

Appendix L-1

**Historical Resource Inventory
and Evaluation Report (2 of 2)**

PRIMARY RECORD

Primary # _____

HRI # _____

Trinomial _____

NRHP Status Code _____

Other Listings _____

Review Code _____ Reviewer _____ Date _____

Page 1 of 7

*NRHP Status Code 6Z

*Resource Name or # 1725-1731 West 16th Street

P1. Other Identifier: 2021-26

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced

*b. USGS 7.5' Quad Atwater Date 1960 T 7S; R 13E; SE 1/4 of 1/4 of Sec: _____; _____ B.M.

c. Address: 1725-1731 W 16th City: Merced, CA Zip: 95348

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

APN 059-051-042-000; 590310300

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) 1725-1731 W 16th consists of a narrow, irregular shaped parcel northwest of the intersection of W 16th Street and Highway 59. It consists of a rectangular shaped, single-story warehouse building with two volumes, a vaulted roofed volume, and a gabled roof volume, both clad in corrugated metal sheeting on the walls and roofs. (See continuation sheet)

*P3b. Resource Attributes: (List attributes and codes) HP8: Industrial building; HP6: 1-3 story commercial building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



*P5b. Description of Photo: (View, date, accession #) 1725-1731 W 16th, Southeast elevation, looking northwest. January 2021. ICF.

*P6. Date Constructed/Age and Sources:

☒ Historic ☐ Prehistoric ☐ Both
c. 1945 (LoopNet 2021)

*P7. Owner and Address:

STL Merced LLC
3535 Sierra Road
San Jose, CA, 95132-9513

*P8. Recorded by: (Name, affiliation, address)

Christine Cruiss
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*P9. Date Recorded: January 19, 2021

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: ICF. 2021. Historical Resource Inventory and Evaluation Report, San Joaquin Regional Rail Commission, ACE Ceres to Merced Extension. March. (ICF 00144.20). Sacramento, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 7

*NRHP Status Code 6Z

*Resource Name or # 1725-1731 West 16th Street

B1. Historic Name: unknown

B2. Common Name: JS Global; United Ceilings, Indmar, Veterinary Services Incorporated

B3. Original Use: Industrial

B4. Present Use: Industrial/Commercial

***B5. Architectural Style:** Utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations)

Based on historic aerial photographs from 1946 and USGS topographic maps dating to 1948 this commercial warehouse building dates to c. 1946. According to aerial photographs dating from 1958 and 1998, the building gains an addition to its northeast elevation, increasing the total footprint of the vaulted-roofed volume. A shed-style roof extension appears along the northeast elevation between 1958 and 1985. These additions may date to as early as c. 1960, coinciding with the rerouting of SR 99 south of the property and the inclusion of SR59 into the California Freeway and Expressway System. Aerial photographs show no visible additions or alterations to the primary building from 1998 through 2021. The rectangular secondary warehouse building to the northeast of the primary building appears between 1998 and 2005. (Nationwide Environmental Title Research LLC 1946, 1958, 1998, 2005; Google LLC 2020; LoopNet 2020; USGS 1948)

***B7. Moved?** ☒ No ☐ Yes ☐

Date: NA

Original Location: X

***B8. Related Features:** N/A

B9. Architect: Unknown

b. Builder: Unknown

***B10. Significance: Theme** N/A

Area Merced, CA

Period of Significance N/A **Property Type** Commercial

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

1725-1731 W 16th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

See continuation sheet.

B13. Remarks:

***B14. Evaluator:**

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

***Date of Evaluation:**

January 22, 2021

(This space reserved for official comments.)



Page 3 of 7

*Resource Name or # (Assigned by recorder) 1625-1731 West 16th Street

*Recorded by Joshua Severn, ICF *Date January 22, 2021

☒ Continuation ☐ Update

P3a. Description (continued)

The south elevation shows eight metal roll-top industrial doors and a loading dock with an elevated, poured concrete deck area facing the main driveway, parking, and loading lot. The south elevation also shows five pedestrian, industrial metal doors neighboring the roll-top doors. The southwest elevation faces W 16th Street and features one ADA-accessible pedestrian entrance with a concrete ramp as well as a four-light vinyl and wood-framed vertical sliding window. A sign is mounted above the entryway highlighting one tenant being "JS Global Events," a party rental business. The gable-roof area has minimal roof overhang. The northwest elevation features four industrial roll-top doors spanning the length of the rainbow roof volume of the building. The gable roof volume has two five-light windows. This elevation shows one pedestrian entrance with a metal industrial door. A small segment of detached railroad segment appears parallel to the property line and the northwest elevation of the building. The northeast elevation cannot be seen from the public right-of-way, appearing to feature at least two metal roll-top style doors, one metal pedestrian door, and a shed-style roofed building addition. No other windows appear along this elevation. There is a second rectangular industrial warehouse building northeast of the main warehouse building that cannot be seen from the public right-of-way but appears to have a gabled roof and corrugated metal sheeting cladding the walls and roof. No other features are visible. The parcel consists of a parking lot with bare dirt areas along the northeastern portion of the parcel. The portion of the parcel nearest to W 16th Street has grass. The main entrance to the parcel is along W 16th Street. The buildings are in good condition.

*B10. Significance: (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for this property include the history of the San Joaquin Valley, World War II Era Industry and Postwar Era Development, and post-World War II commercial warehouses as a building type.

SAN JOAQUIN VALLEY

Early European exploration of the coastal and inland trade routes of what became California began in the 1500s, but more than a century passed before Spain mounted a concerted colonization effort. The historical era in California began with Spanish colonization and is often divided into three distinctive chronological and historical periods: the Spanish or Mission Period (1542–1821), the Mexican or Rancho Period (1821–1848), and the American Period (1848–present). After Mexican independence in 1821, rule transitioned to the newly established country of Mexico. The United States took control of California after the Mexican-American War in 1848 with the signing of the Treaty of Guadalupe Hidalgo. California became a state in 1850, and the development patterns in the state during the late nineteenth century were characterized by agricultural ventures, ranching, and mining. Explorers, soldiers, missionaries, and ranchers led Spain's colonization effort, although the realities of settling a remote region repeatedly undermined Spain's theory and official policy of colonization. The Spanish government and subsequently the Mexican government issued rancho land grants to reward soldiers, promote settlement in California, and encourage agricultural and ranching enterprises. However, as late as the 1840s, after a century of effort, the region's economy remained colonial, its institutions fragmented, its military power negligible, and its population sparse. The bulk of the more than 800 rancho grants were bestowed during the Mexican Period. Although exploration of the San Joaquin Valley occurred in the latter half of the Spanish period between 1772 and 1817, it was not until the Mexican Period that Europeans and Euro-Americans began settling in the region. Only one of the numerous ranchos granted between 1841 and 1846 within the San Joaquin Valley intersects the CEQA study area. Rancho Pescadero-Grimes, established in 1843, is in San Joaquin County near the present-day community of Tracy.

RAILROADS

At the start of the American Period, development and settlement in California were concentrated north of the San Joaquin Valley as a result of the Gold Rush, which began in 1848. Settlement increased in the San Joaquin Valley when the Transcontinental Railroad was constructed through the area in 1869. The railroad provided easy passenger travel and efficient commercial transport of goods to and from large urban centers such as San Francisco and Sacramento. In San Joaquin County, Lathrop and Manteca were major railroad stops by 1871 and 1873, respectively. Tracy, located west of the ACE Extension study area, was established in 1882 around the junction of three rail lines—the San Francisco Bay Area to San Joaquin County line, the northern line to Martinez County, and the southern line to Los Angeles. In Stanislaus County, several communities developed along the transcontinental railroad including Salida (1869), Modesto (1870), Turlock (1871), and Ceres (1874).

Construction of the San Joaquin Valley mainline of the Southern Pacific Railroad (SPRR), which was originally known as the San Joaquin Valley Railroad, began in 1869. The railroad branched off the transcontinental line at the newly established town of Lathrop in San Joaquin County. From 1870 to 1880, the population of the San Joaquin Valley increased by 40 percent, and the SPRR established 50 stations in the San Joaquin Valley, 24 of which became town sites. Eight of those sites became major towns, including Modesto, Turlock, and Merced.

Other railroads also were important to the area. The Tidewater Southern Railway began as an electric railway transporting freight and passengers from various cities within Stanislaus County. Construction began in 1910 in Stockton by the Tidewater & Southern Railroad

Page 4 of 7

*Resource Name or # (Assigned by recorder) 1625-1731 West 16th Street

*Recorded by Joshua Severn, ICF *Date January 22, 2021

☒ Continuation ☐ Update

Company. In 1917, the Western Pacific Railroad (WPRR) acquired the company and converted the line into a conventional feeder railroad to WPRR's mainline near Manteca.

WORLD WAR II ERA INDUSTRY AND POSTWAR ERA DEVELOPMENT

Transit networks connected the San Joaquin Valley to the rest of the nation and the world, enabling the region to play a major role in World War II efforts. War-related industries and activities brought thousands of people to the San Joaquin Valley. Established in 1942, the San Joaquin Depot was made up of distribution facilities at three separate locations—Tracy, Sharpe (Lathrop), and Stockton's Rough and Ready Island. The depots received, stored, and shipped supplies throughout the United States and the Pacific overseas combat areas. In addition, Permanente Metals, a manufacturer of aircraft parts and magnesium bombs, came to Lathrop. Lathrop was an ideal location for a magnesium plant, because a natural gas pipeline ran underneath the town and was a ready supplier to maintain the numerous furnaces required for production. Between 1942 and 1944, the plant became the most important source of magnesium in California, which was used to make aircraft parts and bombs. During World War II, the government ordered wartime internment of Japanese Americans, depleting Japanese American communities across the United States. Japanese American internees were evacuated and taken to temporary assembly centers, where they were processed and later relocated to larger internment camps. Temporary assembly centers for Japanese American internees were established throughout the San Joaquin Valley in Stockton, Turlock, Salinas, Merced, Fresno, and Tulare. The Stanislaus County Fairgrounds in Turlock operated as a temporary assembly center from April to August 1942. Over 3,500 detainees from the Sacramento River Delta and Los Angeles areas were held at this location before being transported to a permanent internment camp in Gila, New Mexico.

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

POST-WORLD WAR II COMMERCIAL WAREHOUSES

Warehouse buildings' main function centers on goods (e.g., storing, processing, distributing, and often light manufacturing). Warehouse buildings exhibit utilitarian features by the nature of their use. Several issues have historically inspired their design. Fire safety and theft prevention needs resulted in builders using thick masonry walls and fire-resistant materials, such as iron for doors and shutters. The need to economize space led to the elimination of features, such as interior ceilings, partitions, and exterior ornamentation. Changing construction technologies allowed builders to adapt warehouse designs, from load-bearing brick to concrete construction (Page & Turnbull, Inc. 2009:93).

In 1916, creation of the forklift enabled warehouses to be organized more compactly, eventually changing the building typology from a multistory to single-story construction. Because of their utilitarian nature, warehouses often have compact rectangular footprints, with building heights made to accommodate multiple, stacked shipping pallets for storage. During the post-World War II period, warehouse development increased across the nation as industry became decentralized through the use of automobile/truck transportation (Munce 1960:54–55).

As technology improved, warehouses became less dependent on ventilation and natural light. Lighting, air-conditioning, and heating systems were eventually moved inside warehouses, which stripped exterior façades to having few or no windows, further reducing exterior detail. Additionally, as building materials improved, low-cost prefabrication options further stripped warehouse façades. Most warehouses became simple utilitarian buildings with simplistic footprints, boxed massing, flat roofs, and modest siding with exposed concrete or concrete block (Munce 1960:47–48).

Hybrid commercial warehouse buildings are often zoned for commercial use, but their exteriors resemble standard warehouses. Commercial warehouse buildings emerged from the post-World War II era. During that time, commercial warehouse, warehouse, and light-industrial buildings across the United States were built at city peripheries, in areas outside of older downtowns where trucking and shipping of goods could be accommodated. Often cities zoned such developments nearby but not intermixed with new housing developments. Commercial warehouses usually contain smaller business enterprises than dedicated warehouses; they contain space for warehouse use (e.g., storing, processing, and distributing goods), as well as consumer use with designated space for retail.

Commercial warehouse buildings have architectural elements of the standard warehouse typology. Key features include a rectangular footprint, one-story height, simple massing, raised foundation with loading docks, roll-up doors for vehicular use, minimal fenestration or complete lack of windows, utilitarian style, often with no ornamentation, prefabricated materials, and simple siding. In addition to their warehouse function, commercial warehouse buildings also feature architectural elements representing their commercial use, such as a discernable primary entrance, often with glazed doors, interior space for visitors, such as product showrooms, building signage displaying a product name, and adjacent parking for visitors. Finally, some smaller commercial warehouse properties have less interior storage space and rely on paved outdoor lots or yards for mechanical equipment, materials, or vehicles.

