architectural resources studied for this project (Menefee and Dodge 1913: 110-112; Roberts 2005: 79-90; Rice et al. 1988: 219-226; Hoover and Kyle 1990: 134-135). The event was the tragic culmination of a dispute over land titles that began as early as 1867, when Southern Pacific laid claim to nearly half of the land in Mussel Slough country under provisions of a federal land grant law enacted the previous year. Southern Pacific asserted ownership rights to the odd-numbered 640-acre sections of land extending 10 miles on either side of the proposed “cross-valley” branch line west from Goshen and through Mussel Slough. Even after federal courts confirmed the railroad’s land grant claim in 1870, its validity was regularly challenged in court throughout the decade.

Settlers poured into the Mussel Slough area throughout the 1870s, many of whom acquired non-railroad land in the public domain (typically on the even-numbered sections), usually through preemption or homestead laws. Others, however, settled or squatted on land set aside for the railroad. Some newcomers took possession of railroad claims unknowingly, but others did so intentionally in the hopes that the courts would find the Southern Pacific grant null and void. During those years, many farmers and ranchers invested heavily in expensive irrigation projects like Peoples Ditch and Last Chance Ditch, as well as other improvements such as houses and farm buildings, fences, wells, and crops. When Southern Pacific sent their appraiser through the area in 1877 to assess land values, he concluded that Mussel Slough land was much more valuable than it was when assessed 10 years earlier, in part because of a general land boom that accompanied the arrival of the railroad, but largely because of the settlers’ improvement work. Southern Pacific set sales prices for the land that reflected these improvements, far exceeding the official government price for public land (\$2.50 an acre) that many of the settlers had expected to pay (Roberts 2005: 79-90; Rice et al. 1988: 219-226).

⁷ Segments of Peoples Ditch (Map ID #39) and Last Chance Ditch (Map ID #35) pass through the original APE north and northeast of Hanford, and through the Supplemental HPSR APE west and southwest of Hanford. While the upper portions of Peoples Ditch (Points 1, 2, and 3) identified in the original HPSR have been determined eligible for the NRHP, the lower portions of Peoples Ditch that crosses the refined APE (Points 4, 5, and 6) are not eligible for listing in the NRHP or CRHR because of a substantial loss of integrity. See Appendix C for the “Peoples Ditch” DPR 523 containing the revised evaluation.

Portions of the Last Chance Ditch within the Supplemental APE appear eligible for listing in the NRHP and CRHR (Criteria A and 1) at the state level for association with the settlement pattern in the Mussel Slough region and with events that led to the Mussel Slough Tragedy of 1880. See the DPR 523 forms for the “Last Chance Ditch” in Appendix C.

Tensions escalated steadily over the next several years, with anti-railroad sentiment on the rise and a vigilante group named the Settlers' League organizing to foment intimidation campaigns against those who sided with the Southern Pacific. The dispute culminated on May 11, 1880, when a Southern Pacific agent accompanied by a federal marshal arrived to dispossess Henry Brewer and John Storer, farmers who were occupying and claiming ownership of a tract of land that another settler, Walter Crow, had purchased from the railroad in 1878. By the time the two parties confronted one another in Brewer's field, the group had grown to include several members of the Settlers' League; many on both sides were armed. Shots were fired, and after the exchange six men lay dead or dying. Walter Crow, the day's seventh fatality, fled the scene but was tracked down and shot later that afternoon. Arrests and jail sentences followed for members of the Settlers' League. In the end, the Southern Pacific prevailed in the larger Mussel Slough dispute, winning all of the court cases that challenged the legitimacy of its land grant and selling the last of its disputed lands to hold-out settlers in the early 1880s, usually at negotiated prices (Roberts 2005: 79-90; Rice et al. 1988: 219-226).⁸

Most settlers in Mussel Slough resolved their land disputes with the Southern Pacific by the early 1880s. With clear title to their property and encouraged by the fertile character of the soil and ample supply of water, many began experimenting with several new varieties of crops, ushering in an era of agricultural diversification. Traditional farming of grain and alfalfa remained commercially viable into the 1880s and beyond, but increasingly farmers and ranchers converted acreage to row crops, fruit and nut orchards, vineyards, and dairy farms. The transformation of the landscape was swift. As late as 1885, grain and grazing remained the principal land use in the Mussel Slough district, and lands were still held in relatively large parcels, typically in multiples of 160 acres. Already, though, smaller farms of 20, 40, and 80 acres were prevalent, especially along the lines of the larger irrigation canals (Preston 1981: 124; California State Engineering Department 1885). Within a decade fruit production had supplanted grain farming as the principal agricultural industry, with grapes, peaches, apricots, prunes, and pears emerging as particularly profitable crops (Lapham and Heileman 1901: 447-449; Preston 1981: 145-147, 158-159). Dairying also emerged as a major industry, thanks in part to improvements in shipping, advancements in refrigeration and production techniques, and availability of alfalfa, an important source of cattle feed (Menefee and Dodge 1913: 136-137). By the turn of the twentieth century, milk production had increased to a level sufficient to support a dairy cooperative, a cheese factory at Hanford, and several area creameries (California 1900: 36; US Census Bureau 1900, 1910; Menefee and Dodge 1913: 196, 207-208).

The division of Mussel Slough holdings into smaller, intensively irrigated tracts planted primarily to vines, row crops, and orchards was virtually complete by the early 1890s (Figure 5.3-4). By this time Mussel Slough had earned a reputation as one of the most productive growing districts in the San Joaquin Valley, and its prosperity was reflected in the many Victorian-style homes that dotted the countryside (Preston 1981: 159; Thompson 1891, 1892). One such residence located at 9860 13th Avenue (Map ID #37) and built in 1881 in the Queen Anne-style, is located in the APE for this Supplemental HPSR.⁹ In fact, Mussel Slough's wealth in large part precipitated the formation of Kings County out of western Tulare County in 1893. In the words of one historian: "Already identified as independent rebels by the titular reference to the famous Mussel Slough tragedy, many

⁸ The Mussel Slough Tragedy event is memorialized by California State Historic Landmark No. 245, which is on 14th Avenue, north of Elder Avenue, outside and west of the Fresno to Bakersfield Section.

⁹ Several residences and farm properties were established in Mussel Slough during the late nineteenth century. The farmstead at 9860 13th Avenue (Map ID #37) is eligible under NRHP Criteria A and C and CRHR Criteria 1 and 3 as a locally significant example of early settlement patterns in the Mussel Slough region and as a locally significant example of Queen Anne architecture. More information about this property can be found in the DPR 523 form in Appendix C.

residents of the future Kings County disliked sending 'their' money off to be spent by those in faraway Visalia" (Roberts 2008: 7).



Source: Thompson 1892.

Note: This map shows Mussel Slough and portions of the Last Chance Ditch near Grangeville and Peoples Ditch north of Hanford. The area depicted on this map was part of Tulare County until Kings County was formed in 1893.

Figure 5.3-4
 Mussel Slough country north of the Southern Pacific Railroad, 1892

Just south of Mussel Slough country is an agricultural region historically referred to as the "Lakeside District," so named because of its proximity to now-dry Tulare Lake. The district also shares its name with the Lakeside Ditch and its system of branches and laterals, which were built to bring water from Cross Creek—a branch of the Kaweah River—to irrigate the area south of

Hanford and northeast of the lakebed. Local farmers organized the Lakeside Ditch Company in 1874 and completed the main canal in 1875. Like the Peoples Ditch and others to the north, Lakeside Ditch was never acquired by any of the irrigation districts that subsequently formed in Kings County and has remained a private canal company throughout its history (Grunsky 1898: 18-20; Menefee and Dodge 1913: 196; Preston 1981: 124, 142, 146-147).

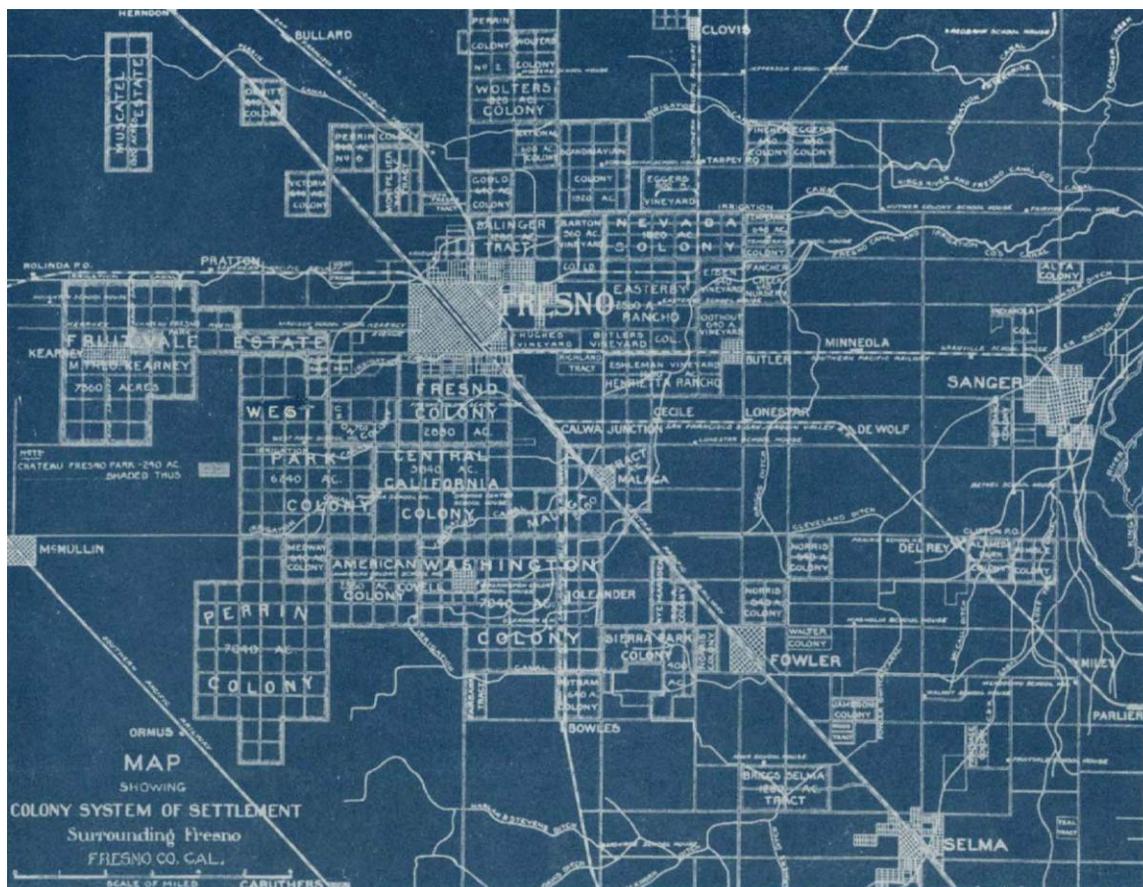
After the initial irrigation works were completed, Lakeside opened to sustained settlement, and over the next decade developed into a productive agricultural region devoted primarily to the cultivation of alfalfa and cereal grains. Hanford to the north was the principal shipping point, but the small settlement of Guernsey emerged at a station about 9 miles to the south after completion of the AT&SF through this part of Kings County in 1897. By this time, acreage previously devoted almost exclusively to grain cultivation was being converted to row crops, fruit and nut orchards, alfalfa fields, and a few dairy farms (Menefee and Dodge 1913: 196, 207-208; Brown 1940: 176-177; Preston 1981: 147; Durham 1998: 1,043). Two farmsteads established in Guernsey in the early twentieth century are located within the project APE and appear eligible for listing in the NRHP and CRHR. The farmstead at 11029 Kent Avenue (Map ID #40) consists of 14 buildings that date to the period of significance, 1908-1942, and it is a locally significant example of an early-twentieth-century working farmstead. The rural residence at 17780 10th Avenue (Map ID #41) is a locally important example of a transitional method of constructing rural domestic water supply systems using an attached tank house.¹⁰

Another mechanism for bringing irrigation water to arid or unreclaimed lands was the practice of land colony development, a distinctive institution in the San Joaquin Valley that is considered to have been among the more innovative methods of land development of the period. These colonies were tracts of subdivided irrigable land wherein water delivery canals were often built in advance of settlement to service blocks of small-scale family-farm units suitable for growing fruit orchards, vegetables, and vineyards. Colony developers often marketed to prospective buyers nationwide, selling small, roughly 10- to 20-acre (40,469 to 80,938 square meter [m²]) farm plots, each supplied with irrigation. Sometimes colony owners directed their sales effort to specific groups with common theologies or, more often, to residents of a certain geographical area, particularly from the Midwest. Settlers in these land colonies typically aspired to achieve an idyllic, homogeneous rural culture, but vineyard and orchard agriculture in California differed from the family farms of the Midwest. Historian David Vaught has described this manner of agriculture as "specialized, market-oriented, labor-intensive farming." The principal early crop of the colonies in this area was raisin grapes (Thickens 1946: 26-35; Vaught 1999: 1, 20-25, 53-56, 94, 70-75, 78, 98, 184-186; JRP Historical Consulting Services 2000: 12-15).

