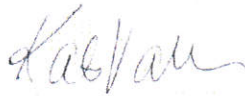


HISTORICAL RESOURCES EVALUATION REPORT  
FOR THE HICKMAN ROAD OVER TUOLUMNE RIVER  
BRIDGE REPLACEMENT PROJECT

WATERFORD AND HICKMAN, STANISLAUS COUNTY,  
CALIFORNIA  
CALTRANS DISTRICT 10

FEDERAL PROJECT # BRLS 5938(199)

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## SUMMARY OF FINDINGS

Stanislaus County (County), in coordination with the California Department of Transportation (Caltrans) and in partnership with the Federal Highway Administration (FHWA), proposes the Hickman Road over Tuolumne River Bridge Replacement Project (Project) in the towns of Waterford and Hickman, Stanislaus County, California (Appendix A: Figures 1 and 2). The Project will replace the existing bridge on Hickman Road over Tuolumne River (No. 38C-0004) with a new bridge.

The Project will rely on federal funding and meets the definition of an “undertaking” according to 36 CFR §800.16(y). Caltrans, acting as the lead agency under the delegated authority of the FHWA, is providing oversight of this undertaking in accordance with the *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Caltrans 2014a).

LSA Associates, Inc. (LSA), prepared this Historical Resources Evaluation Report (HRER) to document cultural resources evaluation efforts in the Architectural Area of Potential Effects (APE) for this Project. This HRER also addresses requirements of the National Environmental Policy Act (NEPA) under authority delegated to Caltrans by the FHWA in accordance with the provisions of the *Memorandum of Understanding between the Federal Highway Administration and the California Department of Transportation concerning the State of California’s Participation in the Project Delivery Program Pursuant to 23 U.S.C. 327*, which became effective October 1, 2012 (Caltrans 2012). The Memorandum of Understanding was signed pursuant to 23 U.S.C. 327 as amended by Moving Ahead for Progress in the 21<sup>st</sup> Century Act, which delegates to Caltrans environmental review and consultation responsibilities under NEPA. This HRER also evaluated the resources in accordance with Section 15064.5 (a)(2)-(3) of the California Environmental Quality Act (CEQA) Guidelines, using criteria outlined in Section 5024.1 of the California Public Resources Code.

This study evaluated one resource, a farm complex at 349 South Appling Road located on Assessor Parcel Number 080-011-001-000, for inclusion in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). Based on the results of this study, the resource does not appear eligible for inclusion in the NRHP or the CRHR either individually or as a contributor to a historic district due to a lack of significance and integrity. Furthermore, it does not appear to be a historical resource for the purposes of CEQA.

John Whitehouse, who meets the Professionally Qualified Staff (PQS) standards in the Section 106 Programmatic Agreement, Attachment 1, as a Principal Architectural

Historian, is in agreement with LSA's determination that the resource present within the Project's Architectural APE is ineligible for inclusion in the NRHP and on the CRHR under all criteria, and is not a historical resource for the purposes of CEQA. The other properties present within the Project's APE meet the criteria for Section 106 Programmatic Agreement Attachment 4 (Properties Exempt from Evaluation) (Caltrans 2014a).

## TABLE OF CONTENTS

SUMMARY OF FINDINGS .....	I
1.0 PROJECT DESCRIPTION .....	1
1.1 AREA OF POTENTIAL EFFECTS .....	1
2.0 RESEARCH METHODS .....	3
2.1 RECORDS SEARCH .....	3
2.2 LITERATURE AND MAP REVIEW .....	5
2.3 ARCHIVAL RESEARCH .....	6
2.4 HISTORICAL ORGANIZATION CONSULTATION .....	6
3.0 FIELD METHODS .....	7
4.0 HISTORICAL OVERVIEW .....	8
4.1 INTRODUCTION .....	8
4.2 EARLY SETTLEMENT .....	8
4.3 HISTORY OF WATERFORD .....	9
4.4 IRRIGATION .....	9
4.4.1 Tuolumne River .....	10
4.5 AGRICULTURE .....	10
4.5.1 Specialized Crops .....	12
4.5.2 Agriculture Today .....	12
4.6 TRANSPORTATION .....	12
4.6.1 Railroads .....	13
4.6.2 Rise of the Automobile .....	14
4.7 SITE SPECIFIC HISTORY .....	14
5.0 DESCRIPTION OF CULTURAL RESOURCES .....	16
6.0 FINDINGS AND CONCLUSIONS .....	18
6.1 FINDINGS .....	18
6.2 CONCLUSIONS .....	18
7.0 BIBLIOGRAPHY .....	19

## APPENDICES

A: Maps

B: Preparers' Qualifications

C: Historical Organization Correspondence

D: California Department of Parks and Recreation (DPR) 523 Series Forms

## 1.0 PROJECT DESCRIPTION

Stanislaus County (County) Department of Public Works proposes to replace the existing bridge on Hickman Road over Tuolumne River (Bridge No. 38C-0004), located 0.15 mile south of State Route 132 along Hickman Road, Caltrans District 10, between the towns of Waterford and Hickman in northern Stanislaus County. The general setting is urban with recreational, commercial retail, and public facility uses. The bridge currently carries vehicular traffic over the Tuolumne River. The Federal Aid Number is BRLS-5938(199).

The Project area spans approximately 200 feet east and 800 feet west of the existing bridge located on Hickman Road, crossing Tuolumne River and spanning the area between South Appling Road and Yosemite Boulevard (Appendix A: Figures 1, 2, and 3).

The purpose of this project is to remove the existing structurally deficient structure and replace it with a new bridge designed to current structural and geometric standards while minimizing adverse impacts to the Tuolumne River and the surrounding riparian area.

Constructed in 1946, the existing Hickman Road over Tuolumne River Bridge is a reinforced concrete box girder on RC solid pier walls and RC wing abutments supported by steel piles. The bridge is 652.9 feet long, 33.5 feet wide, and within the existing 175 to 200 feet public right-of-way. The curb-to-curb width is 27.9 feet, with two 12-foot-wide travel lanes and two 2-foot-wide shoulders. The bridge is classified as Structurally Deficient and Scour Critical.

The replacement bridge will consist of a 750-foot long cast-in-place (CIP) post-tensioned box girder with two 12-foot-wide travel lanes and two 8-foot-wide shoulders and one 5-foot wide sidewalk placed along the upstream edge. The replacement bridge will be constructed immediately upstream of the existing structure, in order to keep the existing road and bridge open to public traffic during construction. The new upstream road alignment will transition and connect back to the existing Hickman Road alignment using a design speed of 45 mph.

Construction of the new bridge on the proposed upstream alignment will require additional permanent right-of-way takes. In addition, temporary construction easements will be required to construct the project.

### 1.1 AREA OF POTENTIAL EFFECTS

A preliminary Study Area including all parcels adjacent to the project footprint that could potentially be part of the APE, as well as the extent of previously recorded archaeological site P-50-002112, was established early on for this project (Appendix A: Figure 4). As project details developed and the cultural resources studies were being conducted, two

APEs were delineated: an Archaeological APE and an Architectural APE (Appendix A: Figure 3). The Architectural APE includes all parcels containing built environment cultural resources over 45 years old that could potentially be directly or indirectly affected by the Project, as well as a portion of the Tuolumne River that is within U.S. Army Corp of Engineers jurisdiction. The Architectural APE was used for purposes of this Historical Resources Evaluation Report (HRER).

## 2.0 RESEARCH METHODS

Background research was conducted to identify cultural resources within the Architectural APE, as well as to prepare a historic context within which resources in the APE may be evaluated for NRHP or CRHR eligibility. The background research consisted of a records search, a literature and map review, and consultation with local historical organizations.

### 2.1 RECORDS SEARCH

At the request of LSA, the Central California Information Center (CCIC) conducted a records search (Records Search File No.: 9582N) of the Study Area and a 0.5-mile radius on December 21, 2015. The CCIC, an affiliate of the State of California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for Stanislaus County. The records search included a review of the following federal and state inventories:

- *California Inventory of Historic Resources* (OHP 1976);
- *Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys* (OHP 1989).
- *California Points of Historical Interest* (OHP 1992);
- *California Historical Landmarks* (OHP 1996); and
- *Directory of Properties in the Historic Property Data File* (OHP March 20, 2014). The directory includes the listings of the NRHP, National Historic Landmarks (NHL), the CRHR, California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI).