PRIOR OWNERSHIP RECORD

Page 5 of 7

*Resource Name or # (Assigned by recorder) 1625-1731 West 16th Street

*Recorded by Joshua Severn, ICF *Date January 22, 2021

☒ Continuation ☐ Update

As of 2021 the property's documented owner is STL Merced LLC. Associated tenants in 2021 include JS Global, United Ceilings, Indmar, and VSI, Veterinary Services Incorporated. As of 2021, the property is advertised for lease by Tinetti Realty Group. (ParcelQuest 2020; Google LLC 2021; LoopNet 2021).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 1725-1731 W 16th has a casual association with the theme of community development in the San Joaquin Valley as a commercial warehouse property located on the outskirts of a population center. Adjacent to the railroad tracks, no research revealed that this property has any important association with the early development of the SPRR within the San Joaquin Valley, which predates the building's c. 1945 construction year. No research shows an important association between this property and other developments in railroading in the San Joaquin Valley. No evidence suggests that 1725-1731 W 16th best embodies "new agricultural, industrial, and real estate industries" that emerged in San Joaquin, Stanislaus, and Merced counties after World War II which influenced residential and population growth. No evidence suggests this property has an important association with the internment of Japanese Americans in World War II or the period of California's development during the Spanish or Mexican periods. No evidence connects this commercial warehouse building to the themes of growing transportation networks, military infrastructure and logistical development, or other wartime and early postwar themes of historic significance. Finally, while the property does reflect commercial warehouse typology in the postwar period, no evidence suggests this building best reflects early adoption of the development in the Merced area or that the building imparted an important influence on the development of the building type. Thus, 1725-1731 W 16th does not appear significant NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion B or CRHR Criterion 2, 1725-1731 W 16th does not appear to have an association with any significant persons important to history. Research revealed limited records about past owners of the resource. Investigation into STL Merced LLC or Tinetti Realty Group revealed no evidence of work significant to history. Research revealed no works of current occupants that rise to historic significance with important associations to the property. Due to COVID-19 research constraints, research only uncovered minimal information about property ownership. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3, 1725-1731 W 16th does not appear to have architectural significance. 1725-1731 W 16th reflects common hallmarks of the warehouse typology, including modest exterior architectural embellishments, fire-resistant wall cladding and construction materials, simple rectangular footprints, modest utilitarian fenestration patterns, industrial type roll-top doors, metal pedestrian doors and clearly defined commercial entrances with secure locking mechanisms, and raised concrete loading docks with canopies. Commercial warehousing dates to the immediate postwar period as technology surrounding organization and storage of products improved throughout World War II. Warehouse properties became ubiquitous across the country as transportation networks improved in the 1950s and warehouse construction and use expanded on the fringes of established communities where space allowed greater functionality. These types of properties rarely express a distinct architectural style, which reflects their utilitarian function of materials storage, processing, and light manufacturing. While this building's original construction dates to the early postwar period, no evidence highlights 1725-1731 W 16th has any architectural significance or character such that it best embodies unique features of the building type. No evidence suggests that the commercial warehouse building has any connections to a master builder or architect nor that the warehouse building best reflects a particular method, type, or period of construction. The secondary warehouse building dates to between 1998 and 2005 and itself does not reflect a high-style example of a historic method, type, or period of construction. No evidence suggests that 1725-1731 W 16th reflects the first, foremost, or innovative example of these building typologies. The property does not display high artistic values. Thus, 1725-1731 W 16th does not appear significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that 1725-1731 W 16th is not likely to yield information important to history. Thus, the property does not appear significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 1725-1731 W 16th is not eligible for listing in the NRHP/CRHR as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

Burton, Jeffery F., Mary M. Farrell, Florence B. Lord, and Richard W. Lord. 2000. "Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites." In *Publications in Anthropology* 74 (Revised). Tucson, AZ: Western Archaeological and Conservation Center, National Park Service, U.S. Department of the Interior.

California Military Department. 2016. *California and the Second World War: San Francisco Metropolitan Area during World*

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____

Page 6 of 7

*Resource Name or # (Assigned by recorder) 1625-1731 West 16th Street

*Recorded by Joshua Severn, ICF *Date January 22, 2021

☒ Continuation ☐ Update

War II. Sacramento, CA: California State Military Museums. Available: <http://www.militarymuseum.org/SFWWII.html>. Accessed December 11, 2020.

Google, LLC. *Google Maps*. Available: maps.google.com. Accessed: December 11, 2020.

Hillman, R. and L. Covello. 1985. *Cities and Towns of San Joaquin County since 1847*. Fresno, CA: Panorama West Books.

Munce, James F. 1960. *Industrial Architecture: An Analysis of International Building Practice*. F. W. Dodge Corporation, New York, New York.

LoopNet.com. 2021. *1725-1731 W 16th Street, Merced, CA*. Electronic Document. Available: <https://www.loopnet.com/Listing/1725-1731-W-16th-St-Merced-CA/19938799>. Accessed: January 22, 2021.

Nationwide Environmental Title Research LLC. 1946, 1958, 1998, 2005, 2016. *1725-1731 W 16th Street, Merced, CA*. Available: <https://historicaerials.com/>. Accessed: January 22, 2021.

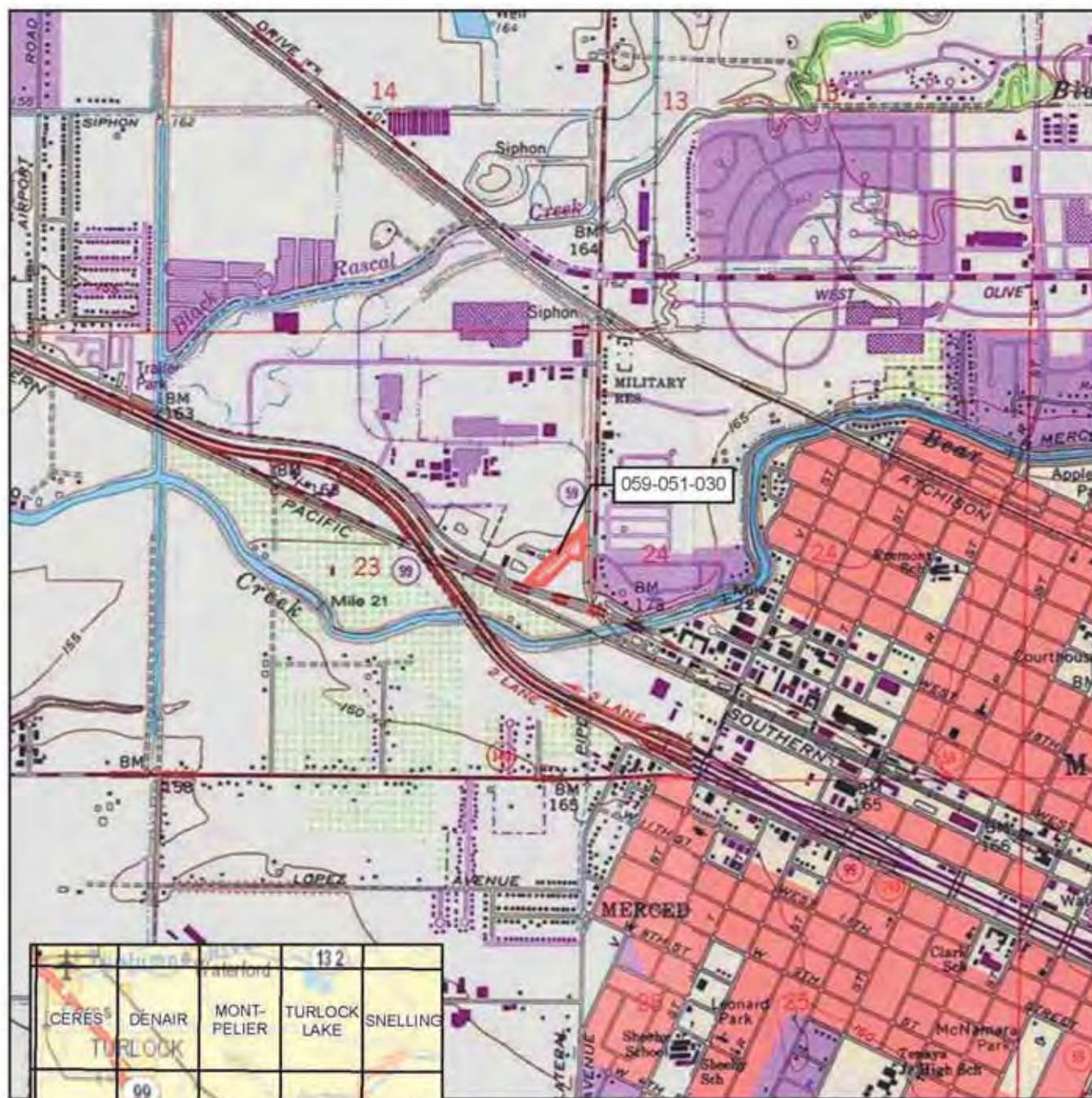
Page & Turnbull, Inc. 2009. "South of Market Area, San Francisco, California Historic Context Statement." Final. Prepared for City and County of San Francisco Planning Department.

ParcelQuest. 2020. *1725-1731 W 16th Street, Merced, CA*. Available: <https://pqweb.parcelquest.com/#home>. Accessed January 22, 2021.

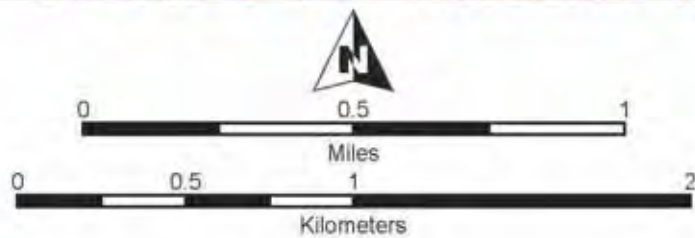
Rice, Richard, William Bullough, and Richard Orsi. 1988. *The Elusive Eden: A New History of California*. McGraw-Hill, Inc. New York, NY.

United States Geological Survey. 1948. *Atwater Quadrangle* [map]. 1:24,000. Electronic Document. Available: <https://ngmdb.usgs.gov/topoview/viewer/#13/37.3108/-120.5231>. Accessed January 22, 2021.

LOCATION MAP



Key to USGS 7.5' quads depicted



SCALE 1:24,000

UPDATE SHEET

Page 1 of 3

Resource Name or #:(Assigned by recorder) Highway 59

Map ID #: 2021-27

☐ Continuation ☒ Update

P1. Other Identifier: N/A

*** P3a. Description:** This resource is a .08 mile segment of Highway 59 in Merced, northwest of North Bear Creek Court. The segment is a two-lane paved asphalt road running north/south with a paved shoulder. The road appears to have been widened, repaved, and patched. Within the surveyed segment the road parallels railroad tracks and a small distribution line (electrical).

P3b. Resource Attributes: AH7. Road

P5a. Photograph: Highway 59 view south, 2020.



*** P8. Recorded by:** (Name, affiliation, address) Christine Cruie, ICF, 980 9th Street, Suite 1200, Sacramento, CA 95814

*** P9. Date Recorded:** July 06, 2020

*** P10. Survey Type:** Intensive

*** P11. Report Citation:** ICF. 2020. *ACE Extension Ceres to Merced. Administrative Draft Environmental Impact Report*. March. (ICF 00144.20) San Francisco, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

B10. Significance:

UPDATE SHEET

Page 2 of 3

Resource Name or #:(Assigned by recorder) Highway 59

Map ID #: 2021-27

☐ Continuation ☒ Update

Highway 59 was recorded and evaluated by Frank Lortie of Caltrans in 2002. Lortie found the road not eligible for the NRHP or CRHR under any criterion and further noted the road has been widened and paved in the twentieth century multiple times, effecting its integrity.

Highway 59 appears to have been first used as passage to downtown Merced from northern localities in the 1880s, after the arrival of the Southern Pacific made Merced the county seat, taking the honor from Snelling, which was connected to Merced by Snelling Road and Highway 59. The highway was also known as Legislative Route Number 123 in 1933, when Caltrans acquired the right-of-way, and the route was paved in 1936. It was officially defined in January 1961 (CAhighways.org). The road has previously and currently serves as a local artery connecting farmland with downtown Merced.

After review of the previous recordation and current field check and research, this Update concurs with Lortie's evaluation. Highway 59 does not appear to meet the criteria for listing in the NRHP or the CRHR and is not a historical resource for purposes CEQA. The segment has been 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.