The Fresno to Bakersfield Section passes through the former Washington Colony, a potential rural historic landscape district located in southern Fresno County. Wendell Easton, J.P. Whitney, and A.T. Covell established the colony in 1878 by dividing 7,700 acres (31.2 km²) of land 8 miles (12.9 kilometers [km]) south of Fresno into small farm lots (Figure 5.3-5). Its organizers invested heavily in advertising across the country, as well as in Europe and Australia. Sale of 20-acre parcels was slow in the first couple of months of the promotion, but increased so rapidly that six sections were added to the colony by April 1879. By 1882, Washington Colony was the largest colony by acreage in Fresno County. The colony's agriculture developed quickly as well, and by

¹⁰ Tank houses were commonly used in rural agricultural areas of the San Joaquin Valley from the 1870s through approximately 1935. Initially separate structures, after about 1910 tank houses were sometimes attached to main residences, which provided additional interior space on the first floors of the tank house. This method of constructing tank houses—attaching them to the house—was only used circa 1910 to circa 1935 when tank houses ceased being built in the San Joaquin Valley. Built in 1920, the residence at 17780 10th Avenue is a good example this transitional method of constructing domestic water supply systems (Pitman 1976: passim). See the DPR 523 form, APN: 028-220-018, in Appendix C.

1885, over 1,000 acres of the colony had been planted to grapevines for raisins and to supply local wineries. Other principal crops were apricots, nectarines, peaches, Bartlett pears, and plums (*Pacific Rural Press* 1883 Apr 14; Truman 1885: 29). The colony purchased water rights from the Fresno Canal and Irrigation Company, and each buyer was guaranteed water, which allowed colony residents to lay out large farms and vineyards (Harvey 1907; Thickens 1946: 32–35; Thompson 1891). The Folk Victorian-style residence at 7887 S. Maple Avenue (Map ID #34d), built in the Washington Colony circa 1900, is located within the APE for this project and appears eligible for listing in the NRHP as a contributor to the potentially eligible rural historic landscape district.¹¹



Source: Thickens 1946.

Figure 5.3-5
 Land colonies in the vicinity of Fresno

Land development companies and land colonies also played a role in the agricultural development of the Bakersfield area, in the southern portion of the Fresno to Bakersfield Section. To the southeast of Bakersfield was the Virginia Colony, established in 1889 along East California Avenue between Washington Street and Fairfax Road. The colony and new streets were given

¹¹ The original HPSR (Authority and FRA 2011f) identified two canals and a farmstead as contributing elements of the potentially eligible Washington Irrigated Colony Rural Historic Landscape District, located within the APE at that time. Refinements to the project for this addendum brought in one additional contributor to the potentially eligible district, 7887 S. Maple Avenue (Map ID #34d). See the revised DPR 523 form in Appendix C for more information.

names associated with Virginia, the home state of early settlers in the area. The venture quickly attracted buyers, and by March 1893, the same year that the East Side Canal Company completed the East Side Canal through the tract, the local newspaper reported that all land in the approximately 880-acre Virginia Colony had been sold. The colony was resurveyed in 1893 and the map filed with the Kern County recorder indicates that it consisted of 5-acre lots (*Kern County Californian* 1889, October 12; *Weekly Californian* 1892, December 17; *Sumner Standard* 1893a, January 19; *Sumner Standard* 1893b, March 2; Kern County Recorder 1893; *Bakersfield Californian* 1944 September 12). It appears that most settlers purchased land in excess of the 5-acre lot size, because a 1901 atlas shows few landowners in Virginia Colony, almost all of whom owned multiple lots (Randall and Denne 1901).¹²

5.3.5 Events and Trends of the Twentieth Century

Since the turn of the twentieth century, additional events and trends have influenced the development of the Fresno to Bakersfield Section: the discovery and exploitation of Kern County oil fields, federal-state water development projects, and adoption of the automobile as the primary mode of transportation in the United States and the Central Valley. The twentieth century also ushered in the development and expanded use of Highway 99 as a major transportation corridor through the Central Valley, especially in urban centers like Bakersfield. While these changes were distinct and important, their effect on the corridor was primarily to intensify and expand the land settlement patterns already established by the end of the nineteenth century. The agricultural identities of the rural areas of southern Fresno County, Kings County, and northern Kern County remained generally intact (Bailey 1984: 77, 81).

5.3.5.1 Mussel Slough Agriculture

The mixed land use that characterized the Mussel Slough region at the end of the nineteenth century persisted into the twentieth century, and agriculture remained the region's principal industry through the decades leading up to the Second World War. Area farmers continued to reap the benefits of irrigation, and several of the larger canal systems, such as the Last Chance Ditch and Peoples Ditch, remained privately owned and operated; they still are today. Small family farms and dairy ranches coexisted with larger corporate enterprises, including the Lucerne Vineyard Company, Banner Vineyard Company, and Verona Orchard Company (Thompson 1891, 1892; McIntire 1908; Kings County Abstract Company 1923). Principal crops were orchard fruits, raisin grapes, grains, and alfalfa and other types of feed; it was not uncommon for a single 10-, 20-, or 40-acre farm to grow a combination of two or more of these crops.

The ethnic and cultural identity of the region was equally varied during the first decades of the twentieth century, with California natives intermingling with immigrants from the American East and Midwest, European countries such as England, Denmark, Portugal, and England, and other countries such as Mexico and Japan. These orchardists, dairy ranchers, and general farmers had numerous outlets for their products. Mussel Slough communities of Hanford, Armona, Grangeville, and Hardwick offered fruit drying and packing houses, wineries, creameries, cheese factories, flour mills, and shipping facilities on two major railroad lines. While many agricultural products were shipped by rail to San Francisco, Los Angeles, and other distant markets, there was also a strong local market for truck farmers and home dairies (Dewey 1901: *passim*; U.S. Census Bureau 1910; U.S. Census Bureau 1920; Brown 1940: 152-154; Roberts 2007: 38, 54; Roberts 2008: 108-110, 119).

¹² The residence at 2509 East California Avenue (Map ID #62) was built about 1898 in the Virginia Colony. The property is eligible under NRHP Criterion C and CRHR Criterion 3 as a locally significant example of Folk Victorian/Queen Anne architecture. More information about this property can be found in the DPR 523 form in Appendix C.

While the Mussel Slough region held on to its agricultural character into the twentieth century, it was not immune to the impacts of modernization. Its population centers mushroomed in the first half of the twentieth century as they transitioned from agricultural towns along the railroad into self-sustaining and economically diverse cities. This trend was most pronounced in Hanford, the county seat, whose population grew from less than 3,000 in 1900 to nearly 50,000 by the end of the century. The communities of Armona, Lemoore, and, to a lesser extent, Grangeville also grew in population and expanded well beyond their nineteenth-century street grids (Roberts 2007: 7; USGS 1926, 1954; USDA 1961; Preston 1981: 236). Residential stock throughout the rural surroundings reflected twentieth-century architectural styles such as Craftsman, Spanish Eclectic, Minimal Traditional, and Ranch. As the century progressed, these types of buildings gradually replaced many of their nineteenth-century predecessors, which had tended toward the Victorian and National Folk styles. The APE contains two rural residences built in Mussel Slough in the early twentieth century that appear eligible for listing in the NRHP and CRHR for their architectural merits: an American Foursquare residence at 13148 Grangeville Boulevard (Map ID #36) and an adobe residence designed and built in the 1930s in the Ranch Style at 12501 Lacey Boulevard (Map ID #38).¹³

5.3.5.2 Residential and Commercial Development of Bakersfield and East Bakersfield

In the greater Bakersfield area of Kern County, the arrival of the AT&SF and the Kern River oil boom of May 1899 initiated a period of rapid urban development that carried into the twentieth century. In an attempt to maintain a competitive edge over larger oil producers rushing to Kern County, more than 150 companies belonged to the Bakersfield-based Independent Oil Producers Agency by 1908. The 1910s proved an oil-rich decade for Kern County, and the economic upswing continued as the United States entered the First World War. Although the war interrupted some physical development and drew people and resources away from the area, it also helped sustain growth because the military effort required raw materials, such as food and oil, which Kern County was in a unique position to deliver (Bailey 1984: 79, 87-89; Boyd 1997: 108-109; Morgan 1914: 160).

Residential and commercial growth in Bakersfield was swift during this period, with individuals and developers adding more buildings between 1905 and 1915 than had been built in the city's first 40 years. In 1910 alone nearly 500 residences were erected throughout Bakersfield. Amidst this building boom, Bakersfield was also expanding its corporate boundaries. As discussed previously, in 1909 Bakersfield annexed Kern City, formerly Sumner, ending the separation of the original Southern Pacific railroad town from Bakersfield proper (BHPC n.d.; Wheeler 1995; Brewer 2001:68-69). The Fresno to Bakersfield Section passes through this neighborhood, which is now known as "East Bakersfield." East Bakersfield itself experienced rapid growth during the 1910s and 1920s, as new buildings infilled the original street grid and new residential tracts were developed on its peripheries (Sanborn Map and Publishing Company 1912, 1912-1949).¹⁴

Notable in terms of commercial development in East Bakersfield during this same period is the former San Joaquin Cotton Oil Company facility at 1660 East California Avenue. Stanley R. Pratt and associates organized the San Joaquin Cotton Oil Company (SJCOCO) in 1923 during the early development of the cotton industry in California. The next year, Pratt's company established the first cotton oil mill in Kern County at the East California Avenue parcel. Prior to the opening of this mill, Kern County farmers sent their cottonseed to the mills in Southern California. When the

¹³ For more information on the twentieth-century residences in Mussel Slough that are eligible for listing in the NRHP and CRHR, please see DPR 523 forms located in Appendix C.