The records search identified two previously recorded historic-period archaeological cultural resources within the Study Area, and a portion of a historic-period linear cultural resource that is not formally recorded within the Study Area. The two previously recorded historic-period archaeological cultural resources identified by the CCIC as being within the Study Area include:

- P-50-002111, remains of 1914 bridge; and
- P-50-002112, nonnative vegetation in a 2.3-acre lot that is a possible former residential site.

The one previously recorded historic-period archaeological cultural resources identified by the CCIC as being not formally recorded in the Study Area includes:

- P-50-000001/CA-STA-350H, the remains of the Southern Pacific Railroad line.

Two previously recorded historic-period archaeological cultural resources, two previously recorded historic-period built environment cultural resources, and one roadside monument not yet formally recorded were identified within 0.5-miles of the Study Area. The five historic-period cultural resources that are within the 0.5-mile radius of the Study Area include:

- P-50-001780, SR 132 over Waterford Canal Bridge No. 380057;
- P-50-002133, an industrial shed with internal and external machinery and a wooden animal shelter;
- P-50-001859, site of the former Maitland Hotel consisting of foundations and refuse deposits;
- P-50-001895, set of concrete steps associated with a former house; and
- “Clamper” roadside monument, Monument to Waterford/Bakersville erected by Estanislao Chapter 58 E Clampus Vitus.

The CCIC records search identified seven previously conducted cultural resource reports within the Project’s Study Area and five previously conducted cultural resource reports within a 0.5-mile radius of the Study Area. Reports located within the Project’s Study Area are listed below:

Jurich, D. M.

- 1999 *An Archaeological Survey Report for Proposed AC Overlay and Shoulder Backing of State Route 132 Between Modesto and Waterford, Stanislaus County, California, 10-STA-132*. Archaeological Research Center Institute of Archaeology and Cultural Studies for Caltrans District 10. Sacramento, CA.

Davis-King, S.

- 2004 *Historic Property Survey Report: Scour Countermeasures for the Tuolumne River Bridge #38C-004 (Hickman Road) Waterford, County of Stanislaus*. Davis-King & Associates for CH2MHill and Caltrans District 10. Standard, CA.

Leach-Palm, L., J. Mikkelsen, J. Hatch, J. King, and B. Larson

- 2004 *Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Volume I: Summary of Methods and Findings*. Far Western Anthropological Research Group, Inc. for Caltrans. Davis, CA.

Rosenthal, J.S. and J. Meyer

- 2004 *Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study*. Far Western Anthropological Research Group, Inc. for Caltrans District 10. Davis, CA.



Leach-Palm, L., J. Hatch, J. King, and B. Larson

- 2004 *Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume II G: Stanislaus County*. Far Western Anthropological Research Group, Inc. for Caltrans District 10. Davis, CA.

Napton, L. K.

- 2007 *Cultural Resources Investigations of the Lake Pointe Development Project, Stanislaus County, California*. L. K. Napton, Ph.D., Consulting Archaeologist for Lake Pointe Investors, LLC. Sarasota, FL.

Davis-King, S.

- 2013 *Historic Properties Survey Report for the Proposed Tuolumne River Parkway Project, City of Waterford, Stanislaus County, California*. Davis-King & Associates for City of Waterford and the US Army Corps of Engineers. Standard, CA.

## 2.2 LITERATURE AND MAP REVIEW

LSA reviewed publications, maps, local historical directories, and websites for archaeological, historical, and environmental information about the Study Area and its vicinity.

Focused research was conducted to determine the development of roadways, bridges, and buildings in the area (appearing on historical maps, 50 years or older). The literature review informed the historical overview section of this report.

Background research of historic aerials and parcel data found the landscaping associated with P-50-002112 to appear modern; likely associated with a 1980s residence. This area has been recently developed into River Park, maintained by the City of Waterford, and does not retain any original features that may have once been present. Further map review results are provided below:

- The *Waterford, Calif.* (USGS 1916) 7.5-minute topographic quadrangle map depicts two building footprints in the vicinity of the Appling Ranch area. It also depicts Yosemite Road and the Southern Pacific Railroad line that historically ran along the Hickman Road footprint. The former bridge used for crossing the Tuolumne River is visible to the right of the Hickman Road Bridge's current alignment.
- The *Waterford, Calif.* (USGS 1953 [Reprinted 1955]) 7.5-minute topographic quadrangle map depicts two built environment footprints in the vicinity of the Appling Ranch area. It also depicts Yosemite Road and the Southern Pacific Railroad line that historically ran along the Hickman Road footprint. The former bridge used for crossing the Tuolumne River is visible to the right of the Hickman Road Bridge's current alignment.
- The *Waterford, Calif.* (USGS 1969 [Reprinted 1971]) 7.5-minute topographic quadrangle map depicts two built environment footprints in the vicinity of the Appling

Ranch area. It also depicts Yosemite Road, Hickman Road, and the Hickman Road Bridge in their current alignments.

## **2.3 ARCHIVAL RESEARCH**

On March 7, 2016, LSA Architectural Historian Ann Andreazzi conducted focused archival research for the property located at 349 S. Appling Road at the Stanislaus County Assessor's Office. Mrs. Andreazzi examined the appraisal file for Assessor Parcel Number (APN) 080-011-001-000 to identify the construction history for all built environment resources documented on the property.

The appraisal file for APN 080-011-001-000 provided useful information with regard to construction dates and parcel history for this study. This information was used to assess the integrity and significance of the resource (see Appendix D).

## **2.4 HISTORICAL ORGANIZATION CONSULTATION**

On December 31, 2015, LSA sent letters describing the project and maps depicting the Study Area to the Waterford Historical Society requesting any information or concerns they may have about the Project (Appendix C). The society did not respond within two weeks. On January 20, 2016, LSA made a follow-up telephone call to the Waterford Historical Society to confirm their receipt of the letter from LSA dated December 31, 2015, and to request any information or concerns they may have regarding cultural resources in the Study Area. The call went unanswered and LSA left a voicemail message requesting staff call LSA. No response has been received to date.

### 3.0 FIELD METHODS

All built environment resources 45 years or older within the Study Area were researched and visually reviewed by LSA Architectural Historian Ann Andreazzi. Two built environment resources that had the potential to be affected by the proposed Project were identified in a preliminary review of the Study Area. These resources included 349 South Appling Road on Assessor Parcel 080-011-001-000 and 12616 Yosemite Boulevard on Assessor's Parcel 080-037-002-000.

Fieldwork was completed by Ms. Andreazzi on February 2, 2015. The field review resulted in the determination that 12616 Yosemite Boulevard would not require further evaluation, as it would not be affected by the proposed project. An earthen grade that runs parallel to this property provides a physical and visual barrier to Hickman Road and will shield the buildings on the property from the proposed construction activities.

The property located at 349 South Appling Road was visited during the field review, and documented in field notes, photographs, and on Department of Parks and Recreation 523 Series record forms.

The area where the Southern Pacific Railroad (P-50-000001/CA-STA-350H) was once located was inspected for any indication of the railroad (bridge remains, rails, ties, track foundation/grade, etc.). The area has been redeveloped and altered significantly, and the survey did not identify any evidence of the railroad. Urban development within the APE has likely disturbed any intact surface archaeological remains of the abandoned Southern Pacific Railroad that may have been present.

During the survey, P-50-002111, the 1914 bridge remains, was identified just outside of the Study Area. P-50-002112, nonnative vegetation at River Park, was also identified during the survey and was somewhat disturbed by modern development. The resources were documented in field notes and photographs.

The Tuolumne River Bridge (Bridge No. 38C-0004), which carries Hickman Road over the Tuolumne River, was previously determined ineligible for inclusion in the NRHP and Caltrans PQS confirmed that no further evaluation documentation of the structure was necessary. All other built environment resources identified within the Project's Architectural APE were determined exemptible from evaluation for listing in the NRHP and on the CRHR.

## 4.0 HISTORICAL OVERVIEW

The Project's Architectural APE is located in rural eastern Stanislaus County within the towns of Waterford and Hickman. Based on background research and field survey results, the Architectural APE consist of agricultural, residential, and commercial land use patterns on which sits agricultural outbuildings, commercial properties, and residential farms on parcels of variable sizes. As described in National Register Bulletin 15, these themes serve as the framework within which the NRHP significance criteria are applied to evaluate built environment resources in the APE that are 45 years old or older (National Park Service 1997). The overview below identifies and elaborates the historic contexts of settlement, agricultural development, and transportation in and around the Project's APE.