Sources:

Cahighways.org. "Route 59". Accessed January 4, 2021. <https://www.cahighways.org/ROUTE059.html>

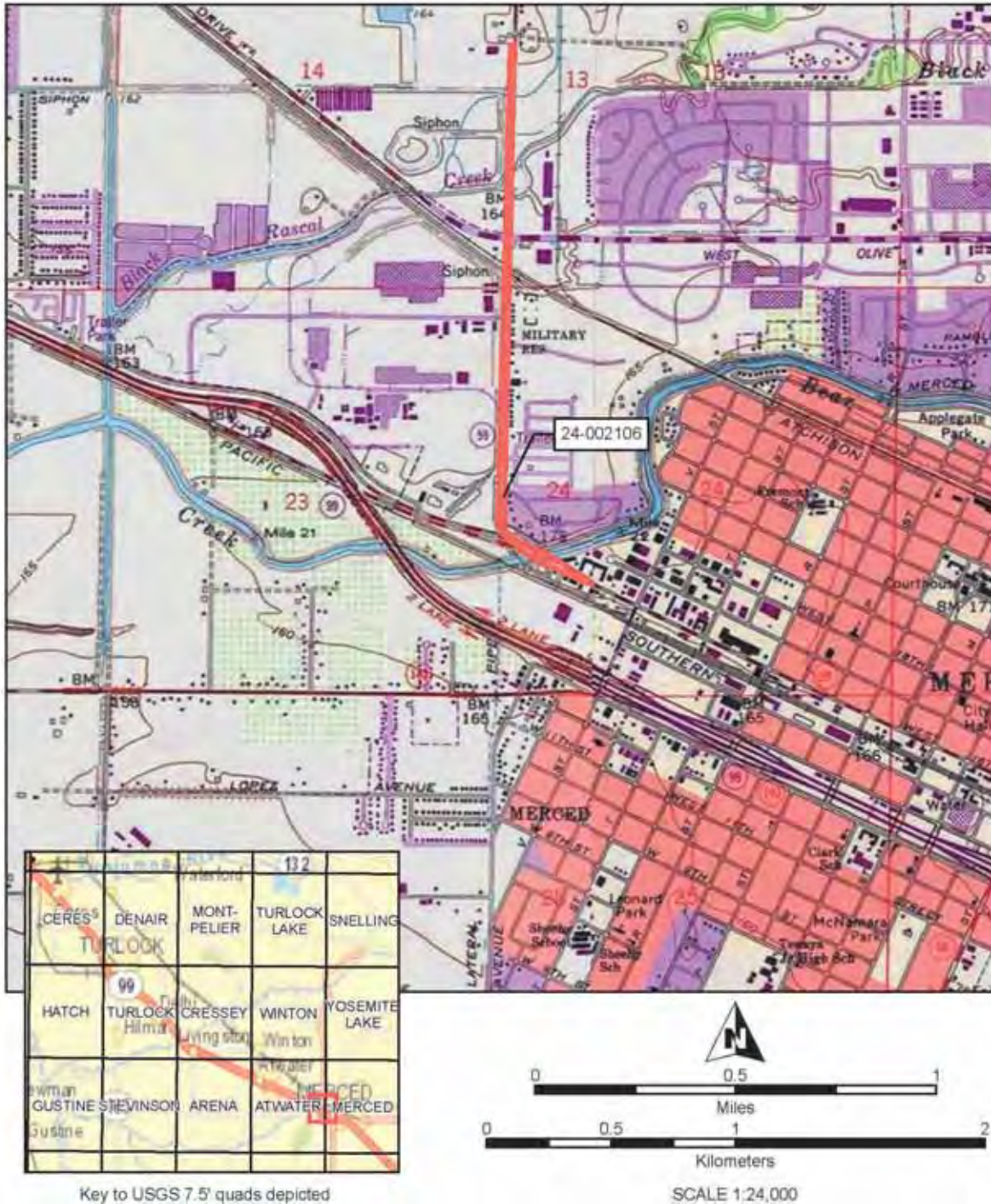
UPDATE SHEET

Page 3 of 3

Resource Name or #:(Assigned by recorder) Highway 59

Map ID #: 2021-27

☐ Continuation ☒ Update



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*NRHP Status Code 6Z
*Resource Name or # 933 West 15th Street

P1. Other Identifier: 2021-28

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced

*b. USGS 7.5' Quad Merced Date 1961 T _____; R _____; $\frac{1}{4}$ of $\frac{1}{4}$ of Sec: _____; _____ B.M.

c. Address: 933 West 15th Street City: Merced, CA Zip: 95340

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

APN(s): 031173013000, 031173014000, and 031173015000

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The property at 933 West 15th Street spans three parcels covering 1.78 acres and contains a print shop, food service, and warehouse building 1.5 blocks north of State Route (SR) 99 in southwest Merced. West 15th Street runs along an east-west alignment parallel and south of the railroad tracks and north of SR 99 between two north-south arterial routes R Street and M Street in a "Thoroughfare Commercial" zoned neighborhood. 933 West 15th Street occupies a neighborhood with small commercial businesses, office parks, and gated residential communities. The building dates to c.1958 and is set back from West 15th Avenue to accommodate roadside parking lot and driveway. The building has a wide rectangular footprint and three distinct building volumes. (see continuation sheet)

*P3b. Resource Attributes: (List attributes and codes) HP14 Government building, HP8 Industrial building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) June 2020, south and east elevations, facing north. ICF. 2020.

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both

*P7. Owner and Address:

Merced City School District
444 W 23rd Street
Merced, CA 95340

*P8. Recorded by: (Name, affiliation, address)

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*P9. Date Recorded: June 12, 2020

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation:

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 6

*NRHP Status Code 6Z
*Resource Name or # 933 West 15th Street

B1. Historic Name: N/A

B2. Common Name: Merced City School District Print Shop, Food Services, Warehouse

B3. Original Use: Government

B4. Present Use: Government

***B5. Architectural Style:** Industrial/utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations) The building dates to c. 1958 per comparison of historic aerial photographs dated to 1946 and 1958. In 1958 the center volume appears in the same footprint as in 2020 aerial photographs, and lacks evidence of major additions or alterations. The western volume lacks expression and reflects a post-1958 addition dating before 1999. The easternmost volume appears as of 1958 however with a smaller footprint, suggesting a new roof or alterations by 1999. No evidence of other major additions or alterations appear in the historical aerial photographs (Nationwide Environmental Title Research LLC 1946, 1958; Google LLC).

***B7. Moved?** ☒ No ☐ Yes

Date: N/A

Original Location: X

***B8. Related Features:** N/A

B9. Architect: Unknown

b. Builder: Unknown

***B10. Significance:**

Theme N/A

Area Merced, CA

Period of Significance N/A **Property Type** Industrial/Government

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 933 West 15th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property retains integrity to its original construction and does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

See continuation sheet.

B13. Remarks:

***B14. Evaluator:**

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

***Date of Evaluation:**

November 17, 2020

(This space reserved for official comments.)



Description (continued)

The westernmost volume features a low-pitch side gable-roof and corrugated metal-clad volume with a concrete foundation and a covered loading bay facing West 15th Street. A small, fenced area and utility shed fronts this volume. The roof line features a distinct step down to the loading dock area moving east, where the roof transitions to a low-pitched shed-style angled down towards the east and center volume. The center volume appears as the oldest part of the building, featuring cinderblock construction with a combination flat and rainbow roof clad in black roofing material. Rows of windows clad in opaque material appear under the two arches on the façade, surrounding with corrugated metal sheeting on the walls. Six loading docks along the façade with roll-top style industrial doors. Windows along this elevation feature one multi-pane window with unknown frame materials near the loading bay doors, a large window just east of the main pedestrian entrance masked by opaque materials and having unknown features, and a small metal-framed two-light slider window along the eastern segment of this volume. A centrally located pedestrian entrance appears on the facade with signage labeling the building as a “Modesto City School District” property and that the building houses the Food Service and Print Shop departments and functions as a Warehouse. The sign notes the building address as 933 West 15th Street. A small secondary entrance appears along the easternmost area of this volume with cinderblock stairs and a metal guard railing. A prominent projecting canopy clad in rust-red corrugated metal sheeting projects from the façade towards West 15th Street, sheltering the main pedestrian entrance and five of the six loading back docks. A prominent wheelchair ramp runs from the parking lot at ground level to the main pedestrian entrance and the loading dock level.

A small cinderblock and corrugated metal, shed-style roofed volume, easternmost on the building, appears clad in corrugated metal sheeting and features a large horizontal-sliding metal doorway mounted to a track. A small, fenced parking area abuts the eastern border of the easternmost parcel. No other window features appear on the façade or the east elevation. The north elevation of this property features two additional loading bay doors and a second row of opaque windows along the arched roof, but no other secondary entrances or windows appear. Overall, the property is in good condition.

*B10. Significance: (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for 933 West 15th Street include the history of the San Joaquin Valley, World War II Era Industry and Postwar Era Development, and post-World War II commercial warehouses.

SAN JOAQUIN VALLEY

Early European exploration of the coastal and inland trade routes of what became California began in the 1500s, but more than a century passed before Spain mounted a concerted colonization effort. The historical era in California began with Spanish colonization and is often divided into three distinctive chronological and historical periods: the Spanish or Mission Period (1542–1821), the Mexican or Rancho Period (1821–1848), and the American Period (1848–present). After Mexican independence in 1821, rule transitioned to the newly-established country of Mexico. The United States took control of California after the Mexican-American War in 1848 with the signing of the Treaty of Guadalupe Hidalgo. California became a state in 1850, and the development patterns in the state during the late nineteenth century were characterized by agricultural ventures, ranching, and mining. Explorers, soldiers, missionaries, and ranchers led Spain's colonization effort, although the realities of settling a remote region repeatedly undermined Spain's theory and official policy of colonization. The Spanish government and subsequently the Mexican government issued rancho land grants to reward soldiers, promote settlement in California, and encourage agricultural and ranching enterprises. However, as late as the 1840s, after a century of effort, the region's economy remained colonial, its institutions fragmented, its military power negligible, and its population sparse. The bulk of the more than 800 rancho grants were bestowed during the Mexican Period (Perez 1996). Although exploration of the San Joaquin Valley occurred in the latter half of the Spanish period between 1772 and 1817, it was not until the Mexican Period that Europeans and Euro-Americans began settling in the region. Only one of the numerous ranchos granted between 1841 and 1846 within the San Joaquin Valley intersects the CEQA study area. Rancho Pescadero-Grimes, established in 1843, is in San Joaquin County near the present-day community of Tracy.

WORLD WAR II ERA INDUSTRY AND POSTWAR ERA DEVELOPMENT

Transit networks connected the San Joaquin Valley to the rest of the nation and the world, enabling the region to play a major role in World War II efforts. War-related industries and activities brought thousands of people to the San Joaquin Valley. Established in 1942, the San Joaquin Depot was made up of distribution facilities at three separate locations—Tracy, Sharpe (Lathrop), and Stockton's Rough and Ready Island. The depots received, stored, and shipped supplies throughout the United States and the Pacific overseas combat areas. In addition, Permanente Metals, a manufacturer of aircraft parts and magnesium bombs, came to Lathrop. Lathrop was an ideal location for a magnesium plant, because a natural gas pipeline ran underneath the town and was a ready supplier to maintain the numerous furnaces required for production. Between 1942 and 1944, the plant became the most important source of magnesium in California, which was used to make aircraft parts and bombs. During World War II, the government ordered wartime internment of Japanese Americans, depleting Japanese American communities across the United States.

Page 4 of 6

*Resource Name or # (Assigned by recorder) 933 West 15th Street

*Recorded by Joshua Severn, ICF *Date November 17, 2020 ☒ Continuation ☐ Update

Japanese American internees were evacuated and taken to temporary assembly centers, where they were processed and later relocated to larger internment camps. Temporary assembly centers for Japanese American internees were established throughout the San Joaquin Valley in Stockton, Turlock, Salinas, Merced, Fresno, and Tulare. The Stanislaus County Fairgrounds in Turlock operated as a temporary assembly center from April to August 1942. Over 3,500 detainees from the Sacramento River Delta and Los Angeles areas were held at this location before being transported to a permanent internment camp in Gila, New Mexico.

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

Evidence from tax records suggests that the Merced City School District has held the property since at least October 1969, which marks the only documented year of a transfer (Document #1970R6912636) for 933 West 15th Street. (ParcelQuest 2020)

POST-WORLD WAR II COMMERCIAL WAREHOUSES

Warehouse buildings' main function centers on goods (e.g., storing, processing, distributing, and often light manufacturing). Warehouse buildings exhibit utilitarian features by the nature of their use. Several issues have historically inspired their design. Fire safety and theft prevention needs resulted in builders using thick masonry walls and fire-resistant materials, such as iron for doors and shutters. The need to economize space led to the elimination of features, such as interior ceilings, partitions, and exterior ornamentation. Changing construction technologies allowed builders to adapt warehouse designs, from load-bearing brick to concrete construction (Page & Turnbull, Inc. 2009:93).

In 1916, creation of the forklift enabled warehouses to be organized more compactly, eventually changing the building typology from a multistory to single-story construction. Because of their utilitarian nature, warehouses often have compact rectangular footprints, with building heights made to accommodate multiple, stacked shipping pallets for storage. During the post-World War II period, warehouse development increased across the nation as industry became decentralized through the use of automobile/truck transportation (Munce 1960:54–55).