¹⁴ The residence at 1031 East 18th Street (Map ID #60) in East Bakersfield was built in 1910. It is eligible for listing in the NRHP under Criterion C and in the CRHR under Criterion 3 as a locally significant example of Folk Victorian architecture. Please see the DPR 523 form in Appendix C.

first load of cottonseed was delivered to the mill in September 1924, the mill was small, having only an office building and one industrial building (*Bakersfield Californian* 1924a, 1924b, 1924c; *Bakersfield Californian* 1929b:7). In 1928, Anderson, Clayton & Company, a Texas-based cotton merchandising and ginning company, took over SJCOCO, retaining Pratt as the president of their new subsidiary, which continued to operate under its original name. Subsequently, the mill at 1660 East California Avenue went through a short period of rapid expansion during which many new warehouses and other facilities were constructed; all of the major improvements were completed by 1929 (*Bakersfield Californian* 1929a, October 22). By the early 1960s, SJCOCO was still a division of Anderson, Clayton & Company and had many cotton gins throughout California and in other western states, but fewer cotton oil mills. The Bakersfield mill on 1660 East California Avenue was still operating as late as 1976 (*Bakersfield Californian* 1961, July 1:4; *Bakersfield Californian* 1976, December 15:47).¹⁵

The historic architectural survey population for this Supplemental HPSR also includes State Route 204 (Union Avenue) / Old U.S. Highway 99 in Bakersfield, which was developed in the early twentieth century in response to the rapid rise of motor vehicle transportation. Increased automobile use in the early and mid-twentieth century led to an expanded effort to construct extensive road networks throughout the state. The state legislature passed the State Highways Act in 1910 to provide \$18 million in bonds for a "continuous and connected highway system." Bakersfield's location at the southern tip of the San Joaquin Valley and its status as the seat of Kern County lent it preference as an automobile transportation hub. Thus, when the state opened its primary north-south highway corridor in 1915, the road, which eventually became known as Highway 99, passed through the center of Bakersfield. Often referred to as the "main street" highway, it followed existing thoroughfares that not only connected major urban centers in the Central Valley, but also passed right through the town centers, as it did in Bakersfield (Blow 1920: 52-53, 150-155; Brewer 2001: 67-68; Brewer 2010: 7).

The economic prosperity of the 1920s and the improvements in technology that made cars more affordable led directly to an increase in automobile transportation. By the 1930s, the state had prepared plans to improve its major highways with straighter, wider roadways and better surface materials, features that would provide a smoother, more pleasant driving experience. In 1933, the state initiated a new route for Highway 99 through Bakersfield that bypassed its former circuitous route through the city. The new roadway entered the city from the south on Union Avenue, which was along the eastern edge of the downtown core at that time. This new route ran north, passed under the AT&SF tracks near Truxtun Avenue, and then continued north before turning northwest along Golden State Boulevard. This boulevard paralleled the Southern Pacific rail line across northern Bakersfield, crossed the Kern River, and joined the established Highway 99 route northward (Stein 1973: 23-26; Gregory 1989: 76-78; Brewer 2001: 67-68).¹⁶

The new Highway 99 route in Bakersfield (and throughout the improved roadway) experienced almost immediate heavy use, and it continued to function as an important transportation corridor until it was bypassed in the 1960s. During the Great Depression and Dust Bowl, many

¹⁵ The former San Joaquin Cotton Oil Company facility at 1660 East California Avenue (Map ID #61) is locally significant for its association with important historic events within the context of the early development of the cotton industry in Kern County (NRHP Criterion A / CRHR Criterion 1). More information about this property can be found in the DPR 523 form in Appendix C

¹⁶ In September 2010, SHPO concurred in the determination that a segment of State Route 204 (Union Avenue) / Old US Highway 99 in Bakersfield between Brundage Lane and Airport Drive at U.S. 99 meets the criteria for listing on the NRHP at the state level under Criterion A. The resource includes the road, sidewalks, median, landscaping, three cattle crossings/culverts, and four bridges, including Union Avenue Underpass, which carries the BNSF tracks over Union Avenue. The Caltrans evaluation of Union Avenue and SHPO concurrence letter are provided in Appendix C.

unemployed families and Midwest migrants traversed Highway 99 through the San Joaquin Valley in search of work. As the economy boomed in the postwar period in places like Bakersfield, the state elected to expand the roadway. The stretch along Union Avenue, which had quickly become a hub of commercial activity with motels, restaurants, and nightclubs, was expanded from four lanes to six through the city in the late 1940s. The rapid and extensive postwar growth in Bakersfield led the state to construct a Highway 99 bypass in 1963, located on the city's west end, that ultimately precipitated a gradual decline along Union Avenue (Whaley 1947: 6-7, 26-27; Gregory 1989: 76-78; Brewer 2010: 6-10; Roberts et al. 1963: 7-11).

Chapter 6.0

Historic Properties Identified

6.0 Historic Properties Identified

This chapter provides a general discussion of the cultural resources identified, a description of the specific NRHP-listed or NRHP-eligible archaeological and historic architectural resources, and tables of the historic properties identified.

6.1 Archaeological Resources

One archaeological site and an isolate that was identified during pedestrian surveys are within the revised portions of the APE as currently configured. A complete description of the survey methodology and findings can be found in the sASR (Authority and FRA 2012a). As a result of updates to the original record searches and background research, 23 previously recorded archaeological resources were identified within 0.25 mile (0.40 kilometer) of the current APE. Two of these sites, CA-KIN-69H and CA-TUL-473, were previously identified within the archaeological APE. CA-KIN-69H is a sparse historic refuse scatter, and CA-TUL-473 is a highly disturbed prehistoric artifact scatter. The two previously recorded sites are considered ineligible as historic properties or historical resources under the NHPA or CEQA, respectively. The recommendations regarding the eligibility of these sites are presented in the ASR (Authority and FRA 2011e).

The one archaeological site and isolate identified during the field surveys presented in this Supplemental HPSR are both considered to be ineligible for the NRHP, and as such, they are not considered historic properties under the Section 106 process. The evaluations of these sites are presented in the sASR (Authority and FRA 2012a).

6.2 Built Environment Resources

The 13 historic properties inventoried and evaluated in this Supplemental HPSR reflect the major events and trends discussed in Chapter 5.0, Historic Context. The survey area stretches from the downtown area in the city of Fresno through rural Kings County and the City of Bakersfield, and terminates in unincorporated Kern County, east of Bakersfield. Although the survey area is large and includes portions of four counties, many of the project refinements were located in rural Kings County; therefore, this Supplemental HPSR reports on seven properties in Kings County, while two properties are located in Fresno County and four are located in Kern County. (For a complete list of historic architectural resources inventoried and evaluated in this Supplemental HPSR, see Table 7-1.)

All 13 of the properties identified in this Supplemental HPSR are either contributors to historic properties, previously determined eligible for the NRHP, or were identified in this survey as eligible for the NRHP and are historic properties under Section 106. As such, these properties have also been listed or appear eligible for listing in the CRHR, and are also considered historical resources for the purposes of CEQA.

Eligibility for the NRHP rests on two factors: *significance* and *integrity*. The 13 properties meet one or more of the NRHP significance criteria (listed below) for inclusion in the NRHP (National Park Service 1997) and retain integrity:

Criterion A: association with "events that have made a significant contribution to the broad patterns of our history."

Criterion B: association with "the lives of persons significant in our past."

Criterion C: resources "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high

artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”

Criterion D: resources “that have yielded, or may be likely to yield, information important to history or prehistory.”

In addition to meeting one or more of the above criteria, the 13 historic properties retain integrity, which is determined through application of seven aspects: location, design, setting, workmanship, materials, feeling, and association. Location and setting relate to the relationship between the property and its surrounding environment. Design, materials, and workmanship relate to construction methods and architectural details. Feeling and association are the least objective of the seven aspects of integrity; they pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

This section discusses the evaluation of the 13 NRHP-eligible properties and is organized geographically, north to south, by county. The section provides tables that list the historic architectural and archaeological resources identified within the APE for this Supplemental HPSR, as required by the Section 106 PA, including the following:

- Additional contributors to previously identified historic properties (listed in or determined eligible for the NRHP), for which SHPO concurrence is requested.
- Updates to properties previously determined eligible for the NRHP, for which SHPO concurrence is requested.
- Properties determined eligible for the NRHP by this Supplemental HPSR, for which SHPO concurrence is requested.
- Archaeological properties that are currently being evaluated and are presumed eligible.¹⁷

The tables include information on the applicable NRHP criterion or criteria and the level, period, and area of historic significance.

6.3 NRHP Listed or Eligible Archaeological Properties

No cultural resources that are considered NRHP-eligible resources have been identified by background research or field efforts within the areas of the revised APE. As stipulated in the Section 106 PA, Section VIII[A][1], a phased identification effort will be necessary as access is granted and where adverse effects are likely to occur, and further evaluation of identified resources may be necessary at that time (Authority and FRA 2011a). This phasing will be coordinated through the establishment of a Memorandum of Agreement (MOA) and is not addressed further in the present document.

6.4 NRHP Listed or Eligible Historic Architectural Properties

Nine of the 13 listed or eligible historic properties within the APE relate to agricultural themes of development; they include rural residences and farmsteads, irrigation canals, a cotton seed processing plant, and a rural historic landscape. Two transportation-related historic properties are

¹⁷ For historic architectural resources that were subject to inventory and evaluation but that do not appear to be eligible for listing in the NRHP or CRHR, see the Supplemental HASR (Authority and FRA 2012b).

in the APE: a railroad depot building and a twentieth-century transportation corridor. Two residential historic properties are located in East Bakersfield. Ranging in age from the 1870s to the 1930s and designed in a range of styles, many of these properties have been somewhat altered over time, as continuous use and changing stylistic preferences and functions required new forms; however, these properties all retain general historic integrity. Railroad features represent some of the earliest history of the area, with the corridors of the Southern Pacific and the AT&SF providing crucial transportation linkages that spurred the development of the area's towns and agricultural regions. Similarly, irrigation features are indicative of the earliest and most fundamental advances allowed by the introduction of reliable water sources to the largely arid region. Residential development in the study area reflects its heavily rural agricultural nature; some of the earliest residences are late-nineteenth-century farmsteads and homesteads, but many date to the twentieth century. Towns and cities along transportation corridors in the San Joaquin Valley experienced rapid growth in the twentieth century. Cities such as Fresno and Bakersfield became major population centers with bustling commercial corridors like the former U.S. Highway 99 in Bakersfield.

Most of the property types found in the study area convey a sense of the late-nineteenth-century and early-twentieth-century development of the Fresno to Bakersfield Section as an agriculturally productive region. The railroad depot property and the highway corridor property in the study area speak to the continued importance of both forms of transportation well into twentieth century. Both the railroad and highway system continued to influence the growth of cities in the San Joaquin Valley and the evolution of this part of California to an economically and socially diverse region. Each property addressed by this Supplemental HPSR is discussed in more detail below. The discussion moves geographically from north to south, by county. The location of each historic property is shown by the "Map ID" number that appears on the APE maps provided in Appendix A. For the full evaluation and history of each property, refer to the DPR 523 forms in Appendix C.¹⁸

6.4.1 Fresno County Historic Properties

Two historic properties in the APE are located in Fresno County: the Southern Pacific Railroad Depot in Fresno and a rural historic landscape based upon a nineteenth-century irrigated colony development. Both of these historic properties were identified in the original HPSR (Authority and FRA 2011f), and both property evaluations require updating to reflect changes that occurred since the original HPSR was prepared.