### 4.1 INTRODUCTION

Stanislaus County is an agriculturally rich area located in the Central Valley of California that is socially and economically divided by the San Joaquin River. Serving as a natural barrier to trade and travel, the river has over time isolated the more rural western portion of the region from the rest of the county's trade and transportation opportunities. Because of the county's proximity to Interstate 5 and numerous irrigation systems, many eastern towns within its boundaries, including Patterson, have experienced tremendous growth and economic success, while others to the west remain undeveloped, smaller-scale agricultural communities.

### 4.2 EARLY SETTLEMENT

Euro-Americans first entered what was to become Stanislaus County during a Spanish military expedition led by Jose Joaquin Moraga in 1776. Moraga's son Gabriel later returned to the area in 1806 and again in 1810 for further exploration of the region. Although nominally claimed by the Spanish and later the Mexican government, the San Joaquin Valley was frequented in its early days by predominately American and French-Canadian commercial trappers who congregated at a small colony known as French Camp, currently located just south of Stockton (Branch 1881; California State Lands Commission 1982, Gudde 1998). In spite of this, the valley region remained heavily influenced by the culture of Spanish missions established along the coastal areas near San José, Santa Clara, and San Juan Bautista (Gudde 1998). The purpose of these missions was to convert local Native Americans to Catholicism and the traditional European way of life. Once baptized, Natives were forced to preform hard labor in horrific conditions. Many died from these experiences, as well as from infectious diseases introduced by the Spanish (Beck & Haase 1974; Heizer & Almquist 1971; Cook 1955, 1960; California State Lands Commission 1982). A smallpox epidemic that occurred in the early 1830s devastated entire tribes with a mortality rate estimated between 40 to 100 percent. The large range indicates a lack of

academic understanding of the epidemic's impact on Native American communities (Cook 1955, 1960).

After Mexico declared its independence in 1821, the republican ethos of the Mexican state favored secular growth over that of ecclesiastical. The Franciscan missions and other royal landholdings were gradually repossessed under provisions of the Secularization Act passed by the Mexican government in 1833. System-wide secularization of the missions began in 1834, making large tracts of former mission lands available to settle. The mission system, now without royal protection, was gradually reduced to destitution as its lands were taken and granted to ranchers. Mexican governors began dispensing large tracts of land as reward to military veterans, as well as largesse to political supporters, naturalized citizens, and influential, wealthy foreigners. The total number of ranchos in California doubled in 10 years. The ranchos exchanged cattle hides and tallow for furnished goods from New England and British traders posted in Hawaii, as well as asserted Mexican sovereignty in California where there were perceived foreign incursions. However, during this time the Mexican government became increasingly focused on political developments in central Mexico, and the native-born Spanish speakers, or Californios, enjoyed relative peace and a high level of autonomy in their social, political, and economic affairs (Robinson 1948; Rosenus 1995).

Following the Mexican-American War, the United States annexed California and occupied it under a military government until statehood was granted as part of the Compromise of 1850. Stanislaus County, a region of approximately 800,000-acres, was organized in 1854 from a portion of Tuolumne County and is located in the San Joaquin Valley, an area in the larger California Central Valley (Tinkham 1921; Beck & Haase 1974). Three major rivers flow through the county: the Stanislaus, Tuolumne, and San Joaquin, which continue to make it an ideal agricultural area to this day.

### 4.3 HISTORY OF WATERFORD

The community that would one day become Waterford first formed in 1857 following a sudden population expansion during the California Gold Rush. In its early days, the town was known as Bakersville after its founder, William W. Baker. However, the name's similarity to Bakersfield, California caused considerable confusion and in 1870, the smaller town was forced to change its moniker. The name Waterford was chosen to reflect its proximity to the Tuolumne River and the ford, known as Roberts Ferry, used as transportation between its banks. Prior to construction of the Tuolumne River Bridge, the ford served as the only method of cross-river travel aside from a trestle that carried the Southern Pacific Railroad from one bank to the other. However, the line was abandoned and the tracks demolished in the mid to late 20th century (Benzinger 2011).

### 4.4 IRRIGATION

California's population greatly increased due to the Gold Rush. In response to the population increase, farms and ranches spread along waterways to address the growing agricultural needs of the state. Due to a lack of irrigation and California's natural weather

patterns, cattle raising and wheat farming were the Central Valley's predominant agricultural pursuits in the first few decades following the Gold Rush (Marschner 2000). However, after devastating droughts and soil exhaustion from mono farming wheat in the 1860s, many championed the advancement of irrigation and crop diversification (Caltrans 2000, 2007). Additionally, forty-niners who traveled west during the Gold Rush built flumes and ditches for transporting water for mining purposes, which changed the region's viewpoint and technological implications of water as a natural resource (Marschner 2000). As the gold supply dissipated, many miners turned to farming as an economic means. With the introduction of irrigated water in the 1870s, new farmers were able to diversify crop production. Because of this, wheat production in the central valley declined and fresh produce increased. The expansion of irrigation systems also meant an increase in land prices, as well as local population and economy levels (Caltrans 2000).

#### 4.4.1 Tuolumne River

Before Waterford became a settlement along the banks of the Tuolumne River, the Miwok tribes lived along the western part of its shores from Big Oak Flat down to the valley floor, as well as east of that point towards the higher Sierra Nevada Mountains. The Yokuts were the primary tribal group found along the lower portion of the lower watershed. Today, the Tuolumne River flows westerly for approximately 149 miles from its origin in Yosemite National Park at the confluence of the Lyell and Dana Forks to the foothills of the Sierra Nevada, where it is dammed by the New Don Pedro Dam. From there it flows through Central Valley farmland and conjoins with the San Joaquin River near Modesto. The Tuolumne River's upper watershed is unique in its granitic composition, as it was shaped by glaciation that occurred during the last Ice Age. About 15 percent of the river's total flow is diverted to San Francisco from the Hetch Hetchy Reservoir, while farther downstream half is diverted at La Grange Dam to irrigate farmland in the Central Valley (Tuolumne River Trust 2015).

#### 4.5 AGRICULTURE

Stanislaus County saw its fair share of mining activities during the Gold Rush, as the southern end of the Mother Lode was located just east of the Stanislaus County line. Many miners who failed to strike it rich turned to agriculture, particularly raising livestock and dry-farming grain (Vaught 2003).

Before the arrival of the railroad, much of Stanislaus County was grazed by large herds of beef cattle, horses, and sheep. Cattlemen prospered during the Gold Rush by supplying beef to miners. Following the Gold Rush, farmers began to till the fertile river bottom lands and cultivate crops, signaling a significant shift in land use. Prosperous cattlemen suffered a series of natural disasters beginning with thousands of cattle drowning in the catastrophic floods of 1861-1862, followed by two years of severe drought killing over 550,000 head of cattle statewide (Cleland 1951). Cattle prices plunged, and ranches burdened with heavy debts accrued during flush times were broken up and sold. The passage of "fence laws," which forced cattle ranchers to enclose their once open range

lands to prevent cattle from trampling and eating crops, was the final blow to the vitality of the ranching economy.

Beginning in the 1860s, wheat emerged as the main crop in Stanislaus County due to ideal growing conditions, efficient cultivation methods, and a high demand for cereal grains in domestic and international markets (Barnes 1987; Cleland 1951; Hundley 2001; Rawls and Orsi 1999; Stoll 1998). The county experienced its first economic boom during the 1860s and 1870s after multiple large-scale grain harvests. County population mirrored this dramatic rise in agricultural development, growing from 2,245 people in 1860 to 6,499 in 1870 (Branch 1881). When supply soon outpaced local demand, surplus wheat was sacked for export via railroad to ports on San Francisco Bay; Great Britain was an important destination for this surplus, as the nation incentivized wheat exports by relaxing tariffs on foodstuffs from California. By 1868, San Francisco was exporting a third of the nation's wheat crop; within 10 years, more than 2.5 million acres were under cultivation (Williams 1997). Other goods were also exported, such as oats, barley, corn, and peanuts.

Large-scale grain exports from Stanislaus County were feasible only after railroads extended into the region beginning in the early 1870s. The railroads provided farmers the opportunity to reach new markets and increase crop production. The farmers' success came to the attention of investors, who began purchasing large tracts of land throughout central California. At this time, Stanislaus County became known for its "bonanza" wheat farms; these farms consisted of huge tracts of land capable of cultivating thousands of tons of grain crops and were usually owned by out-of-town entrepreneurs or agricultural capitalists. Between Merced and Stockton, over 600 square miles comprised exclusively wheat farms (Street 2004). In the 1870s, threshers powered by straw-burning engines also contributed to the wheat growing industry by simplifying and economizing the harvesting process (Tinkham 1921).