As technology improved, warehouses became less dependent on ventilation and natural light. Lighting, air-conditioning, and heating systems were eventually moved inside warehouses, which stripped exterior façades to having few or no windows, further reducing exterior detail. Additionally, as building materials improved, low-cost prefabrication options further stripped warehouse façades. Most warehouses became simple utilitarian buildings with simplistic footprints, boxed massing, flat roofs, and modest siding with exposed concrete or concrete block (Munce 1960:47–48).

Hybrid commercial warehouse buildings are often zoned for commercial use, but their exteriors resemble standard warehouses. Commercial warehouse buildings emerged from the post-World War II era. During that time, commercial warehouse, warehouse, and light-industrial buildings across the United States were built at city peripheries, in areas outside of older downtowns where trucking and shipping of goods could be accommodated. Often cities zoned such developments nearby but not intermixed with new housing developments. Commercial warehouses usually contain smaller business enterprises than dedicated warehouses; they contain space for warehouse use (e.g., storing, processing, and distributing goods), as well as consumer use with designated space for retail.

Commercial warehouse buildings have architectural elements of the standard warehouse typology. Key features include a rectangular footprint, one-story height, simple massing, raised foundation with loading docks, roll-up doors for vehicular use, minimal fenestration or complete lack of windows, utilitarian style, often with no ornamentation, prefabricated materials, and simple siding. In addition to their warehouse function, commercial warehouse buildings also feature architectural elements representing their commercial use, such as a discernable primary entrance, often with glazed doors, interior space for visitors, such as product showrooms, building signage displaying a product name, and adjacent parking for visitors. Finally, some smaller commercial warehouse properties have less interior storage space and rely on paved outdoor lots or yards for mechanical equipment, materials, or vehicles.

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 933 West 15th Street has casual association with the theme of postwar era development within San Joaquin County due to its current use as a school district property reflective of the institutions necessary to support an expanding residential population. Beyond this casual association, however, no evidence suggests that this property has an "important association," as defined in National Park Service (NPS) National Register Bulletin 15, such that it would rise to historic significance. No evidence shows that this property best embodies the postwar expansion of agricultural, industrial, or real estate industries within Merced or neighboring counties, nor that it reflects World War II events like the Japanese internment or early developments in the San Joaquin Valley tied to early colonization by Spanish or Mexican residents. Thus, 933 West 15th Street does not appear significant NRHP Criterion A or CRHR Criterion 1.

Page 5 of 6

*Resource Name or # (Assigned by recorder) 933 West 15th Street

*Recorded by Joshua Severn, ICF *Date November 17, 2020 ☒ Continuation ☐ Update

Under NRHP Criterion B or CRHR Criterion 2, 33 West 15th Street does not appear to have an association with any significant persons important to history. Research revealed limited records about past owners of 933 West 15th Street and due to COVID-19 research constraints, research only uncovered minimal information about property ownership prior to 1969. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3 933 West 15th Street does not appear to have architectural significance. The Merced City School District print shop building makes use of ubiquitous warehouse characteristics including fire-resistant cinderblock walls, corrugated metal wall cladding, industrial-style bay doors, metal industrial pedestrian doors, and minimal architectural embellishment. With a dedicated pedestrian entryway and off-street parking lot this building also displays some characteristics of the commercial warehouse. Overall, it lacks a definitive architectural style not embodied by other mid-twentieth century industrial and commercial warehouse buildings. The building has non-original additions to the west and east elevations that lack coherence with the building's original design. While embodying characteristics of the industrial and commercial warehouse types, no evidence suggests this building reflects an important example of a type, period, or method of construction. No evidence shows that this building emerged from the work of a master designer or builder. The building lacks high artistic values. Thus, 933 West 15th Street does not appear significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that this built environment resource is not likely to yield information important to history. Thus, 933 West 15th Street does not appear significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 933 West 15th Street is not eligible for listing in the NRHP/CRHR as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

Bureau of Land Management. 2011. "Public Land Survey System Data for California." Available: https://www.geocommunicator.gov/Geocomm/Isis_home/home/index.htm. Accessed February 2016.

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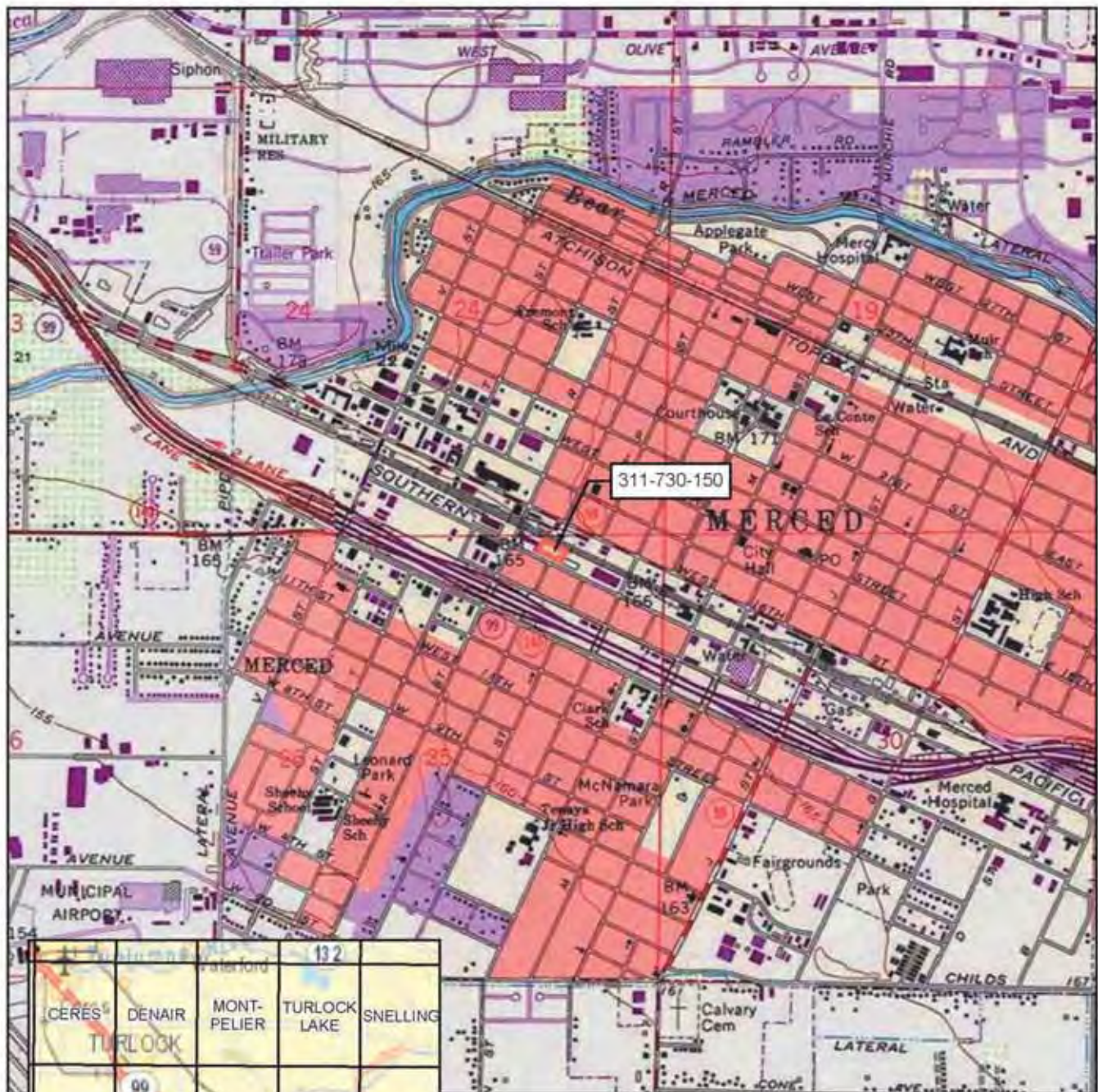
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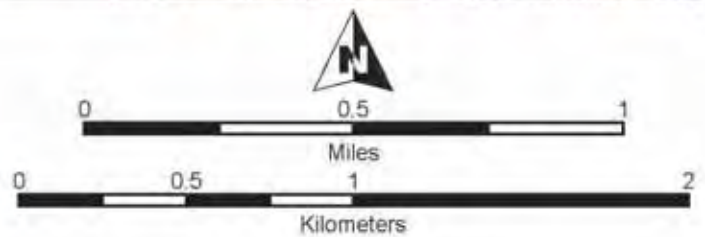
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LOCATION MAP



Key to USGS 7.5' quads depicted



SCALE 1:24,000

PRIMARY RECORD

Primary # _____

HRI # _____

Trinomial _____

NRHP Status Code _____

Other Listings _____

Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*NRHP Status Code 6Z

*Resource Name or # 948 West 15th Street

P1. Other Identifier: 2021-29; TBA Auto Parts

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced

*b. USGS 7.5' Quad _____ Date _____ T _____; R _____; ¼ of _____ ¼ of Sec: _____; _____ B.M.

c. Address: 948 West 15th Street City: Merced, CA Zip: 95340

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

948 West 15th Street consists of two connected buildings that form one large commercial warehouse spanning two parcels (934 West 15th and 948 West 15th) and bounded by West 15th Street, Q Street, P Street, and an alley in southwest Merced, CA. The property occupies a neighborhood consisting of small pockets of residential properties and commercial businesses north of California State Route (SR) 99. The commercial warehouse building has a low-pitched combination roof with two front gabled roof sections connected with shed-style portions clad in corrugated sheet metal. (See continuation sheet.)

*P3b. Resource Attributes: (List attributes and codes) HP6: 1-3 story commercial building; HP8: Industrial building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) TBA Auto Parts, June 2020, view facing southwest, portions of the north and east elevations. ICF.

*P6. Date Constructed/Age and Sources:

☒ Historic ☐ Prehistoric ☐ Both
c. 1958 (historic aerial photograph)

*P7. Owner and Address:

Williams TBA Supply Co Inc A Corporation
934 W 15th St
Merced, CA, 95340

*P8. Recorded by: (Name, affiliation, address)

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*P9. Date Recorded: June 12, 2020

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: ICF. 2021. Historical Resource Inventory and Evaluation Report, San Joaquin Regional Rail Commission, ACE Ceres to Merced Extension. March. (ICF 00144.20). Sacramento, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 6

*NRHP Status Code 6Z
*Resource Name or # 948 West 15th Street

B1. Historic Name:

B2. Common Name: TBA Auto Parts

B3. Original Use: Unknown

B4. Present Use: Commercial

***B5. Architectural Style:** Utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations)

The commercial warehouse dates to c. 1958. According to historic aerial photographs the subject parcels were residential parcels in that year. According to Sanborn Maps available for the year 1950, the subject parcels had two residential dwellings. By 1958 aerial photographs the western portion of the building appears, neighboring a residential property that sits on the eastern parcel. The subject property expresses the same footprint in 1999 aerial photographs as in present 2020 aerial photographs with no evidence of alterations or additions to the property after this year. (Nationwide Environmental Title Research LLC 1946, 1958, 1999; Sanborn Fire Insurance Co. 1950).

***B7. Moved?** ☒ No ☐ Yes

Date: NA

Original Location: X

***B8. Related Features:** N/A

B9. Architect: Unknown

b. Builder: Unknown

***B10. Significance: Theme** N/A

Area Merced, CA

Period of Significance N/A **Property Type** Commercial

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 948 West 15th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

See continuation sheet.

B13. Remarks:

***B14. Evaluator:**

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

***Date of Evaluation:**

November 27, 2020

(This space reserved for official comments.).



CONTINUATION SHEET

*Recorded by: Joshua Severn

*Date: June 12, 2020 ☒ Continuation ☐ Update

P3a. Description (continued)

The roof has at least two roof-mounted HVAC units and evidence of deferred maintenance on sections. The north-facing façade features hallmarks of commercial warehouse infrastructure, including fire-retardant metal cladding and cinderblock wall construction, metal-framed fixed pane and sliding windows, a clearly defined customer-oriented retail entrance and modest architectural embellishment along multiple elevations. One area features a prominent business sign mounted to the wall within the front gable reading "TBA Auto Parts" while a second area displays a three-section white sign reading "TBA Auto Parts" and "Federated Auto Parts" with a logo on an elongated false parapet. The façade has two metal industrial sectioned garage doors facing West 15th Street as well as a secondary entrance featuring a metal-framed door and a fixed-pane metal framed glass panel. Both entrances feature blue metal awnings. The west elevation shows the low pitch of the corrugated metal clad roof and a small southward section where the building widens. No other windows or secondary entrances appear along this elevation. The south elevations face away from the public right of way but appears to have minimal fenestration and one secondary pedestrian entrance of unknown materials along the eastern half of the elevation. The western portion of the south elevation is gated with a privacy fence. The east elevation reveals a cinderblock wall and no other windows or secondary entrances. The building is in good condition with the western half appearing in fair condition with evidence of deferred maintenance on the roof cladding.