Pullman Shed, Fresno Southern Pacific Railroad Depot (Map ID #13)

The Southern Pacific Railroad Depot historic property in Fresno includes two buildings: the main depot and a Pullman Shed. Although the depot was listed in the NRHP (NRHP No. 7800665, certified on March 21, 1978), the nomination did not explicitly describe the adjacent Pullman Shed, despite the fact that it is located on the same legal parcel. The recent City of Fresno evaluation form is provided in Appendix C to clarify that the Pullman Shed is a contributing element of the depot property. The depot property is significant at the local level under NRHP Criterion A for its association with the development of Fresno, and the depot building is eligible under NRHP Criterion C as an important example of the Queen Anne architectural style. The depot property was automatically listed in the CRHR (CRHR 1 and 3) and is listed in the Fresno

¹⁸ Please refer to the Supplemental HASR for documentation of the other built environment resources that are not eligible for listing in the NRHP or CRHR (Authority and FRA 2012b) as well as the previous technical studies for the built environment: *California High-Speed Train Fresno to Bakersfield Historic Architectural Survey Report (HASR)* (Authority and FRA 2011a), and *California High-Speed Train Fresno to Bakersfield Historic Property Survey Report (HPSR)* (Authority and FRA 2011f).

Local Register (#11). The Pullman Shed is a contributing element of the depot historic property and is eligible at the local level under NRHP Criterion A for its association with early twentieth-century passenger rail service, and under NRHP Criterion C for its rare construction type (CRHR 1 and 3). The Pullman Shed was added to the Fresno Local Register (#272) in March 2012.



Figure 6.4-1
 Pullman Shed, Southern Pacific Fresno Depot, facing southeast, April 26, 2010

One of the primary character-defining features of the overall depot historic property is the relationship of the two buildings to the tracks, and to each other, on a single legal parcel (APN: 467-030-38S, containing 1.64 acres). Character-defining features of the depot building include the remaining Queen Anne features, namely, the rounded turret, flared roof line at the eaves and dormers, the arched windows, and eave brackets. The stucco is a later addition, and although applied during the period of significance, is not character-defining. The Pullman Shed's character-defining features include its original reinforced concrete construction and massing, open-sided walls with louvers, and two-bay, shallow-pitched gabled roof. The boundary of this historic property is its legal parcel.

7887 S. Maple Ave (Map ID #34d), Contributor to Washington Irrigated Colony Rural Historic Landscape

Refinements to the project footprint brought the farmstead at 7887 S. Maple Avenue into the study area for the Supplemental HPSR. This farmstead is a contributing element of the Washington Irrigated Colony Rural Historic Landscape (described below), a district that was identified as part of the original HPSR. The farmstead at 7887 S. Maple appears eligible at the local level of significance, under NRHP Criteria A and C and CRHR Criteria 1 and 3, as a contributor to the Washington Colony Rural Historic Landscape district, although it does not individually meet the criteria for listing in the NRHP or CRHR. Character-defining features of this historic property are the massing of the Folk Victorian residence and its setting in an agricultural field.

A study conducted in 1990-1992 concluded that the former Washington Irrigated Colony in southern Fresno County appeared eligible for listing in the NRHP as a rural historic landscape district with a period of significance of 1878 to 1910. The study found the landscape district significant for its association with settlement patterns and architecture (NRHP Criteria A and C). At the time of its identification in the 1990s, contributors to the district consisted of 6,520 acres within the district boundaries (planted in raisin grapes, historically consistent fruit and nut trees,

oranges, and onions; dairy and pastureland; eucalyptus groves; tule ponds; minor remaining street trees); 55 farmsteads; approximately 22 linear miles of open earthen canals; the north-south, east-west grid platted for the colony; and the Santa Fe railroad line (1898), running north-south between Cedar and Maple Avenues. The study identified 522 post-1910, non-contributing buildings and 1,060 non-contributing acres within the original boundaries of the Washington Irrigated Colony. Most of the non-contributing acreage is around Easton, which is not in the APE for this project.

Some of the original 55 contributing farmsteads were within the APE for the *California High-Speed Train Fresno to Bakersfield Historic Property Survey Report* (Authority and FRA 2011f), and as noted above, an additional farmstead was brought into the APE for the Supplemental HPSR. In the intervening 20 years, three of these farmsteads have lost integrity of design, workmanship, and materials to a degree that they no longer convey their association with the period of significance (1878 to 1910), and therefore should not be considered contributors to the potential district. The three farmsteads are 2502 E. Lincoln Avenue, 6532 S. Maple Avenue, and 7098 S. Maple Avenue. (These ineligible resources are reported in the original HASR; see Authority and FRA 2011a.)

The original HPSR (Authority and FRA 2011f) concurred that the farmstead at 6422 S. Maple Avenue was a contributing element, and this Supplemental HPSR concurs that 7887 S. Maple Avenue is a contributing element. In addition to the contributing farmsteads, the APE for the original HPSR contains other contributing elements of the potential district: two short segments of the Washington Colony and Oleander canals, approximately 80 agricultural parcels of farmland, and portions of the orthogonal street grid. See the HPSR dated October 2011 as well as the DPR 523 forms for the revised update in Appendix C of this Supplemental HPSR for more information about the landscape district and the contributing elements that fall within the APE (Authority and FRA 2011f). See Appendix B for SHPO concurrence with the findings of the original HPSR.

6.4.2 Kings County Historic Properties

All of the historic properties in Kings County that are within the revised APE for this Supplemental HPSR are related to agricultural development: five rural residences/farmsteads, and two irrigation canals. Three of the farmsteads and both of the canals are located in the region of Kings County historically known as Mussel Slough. The other two farmsteads are located in the area known as Guernsey, which was part of a larger area known locally as the Lakeside District.

Historic Properties Related to Irrigation

Canal structures transect the Central Valley and were of vital importance to the development and agricultural success of the region. Entirely utilitarian in form, the canals in Kings County are basic, earth-lined, infrastructural elements. Both historic canal properties in the survey area, Last Chance Ditch and Peoples Ditch, were built in the 1870s to divert water from the Kings River to supply irrigation water to the Mussel Slough region.

A roughly 0.7-mile segment of Last Chance Ditch (Map ID #35) and a 2.4-mile section of its eastern branch pass through the APE for this Supplemental HPSR and appear eligible at the state level under NRHP Criterion A and CRHR Criterion 1 for their association with pioneer settlement patterns of the Mussel Slough area in the 1870s and for their association with the events that led to the Mussel Slough Tragedy (Appendix C). Character-defining features of Last Chance Ditch are its alignment through the Mussel Slough area north and west of Hanford in the vicinity of Grangeville and Armona, its remaining rural agricultural setting, and its earth-lined banks. The period of significance is from its construction in 1874 through the Mussel Slough Tragedy in

1880. The boundary of this historic property/historical resource is its right-of-way or legal parcels created for its right-of-way for the two segments that pass through the APE.



Figure 6.4-2

Last Chance Ditch, facing north at Fargo Avenue, December 7, 2011

The original HPSR (Authority and FRA 2011f) concluded that segments of Peoples Ditch and East Branch Peoples Ditch (Points 1, 2, and 3) were eligible for listing under NRHP Criterion A and CRHR Criterion 1 at the state level for their association with pioneer settlement patterns of the Mussel Slough area in the 1870s and for their association with the events that led to the Mussel Slough Tragedy. In February 2012, SHPO concurred with this determination (Appendix B). Changes in the project footprint required evaluation of additional segments of Peoples Ditch south of those evaluated for the previous report. The segments of Peoples Ditch (Points 4, 5, and 6) evaluated for this Supplemental HPSR are not eligible for listing in the NRHP or CRHR because of substantial losses to all seven aspects of integrity; a revised DPR 523 form was prepared (Map ID #39 and DPR 523 form in Appendix C). The previously determined eligible segments still appear eligible.

Historic Residential Properties in Mussel Slough

The study area for this Supplemental HPSR includes three historic properties related to the rural residential development of the Mussel Slough region of Kings County. The Pickerill House at 13148 Grangeville Boulevard (Map ID #36) is eligible for listing in the NRHP and CRHR at the local level of significance under NRHP Criterion C and CRHR Criterion 3, with a period of significance dating to construction, circa 1914-1919. The property includes a barn and a main residence with an attached tank house constructed in the American Foursquare style. This example of a house with attached tank house is locally significant both in terms of its architectural style and its construction type. The attached tank house is a good example of a transitional type and method of construction for a domestic water supply system that was used from 1910 through the mid-1930s. Character-defining features of the property include the cubic massing, pyramidal roof forms (on both the residence and tank house), wide front porch, overall symmetry, dormer and decorative elements that provide neo-Colonial styling, Doric porch columns, decorative shutters, door sidelights, and a tripartite dormer window. The monitor-roof barn contributes to the property as a whole, and is an important element of the setting, agricultural associations, feeling, and overall design of the residential complex. The boundaries of this historic property are its current legal parcel.



Figure 6.4-3
 13148 Grangeville Blvd, facing northeast, December 7, 2011

The farmstead at 9860 13th Avenue (Map ID #37) is eligible for listing in the NRHP and CRHR at the local level of significance under NRHP Criteria A and C and under CRHR Criteria 1 and 3 for associations with early settlement patterns of the Mussel Slough region and as an example of a farmstead built in the Queen Anne style. The farmstead’s period of significance is circa 1881 to 1900 under Criteria A and 1, and circa 1881 under Criteria C and 3. The contributing elements of the property are the main residence, an outbuilding, and a tank house. Character-defining features of the farmstead are the rural setting adjacent to Last Chance Ditch, the architectural details of the residence that consist of two-story massing, steeply pitched roof with an irregular shape featuring both hip and gable elements, asymmetrical façade, partial-width wrap-around porch, doors with transom, diamond-shaped stained glass window, windows with larger panes bounded by smaller stained glass panes, cutaway bay windows, horizontal wood siding, the combination of fish scale and diamond-shaped shingles, spindlework porch supports and frieze, and lacelike or gingerbread brackets beneath the gables and beneath the porch frieze. The character-defining features of the tank house include horizontal wood siding with cornerboards and the windmill tower and its proximity to the residence. The outbuildings features are its simple footprint and massing, gable roof form, and board-and-batten wood siding. The boundary of this historic property is the current legal parcel.



Figure 6.4-4
 9860 13th Avenue, facing southwest, December 7, 2011

The Johnstone Adobe at 12501 Lacey Boulevard (Map ID #38) is eligible for listing in the NRHP and CRHR under NRHP Criterion C and CRHR Criterion 3 at the local level of significance. Its period of significance is the year of its construction, which was 1935. The main residence on the parcel was built in the Adobe Ranch-style, early in the revival of adobe residential construction and its subsequent popularity in the West. Character-defining features of the house are those features that represent and demonstrate the method of adobe construction, including the plan, building materials, massing, window and door configuration, and roof form and materials. The boundaries of this historic property conform to the legal parcel.

Historic Residential Properties in Guernsey

The study area for the Supplemental HPSR includes two historic properties related to the rural residential development of the Guernsey area of unincorporated southern Kings County.

The Walter Burr Ranch at 11029 Kent Avenue (Map ID #40) is eligible for listing in the NRHP and CRHR at the local level of significance under NRHP Criterion C and CRHR Criterion 3 because it is significant for embodying the type, period, and methods of construction of an early-twentieth-century farmstead. The period of significance for this historic property is 1908 to 1942. The farmstead incorporates 20 buildings that range from a Folk Victorian residence, tank house, and outhouse to a variety of farm buildings, including a three-bay barn, two-crib barn, and a granary. Together these buildings represent the core components of a farming operation that supported the residential and business needs of a moderate-sized family farm in early-twentieth-century rural Kings County. Character-defining features of the eligible property include the location, spacing, and arrangement of the contributing buildings, rural farm setting of the property, and important architectural elements of the house, tank house, outhouse, and barns. For the Folk Victorian residence, these features include the plan, massing, form, fenestration, siding, roof system, and front and rear porches with associated columns and balustrades. The important features of the tank house include its fully enclosed three-story tapered tower with overhanging platform for the tank, hipped roof, and doors, windows, and wall cladding. The key features of the outhouse include its location in relation to the residence, its simple plan and form, and the siding and door opening. The key elements of the barns and granary include the plan, form, roof system, siding, fenestration, and doors of each structure. The boundaries of this historic property include the complex of buildings located at the northeast corner of the parcel and are delineated as the area not planted with crops.