The wheat boom ended in the late 1880s due to production competition from growers in Europe, Asia, South America, and Australia who were utilizing techniques previously developed in California. Having overextended themselves by borrowing and speculating heavily in harvest yields, California growers watched helplessly as many were foreclosed in bankruptcy (Vaught 2007). Compounding the problem was the onset of a worldwide economic depression in 1893 sparked by a collapse in railroad financing and widespread bank failures (Orsi 2005). The lingering economic depression and global overproduction led to a price collapse of over 50 percent. The division of large grain farms into smaller tracts in the 1880s was facilitated by the collapse in wheat farming, the agitation for irrigation development, and by the conversion of large tracts of land from wheat to orchard and vineyard production (Orsi 2005).

Irrigation eased the transition from a large-scale monocrop economy to a more sustainable, diversified cultivation of orchard crops, grapes, melons, and other water-intensive products. The dairy industry also benefitted as the region shifted away from wheat (Caltrans 2000). By 1910, California imported most of its wheat from the Midwest (Vaught 2007).

#### 4.5.1 Specialized Crops

The railroad gave rise to wheat farming in California, increasing land values and boosterism by land speculators seeking new investors. In addition to immense quantities of wheat, by 1881 Stanislaus County farmers also produced potatoes, beans, barley, oats, citrus fruits, grapes, and dairy products at a minor scale (Branch 1881). The productivity of the land and the practical economic concerns over monocropping compelled many to advocate for the development of an irrigation system. The Wright Act, a California state law that grants farming regions the right to collaboratively form and combine irrigation districts, was passed in 1877, making it possible for local farmers to form the Central Valley Project CVP.

After water became readily available in first decade of the 20<sup>th</sup> century, many regional farmers whose lands were supplied water by the CVP began planting orchard and vineyard crops that relied heavily on irrigation (Barnes 1987). Stanislaus County's agriculture diversified to include olives, peaches pears, apricots, berries, grapes, alfalfa, melons, beans, and the *Calimyrna* fig (Tinkham 1921).

Within 20 years after the irrigation system was constructed, the population of Stanislaus County grew over 400%. By 1950, Stanislaus County produced 80 different types of commercial crops; the diversification and population growth were both directly attributable to the reliability of water and power supplied by irrigation districts (Arkley 1964).

In the 1920s and 1930s, dairy farms grew in number as stock-raising shifted from grazing beef cattle on open land to smaller, enclosed dairy operations that manufactured cheese, cream, butter, and milk. By 1935, Stanislaus County was second in the country ranked for dairy production (Cecil 1937; *Modesto Bee* 1938).

#### 4.5.2 Agriculture Today

In spite of the rapid growth of residential development in Stanislaus County over the last 30 years, agriculture remains an economic force. In 2011, the value of agricultural production in the entire county exceeded \$3 billion, with top-ranking commodities being milk, almonds, chickens, English walnuts, and corn silage. Numerous specialty products were also cultivated, including cherries, peaches, melons, pumpkins, tomatoes, and alfalfa. In 2010 and 2011, Stanislaus County was ranked sixth in the top 10 agricultural counties in California (Ross 2013).

### 4.6 TRANSPORTATION

California experienced a huge surge in population after the discovery of gold in 1848. Many people, initially drawn by the prospect of gold mining, settled permanently in California and became ranchers or farmers, or opened businesses that serviced area miners. The development of transportation was at first limited to horse and wagon roads with connections at river ferries. Later developments, such as the arrival of the railroad



and the automobile, made the area more accessible to outside markets, facilitating industrial growth and transforming Stanislaus County. Railroads made it possible for travelers and goods to be transported quickly and efficiently all across the United States. Businesses such as restaurants, banks, hotels, general stores, and other commercial services flourished in towns and cities that were newly established at train depot locations. Personal automobile travel made it possible to travel when and wherever desired, while newly constructed highways within Stanislaus County again contributed to the growth of the county's population and industry.

#### 4.6.1 Railroads

The railroad system is one of the most influential factors that affected settlement patterns and the economy of the United States from the Industrial Revolution onwards. Many cities and towns coalesced around train depots, and in the latter half of the 19th century and into the 20th century, railroad companies competed for power. Many small railroads attempted to compete but found it impossible due to Southern Pacific Railroad's near monopoly over shipping rates and transportation services.

**Southern Pacific Railroad - Oakdale Branch.** An abandoned segment of the Southern Pacific Railroad (SPRR) runs from north to south parallel to the current alignment of Hickman Road through the Project's APE. This segment of railroad extended from Oakdale to Merced and was constructed by the Southern Pacific Company in 1891 as part of the Oakdale Branch that ran from Stockton to Merced.

SPRR was founded in 1865 by a group of San Francisco businessmen, led by Timothy Phelps, with plans to build a railroad connecting San Francisco with San Diego. In 1868, the company was purchased by Charles Crocker, Leland Stanford, Mark Hopkins, Jr., and Collin P. Huntington. These businessmen, known as the Big Four, were responsible for the creation of the CPRR in 1861 (Hofsommer 2009). By 1877, CPRR and SPRR owned over 85 percent of all California railroads, and SPRR was establishing a railroad monopoly in California. Many smaller companies constructed railroads to directly compete with this monopoly; however, most failed and were forced to sell to larger railroad companies.

The Stockton and Visalia Railroad (SVRR) Company (consolidated into the Stockton and Copperopolis Railroad Company in 1877) had constructed a line from Peters to Oakdale in 1871. The company was formed by a group of Stockton citizens who originally planned to construct a railroad that connected Stockton to Visalia in opposition to SPRR's monopoly over the San Joaquin Valley. The City of Stockton and the SVRR Company formed an agreement where the City would subsidize the construction of the track with 300 1,000-dollar bonds in stages if the company constructed an initial 14.5-mile track starting from the navigable waters at Stockton and extending to the county line along a specific route. By taking control of the Stockton and Copperopolis Railroad from Stockton to Peters and constructing an extension from Peters to Oakdale, the SVRR Company violated the contract, and City of Stockton refused to subsidize the remainder of the planned railroad (Ladd 1879). Construction on the proposed branch to Visalia ceased and Oakdale remained the terminus for nearly two decades. SPRR acquired ownership of this railroad in 1890,

and soon thereafter began constructing an extension from Oakdale to Merced. This portion of the railroad was completed in 1891 as part of their Oakdale Branch that ran from Stockton to Merced, and it provided an alternate route for passengers and freight heading north or south through the San Joaquin Valley (Robertson 1998). The alternate route, however, was not as profitable as SPRR expected.

After the onset of World War II, SPRR petitioned the Interstate Commerce Commission (ICC) for authority to abandon the Oakdale Branch segment from Montpelier to Merced in 1942 in order to provide the steel from the rails to the war effort. SPRR filed to abandon the segment of the Oakdale Branch track that extended from Claribel to Montpelier in 1973, and then again in 1979 for the segment from Claribel to Oakdale. In 1986, SPRR abandoned the remaining segment of the Oakdale Branch that extended from Stockton to Oakdale. Since its abandonment, much of the Oakdale Branch tracks have been removed to accommodate modern development (Patterson 2010; Palmer 2012).

#### 4.6.2 Rise of the Automobile

The rise in the popularity of the automobile coincided with a turbulent political era in California. SPRR had a long-standing influence on state government that discouraged legislation to fund road improvements, such that “[t]he further you got away from the iron road, the worse the dirt roads became” (Nelson 2009). In 1895, a three-person Bureau of Highways was created to coordinate the construction of higher quality roads among counties. However, with little authority and funding, the Bureau’s accomplishments were modest. Following a statewide survey of existing roads, the Bureau presented to the Legislature a program to construct a network of improved roads connecting the county seats. Despite this, the Department of Engineering, created in 1907, was limited to minor repairs to roads, bridges, culverts, and damage caused by winter storms (Department of Engineering 1917).

### 4.7 SITE SPECIFIC HISTORY

APN 080-011-001-000 was once a part of the historic Appling ranch, a farmstead founded by Edward H. and Minnie Appling in 1889 on the Hickman river bluff. The original residence still stands in its original location and is visible from the subject property. Mr. and Mrs. Appling married on November 2, 1887, and their four children were raised on the Appling ranch. Mr. Appling moved to California in 1875 and began growing wheat on 640 acres rented from the Dallas ranch in 1887. He later served as a clerk for the Rowe School Board of Trustees, before passing away in 1915 (Benzinger 2011).