*B10. Significance: (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for this property include highways and roads, World War II Era Industry and Postwar Era Development and post-World War II commercial warehouses as a building type.

HIGHWAYS AND ROADS

Automobiles and the construction of highways were contributing factors to the growth and development of the San Joaquin Valley during the twentieth century. The most important is SR 99, a major roadway that connected San Joaquin Valley agricultural towns to larger urban markets. During the early twentieth century, plans were made to connect different parts of California with a state highway system, which included a route from the Oregon state line through the Sacramento and San Joaquin valleys to Los Angeles. With the approval of bond issues in 1910, work began to establish Route 3, which ran from Oregon to Sacramento, and Route 4, which connected Sacramento and Los Angeles via the San Joaquin Valley.

Portions of Route 3 north of Sacramento replaced the Siskiyou Trail, an old Native American trail, while other portions of the roadway along Route 4 followed main lines of the SPRR. While portions of this route were still being paved in 1926, it was designated SR 99. The adoption of the interstate system and construction of Interstate (I-) 5 and other interstate routes during the 1960s truncated SR 99, which now runs from near Wheeler Ridge in Kern County north to Red Bluff in Tehama County.

The subject property occupies a parcel just north of present SR99, which routed south of present W 15th Street. According to Sanborn maps dated to 1950 and prior to construction of the warehouse building c. 1958, the parcels had residential dwellings.

WORLD WAR II ERA INDUSTRY AND POSTWAR ERA DEVELOPMENT

Transit networks connected the San Joaquin Valley to the rest of the nation and the world, enabling the region to play a major role in World War II efforts. War-related industries and activities brought thousands of people to the San Joaquin Valley. Established in 1942, the San Joaquin Depot was made up of distribution facilities at three separate locations—Tracy, Sharpe (Lathrop), and Stockton's Rough and Ready Island. The depots received, stored, and shipped supplies throughout the United States and the Pacific overseas combat areas. In addition, Permanente Metals, a manufacturer of aircraft parts and magnesium bombs, came to Lathrop. Lathrop was an ideal location for a magnesium plant, because a natural gas pipeline ran underneath the town and was a ready supplier to maintain the numerous furnaces required for production. Between 1942 and 1944, the plant became the most important source of magnesium in California, which was used to make aircraft parts and bombs. During World War II, the government ordered wartime internment of Japanese Americans, depleting Japanese American communities across the United States. Japanese American internees were evacuated and taken to temporary assembly centers, where they were processed and later relocated to larger internment camps. Temporary assembly centers for Japanese American internees were established throughout the San Joaquin Valley in Stockton, Turlock, Salinas, Merced, Fresno, and Tulare. The Stanislaus County Fairgrounds in Turlock operated as a temporary assembly center from April to August 1942. Over 3,500 detainees from the Sacramento River Delta and Los Angeles areas were held at this location before being transported to a permanent internment camp in Gila, New Mexico.

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

POST-WORLD WAR II COMMERCIAL WAREHOUSES

CONTINUATION SHEET

Primary #
HRI#

Trinomial

Page 4 of 6

*Resource Name or # (Assigned by recorder) 948 West 15th Street

*Recorded by: Joshua Severn

*Date: June 12, 2020 ☒ Continuation ☐ Update

Warehouse buildings' main function centers on goods (e.g., storing, processing, distributing, and often light manufacturing). Warehouse buildings exhibit utilitarian features by the nature of their use. Several issues have historically inspired their design. Fire safety and theft prevention needs resulted in builders using thick masonry walls and fire-resistant materials, such as iron for doors and shutters. The need to economize space led to the elimination of features, such as interior ceilings, partitions, and exterior ornamentation. Changing construction technologies allowed builders to adapt warehouse designs, from load-bearing brick to concrete construction (Page & Turnbull, Inc. 2009:93).

In 1916, creation of the forklift enabled warehouses to be organized more compactly, eventually changing the building typology from a multistory to single-story construction. Because of their utilitarian nature, warehouses often have compact rectangular footprints, with building heights made to accommodate multiple, stacked shipping pallets for storage. During the post-World War II period, warehouse development increased across the nation as industry became decentralized through the use of automobile/truck transportation (Munce 1960:54–55).

As technology improved, warehouses became less dependent on ventilation and natural light. Lighting, air-conditioning, and heating systems were eventually moved inside warehouses, which stripped exterior façades to having few or no windows, further reducing exterior detail. Additionally, as building materials improved, low-cost prefabrication options further stripped warehouse façades. Most warehouses became simple utilitarian buildings with simplistic footprints, boxed massing, flat roofs, and modest siding with exposed concrete or concrete block (Munce 1960:47–48).

Hybrid commercial warehouse buildings are often zoned for commercial use, but their exteriors resemble standard warehouses. Commercial warehouse buildings emerged from the post-World War II era. During that time, commercial warehouse, warehouse, and light-industrial buildings across the United States were built at city peripheries, in areas outside of older downtowns where trucking and shipping of goods could be accommodated. Often cities zoned such developments nearby but not intermixed with new housing developments. Commercial warehouses usually contain smaller business enterprises than dedicated warehouses; they contain space for warehouse use (e.g., storing, processing, and distributing goods), as well as consumer use with designated space for retail.

Commercial warehouse buildings have architectural elements of the standard warehouse typology. Key features include a rectangular footprint, one-story height, simple massing, raised foundation with loading docks, roll-up doors for vehicular use, minimal fenestration or complete lack of windows, utilitarian style, often with no ornamentation, prefabricated materials, and simple siding. In addition to their warehouse function, commercial warehouse buildings also feature architectural elements representing their commercial use, such as a discernable primary entrance, often with glazed doors, interior space for visitors, such as product showrooms, building signage displaying a product name, and adjacent parking for visitors. Finally, some smaller commercial warehouse properties have less interior storage space and rely on paved outdoor lots or yards for mechanical equipment, materials, or vehicles.

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 948 West 15th Street has association with the theme of community development in the San Joaquin Valley but no evidence of an important association with any theme of significance. No evidence suggests that 948 West 15th Street best reflects “new agricultural, industrial, and real estate industries” that emerged in San Joaquin, Stanislaus, and Merced Counties after World War II that resulted in residential and population growth. 948 West 15th is in the vicinity of SR99, which orients south of the parcels, however no research revealed that this parcel has an important association with the establishment of the route or its paving and establishment as a State Route in the 1920s. No evidence suggests this building has important association with the internment of Japanese Americans in World War II. Finally, while the extant building is a modest reflection of the rise in commercial warehouses in the postwar period no evidence suggests this building reflects early adoption of the development in the Merced area or that the building imparted an important influence of development of the building type. Thus, 948 West 15th Street does not appear significant NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion B or CRHR Criterion 2, 948 West 15th Street does not appear to have an association with any significant persons important to history. Research into TBA Auto Parts, who filed a Fictitious Business Name Statement in the Merced Sun-Star in November 2019, revealed no of significance to history. Research revealed limited records about past owners of the property. Review of online newspaper databases retrieved no notable connection between significant persons to the area and the parcel address. No research revealed that this property best reflects the location of a historically significant person's productive life. Due to COVID-19 research constraints, research only uncovered minimal information about property ownership. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3 948 West 15th Street does not appear to have architectural significance. 948 West 15th Street reflects hallmarks of the commercial warehouse typology, including a commercial retail entrance, modest architectural embellishment, fire-resistant wall cladding and construction materials, and simple rectangular footprints. Commercial warehousing dates to the postwar period as technology surrounding organization and storage of products improved. Warehouse properties became ubiquitous across the country as transportation networks improved and warehouses on the fringes of established communities expanded. These types of properties rarely express a distinct architectural style which belies their utilitarian function. No evidence suggests that the commercial warehouse property at 948 West 15th Street has any connections to a master builder or architect. No

*Recorded by: Joshua Severn

*Date: June 12, 2020 ☒ Continuation ☐ Update

evidence suggests that this property reflects the first or foremost, novel, or innovative example of this building typology. The property does not display high artistic values. Thus, 948 West 15th Street does not appear significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that 948 West 15th Street is not likely to yield information important to history. Thus, the property does not appear significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 948 West 15th Street is not eligible for listing in the NRHP/CRHR as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

Bureau of Land Management. 2011. "Public Land Survey System Data for California." Available: https://www.geocommunicator.gov/Geocomm/Isis_home/home/index.htm. Accessed February 2016.

Burton, Jeffery F., Mary M. Farrell, Florence B. Lord, and Richard W. Lord. 2000. "Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites." In *Publications in Anthropology* 74 (Revised). Tucson, AZ: Western Archaeological and Conservation Center, National Park Service, U.S. Department of the Interior.

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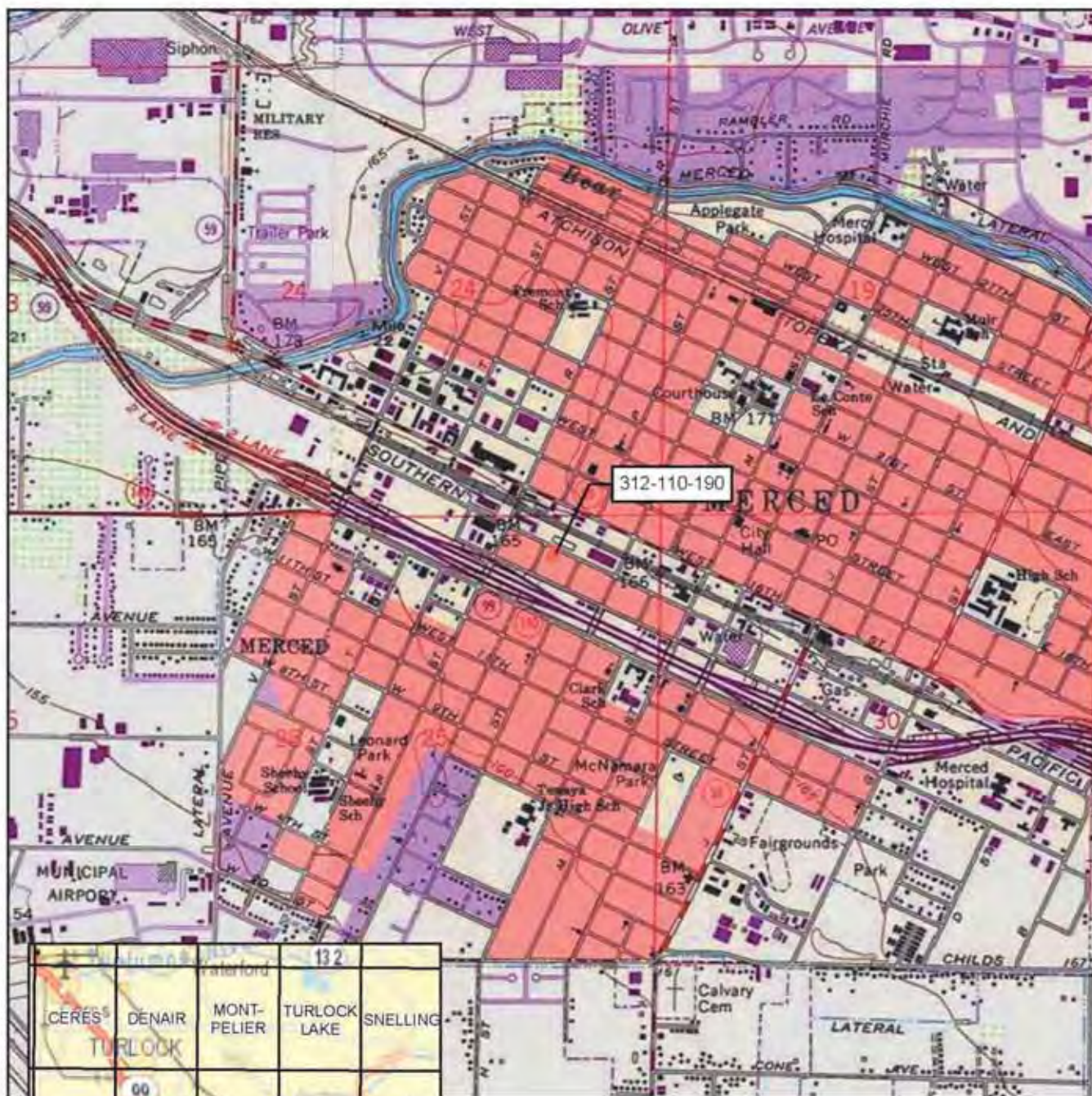
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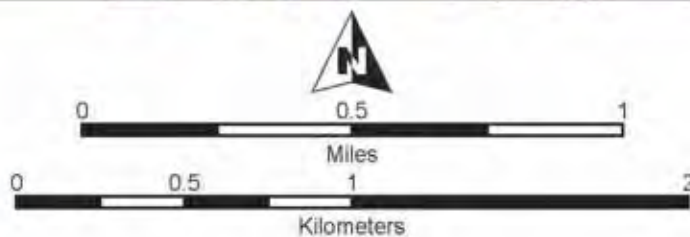
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LOCATION MAP



Key to USGS 7.5' quads depicted



SCALE 1:24,000

PRIMARY RECORD

Primary # _____

HRI # _____

Trinomial _____

NRHP Status Code 6Z

Other Listings _____

Review Code _____ Reviewer _____ Date _____

Page 1 of 5

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 2021-30

P1. Other Identifier: 912 W 15th Street; 2021-30

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced and (P2b and P2c or P2d. Attach a Location Map, as necessary.)