Figure 6.4-5
11029 Kent Avenue, facing southwest, December 7, 2011

The Craftsman-style residence with attached tank house at 17780 10th Avenue (Map ID #41) is eligible for listing in the NRHP and CRHR at the local level of significance under NRHP Criterion C and CRHR Criterion 3 because it is a good representative example of a transitional method of construction for rural domestic water supply systems. The period of significance dates to 1920 when the residence was constructed. The character-defining features of this historic property are its generally rural agricultural setting, the footprint of the house with tank house attached, the wood staircase leading to the second-story door on the south side of the tank house, and the Craftsman architectural details including the low-pitched side gable roof and matching side-gable tank house roof, horizontal wood siding, wide window casings, full-width porch, front-gabled dormer, and tapered porch supports. The boundaries of this historic property are its current legal parcel.



Figure 6.4-6
 17780 10th Avenue, facing northwest, December 7, 2011

6.4.3 Kern County Historic Properties

The study area for this Supplemental HPSR contains four properties in Kern County that are eligible for listing in the NRHP and CRHR or that have been determined eligible for listing: a segment of Union Avenue – State Route 204 located in Bakersfield, two Folk Victorian residences, and a former cotton seed processing plant.

Transportation-Related Historic Property

A segment of Union Avenue – State Route 204 located in Bakersfield (Map ID #59) formerly carried Highway 99 through Bakersfield and was determined eligible under NRHP Criterion A and CRHR Criterion 1 at the state level of significance for its association with twentieth-century highway construction and the associated commercial development that occurred as a result of its routing through Bakersfield. The period of significance for this historic property is from 1933 through 1963. Seven engineering structures associated with the 1933 construction of the route contribute to this historic property: the Union Avenue underpass bridge, Stine Canal bridge, Kern River bridge, Calloway Canal bridge, and three reinforced-concrete cattle undercrossings. Character-defining features of this historic property include the:

- 1933 alignment, with the turn of its route onto Golden State Boulevard, the spatial layout of six lanes with landscaped center median to the Chester Avenue Bridge, the 1953 four-lane divided highway with associated berms to post mile 6.22, the mid-twentieth-century

sidewalks, curbs, and gutters with deep curved cuts at street intersections and with Works Progress Administration (WPA) and other concrete stamps.

- 1946-47 landscaped center dividers with associated palm trees.
- the setting along a commercial corridor with buildings with minimal setback.

The boundaries of this historic property are a segment of the right-of-way of U.S. Highway 99, known as State Route 204 in the eligible segment, from the south junction of Brundage Lane (post mile 0.04) to just north of the Largo Cattlepass (post mile 6.22), south of Airport Drive.

Residential Historic Properties

Two Bakersfield residences are illustrative of the Folk Victorian tradition of architecture and are eligible for listing in the NRHP at the local level of significance under Criterion C. The properties at 1031 E. 18th Street (Map ID# 60) and 2509 E. California Avenue (Map ID #62) are modest Folk Victorian dwellings with Queen Anne influences that were constructed about 1900. These properties are characterized by simple folk house forms featuring Queen Anne allusions, including cutaway bays, strongly articulated molding and casing, and a prominent front-facing pediment. The adoption of such modest stylized elements was common in the vernacular form during the period, as speculative builders and developers sought to design inexpensive residential properties with popular historicist components that would denote high-style design and attract buyers.



Figure 6.4-7
1031 East 18th Street, facing south, April 7, 2010

Agricultural/Industrial Historic Property

The San Joaquin Cotton Oil Company at 1660 E. California Avenue (Map ID #61) in Bakersfield is a historic property associated with agriculture and industry. The industrial complex contains eight buildings and structures, most of which date to the early 1920s. This property is primarily utilitarian in design, featuring steel-framed buildings with corrugated metal roofing and siding. The business is a significant local representative of the development of the cotton industry, which played a dominant role in the twentieth-century agricultural development of the region, and is eligible for the NRHP at the local level of significance under Criterion A.



Figure 6.4-8
 Seed warehouses, facing southwest, April 7, 2010

6.5 Tables of Historic Properties Identified

Table 6.5-1 shows additional eligible contributors to listed historic properties for which SHPO concurrence is requested. Additional contributors to previously determined eligible properties for which SHPO concurrence is requested are shown in Table 6.5-2. Previously determined eligible properties are shown in Table 6.5-3. The historic properties in the APE that were identified as eligible for the NRHP by this study, and for which SHPO concurrence is requested, are listed in Table 6.5-4. There are no properties in this study that are eligible under CEQA only. The DPR 523 forms for all historic architectural resources evaluated or updated for this Supplemental HPSR are included in Appendix C.

The Map ID numbers in the following tables are non-sequential because they are a subset of the Map ID numbers representing all of the historic properties identified in the Fresno to Bakersfield Section study corridor and reported in the EIS/EIR document.

Table 6.5-1
 Additional Eligible Contributors to Listed Historic Properties (Historic Architectural Resources) for Which SHPO Concurrence Is Requested

Map ID#	APN	Address / Resource Name	City	County	Year Built	Applicable NRHP Criteria	Level, Period, and Theme of Significance
13	46703038S	1033 H Street Pullman Shed, a part of the Southern Pacific Railroad Depot Property	Fresno	Fresno	1889, 1917	A, C	Local; 1889–1971; architecture, commerce, transportation
Acronyms and Abbreviations: APN = Assessor's Parcel Number ID = identification n/a = not available NRHP = National Register of Historic Places SHPO = State Historic Preservation Officer							

Table 6.5-2
 Additional Eligible Contributors to Previously Determined Eligible Historic Properties (Historic Architectural Resources) for Which SHPO Concurrence Is Requested

Map ID#	APN	Address / Resource Name	City	County	Year Built	Applicable NRHP Criteria	Level, Period, and Theme of Significance
34	Multiple	Washington Irrigated Colony Rural Historic Landscape (form updated to include contributor, 7887 S. Maple Avenue)	n/a	Fresno	1878-present	A, C	Local, 1878-1910, early settlement, agriculture, and architecture
34d	33511042	7887 S. Maple Avenue (eligible contributor to the Washington Irrigated Colony Rural Historic Landscape)	n/a	Fresno	c1900	A, C	Local; c1900; agriculture and architecture

Acronyms and Abbreviations:
 APN = Assessor's Parcel Number
 c = circa
 ID = identification
 n/a = not available
 NRHP = National Register of Historic Places
 SHPO = State Historic Preservation Officer

Table 6.5-3
 Previously Determined Eligible Historic Properties

Map ID#	APN	Address / Resource Name	City	County	Year Built	Applicable NRHP Criteria	Level, Period, and Theme of Significance
10	n/a	Union Avenue, State Route 204	Bakersfield	Kern	1933	A	State; 1933-1963; Transportation-highway, commercial development
39	n/a	Peoples Ditch	n/a	Kings	1873-1875	A (Points 1, 2, 3); n/a (Points 4, 5, 6)	State, 1873-1880, early settlement

Acronyms and Abbreviations:
 APN = Assessor's Parcel Number
 ID = identification
 n/a = not available
 NRHP = National Register of Historic Places
 SHPO = State Historic Preservation Officer

Table 6.5-4
 Historic Properties (Historic Architectural Resources) That Appear Eligible for the NRHP and for Which SHPO Concurrence Is Requested

Map ID#	APN	Address / Resource Name	City	County	Year Built	Applicable NRHP Criteria	Level, Period, and Theme of Significance
35	n/a	Last Chance Ditch	n/a	Kings	1873-1874	A	State; 1874-1880; early settlement
36	009100020000	13148 Grangeville Blvd, Pickerill House	n/a	Kings	c1914-1919	C	Local; 1914-1919; architecture
37	009070049000	9860 13 th Avenue	n/a	Kings	c1881	A, C	Local; c1881-1900 (A), c1881 (C); settlement patterns, architecture
38	018102111000	12501 Lacey Blvd, Johnstone Adobe	n/a	Kings	1935	C	Local; 1935; architecture
40	028220067000	11029 Kent Avenue, Walter Burr Ranch	n/a	Kings	1908	C	Local; 1908-1942; agricultural architecture
41	028220018000	17780 10 th Avenue	n/a	Kings	1920	C	Local; 1920; residential construction methods
60	01726007	1031 East 18 th Street	Bakersfield	Kern	c1900	C	Local, 1900, architecture
61	01749014	1660 East California Avenue	Bakersfield	Kern	1924-1929	A	Local, 1924-1929, agriculture - cotton
62	14113025	2509 East California Avenue	Bakersfield	Kern	c1898	C	Local, 1898, architecture

Acronyms and Abbreviations:

APN = Assessor's Parcel Number

c = circa

ID = identification

n/a = not available

NRHP = National Register of Historic Places

SHPO = State Historic Preservation Officer

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Chapter 7.0

Findings

7.0 Findings

This chapter summarizes the inventory and evaluation of cultural resources presented in this Supplemental HPSR.

The two archaeological resources inventoried and evaluated in this Supplemental HPSR and the four previously recorded archaeological resources are considered ineligible as historical properties under the NHPA or historical resources under CEQA.

The 13 historic properties inventoried and evaluated in this Supplemental HPSR reflect the major historical themes discussed in the historical context. The context describes the major historic events and trends that occurred within the study corridor, which extends south from downtown Fresno, traverses rural Fresno, Kings, and Tulare counties, and terminates in unincorporated Kern County, east of the city of Bakersfield. Most of the historic properties addressed in this Supplemental HPSR are located in rural areas of Fresno and Kings counties, although two are located within the urbanized cities of Fresno and Bakersfield.

The historic status of each of the 13 historic architectural resources surveyed is shown in Table 7-1 and on the individual DPR 523 forms in Appendix C. One resource—State Route 204 (Union Avenue) / Old US Highway 99 (Map ID #59)—was recently surveyed and determined eligible and therefore did not require re-evaluation for this Supplemental HPSR. No resources required further study to resolve the question of their eligibility. (Historic architectural resources that met the Section 106 PA definition of “streamlined documentation” and those that required evaluation but were not found eligible for listing in the NRHP or CRHR were reported as part of the Supplemental HASR submittal for this project [Authority and FRA 2012a].)

One property addressed in this Supplemental HPSR is part of a property that was previously listed in the NRHP (Status Code 1) and CRHR:

- Pullman Shed, Southern Pacific Railroad Depot, 1933 H Street, Fresno (NRHP #78000665; also Local Register #11) (Map ID #13).

Two properties addressed in this Supplemental HPSR were previously determined eligible for listing in the NRHP (Status Code 2) and are, or will be, automatically listed in the CRHR:

- State Route 204 (Union Avenue) / Old US Highway 99 (Map ID #59).
- Peoples Ditch, Points 1, 2, 3 (Map ID #39) (This Supplemental HPSR evaluates Peoples Ditch, Points 4, 5, 6 as not eligible for listing in the NRHP).

One property is a contributor to a previously determined eligible property (Status Code 2).

- 7887 S. Maple Avenue, Fresno County (Map ID #34d).