A ferry service established by William Wilkerson Baker in 1866 was located just east of the Appling ranch. The ferry enterprise transported miners and other travelers across the Tuolumne River. After April 2, 1880, the ferry was operated by J.A. Hunter. The ferry service continued until 1889 (the same year the Appling ranch was established) when the County had a wooden bridge constructed for \$20,000. Remnants of its rock abutments are still present along either side of the riverbanks just outside the Project’s APE. With reliable access from one riverbank to the other now a possibility, the Waterford (formerly

Bakersville) community began to grow as businesses and residential growth spread across the river (Benzinger 2011).

## 5.0 DESCRIPTION OF CULTURAL RESOURCES

The farm complex located at 349 South Appling Road (Map Reference [MR] #1) on Assessor Parcel 080-011-001-000 evaluated for this Project is situated in a rural, agricultural setting, approximately 500 feet to the southeast of Bridge No. 38C-0004 (Appendix A: Figure 3). The farm complex consists of four built environment features including a main residence, a detached garage, a barn, and a former residence. This resource was evaluated and determined ineligible for inclusion in the NRHP and CRHR, and does not appear to be a historical resource for the purposes of CEQA (Appendix D).

The main residence is a one-story building with a rectangular footprint on a concrete-slab foundation. Its roofline, composed of composite shingles, maintains a north- and south-facing gable that frames the entrance on the main façade. The main entrance's fiberglass door, covered by a commercial-grade security screen, is sheltered by a gabled overhang held in place by thin wood supports. The eastern half of the building is topped by a hipped, eastern-facing gable that contains an attic vent under its moderate eaves. Sliding metal-framed windows are found throughout. The entirety of the building's exterior is clad in replacement T1-11 siding, and it contains a second door located on the western façade, also consisting of fiberglass replacement materials. The western half of the residence is topped with a slightly pitched shed roof and appears to be a later addition with similar T1-11 siding.

The detached garage has a rectangular footprint and is of similar construction as the main residence. Clad in T1-11 siding, the south-facing main façade contains two retractable garage doors. Also of composite shingles, the roofline contains an east- and west-facing gable with moderate eaves. The eastern façade has a similar attic vent and fiber glass entrance door. The northern façade contains a sheltered porch area covered by a slightly pitched overhang. An attic vent sits just below the eaves of the western-facing gable.

The barn has a rectangular footprint and consists of original plank wood siding and a deeply sloping, corrugated metal-clad roof. Despite its expansive roofline, small eaves extend past its simple footprint. A large, square, wood-framed opening that extends its entire height comprises the southern façade, while other small doorways and window-like openings are found on each façade. The barn's western façade opens to a small wooden-fenced pasture area.

The second residence, a currently uninhabited cottage, has a simple rectangular layout and raised concrete foundation. Several concrete steps lead to its entry door in the center of the eastern facing main façade. Flanked by two double-hung, wood-framed windows, the house maintains its original wooden entry door and is clad in its original horizontal wood siding. Composite shingles cover a moderately pitched roofline, with side gables that face north and south and small eaves that extend over the eastern and western façades. Beneath each gable are decorative rows of vertical wood planking. An original

wooden rear entrance located on the southern façade is sheltered by a wooden overhang with exposed rafters. Several concrete steps access this entrance.

## 6.0 FINDINGS AND CONCLUSIONS

### 6.1 FINDINGS

LSA evaluated the farm complex located at 349 South Appling Road (MR #1) on APN 080-011-001-000 for inclusion in the NRHP and CRHR as not eligible for inclusion under any criteria. This property does not appear to be a historical resource for the purposes of CEQA. Please see the DPR 523 forms in Appendix D for an individual property description and evaluation of this resource.

The following properties have been determined *not eligible* for inclusion in the National Register of Historic Places as a result of this study:

Name	Address	Community	OHP Status Code	Map Ref #
349 South Appling Road	349 S Appling Rd	Hickman, CA	6	MR # 1

Caltrans Principal Architectural Historian John Whitehouse has determined that the only other properties present within the APE, including state-owned resources, meet the criteria for Section 106 PA/5024 MOU Attachment 4 (Properties Exempt from Evaluation).

### 6.2 CONCLUSIONS

This study evaluated one built environment cultural resource, a farm complex located at 349 S Appling Road (MR #1), for inclusion in the NRHP and CRHR. This resource does not appear eligible under any criteria either individually or as a contributor to a historic district, due to a lack of significant associations with a historic context and a lack of integrity. This property does not appear to be a historical resource for the purposes of CEQA.

## 7.0 BIBLIOGRAPHY

- Arkley, Rodney J.  
1964 "Soil Survey: Eastern Stanislaus Area, California." U.S. Dept. of Agriculture, Soil Conservation Service. U.S. Government Printing Office, Washington, D.C.
- Barnes, Dwight H.  
1987 *The Greening of Paradise Valley: the First 100 Years (1887-1987) of the Modesto Irrigation District*. Electronic document,  
[http://www.mid.org/about/history/grnng\\_of\\_pvy.pdf](http://www.mid.org/about/history/grnng_of_pvy.pdf), (accessed various).
- Beard, Franklin  
1987 *Grain Fields to Green Fields*. Southern Mines Press, Modesto, California.
- Beck, Warren A. and Ynez D. Haase  
1974 *Historical Atlas of California*. University of Oklahoma Press, Norman, Oklahoma.
- Benzinger, Jeff  
2011 *Waterford: Images of America*. Arcadia Publishing, Charleston, South Carolina.
- Branch, L.C.  
1881 *History of Stanislaus County, California with Illustrations*. Elliot & Moore, Publishers, San Francisco, California.
- Brotherton, I.N.  
1982 *Annals of Stanislaus County*. Western Tanager Press, Santa Cruz, California.
- Bureau of Land Management, General Land Office (GLO) Records  
2015 Patent and Survey database search for Stanislaus County, California. Online resource, <http://www.glorerecords.blm.gov/search/default.aspx#> (accessed March 2016)  
1854 *T.3.S - R.11.E of Mount Diablo Meridian* plat map. Online resource,  
[http://www.glorerecords.blm.gov/details/survey/default.aspx?dm\\_id=317537&sid=32v2kcgp.s2o#surveyDetailsTabIndex=1](http://www.glorerecords.blm.gov/details/survey/default.aspx?dm_id=317537&sid=32v2kcgp.s2o#surveyDetailsTabIndex=1) (accessed March 2016).  
1854 *T.4.S - R.11.E of Mount Diablo Meridian* plat map. Online resource,  
[http://www.glorerecords.blm.gov/details/survey/default.aspx?dm\\_id=317537&sid=32v2kcgp.s2o#surveyDetailsTabIndex=1](http://www.glorerecords.blm.gov/details/survey/default.aspx?dm_id=317537&sid=32v2kcgp.s2o#surveyDetailsTabIndex=1) (accessed March 2016).
- California Department of Transportation (Caltrans)  
2000 *Water Conveyance Systems in California: Historical Context Development and Evaluation Procedures*. JRP Historical Consulting Services, Davis, California and Cultural Studies Office, Division of Environmental Analysis, California Department of Transportation, Sacramento, California.

- 2007 *A Historical Context and Archaeological Research Design for Agricultural Properties in California*. Cultural Studies Office, Division of Environmental Analysis, Sacramento.
- 2012 *Memorandum of Understanding between the FHWA and Caltrans concerning the State of California Participation in the Surface Transportation Project Delivery Pilot Program Pursuant to 23 U.S.C. 327*. California Department of Transportation, Sacramento.
- 2014a *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer and California Department of Transportation Regarding Compliance with Section 106 of the National Preservation Act, as it Pertains to the Administration of Federal-Aid Highway Program in California*. California Department of Transportation, Sacramento.
- 2014b *Caltrans State and Local Bridge Survey Structure Maintenance & Investigations: Historical Significance - Local Agency Bridges, District 10, Stanislaus County*. California Department of Transportation, Sacramento.
- 2015 *Structure Maintenance & Investigations*. California Department of Transportation, Sacramento.