*b. USGS 7.5' Quad Merced Date 1962 (photo revised 1963) T7S; R13E; 1 ¼ of 1 ¼ of Sec: 25; M.D.B.M.

c. Address: 912 W 15th Street City: Merced, CA Zip: 95340

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN 031-211-007-000

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The house at 912 W. 15th Street is a single-story cottage, likely evolved from a simple Hall and Parlor style. The residence is on a raised wooden foundation with wooden clapboard siding and a gable roof of moderate pitch clad in composite shingle. Plain wooden posts support an inset porch, running 2/3 the length of the façade, with the main entry located within the porch. (not visible from right-of-way) and front window. To the west of the front door is a small protruding bay with a shed roof, facing northwest. The windows on all elevations have wooden casements but appear to be replacement aluminum windows likely dating from the second half of the twentieth century. The window type is consistent at all visible elevations, with two windows at the extension, one on the façade to the east of the entrance, and two on the southeast facing elevation. Aerial images indicate the house has a rectangular footprint. Mature trees and plants, including two Italian Cypress at the property line facing 15th Street, surround the property.

*P3b. Resource Attributes: (List attributes and codes) HP2. Single Family Property

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) June 12, 2020, view facing east

*P6. Date Constructed/Age and Sources:

☒ Historic ☐ Prehistoric ☐ Both

1923, Merced County Assessor

*P7. Owner and Address:

Richard Delgado

987 Inverness Way

Sunnyvale CA 94087

*P8. Recorded by: (Name, affiliation, address)

Christine Cruiss

ICF, 980 9th Street, Suite 1200

Sacramento, CA 95814

*P9. Date Recorded: June 12, 2020

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: ICF. 2021. *Historical Resource Inventory and Evaluation Report, San Joaquin Regional Rail Commission, ACE Ceres to Merced Extension*. March. (ICF 00144.20). Sacramento, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record

☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record

☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 5

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 2021-30

B1. Historic Name: N/A

B2. Common Name: N/A

B3. Original Use: Residence

B4. Present Use: Residence

*B5. Architectural Style: Hall and Parlor; cottage

*B6. Construction History: (Construction date, alteration, and date of alterations) Built in 1923. Ancillary building, likely a shed, at the rear of the property demolished c. 2014-2016. Roof, windows and doors all appear to be replacements circa mid-20th century.

*B7. Moved? ☒ No ☐ Yes

Date: N/A

Original Location: N/A

*B8. Related Features: N/A

B9. Architect: Unknown b. Builder: Unknown

*B10. Significance: Theme N/A Area N/A

Period of Significance N/A Property Type N/A

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 912 W 15th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). While the property does retain some degree of integrity to the date of its original construction, it does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes) N/A

*B12. References:

See continuation sheet.

B13. Remarks:

*B14. Evaluator:

Amanda Reese
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*Date of Evaluation:

December 7, 2020

(This space reserved for official comments.)



Page 3 of 5

*Resource Name or # (Assigned by recorder) 2021-30

*Recorded by Christine Cruiss, ICF *Date June 12, 2020 ☒ Continuation ☐ Update

***B10. Significance:** (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for this property include the history and development of the San Joaquin Valley; the development of the railroad in the San Joaquin Valley, and Highways and Roads.

History of the San Joaquin Valley

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

Explorers, soldiers, missionaries, and ranchers led Spain's colonization effort, although the realities of settling a remote region repeatedly undermined Spain's theory and official policy of colonization (Rice et al. 1988). The Spanish government and subsequently the Mexican government issued rancho land grants to reward soldiers, promote settlement in California, and encourage agricultural and ranching enterprises. However, as late as the 1840s, after almost a century of effort, the region's economy remained colonial, its institutions fragmented, its military power negligible, and its population sparse (Rice et al. 1988). The bulk of the more than 800 rancho grants were bestowed during the Mexican Period (Perez 1996). Although exploration of the San Joaquin Valley occurred in the latter half of the Spanish period between 1772 and 1817, it was not until the Mexican Period that Europeans and Euro-Americans began settling in the region. Only one of the numerous ranchos granted between 1841 and 1846 within the San Joaquin Valley intersects the CEQA study area. Rancho Pescadero-Grimes, established in 1843, is in San Joaquin County near the present-day community of Tracy (Bureau of Land Management 2011).

Railroads

At the start of the American Period, development and settlement in California were concentrated north of the San Joaquin Valley as a result of the Gold Rush, which began in 1848. Settlement increased in the San Joaquin Valley when the Transcontinental Railroad was constructed through the area in 1869. The railroad provided easy passenger travel and efficient commercial transport of goods to and from large urban centers such as San Francisco and Sacramento. In San Joaquin County, Lathrop and Manteca were major railroad stops by 1871 and 1873, respectively. Tracy, located west of the ACE Extension study area, was established in 1882 around the junction of three rail lines—the San Francisco Bay Area to San Joaquin County line, the northern line to Martinez County, and the southern line to Los Angeles. In Stanislaus County, several communities developed along the transcontinental railroad including Salida (1869), Modesto (1870), Turlock (1871), and Ceres (1874).

Construction of the San Joaquin Valley mainline of the Southern Pacific Railroad (SPRR), which was originally known as the San Joaquin Valley Railroad, began in 1869. The railroad branched off the transcontinental line at the newly established town of Lathrop in San Joaquin County. From 1870 to 1880, the population of the San Joaquin Valley increased by 40 percent (U.S. Census Bureau 1900), and the SPRR established 50 stations in the San Joaquin Valley, 24 of which became town sites. Eight of those sites became major towns, including Modesto, Turlock, and Merced (Carothers 1934; Angermeier 1968; Smith 1976).

Highways and Roads

Automobiles and the construction of highways were contributing factors to the growth and development of the San Joaquin Valley during the twentieth century. Perhaps the most important is SR 99, a major roadway that connected San Joaquin Valley agricultural towns to larger urban markets. During the early twentieth century, plans were made to connect different parts of California with a state highway system, which included a route from the Oregon state line through the Sacramento and San Joaquin valleys to Los Angeles. With the approval of bond issues in 1910, work began to establish Route 3, which ran from Oregon to Sacramento, and Route 4, which connected Sacramento and Los Angeles via the San Joaquin Valley (U.S. Department of Transportation 2016). Portions of Route 3 north of Sacramento replaced the Siskiyou Trail, an old Native American trail, while other portions of the roadway along Route 4 followed main lines of the SPRR. While portions of this route were still being paved in 1926, it was designated SR 99 (U.S. Department of Transportation 2016). The adoption of the interstate system and construction of Interstate (I-) 5 and other interstate routes during the 1960s truncated SR 99, which now runs from near Wheeler Ridge in Kern County north to Red Bluff in Tehama County (California Highways 2016a).

The property at 912 W 15th Street was constructed in 1923 and extremely limited information about its prior occupants could be obtained due to research restrictions during the COVID-19 pandemic. Its development is likely related to the railroad nearby.

Page 4 of 5

*Resource Name or # (Assigned by recorder) 2021-30

*Recorded by Christine Cruie, ICF *Date June 12, 2020 ☒ Continuation ☐ Update

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 912 W 15th Street does not possess significance. Research indicates the property was part of the typical urban outgrowth of downtown Merced, likely related to the rail line located to the northeast, for ease of access to transportation and commerce. It does not appear to be related to pioneer residential development in Merced, instead representing the haphazard settlement patterns common among the small narrow lots located to the southwest of the rail line and downtown Merced. Residential development is usually considered significant under NRHP Criterion A and CRHR Criterion 1 when associated with trends and events that have made a significant contribution to the broad patterns of history, particularly events that have had a lasting influence on the community and/or economic history of a locale or region. However, given the lack of information regarding the residence at 912 W. 15th Street as well as about development of the lots along 15th Street in general, it does not appear to have had a lasting influence on the community, instead representing simple patterns of development within Merced. Thus, 912 W 15th Street does not appear significant NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion B or CRHR Criterion 2, this property does not appear to have an association with any significant persons important to history. Research revealed limited records about past owners of the resource. Due to COVID-19 research constraints, research only uncovered minimal information about property ownership. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3 this property does not appear to have architectural significance. It is not the work of a master, or representative of a particular style, instead demonstrating inexpensive wooden construction in the Hall and Parlor style popular in the early twentieth century in the San Joaquin Valley. Furthermore, the residence has been altered, with new roofing material, windows, and doors, as well as potential additions such as the protruding bay at the façade, which impede its ability to communicate its build date. Thus, 912 W 15th Street does not appear significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that this built environment resource is not likely to yield information important to history. Thus, 912 W 15th Street is not significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 912 W 15th Street is not eligible for listing in the NRHP/CRHR as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

Angermeier, Robert. 1968 Towns of San Joaquin County 1832-1968. San Joaquin Historian, Volume IV, Number 1, January 1968. Lodi, CA: San Joaquin County Historical Society.

Bureau of Land Management. 2011. Public Land Survey System Data for California. Available at http://www.geocommunicator.gov/Geocomm/Isis_home/home/index.htm. Accessed February 2016.

California Highways. 2016a. Interstate 5. Available at <http://www.cahighways.org/001-008.html#005>. Accessed February 2016.

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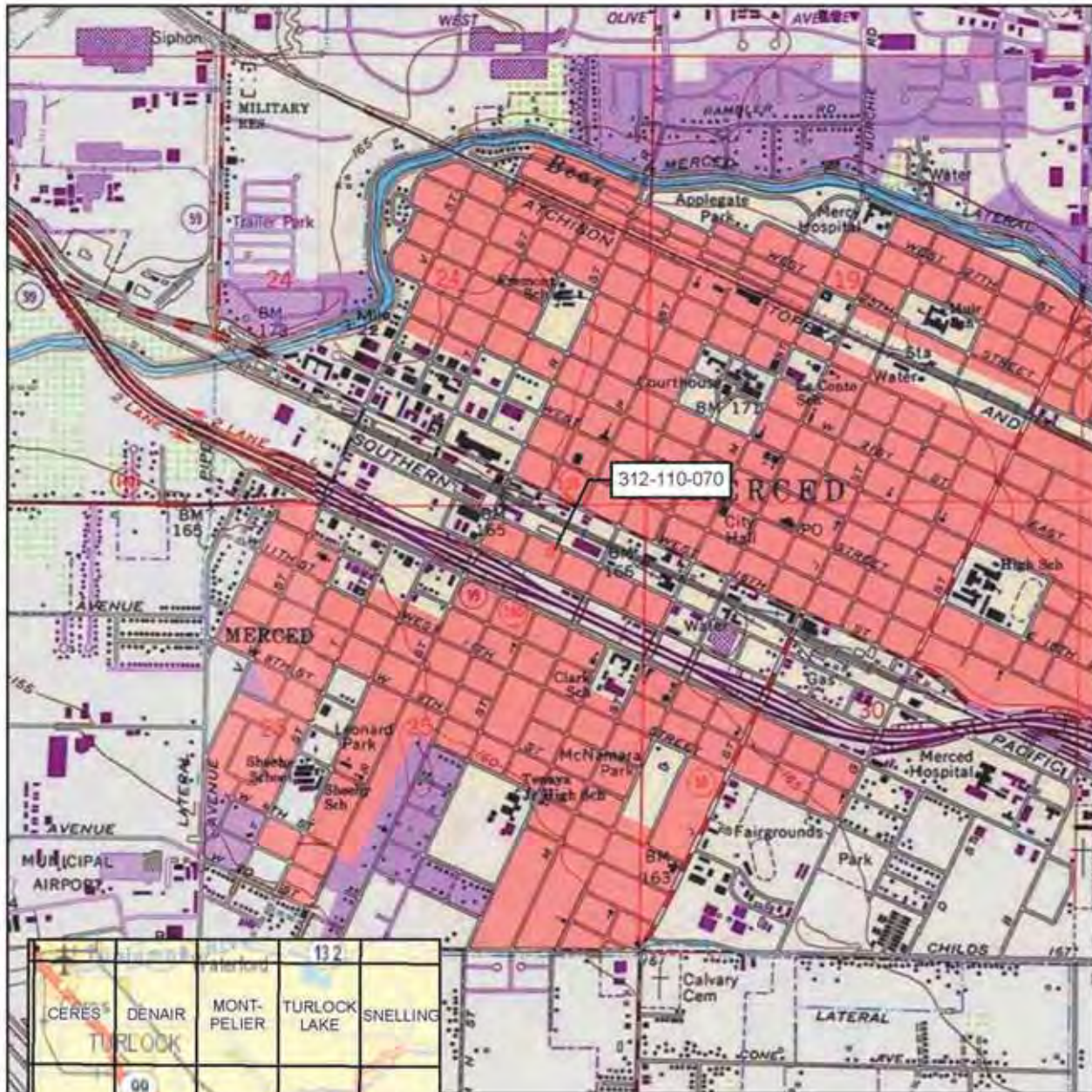
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Rice, Richard, William Bullough, and Richard Orsi. 1988. The Elusive Eden: A New History of California. New York, NY: McGraw-Hill, Inc.