The nine other properties addressed in this Supplemental HPSR were evaluated using NRHP and CRHR criteria; all appear eligible for listing in the NRHP and CRHR (Status Code 3) and are also considered historical resources for the purposes of CEQA:

- Last Chance Ditch, Kings County (Map ID #35).
- Pickerill House, 13148 Grangeville Boulevard, Kings County (Map ID #36).
- 9860 13th Avenue, Kings County (Map ID #37).
- Johnstone Adobe, 12501 Lacey Boulevard, Kings County (Map ID #38).
- 11029 Kent Avenue, Kings County (Map ID #40).
- 17780 10th Avenue, Kings County (Map ID #41).
- 1031 East 18th Street, Kern County (Map ID #60).

- 1660 East California Avenue, Kern County (Map ID #61).
- 2509 East California Avenue, Kern County (Map ID #62).

This Supplemental HPSR was prepared as part of project compliance with applicable sections of the National Historic Preservation Act (NHPA) and its implementing regulations issued by the Advisory Council on Historic Preservation (ACHP) as these pertain to federally funded undertakings and their impacts on historic properties. This Supplemental HASR will be submitted to the California State Historic Preservation Office (SHPO) for its concurrence in the adequacy of the revised APE and the identification and evaluation findings. All 13 historic architectural resources surveyed have either been listed in, previously determined eligible for, or meet the criteria for listing in the NRHP.

All historic architectural resources were also evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code, and all are historical resources for the purposes of CEQA. CEQA historical resources are those listed in the CRHR, those eligible for listing in the CRHR, or those that meet other local government standards as historical resources, as per Section 15064.5(a)(4) of the CEQA Guidelines.

Table 7-1
 Supplemental HPSR Survey Population Arranged North to South along the Fresno to Bakersfield Corridor

Map ID#	APN/ Ref #	Address	City	County	Year Built	Resource Name	CHRS Code	Section 106 Resource	CEQA Resource	Previous Status
13	46703038S	1033 H Street	Fresno	Fresno	1889, 1917	Pullman Shed, Southern Pacific Railroad Depot	1S, ,3, 5S1	√	√	1S, 5S1, Local Register #11
34	n/a	Washington Irrigated Colony Rural Historic Landscape	n/a	Fresno	1878-1910	Washington Irrigated Colony Rural Historic Landscape	2D2	√	√	3D
34d	33511042	7887 S. Maple Avenue	n/a	Fresno	ca. 1900	(eligible contributor to the Washington Irrigated Colony Rural Historic Landscape)	3D	√	√	n/a
35	n/a	n/a	n/a	Kings	1873-1874	Last Chance Ditch	3S	√	√	n/a
36	009100020000	13148 Grangeville Blvd	n/a	Kings	ca. 1914-1919	Pickerill House	3S	√	√	n/a
37	009070049000	9860 13th Avenue	n/a	Kings	ca. 1881	n/a	3S	√	√	n/a
38	018102111000	12501 Lacey Blvd	n/a	Kings	1935	Johnstone Adobe	3S	√	√	n/a
39	n/a	n/a	n/a	Kings	1873-1875	Peoples Ditch	2S2 (Points 1, 2, 3); 6Z (Points 4, 5, 6)	√	√	n/a
40	028220067000	11029 Kent Avenue	n/a	Kings	1908	Walter Burr Ranch	3S	√	√	n/a

Table 7-1
 Supplemental HPSR Survey Population Arranged North to South along the Fresno to Bakersfield Corridor

Map ID#	APN/ Ref #	Address	City	County	Year Built	Resource Name	CHRS Code	Section 106 Resource	CEQA Resource	Previous Status
41	028220018000	17780 10th Avenue	n/a	Kings	1920	n/a	3S	√	√	n/a
59	n/a	Union Avenue / State Route 204	Bakersfield	Kern	1933	State Route 204 (Union Avenue) / Old US Highway 99	2S2	√	√	2S2
60	01726007	1031 East 18th Street	Bakersfield	Kern	c1900	n/a	3S	√	√	n/a
61	01749014	1660 East California Avenue	Bakersfield	Kern	1924-1929	San Joaquin Cotton Oil Company	3S	√	√	n/a
62	14113025	2509 East California Avenue	Bakersfield	Kern	c1898	n/a	3S	√	√	n/a

Acronyms and Abbreviations:

APN = Assessor's Parcel Number

c, ca. = circa

CEQA = California Environmental Quality Act

CHRS = California Historical Resource Status (see Appendix D)

HPSR = Historic Property Survey Report

ID = identification

n/a = not available

NRHP = National Register of Historic Places

SHPO = State Historic Preservation Office(r)

Chapter 8.0

References

8.0 References

NB: this chapter includes references cited in the text of this HPSR; for the citations in the DPR 523 forms, refer to the individual forms that are attached to the report in Appendix C.

- Adams, Frank. 1929. *Irrigation Districts in California*. Bulletin No. 21. Sacramento, CA: State of California Department of Public Works.
- Angel, J.L. 1966. "Early Skeletons from Tranquility, California." *Smithsonian Contributions to Anthropology* 2(1): 1–19.
- Bailey, Richard C. 1984. *Heart of the Golden Empire: An Illustrated History of Bakersfield*. Woodland Hills, CA: Windsor Publications, Inc.
- Baker, P.Y. 1876. Map of Tulare County, California. P.Y. Baker.
- Bakersfield Californian*. 1924a. "Seventeen Building Permits Are Issued in Single Morning Rush." 9 (col. 4). May 7.
- . 1924b. "Permit Is Secured Cotton Oil Building." 9 (col. 8). June 5.
- . 1924c. "First Carload of Cottonseed For Oil Delivered to New Local Plant." 13 (col. 8). September 20.
- . 1929a. "Totals Already Nearing Quarter Million With 8 Days Remaining." 11 (col. 1). October 22.
- . 1929b. "Stanley R. Pratt to be President of New \$500,000 Concern Formed." 7 (col. 1). December 28.
- . 1944 "Rites Held for John T. Basye." 7 (col. 4). September 12.
- . 1961. "San Joaquin Co. Improves Cotton Gins in State." illeg. pg. (col. 1). July 1.
- . 1976. "Legal Notices." 47 (col. 6). December 15.
- Bakersfield Historic Preservation Commission (BHPC). n.d. *Stepping into the Past: A Historic Walking Tour of Downtown Bakersfield*. Bakersfield Historic Preservation Commission.
- Banning, E.B., A.L. Hawkins, and S.T. Stewart. 2006. "Detection Functions for Archaeological Survey." *American Antiquity* 71(4): 723–742.
- Barth, Gunther Paul. 1975. *Instant Cities: Urbanization and the Rise of San Francisco and Denver*. New York: Oxford University Press.
- Bean, Walton, and James J. Rawls. 1983. *California: An Interpretive History*. 4th ed. New York: McGraw Hill Book Co.
- Beck, Warren A., and Ynez D. Haase. 1974. *Historical Atlas of California*. Norman, OK: University of Oklahoma Press.
- Bergman, John. 2009. *The Southern San Joaquin Valley, A Railroad History: Fresno to Bakersfield*. Visalia, CA: Jostens Printing & Publishing Co.

- Blow, Ben. 1920. *California Highways: A Descriptive Record of Road Development by the State and by Such Counties as have Paved Highways*. San Francisco: The H.S. Crocker Co., Inc.
- Boyd, William. 1997. *Lower Kern River Country 1850–1950: Wilderness to Empire*. Bakersfield, CA: Kern County Historical Society.
- Brewer, Chris. 2001. *Historic Kern County: An Illustrated History of Bakersfield and Kern County*. San Antonio: Historical Publishing Network.
- . 2010. *Historic Resource Evaluation Report for the Relinquishment of State Route 204*. Prepared for Jeanne Binning, Branch Chief, Central California Cultural Resources Branch. August 2010.
- Broadbent, Sylvia. 1974. "Conflict at Monterey: Indian Horse Raiding, 1820–1850." *Journal of Anthropology* 1(1). Spring. The UC Merced Library, Merced.
- Brown, J.L. 1958. *The Mussel Slough Tragedy*.
- Brown, Robert R. and J.E. Richmond (editors). 1940. *History of Kings County*. Hanford, CA: A.H. Cawston.
- Burmeister, Eugene. 1969. *City Along the Kern: Bakersfield, California, 1869–1969: A Centennial Publication in Limited Edition*. Bakersfield, CA: Kern Publishing House.
- California. 1900. *Third Report of the State Dairy Bureau to the Governor of the State of California*. Sacramento: State Printing Office.
- California High-Speed Rail Authority and Federal Railroad Administration (Authority and FRA). 2011a. *California High-Speed Train Fresno to Bakersfield Historic Architectural Survey Report (HASR)*. Sacramento and Washington, DC: California High-Speed Rail Authority and USDOT Federal Railroad Administration.
- . 2011b. *Section 106 Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historical Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act*.
- . 2011c. *Fresno-Bakersfield Archaeological Identification and Evaluation Plan*.
- . 2011d. *Fresno-Bakersfield Historic Architecture Identification and Evaluation Plan*.
- . 2011e. *California High-Speed Train Fresno to Bakersfield Archaeological Survey Report (ASR)*. Sacramento and Washington, DC: California High-Speed Rail Authority and USDOT Federal Railroad Administration.
- . 2011f. *California High-Speed Train Fresno to Bakersfield Historic Property Survey Report (HPSR)*. Sacramento and Washington, DC: California High-Speed Rail Authority and USDOT Federal Railroad Administration.
- . 2012. *California High-Speed Train Fresno to Bakersfield Supplemental Archaeological Survey Report (sASR)*. Sacramento and Washington, DC: California High-Speed Rail Authority and USDOT Federal Railroad Administration.

- . 2012. *California High-Speed Train Fresno to Bakersfield Supplemental Historic Architectural Survey Report (sHASR)*. Sacramento and Washington, DC: California High-Speed Rail Authority and USDOT Federal Railroad Administration.
- California Office of Historic Preservation (OHP). 1976. *California Inventory of Historic Resources*. Sacramento, CA: California Department of Parks and Recreation.
- . 1992. *California Points of Historical Interest*. Sacramento, CA: The Resources Agency, California Department of Parks and Recreation.
- . 1996. *California Historical Landmarks*. Sacramento, CA: The Resources Agency, California Department of Parks and Recreation.
http://www.parks.ca.gov/default.asp?page_id=21386.
- . 2009. *Historic Properties Directory Listing by City* (through 23 October 2009). Sacramento, CA: State Office of Historic Preservation.
- . 2011. *California Historical Research Information System (CHRIS), Directory of Properties in the Historic Property Data Files for Fresno, Kern, Kings, Tulare, and Madera Counties*. Sacramento, CA: Office of Historic Preservation.
- California State Engineering Department, William Hammond Hall. 1885. *Detail Irrigation Map, Hanford and Lemoore Sheet*. Water Resources Center Archives, University of California, Berkeley.
- Carothers, Alice L. 1934. "The History of the Southern Pacific Railroad in the San Joaquin Valley." M.A. thesis. University of Southern California, June.
- Chase, Paul G. 1994. *Archaeological Survey Report and Extended Survey for the Proposed AMTRAK Station in Bakersfield, California*. Southern San Joaquin Valley Archaeological Information Center, Bakersfield, California. June 1994.
- Clark, Ira G. 1958. *Then Came the Railroads*. Norman, OK: University of Oklahoma Press.
- Cleland, Robert Glass. 1941. *The Cattle on a Thousand Hills: Southern California, 1850–1880*. San Marino, CA: The Huntington Library.
- Clough, Charles W. 1985. *Fresno County: The Pioneer Years*. Volume 1. 2nd printing. Fresno, CA: Panorama West Books.
- Conkling, Roscoe Platt. 1947a. *The Butterfield Overland Mail, 1857–1869: Volume I*. Glendale, CA: A.H. Clark Co.
- . 1947b. *The Butterfield Overland Mail, 1857–1869: Volume II*. Glendale, CA: A.H. Clark Co.
- Cook, Sherburne F. 1976. *The Conflict between the California Indian and White Civilization*. Berkeley, CA: University of California Press.
- Cram, George F. 1899. *California: Southern Half*. Scale: 1:1,711,00. Chicago: George F. Cram.
- Dewey, V.F. 1901. *Kings County Directory*. Hanford, California: Hanford Daily Journal.
- Durham, David L. 1998. *California's Geographic Names: A Gazetteer of Historic and Modern Names of the State*. Clovis, CA: Quill Driver Books/Wood Driver Press, Inc.