#### California Office of Historic Preservation (OHP)

- 1976 *California Inventory of Historic Resources*. California Department of Parks and Recreation, Sacramento, California.
- 1988 *Five Views: An Ethnic Historic Site Survey for California*. California Department of Parks and Recreation, Sacramento.
- 1989 *Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys*. California Department of Parks and Recreation, Sacramento.
- 1992 *California Points of Historical Interest*. California Department of Parks and Recreation, Sacramento.
- 1996 *California Historical Landmarks*. California Department of Parks and Recreation, Sacramento.
- 2014 *Directory of Properties in the Historic Property Data File*, March 20, 2014. California Department of Parks and Recreation, Sacramento.

#### California State Lands Commission Staff

- 1982 *Grants of Land in California Made by Spanish or Mexican Authorities*. State Lands Commission, Sacramento.

#### Carlton, D.C.

- 1906 "Official Map of the County of Stanislaus, California." Modesto, Calif.: Stanislaus Land & Abstract Co. David Rumsey Historical Map Collection, [http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~224017~5506305:Map-Of-The-County-Of-Stanislaus,-Ca?sort=Pub\\_List\\_No\\_InitialSort%2CPub\\_Date%2CPub\\_List\\_No%2CSeries\\_No&qvq=q:stanislaus%2Bcounty;sort:Pub\\_List\\_No\\_InitialSort%2CPub\\_Date%2CPub\\_List\\_No%2CSeries\\_No;lc:RUMSEY~8~1&mi=2&trs=25](http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~224017~5506305:Map-Of-The-County-Of-Stanislaus,-Ca?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=q:stanislaus%2Bcounty;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=2&trs=25), (accessed March 2016).



Cecil, N.M.

- 1937 "Huge System of Canals Irrigates 60,000 Acres." *Modesto Bee*, January, 1937. On file at Stanislaus County Public Library, Special Collections, Modesto, California.

Chavez, D.

- 1976 *An Archaeological Reconnaissance of the Robert's Ferry Reservoir and Water Extraction and Conveyance Systems, Stanislaus County, California: Phase II*. Holman & Chavez Consulting Archeologists for URS Research Company. San Francisco, CA.

Cleland, Robert Glass

- 1951 *The Cattle on a Thousand Hills: Southern California, 1850-1880*. San Marino, California: The Huntington library.

Cook, Sherburne F.

- 1955 *The Epidemic of 1830-1833 in California and Oregon*. University of California Publications in American Archaeology and Ethnology 43(3). University of California Press, Berkeley.
- 1960 *Colonial Expeditions to the Interior of California: Central Valley, 1800-1820*. University of California Anthropological Records 16(6). University of California Press, Berkeley.

Creighton, W.

- 2002 *Clamper: Documentation of Monuments and Plaques Representing Estanislao* Chapter No. 58 E Clampus Vitus. California State University, Stanislaus. Turlock, CA.

Davis-King, S.

- 2000 *Negative Archaeological Survey Report, 10-STA-Hickman Road Culvert C-785 at Dallas/ Appling Ditch*. Davis-King & Associates for Caltrans District 10. Sacramento, CA.
- 2004 *Historic Property Survey Report: Scour Countermeasures for the Tuolumne River Bridge #38C-004 (Hickman Road) Waterford, County of Stanislaus*. Davis-King & Associates for CH2MHill and Caltrans District 10. Standard, CA.
- 2013 *Historic Properties Survey Report for the Proposed Tuolumne River Parkway Project, City of Waterford, Stanislaus County, California*. Davis-King & Associates for City of Waterford and the US Army Corps of Engineers. Standard, CA.

Department of Engineering

- 1917 *5<sup>th</sup> Biennial Report of the Department of Engineering of the State of California, December 1, 1914 to November 30, 1916*. California State Printing Office, Sacramento, California.

Gudde, Erwin G.

- 1998 *California Place Names. The Origin and Etymology of Current Geographical Names*. Fourth edition revised and enlarged by William Bright. University of California Press, Berkeley.

Hall, William Hammond

- 1886 *Topographical and Irrigation Map of the San Joaquin Valley*. Sacramento: California State Engineering Department. David Rumsey Historical Map Collection, [http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~207679~3003423:Sheet-No--1,-Northern-Portion,-Irri?sort=Pub\\_List\\_No\\_InitialSort%2CPub\\_Date%2CPub\\_List\\_No%2CSeries\\_No&qvq=q:stanislaus%2Bcounty;sort:Pub\\_List\\_No\\_InitialSort%2CPub\\_Date%2CPub\\_List\\_No%2CSeries\\_No;lc:RUMSEY~8~1&mi=6&trs=25](http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~207679~3003423:Sheet-No--1,-Northern-Portion,-Irri?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=q:stanislaus%2Bcounty;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=6&trs=25), (accessed March 2016).

Harden, Deborah

- 1998 *California Geology*. Prentice Hall, Upper Saddle River, New Jersey.

Hayes, Derek

- 2007 *Historical Atlas of California*. University of California Press, Berkeley.

Heizer, Robert F., and Alan F. Almquist

- 1971 *The Other Californians*. University of California Press, Berkeley.

Hofsommer, Don L.

- 2009 *The Southern Pacific, 1901-1985*. Texas A&M University Press, College Station, Texas.

Hoover, Mildred Brooke, Hero Eugene Rensch, Ethel Rensch, and William N. Abeloe

- 1990 *Historic Spots in California*. Fourth edition, revised by Douglas E. Kyle. Stanford University Press, Stanford, California.

Hundley, Norris, Jr.

- 2001 *The Great Thirst, Californians and Water: A History*. University of California Press, Berkeley.

Jones & Stokes

- 2003 *Historical Resource Compliance Report, Archaeological Survey of the River Pointe Subdivision, City of Waterford, Stanislaus County, California*. Jones & Stokes for Grupe Investment Company and Caltrans District 10. Sacramento, CA.

JRP Historical Consulting, LLC.

- 2013 *Draft: Historic Resources Report, Tuolumne River Parkway Project, City of Waterford, Stanislaus County, California*. JRP Historical Consulting, LLC for City of Waterford. Davis, CA.

Jurich, D. M.

- 1999 An Archaeological Survey Report for Proposed AC Overlay and Shoulder Backing of State Route 132 Between Modesto and Waterford, Stanislaus County, California, 10-STA-132. Archaeological Research Center Institute of Archaeology and Cultural Studies for Caltrans District 10. Sacramento, CA.

Kroeber, Alfred L.

- 1925 *Handbook of the Indians of California*. U.S. Bureau of American Ethnology Bulletin No. 78. Washington, D.C.

Leach-Palm, L., J. Mikkelsen, J. Hatch, J. King, and B. Larson

- 2004 Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Volume I: Summary of Methods and Findings. Far Western Anthropological Research Group, Inc. for Caltrans. Davis, CA.

Marchand, Denis E., & Alan Allwardt

- 1981 *Late Cenozoic Stratigraphic Units, Northeastern San Joaquin Valley, California*. United States Government Printing Office, Washington, D.C.

Marschner, Janice

- 2000 *California 1850: A Snapshot in Time*. Coleman Ranch Press, Sacramento, California.

*Modesto Bee*

- 1938 "Irrigation is Dominant in History of County." *Modesto Bee*. January, 1938. On file at Stanislaus County Public Library, Special Collections, Modesto, California.

Moratto, Michael J., & David Allen Fredrickson Bee

- 1984 *California Archaeology*. University of Wisconsin Academic Press, Madison, Wisconsin.

Napton, L. K.

- 2007 *Cultural Resources Investigations of the Lake Pointe Development Project, Stanislaus County, California*. L. K. Napton, Ph.D., Consulting Archaeologist for Lake Pointe Investors, LLC. Sarasota, FL.

National Park Service

- 1997 *National Register Bulletin 15*. U.S. Department of the Interior, Washington, D.C.

Nelson, Kevin

- 2009 *Wheels of Change, From Zero to 600 M.P.H.: The Amazing Story of California and the Automobile*. Heyday Books, Berkeley, California.

Online Archive of California

- 2015 *Online Archive of California*, Electronic document, <http://www.oac.cdlib.org/>, (accessed various).

Orsi, Richard J.

- 2005 *Sunset Limited: The Southern Pacific Railroad and the Development of the American West, 1850-1930*. University of California Press, Berkeley, California.

Palmer, Mike

- 2012 "Stockton to Merced: the Oakdale Branch." Electronic resource.  
[http://www.abandonedrails.com/Oakdale\\_Branch](http://www.abandonedrails.com/Oakdale_Branch) (accessed March 2016).