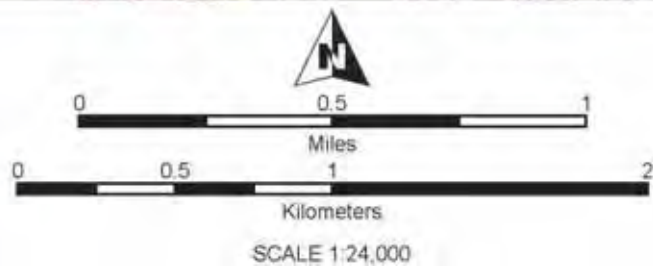
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U.S. Department of Transportation. 2016. Economic Development History of State Route 99 in California. Available at http://www.fhwa.dot.gov/planning/economic_development/studies/sr99ca.cfm. Accessed February 2016.

LOCATION MAP



Key to USGS 7.5' quads depicted



PRIMARY RECORD

Primary # _____

HRI # _____

Trinomial _____

NRHP Status Code 6Z

Other Listings _____

Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 2021-31

P1. Other Identifier: 904 W 15th Street; 2021-31

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced and (P2b and P2c or P2d. Attach a Location Map, as necessary.)

*b. USGS 7.5' Quad Merced Date 1962 (photo revised 1963) T7S; R13E; 1 $\frac{1}{4}$ of 1 $\frac{1}{4}$ of Sec: 25; M.D.B.M.

c. Address: 904 W 15th Street City: Merced, CA Zip: 95340

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN 031-211-008-000

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The property at 904 W 15th Street is a single-story style residence. The residence has a raised foundation, stucco siding, and a low-pitch cross gable roof clad in composite shingle. A shed-roof projection on the façade creates a small, covered porch and also covers the projecting front bay at the east side of the façade. The porch roof is supported by plain wooden columns, and there is a small wood and concrete staircase leading from the front lawn to the front door; the door is currently obscured by a modern-era metal security door. The two windows at the façade, one to the west of the front door and one on the projecting bay, are aluminum sliding windows, with narrow aluminum casements. The northwest elevation has two aluminum slider windows and an air conditioning unit obscures one of those windows. The rear elevation (northeast facing) has two similar aluminum slider windows, and a rear entrance door that is protected by a metal security door. The property has mature landscaping including two large palm trees at the façade and a mimosa tree at the rear, and the parcel is encircled with a chain link fence with vinyl slats.

*P3b. Resource Attributes: (List attributes and codes) HP2. Single Family Property

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) June 12, 2020, view facing east

*P6. Date Constructed/Age and Sources:

☒ Historic ☐ Prehistoric ☐ Both
1900, Merced County Assessor

*P7. Owner and Address:

Theodore R. Carter
2917 King Street
Berkeley CA 94703

*P8. Recorded by: (Name, affiliation, address)

Christine Cruiss
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*P9. Date Recorded: June 12, 2020

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: ICF. 2021. *Historical Resource Inventory and Evaluation Report, San Joaquin Regional Rail Commission, ACE Ceres to Merced Extension*. March. (ICF 00144.20). Sacramento, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 6

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 2021-31

B1. Historic Name: N/A

B2. Common Name: N/A

B3. Original Use: Residence

B4. Present Use: Residence

*B5. Architectural Style: National Style

*B6. Construction History: (Construction date, alteration, and date of alterations) Built c. 1900 with an effective year of 1970, when roof was likely replaced, windows replaced with aluminum slider windows, and new security doors added. Chain link fence added c. 1970. Stucco siding likely redone in the second half of the twentieth century and possibly related to 1970 remodeling.

*B7. Moved? ☒ No ☐ Yes

Date: N/A

Original Location: N/A

*B8. Related Features: N/A

B9. Architect: Unknown b. Builder: Unknown

*B10. Significance: Theme N/A Area N/A

Period of Significance N/A Property Type N/A

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 904 W 15th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). While the property does retain some degree of integrity to the date of its original construction, it does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes) N/A

*B12. References:

See continuation sheet.

B13. Remarks:

*B14. Evaluator:

Amanda Reese
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*Date of Evaluation:

December 7, 2020

(This space reserved for official comments.)



Page 3 of 6

*Resource Name or # (Assigned by recorder) 2021-31

*Recorded by Christine Cruie, ICF *Date June 12, 2020 ☒ Continuation ☐ Update

***B10. Significance:** (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for this property include the history and development of the San Joaquin Valley; the development of the railroad in the San Joaquin Valley, and Highways and Roads.

History of the San Joaquin Valley

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

Explorers, soldiers, missionaries, and ranchers led Spain's colonization effort, although the realities of settling a remote region repeatedly undermined Spain's theory and official policy of colonization (Rice et al. 1988). The Spanish government and subsequently the Mexican government issued rancho land grants to reward soldiers, promote settlement in California, and encourage agricultural and ranching enterprises. However, as late as the 1840s, after almost a century of effort, the region's economy remained colonial, its institutions fragmented, its military power negligible, and its population sparse (Rice et al. 1988). The bulk of the more than 800 rancho grants were bestowed during the Mexican Period (Perez 1996). Although exploration of the San Joaquin Valley occurred in the latter half of the Spanish period between 1772 and 1817, it was not until the Mexican Period that Europeans and Euro-Americans began settling in the region. Only one of the numerous ranchos granted between 1841 and 1846 within the San Joaquin Valley intersects the CEQA study area. Rancho Pescadero-Grimes, established in 1843, is in San Joaquin County near the present-day community of Tracy (Bureau of Land Management 2011).

Railroads

At the start of the American Period, development and settlement in California were concentrated north of the San Joaquin Valley as a result of the Gold Rush, which began in 1848. Settlement increased in the San Joaquin Valley when the Transcontinental Railroad was constructed through the area in 1869. The railroad provided easy passenger travel and efficient commercial transport of goods to and from large urban centers such as San Francisco and Sacramento. In San Joaquin County, Lathrop and Manteca were major railroad stops by 1871 and 1873, respectively. Tracy, located west of the ACE Extension study area, was established in 1882 around the junction of three rail lines—the San Francisco Bay Area to San Joaquin County line, the northern line to Martinez County, and the southern line to Los Angeles. In Stanislaus County, several communities developed along the transcontinental railroad including Salida (1869), Modesto (1870), Turlock (1871), and Ceres (1874).

Construction of the San Joaquin Valley mainline of the Southern Pacific Railroad (SPRR), which was originally known as the San Joaquin Valley Railroad, began in 1869. The railroad branched off the transcontinental line at the newly established town of Lathrop in San Joaquin County. From 1870 to 1880, the population of the San Joaquin Valley increased by 40 percent (U.S. Census Bureau 1900), and the SPRR established 50 stations in the San Joaquin Valley, 24 of which became town sites. Eight of those sites became major towns, including Modesto, Turlock, and Merced (Carothers 1934; Angermeier 1968; Smith 1976).

Highways and Roads

Automobiles and the construction of highways were contributing factors to the growth and development of the San Joaquin Valley during the twentieth century. Perhaps the most important is SR 99, a major roadway that connected San Joaquin Valley agricultural towns to larger urban markets. During the early twentieth century, plans were made to connect different parts of California with a state highway system, which included a route from the Oregon state line through the Sacramento and San Joaquin valleys to Los Angeles. With the approval of bond issues in 1910, work began to establish Route 3, which ran from Oregon to Sacramento, and Route 4, which connected Sacramento and Los Angeles via the San Joaquin Valley (U.S. Department of Transportation 2016). Portions of Route 3 north of Sacramento replaced the Siskiyou Trail, an old Native American trail, while other portions of the roadway along Route 4 followed main lines of the SPRR. While portions of this route were still being paved in 1926, it was designated SR 99 (U.S. Department of Transportation 2016). The adoption of the interstate system and construction of Interstate (I-) 5 and other interstate routes during the 1960s truncated SR 99, which now runs from near Wheeler Ridge in Kern County north to Red Bluff in Tehama County (California Highways 2016a).

The property at 904 W 15th Street was constructed in 1923 and extremely limited information about its prior occupants could be obtained due to research restrictions during the COVID-19 pandemic. Research indicates the property was part of the typical urban

Page 4 of 6

*Resource Name or # (Assigned by recorder) 2021-31

*Recorded by Christine Cruiss, ICF *Date June 12, 2020 ☒ Continuation ☐ Update

outgrowth of downtown Merced, likely related to the rail line located to the northeast, for ease of access to transportation and commerce.

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 904 W 15th Street does not possess significance. Research indicates the property was part of the typical urban outgrowth of downtown Merced, likely related to the rail line located to the northeast, for ease of access to transportation and commerce. It does not appear to be related to pioneer residential development in Merced, instead representing the haphazard settlement patterns common among the small narrow lots located directly to the southwest of the rail line and downtown Merced. Residential development is usually considered significant under NRHP Criterion A and CRHR Criterion 1 when associated with trends and events that have made a significant contribution to the broad patterns of history, particularly events that have had a lasting influence on the community and/or economic history of a locale or region. However, given the lack of information regarding the residence at 904 W. 15th Street as well as about development of the lots along 15th Street in general, it does not appear to have had a lasting influence on the community, instead representing simple patterns of development within Merced. Thus, 904 W 15th Street does not appear significant NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion B or CRHR Criterion 2, this property does not appear to have an association with any significant persons important to history. Research revealed limited records about past owners of the resource. Due to COVID-19 research constraints, research only uncovered minimal information about property ownership. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3 this property does not appear to have architectural significance. It is not the work of a master, or representative of a particular style, instead demonstrating inexpensive wooden construction popular in the early twentieth century in the San Joaquin Valley. Furthermore, the residence has been altered, with new roofing material, windows, and doors, as well as potential additions such as the protruding bay at the façade, which impede its ability to communicate its build date. Thus, 904 W 15th Street does not appear significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that this built environment resource is not likely to yield information important to history. Thus, 904 W 15th Street is not significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 904 W 15th Street is not eligible for listing in the NRHP/CRHR as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

Angermeier, Robert. 1968 Towns of San Joaquin County 1832-1968. San Joaquin Historian, Volume IV, Number 1, January 1968. Lodi, CA: San Joaquin County Historical Society.

Bureau of Land Management. 2011. Public Land Survey System Data for California. Available at http://www.geocommunicator.gov/Geocomm/Isis_home/home/index.htm. Accessed February 2016.

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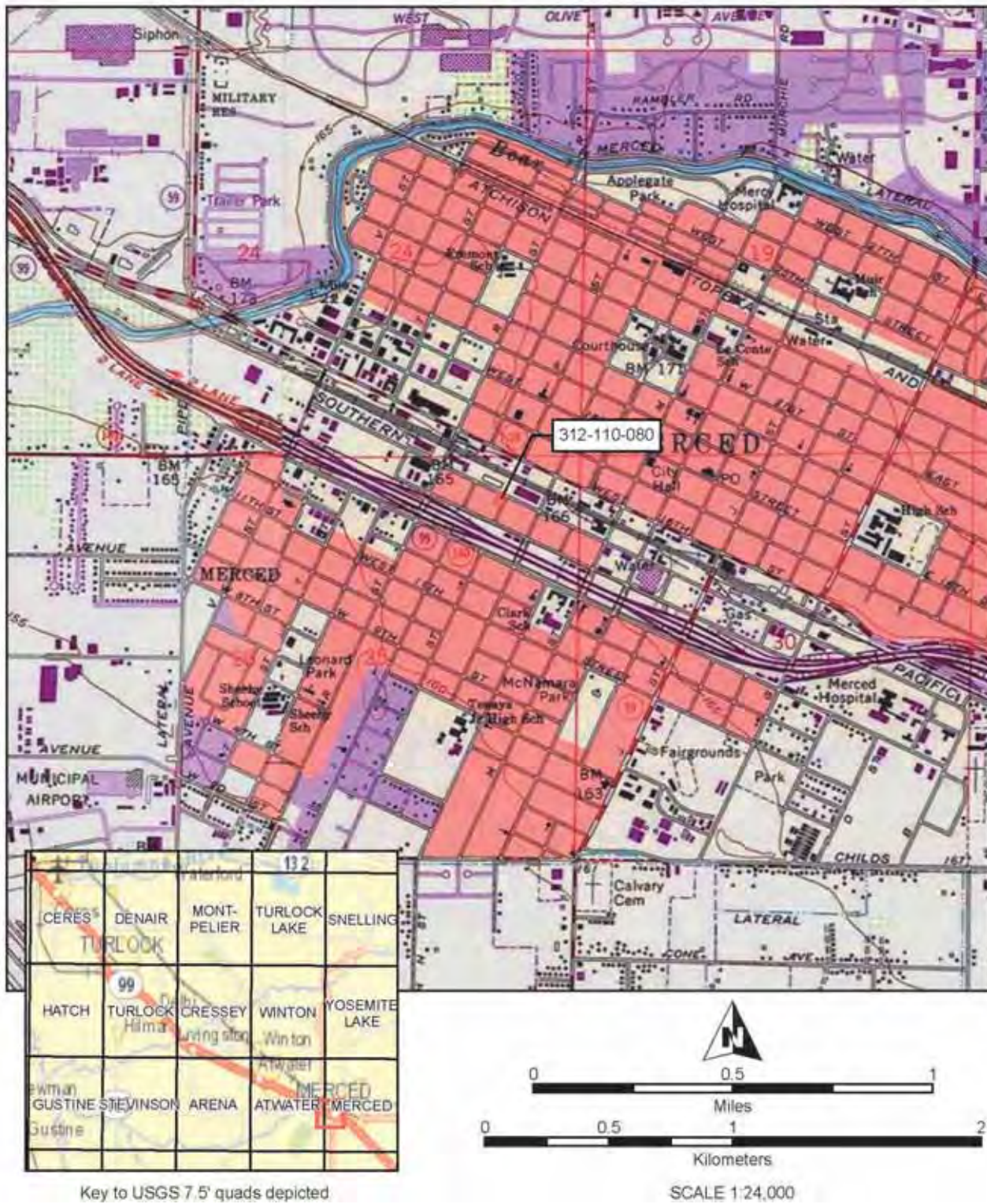
Page 5 of 6