- Durrenberger, Robert W., and Robert B. Johnson. 1976. *California: Patterns on the Land*. 5th ed. Palo Alto, CA: Mayfield Publishing Co.
- Environmental Data Resources, Inc. (EDR). 2010. *EDR Sanborn Direct*. On-line subscription service. <http://sanborn.edrnet.com>. Accessed May10, 2010.
- Everson, D. 1991. Archaeological Site Record, Cultural Resource Facility, CSU Bakersfield, P-15-003072. On File at the South San Joaquin Valley Information Center, Bakersfield, CA.
- Fountain, Steven Michael. 2007. "Big Dogs and Scorched Streams: Horses and Ethnocultural Change in the North American West, 1700–1850." Ph.D. diss., University of California, Davis.
- Fredrickson, David A. 1986. "Buena Vista Lake (CA-KER-116) Revisited." *Symposium: A New Look at Some Old Sites: Papers from the Symposium Organized by Francis A. Riddell*. Presented at the Annual Meeting of the Society for California Archaeology, March 23–26, 1983, San Diego, California. Coyote Press Archives of California Prehistory 6:75–81. <http://www.californiaprehistory.com/reports02/rep0029.html>. Accessed June 14, 2010.
- Fredrickson, D.A., and J.W. Grossman. 1977. "A San Dieguito Component at Buena Vista Lake, California." *Journal of California Anthropology*. 4:173–190.
- Gates, Paul W. 1975. "Public Land Disposal in California." *Agricultural History*. 49(1 [January]): 158–178.
- Gifford, Edward W., and W. Egbert Schenck. 1926. "Archaeology of the Southern San Joaquin Valley, California." *University of California Publications in American Archaeology and Ethnology*. 23(1).
- Gregory, James N. 1989. "Dust Bowl Legacies: The Okie Impact on California. 1939-1989. In *California History*. Fall 1989.
- Gronberg, Jo Ann M., Neil M. Dubrovsky, Charles R. Kratzer, Joseph L. Domagalski, Larry R. Brown, and Karen R. Burow. 1998. *Environmental Setting of the San Joaquin–Tulare Basins, California*. U.S. Geological Survey, Water Resources Investigations Report 97-4205. Sacramento, California.
- Grunsky, Carl Ewald. 1898. *Irrigation Near Fresno, Water Supply Paper No. 18*. United States Geological Survey. Washington: Government Printing Office.
- Harding, S.T. 1960. *Water in California*. Palo Alto, CA: N-P Publications.
- Hartzell, L.L. 1992. "Hunter-Gatherer Adaptive Strategies and Lacustrine Environments in the Buena Vista Lake Basin, Kern County, California." Ph.D. dissertation. University of California, Davis.
- Harvey, William, Sr. 1907. *Map of Fresno County, California*. Fresno: Wm. Harvey, Sr.
- Haslam, Gerald. 1993. "The Lake That Will Not Die." *California History* 72(3 [Fall]): 256–271.
- Hayes, Derek. 2007. *Historical Atlas of California*. Berkeley, CA: University of California Press.
- Heizer, Robert F. 1951. "A Cave Burial from Kern County." *Reports of the University of California Archaeological Survey, No. 10*. The University of California Archaeological Survey, Berkeley, California. n.d. [1951].

- . 1964. The Western Coast of North America. In *Prehistoric Man in the New World*, edited by Jesse D. Jennings and Edward Norbeck, pp. 117-148. University of Chicago Press.
- . 1978. *Handbook of North American Indians*, Volume 8, California.
- Heizer, Robert F., and Mary Anne Whipple. 1971. *The California Indians; a source book*. Berkeley: University of California Press.
- Hewes, Gordon W. 1941. "Reconnaissance of the Central San Joaquin Valley." *American Antiquity* 7(2): 123–133.
- Hoover, Mildred; Hero Rensch, and Ethel Rensch. 1966. *Historic Spots in California*. Stanford, CA: Stanford University Press.
- Hoover, Mildred, et al., revised by Douglas E. Kyle. 1990. *Historic Spots in California*. Stanford, CA: Stanford University Press. Revised 4th edition.
- Jelinek, Lawrence J. [1979] 1982. *Harvest Empire: A History of California Agriculture*. 2d ed. San Francisco, CA: Boyd & Fraser Publishing Company, 2d ed., 1982.
- JRP Historical Consulting Services (JRP). 2000. *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*. Prepared with Caltrans Environmental Program/Cultural Studies Office. Sacramento.
- Kern County Californian*. 1889 Oct 12. "One and One-Half Acres Again," *Kern County Californian*.
- Kern County Recorder. 1893 Mar 18. Map of the Virginia Colony.
- Kings County Abstract Company. 1923. *Official Map of Kings County, California 1923*. Hanford, CA: Kings County Abstract Company.
- Kraus, George. 1969. *High Road to Promontory: Building the Central Pacific across the High Sierra*. Palo Alto, CA: American West Publishing Co.
- Kroeber, Alfred L. 1907. "The Yokuts Language of South Central California." *University of California Publications in American Archaeology and Ethnology* 2(5): 165–377.
- . 1925. *Handbook of the Indians of California*. Smithsonian Institution, Bureau of American Ethnology, Bulletin 78. New York: Dover Publications, reprint 1976.
- Kuchler, A.W. 1977. "The Map of the Natural Vegetation of California." M. Barbour and J. Major, eds., *Terrestrial Vegetation of California*, 909–938. New York: John Wiley & Sons.
- Lapham, Macy H. and W.H. Heileman. 1901. *Soil Survey of the Hanford Area, California*. In US Department of Agriculture, Bureau of Soils: *Report on Field Operations of the Bureau of Soils*.
- Latta, F.F. 1932. "El Camino Viejo." *Tulare Daily Times*. February 7–11.
- . 1949. *Handbook of Yokuts Indians*.
- . 1977. *Handbook of Yokuts Indians*. 2d ed. Santa Cruz, CA: Bear State Books.
- Marshall, James L. 1945. *Santa Fe: The Railroad That Built an Empire*. New York: Random House.
- McIntire, Frank C. 1908. *Map of Kings County, Calif.* Compiled from County Records. Drawn and Published by Frank C. McIntire.

- Meighan, Clement W. 1955. "Archaeology of the North Coast Ranges, California." *University of California Archaeological Survey Reports* (30):1-39.
- Menefee, Eugene L., and Fred A. Dodge. 1913. *History of Tulare and Kings Counties, California*. Los Angeles, CA: Historic Record Company.
- Moehring, Eugene P. 2004. *Urbanism and Empire in the Far West, 1840-1890*. Reno, NV: University of Nevada Press.
- Moratto, M. 1984. *California Archaeology*. Orlando, Florida: Academic Press.
- Morgan, Wallace M. 1914. *History of Kern County, California*. Los Angeles, CA: Historic Record Company.
- National Park Service. 1997. "How to Apply the National Register Criteria for Evaluation." *National Register Bulletin*, No.,15. U.S. Department of the Interior.
- . 2012. National Register of Historic Places – Listed Properties and Determined Eligible Properties (as of March 2012). From web site <http://www.nps.gov/nr/research/>. Accessed April 2012.
- Newman, Stanley S. 1944. "The Yokuts Language of California." *Anthropology*. Vol. 2. New York: Viking Fund Publications.
- OHP. See California Office of Historic Preservation.
- Orsi, Richard. 2005. *Sunset Limited: The Southern Pacific Railroad and the Development of the American West*. Berkeley and Los Angeles, CA: University of California Press.
- Owens, Kenneth N. 1990. *Historical Context and Typology*. Vol. 1, *Historical Trails and Roads in California: A Cultural Resource Planning Study*. Prepared for the California Department of Transportation, March.
- Pacific Rural Press*. 1883. "Washington Colony, Fresno County." *Pacific Rural Press* 25, no. 15, April 14.
- Perez, Crisostomo N. 1996. *Land Grants in Alta California*. Rancho Cordova, CA: Landmark Enterprises.
- Preston, William L. 1981. *Vanishing Landscapes: Land and Life in the Tulare Lake Basin*. Berkeley, CA: University of California Press.
- Randall and Denne. 1901. *Index Atlas of Kern County, California*. Bakersfield: Randall & Denne.
- Rice, Richard B., William A. Bullough, and Richard J. Orsi. 1988. *The Elusive Eden: A New History of California*. New York: Knopf.
- Riddell, Francis A. 1951. "Excavations of Site KER-74." *University of California Archaeological Survey Reports* 10:1-29.
- Riddell, F.A., and W.H. Olsen. 1969. "An Early Site in the San Joaquin Valley, California." *American Antiquity* 34: 121-130.
- Roberts, J.E., M.F. Silva, and N.L. Lambeth. 1963. "U.S. 99 – Bakersfield." *California Highways and Public Works*. Vol. 42: 7-11, September-October 1963.

- Roberts, Robin M. 2005. *Hanford: Images of America*. Charleston, SC: Arcadia Publishing.
- . 2007. *Hanford 1900-2000*. Charleston SC: Arcadian Publishing.
- . 2008. *Kings County: Images of America*. Charleston, SC: Arcadia Publishing.
- Rondeau, Michael F., Jim Cassidy, and Terry L. Jones. 2007. "Colonization Technologies: Fluted Projectile Points and the San Clemente Island Woodworking/Microblade Complex." Terry L. Jones and Kathryn A. Klar, eds., *California Prehistory: Colonization, Culture, and Complexity*. Lanham, MD: Alta Mira Press. Pp. 63-70.
- Sanborn Map and Publishing Company. 1912. *Bakersfield*. New York: Sanborn Map and Publishing Company, Limited.
- . 1912–1949. *Bakersfield, Volume Two*. New York: Sanborn Map and Publishing Company, Limited.
- Schiffman, Robert A., and Alan P. Garfinkel. 1981. *Prehistory of Kern County: an overview*. Bakersfield College publications in archaeology, no. 1. [Bakersfield, Calif.]: Bakersfield College.
- Secretary of War. 1873. *Map of the San Joaquin, Sacramento and Tulare Valleys, State of California*. Prepared under the direction of the Board of Commissioners on Irrigation, appointed by Congress. U.S. Army, Secretary of War.
- Shinn, Charles H. 1885. *Mining Camps: A Study of American Frontier Government*. New York: Charles Scribner's Son.
- Shiple, William. 1978. "Native Languages in California." Robert F. Heizer, ed., *Handbook of North American Indians*, Vol. 8, *California*, 80–90. Washington, D.C.: Smithsonian Institution.
- Siefkin, Nelson. 1999. "Archaeology of the Redtfeldt Mound (CA-Kin-66), Tulare Basin, California." Master's thesis, California State University, Bakersfield.
- Small, Kathleen Edwards, and J. Larry Smith. 1926. *History of Tulare County and Kings County, California*. Chicago: S.J. Clarke Publishing Company.
- Smith, Richard H. 1976. "Towns along the Tracks: Railroad Strategy and Town Promotion in the San Joaquin Valley, California." Ph.D. diss., University of California, Los Angeles.
- Smith, Wallace. 1939. *Garden of the Sun: A History of the San Joaquin Valley, 1772–1939*. Los Angeles, CA: Lyman House.
- Snell, Joseph W., and Don W. Wilson. 1968. "The Birth of the Atchison, Topeka, and Santa Fe Railroad." *Kansas Historical Quarterly*, Vol. 34, No. 2: 113-142l.
- Stein, Walter J. 1973. *California and the Dust Bowl Migration*. Westport, CT: Greenwood Press, Inc.
- Stratton, Susan. 2010. State Historic Preservation Officer, State of California, Sacramento, CA. Letter response to David Valenstien, FRA regarding the delineation of the APE and Section 106 compliance for the four proposed alignments of the California High-Speed Train Project, June 28, 2010.