Patterson, Patrick

- 2010 "Southern Pacific's Oakdale Branch Served Eastern Stanislaus County," in Modesto Railroad Examiner May 21, 2010, Electronic resource.  
[www.examiner.com/southern-pacific-s-oakdale-branch-served-eastern-stanislaus-county](http://www.examiner.com/southern-pacific-s-oakdale-branch-served-eastern-stanislaus-county) (accessed March 2016).

Punnett Brothers

- 1914 *Weber's Map of Stanislaus County, California*. Los Angeles: C. F. Weber & Co. David Rumsey Historical Map Collection,  
[http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~254187~551929\\_2:Weber-s-Map-of-Stanislaus-County,-C?sort=Pub\\_List\\_No\\_InitialSort%2CPub\\_Date%2CPub\\_List\\_No%2CSeries\\_No&qvq=w4s:/when/1914;q:stanislaus%2Bcounty;sort:Pub\\_List\\_No\\_InitialSort%2CPub\\_Date%2CPub\\_List\\_No%2CSeries\\_No;lc:RUMSEY~8~1&mi=0&trs=1](http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~254187~551929_2:Weber-s-Map-of-Stanislaus-County,-C?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=w4s:/when/1914;q:stanislaus%2Bcounty;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=0&trs=1) (accessed March 2016).

Rawls, James J., and Richard J. Orsi

- 1999 *A Golden State: Mining and Economic Development in Gold Rush California*. University of California Press, Berkeley, California.

Robinson, W. W.

- 1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip Homesteads*. University of California Press, Berkeley, California.

Rosenthal, J.S. & J. Meyer

- 2004 *Cultural Resources Inventory of Caltrans District 10 Rural Convention Highways; Volume III: Geoarchaeological Study*. Far Western Anthropological Research Group, Inc. for Caltrans District 10. Davis, CA.

Rosenthal, J.S., Gregory G. White, & Mark Q. Sutton

- 2007 *The Central Valley: A View from the Catbird's Seat. In California Prehistory: Colonization, Culture, and Complexity*. AltaMira Press, Lanham, Maryland.

Rosenus, Alan

- 1995 *General Vallejo and the Advent of the Americans*. Heyday Books, Berkeley, California.

Ross, Karen

- 2013 California Agricultural Statistics Review, 2012-2013. California Department of Food and Agriculture. Sacramento, California.  
<http://www.cdfa.ca.gov/statistics/pdfs/2013/FinalDraft2012-2013.pdf> (accessed March 2016).

Santos, Robert LeRoy, ed.

- 2002 *Chronology of Stanislaus County History, Through 1912*. California State University, Stanislaus, Turlock, California.

Stoll, Steven

- 1998 *The Fruits of Natural Advantage: Making the Industrial Countryside in California*. University of California Press, Berkeley.

Street, Richard Stephen

- 2004 *Beasts of the Field: A Narrative History of California Farmworkers, 1769-1913*. Stanford University Press, Redwood City, California.

Tinkham, George H.

- 1921 *History of Stanislaus County, California*. Historic Record Company, Los Angeles, California.

Tuolumne River Trust

- 2015 *The Watershed*. Tuolumne River Trust.  
<http://www.tuolumne.org/content/article.php/watershed> (accessed March 2016).

United States Geological Survey (USGS)

- 1916 *Waterford, Calif.*, 7.5-minute topographic quadrangle. U.S. Geological Survey, Washington, D.C.  
1953 *Waterford, Calif.*, 7.5-minute topographic quadrangle. U.S. Geological Survey, Washington, D.C.  
1969 *Waterford, Calif.*, 7.5-minute topographic quadrangle. U.S. Geological Survey, Washington, D.C.

Vaught, David

- 2003 "After the Gold Rush: Replicating the Rural Midwest in the Sacramento Valley." *Western Historical Quarterly* 34.  
2007 *After the Gold Rush: Tarnished Dreams in the Sacramento Valley*. Baltimore, Maryland: The Johns Hopkins University Press.

Wagner, D.L., E.J. Bortugno, and R.D. McJunkin

- 1991 *Geologic Map of the San Francisco - San Jose Quadrangle*. California Geological Survey, Regional Geologic Map No. 5A, 1:250,000 scale. California Department of Conservation, Division of Mines and Geology, Sacramento, California.

Wallace, William J.

1978 "Northern Valley Yokuts." In *Handbook of North American Indians*. Vol. 8, *California*, Smithsonian Institution, Washington, D.C.

Williams, James C.

1997 *Energy and the Making of Modern California*. University of Akron Press, Akron, Ohio.

## **APPENDIX A**

### **Maps**

- Figure 1: Project Vicinity
- Figure 2: Project Location
- Figure 3: Area of Potential Effects
- Figure 4: Preliminary Study Area



0 2.5 5  
MILES

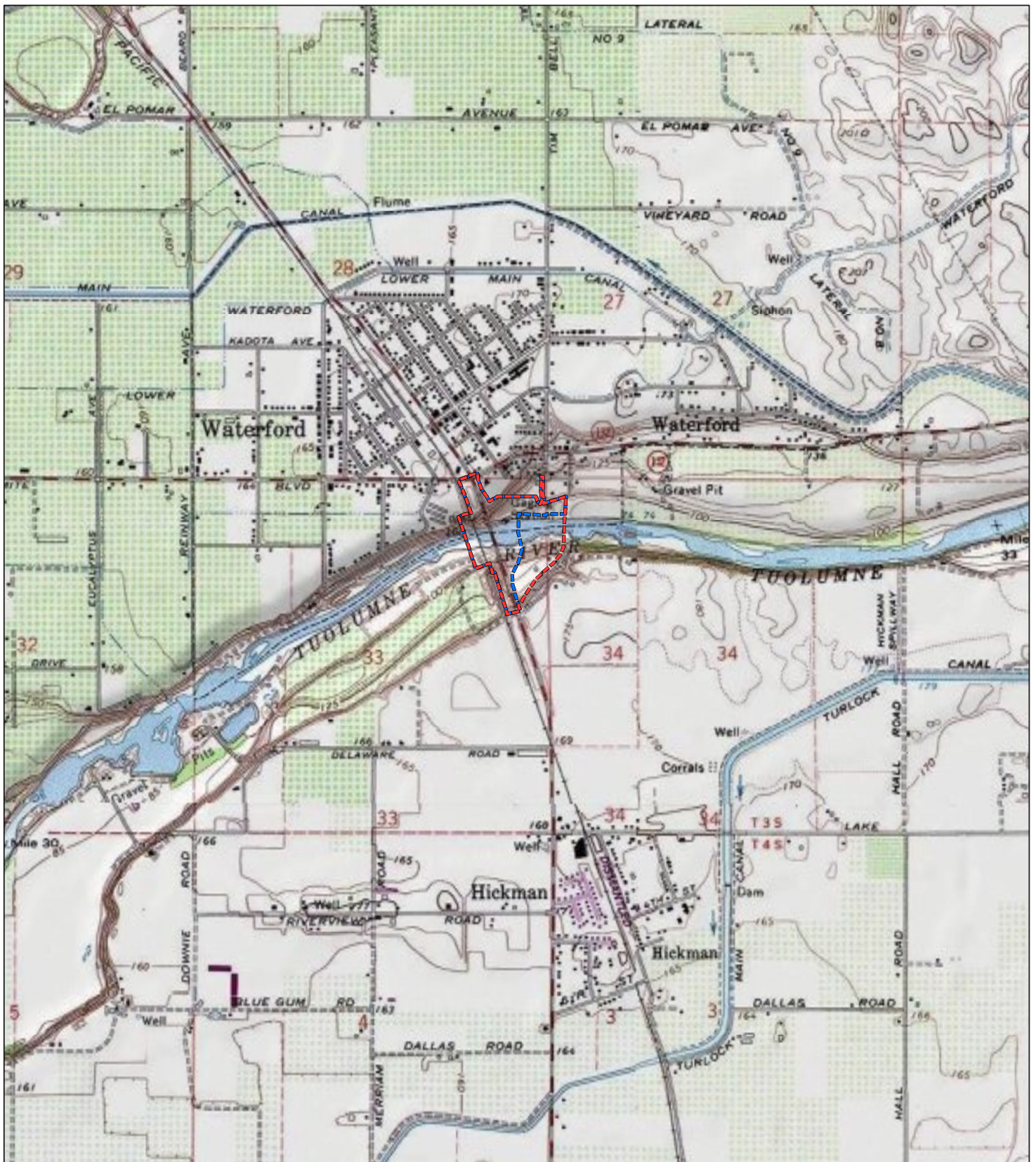
#### LEGEND

★ Project Location

FIGURE 1

*Hickman Road over Tuolumne River Bridge  
Replacement Project, Waterford and Hickman,  
Stanislaus County, California,  
Federal Project No. BRLO-5938 (199)  
LSA Project No. DHG1401  
Project Vicinity Map*