- Sumner Standard*. 1893a. "East Side Canal." In the *Sumner Standard*. January 19.
- . 1893b. "Engineer Congdon...." In the *Sumner Standard*. March 2.
- Thickens, Virginia E. 1946. "Pioneer Agricultural Colonies of Fresno County." *California Historical Society Quarterly* 25(1[March]).
- Thompson, Thos. H. 1891. *Official Historical Atlas Map of Fresno County*. Tulare, CA: Thos. H. Thompson.
- . 1892. *Official Historical Atlas Map of Tulare County*. Tulare, CA: Office of the Board of Supervisors of Tulare County, California.
- Tinkham, George H. 1923. *History of San Joaquin County, California*. Los Angeles, CA: Historic Record Company.
- Truman, Benjamin Cummings. 1885. *Homes and Happiness in the Golden State of California, Third Edition*. San Francisco, CA: H.S. Crocker & Co., Printers and Publishers.
- U.S. Census Bureau. Population Schedule.
1900. Kings County. Lucerne Township. Enumeration District 36, Sheets A12-A15, B12, B14.
1910. Kings County. Lucerne Township. Enumeration District 74, Sheets 23A-B, 24A-B, 25A-B, 26A-B, 27A; Enumeration District 79, Sheets 1A-B, 2A, 7A-B, 12A-B.
1920. Kings County. Hardwick Township. Enumeration District 124, Sheets 3A, 4A-B, 5A-B, 6A, 7A-B, 8A-B, 9A-B.
- U.S. Department of Agriculture (USDA), Commodity Stabilization Service. 1961. Kings County Aerial Photographs. Washington, DC: Aeroflex Corporation, Robinson Aerial Surveys Division.
- U.S. Department of Agriculture, Experiment Stations (USDA Experiment Stations). 1901. *Bulletin No. 100: Report of Irrigation Investigations in California Under Direction of Elwood Mead*. Washington, DC: Government Printing Office.
- U.S. Geological Survey. 1926. *Hanford*. 7.5-minute Quadrangle.
- . 1954. *Hanford*. 7.5-minute Quadrangle.
- Vaught, David. 1999. *Cultivating California: Growers, Specialty Crops, and Labor, 1875-1920*. Baltimore: The Johns Hopkins University Press.
- Walker, Edwin F. 1947. *Excavation of a Yokuts Indian Cemetery: Elk Hills, Kern County, California*. Bakersfield, California: Kern County Historical Society. Reprinted in 1963.
- Wallace, W.J. 1978a. "Post-Pleistocene Archaeology, 9000 to 2000 B.C." W.C. Sturtevant, general editor. *Handbook of North American Indians*. Vol. 8, R.F. Heizer, ed., *California*, 25–36. Washington, DC: Smithsonian Institution.
- . 1978b. "Southern Valley Yokuts." W.C. Sturtevant, general editor, *Handbook of North American Indians*. Vol. 8, R.F. Heizer, ed., *California*, 448–461. Washington, DC: Smithsonian Institution.
- Waters, L.L. 1950. *Steel Trails to Santa Fe*. Lawrence, KS: University of Kansas Press.

- Wedel, W.R. 1941. "Archaeological Investigations at Buena Vista Lake, Kern County, California." *Bureau of American Ethnology Bulletin*. No. 130. Washington, DC. [Cited in Hartzell 1992.] *Weekly Californian*. 1892 Dec 17. "East Side Canal." *The Weekly Californian*.
- Whaley, T.E. 1947. "Widening of U.S. 99 in Bakersfield to Six Lanes Will Reduce Traffic Accidents." *California Highway and Public Works*. September-October 1947.
- Wheeler, Janet. 1995. "Bakersfield Association of REALTORS An Important Part of City's History." *Bakersfield Magazine* (October 1995).
- Williams, Henry T. 1878. *The Pacific Tourist*. New York: Henry T. Williams.
- Zonlight, Margaret Aseman [Cooper]. 1979. *Land, Water and Settlement in Kern County, California, 1850-1890*. New York: Arno Press.

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Chapter 9.0

Preparer Qualifications

9.0 Preparer Qualifications

The cultural resources study presented in this Supplemental HPSR was conducted by or under the supervision of persons who qualify as archaeologists, historians, and/or architectural historians under the Professional Qualification Standards of the U.S. Secretary of the Interior (as defined in 36 CFR Part 61). The staff listed in this chapter meet the standards for "Qualified Investigator" as defined in the Section 106 PA (Authority and FRA 2011b).

Archaeological Properties

Mr. Brian Hatoff holds a master's degree in anthropology and is a Registered Professional Archaeologist (RPA). He has over 30 years of experience in the management of cultural resources, with specialized expertise in the prehistoric archaeology and ecology of California and the Great Basin. During his tenure with the U.S. Bureau of Land Management, he held primary responsibility for the management of cultural resources on 5.5 million acres of public lands in western Nevada and eastern California. Mr. Hatoff will serve as the principal archaeologist for this project.

Dean Martorana, RPA, holds a master's degree in anthropology from California State University, Long Beach. He served as the lead archaeologist on the project. Mr. Martorana has 10 years of experience in prehistoric archaeology, including 6 years of experience in cultural resources management in Northern California. Mr. Martorana specializes in the GIS and geophysical techniques that are applied to archaeology.

Vance G. Benté, RPA, provided peer review. Mr. Benté holds a master's degree in anthropology from California State University, Northridge, and has over 30 years of professional experience in archaeology and cultural resources management in California.

Jay Rehor, RPA, holds a B.A. in anthropology from the University of California, Santa Cruz, and a master's degree in cultural resources management from Sonoma State University. He has 10 years of experience in California archaeology, with 8 years of experience in cultural resources management. Mr. Rehor specializes in geoarchaeological studies and landscape evolution as it relates to archaeology.

Maureen Kick, RPA, holds a B.A. in anthropology from Bryn Mawr College, Pennsylvania, and a master's degree in anthropology from the City University of New York, Hunter College. She has 10 years of experience in North American archaeology, including 7 years in cultural resources management and 3 years in California archaeology. Ms. Kick specializes in historical archaeology.

Historic Architectural Properties

Rebecca Meta Bunse (M.A., history–public history, California State University, Sacramento) prepared this Supplemental HPSR and meets the Secretary of the Interior's standards for both Historian and Architectural Historian. Ms. Bunse, who is a partner at JRP Historical Consulting, LLC, has more than 22 years of experience as a consulting historian on a wide variety of historical research and cultural resource management projects. She has conducted research and field evaluation for historic architectural surveys throughout California. For this project, she served as the task manager for the built environment surveys; directed QI staff; conducted research, reconnaissance survey, documentation for streamlined documentation properties, and intensive-level fieldwork; and directed the delineation of the historic architectural resources APE. She directed the preparation of all built environment technical reports, as well as authoring sections of the reports and DPR 523 forms.

Christopher McMorris (M.S. in historic preservation, Columbia University) reviewed and edited this HPSR. Mr. McMorris is a partner at JRP Historical Consulting, LLC, and has 14 years of experience

conducting a wide variety of historical research, public history, and historic preservation projects. Because of his education and experience, he qualifies as an Historian and Architectural Historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Toni Webb (B.F.A., historic preservation, Savannah College of Art and Design) was the Lead Historian/Architectural Historian for this project. Ms. Webb conducted research and field surveys and oversaw data management, graphics production, and the preparation of property evaluations. Ms. Webb has more than 12 years of experience in public history and historic preservation with JRP. Because of her level of experience and education, Ms. Webb qualifies as an Architectural Historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Bryan Larson (M.A. in Public History, California State University, Sacramento) contributed to and edited the Supplemental HASR and Supplemental HPSR and their respective DPR 523 forms. Mr. Larson has been with JRP since 1998, conducting historic survey and evaluation studies. Based on his education and experience, he qualifies as an Historian and Architectural historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Cheryl Brookshear (M.S., historic preservation, University of Pennsylvania) conducted field surveys and field research, prepared DPR forms for this project, and contributed to the Supplemental HPSR. Ms. Brookshear is an Architectural Historian with JRP Historical Consulting, LLC. She meets the Secretary of the Interior's standards for both Historian and Architectural Historian, and has conducted research and field evaluations for historic architectural surveys throughout California.

Steven Melvin (M.A., History–Public History, California State University, Sacramento) has 7 years of experience in cultural resource management and historical research projects and is an historian at JRP Historical Consulting, LLC. Mr. Melvin has performed field survey at locations throughout California and conducted research in primary and secondary source material. He qualifies as an Historian under the Secretary of the Interior's standards. Mr. Melvin's tasks for this project included research, DPR 523 form preparation, and contributions to the HASR.

Joseph Freeman (M.A., history, University of California, Riverside) is an Historian at JRP Historical Consulting, LLC with more than 5 years of experience in cultural resource management and historical research projects. Mr. Freeman has performed field surveys at locations throughout California and has conducted research on primary and secondary source material. He has also helped produce various historic architectural survey and evaluation reports. Mr. Freeman qualifies as an Historian under the Secretary of the Interior's standards. His tasks for this project included field surveys, primary and secondary research, DPR 523 form preparation, and contributions to the Supplemental HPSR and Supplemental HASR.

Heather Norby (M.A., history, University of California, Berkeley) meets the Secretary of the Interior's standards for Historian. Ms. Norby, a staff historian at JRP Historical Consulting, LLC, has 4 years of experience as a consulting historian on a variety of historical research and cultural resource management projects and has conducted research and field evaluation for historic architectural surveys throughout California. Before joining JRP, her experience included 4 years of teaching United States history at community colleges in the San Francisco Bay and Sacramento areas. For this project, she conducted fieldwork and field research, prepared DPR 523 forms, and contributed to the Supplemental HPSR and Supplemental HASR.

Polly S. Allen contributed to the Supplemental HPSR and reviewed and edited DPR 523 forms. Ms. Allen received an M.S. in historic preservation from Columbia University and has over 4 years of experience in public history and historic preservation. She has conducted a wide variety of

historical research and historic preservation projects. Ms. Allen qualifies as an Architectural Historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Additional JRP technical staff and research assistants who assisted in the preparation of the DPR 523 forms, illustrations, data management, and production of this Supplemental HPSR include Rebecca Flores, Heather Miller, Chandra Miller, David Riggs, Leslie Trew, and Garrett Root.

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Appendix A
Area of Potential Effects
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