0 1000 2000  
FEET

#### LEGEND

- ▭ Architectural Area of Potential Effects
- ▭ Archaeological Area of Potential Effects

SOURCE: Basemap - USGS Topo; Mapping - LSA Associates, Inc. (2016)

E:\DHG1401\GIS\HPSR\_Fig2\_updated.mxd (9/23/2016)

FIGURE 2

*Hickman Road over Tuolumne River Bridge  
Replacement Project, Waterford and Hickman,  
Stanislaus County, California,  
Federal Project No. BRLO-5938 (199)  
LSA Project No. DHG1401  
Project Location Map*





0 400 800  
FEET

#### LEGEND

- Study Area
- Parcel

FIGURE 4

*Hickman Road over Tuolumne River Bridge  
Replacement Project, Waterford and Hickman,  
Stanislaus County, California  
Federal Project No. BRLO-5938(199)  
LSA Project No. DHG1401  
Study Area Map*

SOURCE: Basemap - Microsoft (5/2010); Mapping - LSA Associates, Inc. (9/2016)

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**APPENDIX B**

**Preparers' Qualifications**



## PREPARERS' QUALIFICATIONS

This report was prepared by LSA Architectural Historian Ann Andreazzi and LSA Senior Cultural Resources Manager Katie Vallaire. Ms. Andreazzi meets the Secretary of the Interior's *Professional Qualifications Standards* in Architectural History and History. Ms. Andreazzi has a B.A. in Art History from University of California, Berkeley, an M.A. in Public History from California State University, Sacramento, and five years of experience in cultural resources management, including archival and historical research, architectural field surveys, evaluation of historic resources, and HABS/HAER/HALS mitigation documentation. She has evaluated hundreds of residential and commercial buildings, structures, and linear features. Ms. Vallaire meets the Secretary of the Interior's *Professional Qualifications Standards* for Archeology, Architectural History, and History, and is Registered Professional Archaeologist #32791044. Ms. Vallaire has a B. A. in Anthropology from California State University, Chico, and an M.A. from California State University, Sacramento. She has 12 years of experience in cultural resources management throughout California, Nevada, and Montana, including collections management, archival and historical research, technical report preparation, archaeological excavation and site analysis, architectural and archaeological field surveys, historic preservation, and hundreds of built environment and archaeological resource evaluations.

## **APPENDIX C**

### **Historical Organization Correspondence**

December 31, 2015

Waterford Historical Society  
P.O. Box 762  
Waterford, CA 95386

Subject: Hickman Road over Tuolumne River Bridge Replacement, near Waterford,  
Stanislaus County, California (LSA Project # DHG1401)

Dear Waterford Historical Society:

The Stanislaus County Department of Public Works proposes the Hickman Road over Tuolumne River Bridge Replacement, near Waterford, Stanislaus County, California. The Project will replace the Category 5 *Hickman Road over Tuolumne River Bridge* #38C0004. LSA Associates, Inc. is conducting a study to determine if the project might affect cultural resources. The project area is located within Township 3 South, Range 11 East, in Sections 27, 28, 33, and 34 of the Mount Diablo Base Line and Meridian, as depicted on the accompanying portion of the USGS *Waterford, Calif. 7.5'* topographic map (Figures 1-2).

Please notify us if your organization has any information or concerns about historical sites in the project area. This is not a request for research; it is solely a request for public input for any concerns that the historical society may have. If you have any questions, please contact me at your earliest convenience. We look forward to hearing from you.

Sincerely,



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Attachments:

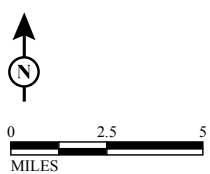
Figure 1: Project Location and Vicinity

Figure 2: Project Area



LSA

FIGURE 1

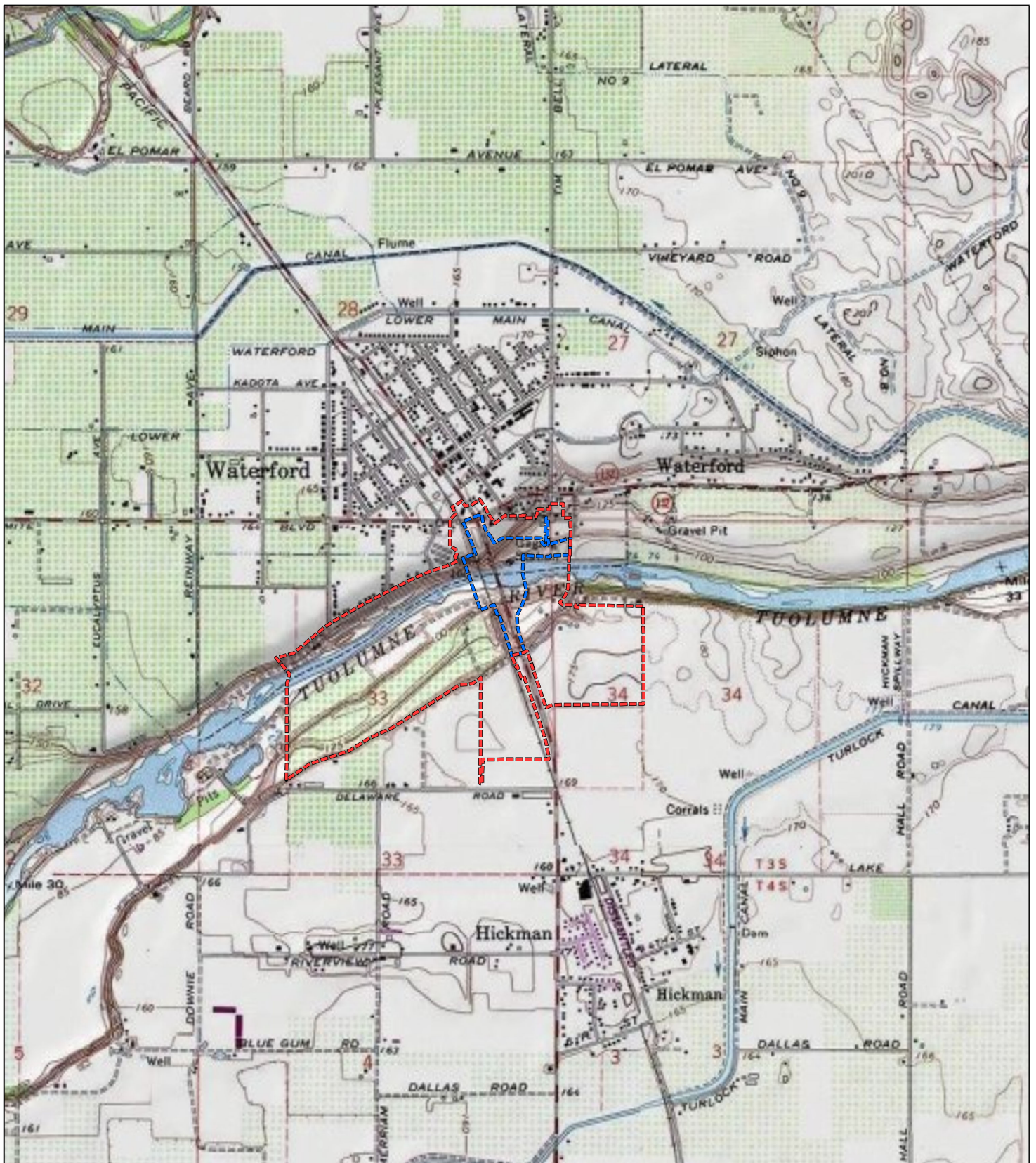


LEGEND  
★ Project Location

*Hickman Road over Tuolumne River Bridge Replacement Project,  
Stanislaus County, California, BRLO-5938 (199)*

Regional Location





LSA

# LEGEND

- Architectural Area of Potential Effects
- Archaeological Area of Potential Effects

FIGURE 2

*Hickman Road over Tuolumne River Bridge Replacement Project,  
Stanislaus County, California, BRLO-5938 (199)*

Project Area Map

SOURCE: Basemap - USGS Topo; Mapping - LSA Associates, Inc. (2015)

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