*Resource Name or # (Assigned by recorder) 2021-31

*Recorded by Christine Cruiss, ICF *Date June 12, 2020 ☒ Continuation ☐ Update

http://www.fhwa.dot.gov/planning/economic_development/studies/sr99ca.cfm.
Accessed February 2016.

LOCATION MAP



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*NRHP Status Code 6Z
*Resource Name or # 863 West 15th Street

P1. Other Identifier: 2021-32

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced

*b. USGS 7.5' Quad _____ Date _____ T _____; R _____; ¼ of _____ of Sec: _____; _____ B.M.

c. Address: 863 West 15th Street City: Merced, CA Zip: 95340

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

APN 31173012/031-173-019-000 (ParcelQuest 2021)

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

863 West 15th Street consists of a reinforced one story concrete block warehouse building and office space covering approximately 2,153 square feet, abutting a neighboring commercial warehouse building at 855 West 15th Street at the northwest corner of O Street and West 15th Street in southwest Merced, CA. The building features a low-pitched shed roof and a low-pitched gabled roof. The west elevation has one pedestrian entry and one metal industrial sliding door on a top-mounted track. The south elevation also shows one large metal industrial sliding door on a top-mounted track and two visible two-lite metal framed windows. The north elevation cannot be seen from the public right of way but appears to have no additional window or door features. A parking lot occupies the southwest and southern portion of the parcel. The parking area is surrounded by a chain link fence with driveway access along West 15th street. Landscaping consists of dry, low-cut grass and dirt. The building appears unoccupied as of 2021.

*P3b. Resource Attributes: (List attributes and codes) HP6: 1-3 story commercial building; HP8: Industrial building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) 863 West 15th Street abutting 855 West 15th Street, view facing north, south elevation. June 12, 2020. ICF.

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
c. 1962 (Loopnet.com 2021)

*P7. Owner and Address:
Tinetti Stephen G Trustee
2930 G Street
Merced, CA, 95340-9534

*P8. Recorded by: (Name, affiliation, address)
Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*P9. Date Recorded: June 12, 2020

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: ICF. 2021. Historical Resource Inventory and Evaluation Report, San Joaquin Regional Rail Commission, ACE Ceres to Merced Extension. March. (ICF 00144.20). Sacramento, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

*Attachments: NONE ☒ Location Map ☒ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 6

*NRHP Status Code 6Z
*Resource Name or # 863 West 15th Street

B1. Historic Name:

B2. Common Name: 863 West 15th Street

B3. Original Use: Unknown

B4. Present Use: Commercial

***B5. Architectural Style:** Utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations)

The warehouse and office building dates to c. 1962. According to historic aerial photographs from 1958 the subject parcel was vacant. In a May 1950 Sanborn map, the neighboring parcel at 855 West 15th Street shows a long, rectangular building that housed the "James Grain Co" and a "Farm Machine Sales and Service" business. Historic aerial photographs show the parking lot south of the building dates to between 2005 and 2009. (Nationwide Environmental Title Research LLC 1958, 2005, 2009, 2016; Google LLC 2020; Sanborn Fire Insurance Company 1950; Loopnet.com 2021).

***B7. Moved?** ☒ No ☐ Yes

Date: NA

Original Location: X

***B8. Related Features:** N/A

B9. Architect: Unknown

b. Builder: Unknown

***B10. Significance: Theme** N/A

Area Merced, CA

Period of Significance N/A **Property Type** Commercial

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 863 West 15th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), or the California Register of Historical Resources (CRHR). Nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

See continuation sheet.

B13. Remarks:

***B14. Evaluator:**

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

***Date of Evaluation:**

February 10, 2021

(This space reserved for official comments.)



Page 3 of 6

*Resource Name or # (Assigned by recorder) 863 West 15th Street

*Recorded by Joshua Severn, ICF *Date February 10, 2021

☒ Continuation ☐ Update

***B10. Significance:** (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for this property include World War II Era Industry and Postwar Era Development and post-World War II commercial warehouses as a building type.

WORLD WAR II ERA INDUSTRY AND POSTWAR ERA DEVELOPMENT

Transit networks connected the San Joaquin Valley to the rest of the nation and the world, enabling the region to play a major role in World War II efforts. War-related industries and activities brought thousands of people to the San Joaquin Valley. Established in 1942, the San Joaquin Depot was made up of distribution facilities at three separate locations—Tracy, Sharpe (Lathrop), and Stockton's Rough and Ready Island. The depots received, stored, and shipped supplies throughout the United States and the Pacific overseas combat areas. In addition, Permanente Metals, a manufacturer of aircraft parts and magnesium bombs, came to Lathrop. Lathrop was an ideal location for a magnesium plant, because a natural gas pipeline ran underneath the town and was a ready supplier to maintain the numerous furnaces required for production. Between 1942 and 1944, the plant became the most important source of magnesium in California, which was used to make aircraft parts and bombs. During World War II, the government ordered wartime internment of Japanese Americans, depleting Japanese American communities across the United States. Japanese American internees were evacuated and taken to temporary assembly centers, where they were processed and later relocated to larger internment camps. Temporary assembly centers for Japanese American internees were established throughout the San Joaquin Valley in Stockton, Turlock, Salinas, Merced, Fresno, and Tulare. The Stanislaus County Fairgrounds in Turlock operated as a temporary assembly center from April to August 1942. Over 3,500 detainees from the Sacramento River Delta and Los Angeles areas were held at this location before being transported to a permanent internment camp in Gila, New Mexico.

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

POST-WORLD WAR II COMMERCIAL WAREHOUSES

Warehouse buildings' main function centers on goods (e.g., storing, processing, distributing, and often light manufacturing). Warehouse buildings exhibit utilitarian features by the nature of their use. Several issues have historically inspired their design. Fire safety and theft prevention needs resulted in builders using thick masonry walls and fire-resistant materials, such as iron for doors and shutters. The need to economize space led to the elimination of features, such as interior ceilings, partitions, and exterior ornamentation. Changing construction technologies allowed builders to adapt warehouse designs, from load-bearing brick to concrete construction (Page & Turnbull, Inc. 2009:93).

In 1916, creation of the forklift enabled warehouses to be organized more compactly, eventually changing the building typology from a multistory to single-story construction. Because of their utilitarian nature, warehouses often have compact rectangular footprints, with building heights made to accommodate multiple, stacked shipping pallets for storage. During the post-World War II period, warehouse development increased across the nation as industry became decentralized through the use of automobile/truck transportation (Munce 1960:54–55).

As technology improved, warehouses became less dependent on ventilation and natural light. Lighting, air-conditioning, and heating systems were eventually moved inside warehouses, which stripped exterior façades to having few or no windows, further reducing exterior detail. Additionally, as building materials improved, low-cost prefabrication options further stripped warehouse façades. Most warehouses became simple utilitarian buildings with simplistic footprints, boxed massing, flat roofs, and modest siding with exposed concrete or concrete block (Munce 1960:47–48).

Hybrid commercial warehouse buildings are often zoned for commercial use, but their exteriors resemble standard warehouses. Commercial warehouse buildings emerged from the post-World War II era. During that time, commercial warehouse, warehouse, and light-industrial buildings across the United States were built at city peripheries, in areas outside of older downtowns where trucking and shipping of goods could be accommodated. Often cities zoned such developments nearby but not intermixed with new housing developments. Commercial warehouses usually contain smaller business enterprises than dedicated warehouses; they contain space for warehouse use (e.g., storing, processing, and distributing goods), as well as consumer use with designated space for retail.

Commercial warehouse buildings have architectural elements of the standard warehouse typology. Key features include a rectangular footprint, one-story height, simple massing, raised foundation with loading docks, roll-up doors for vehicular use, minimal fenestration or complete lack of windows, utilitarian style, often with no ornamentation, prefabricated materials, and simple siding. In addition to their warehouse function, commercial warehouse buildings also feature architectural elements representing their commercial use, such as a discernable primary entrance, often with glazed doors, interior space for visitors, such as product showrooms, building signage

Page 4 of 6

*Resource Name or # (Assigned by recorder) 863 West 15th Street

*Recorded by Joshua Severn, ICF *Date February 10, 2021

☒ Continuation ☐ Update

displaying a product name, and adjacent parking for visitors. Finally, some smaller commercial warehouse properties have less interior storage space and rely on paved outdoor lots or yards for mechanical equipment, materials, or vehicles.

OWNERSHIP RECORD

As of 2020 the property owner is Stephen G. Tinetti, as a trustee. Prior associated owners include the Lao Family Community Inc. A Fictitious Business Statement posted to the Merced Sun Star in October 2019 states that the "Harvest of Merced" registered as a business at 863 West 15th Street. No other ownership information appeared in background research (Nationwide Environmental Title Research LLC 2016; ParcelQuest 2020; Merced Sun Star 2019: B3).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 863 West 15th Street has association with the theme of community development in the San Joaquin Valley as a reflection of general mid-20th century growth in population and residential growth. No historic period research revealed an important association with a notable theme of significance. No research suggests that 863 West 15th Street best reflects "new agricultural, industrial, and real estate industries" that emerged in San Joaquin, Stanislaus, and Merced Counties after World War II that resulted in residential and population growth. No research suggests that this building has important associations with the internment of Japanese Americans in World War II. Finally, while the building does represent a casual expression of the rise in commercial warehouses in the postwar period, no research suggests that this building reflects the early adoption of the property type in the Merced area or that the building imparted an important influence on development of the building type. Thus, 863 West 15th Street does not appear significant NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion B or CRHR Criterion 2, 863 West 15th Street does not appear to have an association with any significant persons important to history. Research into Tinetti Real Estate Group and Steve Tinetti revealed no works of significance to history associated with this building. The prior ownership, documented as the Lao Family Community Inc, revealed no insights as to noteworthy individuals significant to history whose productive endeavors have direct association with the property. Harvest of Merced, who filed a Fictitious Business Statement in the Merced Sun Star in October 2019 with 863 West 15th Street as the address, has no notable works that hold an important association with the property (Merced Sun Star 2019). Online database research did not return other notable owners or occupants of 863 West 15th Street. Research revealed limited records about past owners of the resource. Due to COVID-19 research constraints, research only uncovered minimal information about property ownership. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3 863 West 15th Street does not have architectural significance. 863 West 15th Street has hallmarks of the commercial warehouse typology, including commercial retail entrances facing public thoroughfares, modest exterior architectural embellishment, use of fire-resistant wall cladding and construction materials, and simplified rectilinear footprints. Commercial warehousing dates to the immediate postwar period as technology involving the organization and storage of products improved. Warehouse properties became ubiquitous across the country as transportation networks improved and warehouses on the fringes of established communities expanded immediately following World War II. These types of properties rarely express a distinct architectural style, reflective of their utilitarian function. The retail commercial space associated with warehouse buildings display ubiquitous features of commercial warehouse operations, including entrances facing public parking, modest metal frame windows, and wide expanses of empty wall space where business signage may appear. No research suggests that the commercial warehouse property at 863 West 15th Street has any direct connections to a master builder or architect. No research suggests that this property reflects the first or foremost, novel, or innovative example of this building typology that best embodies a type, period, or method of construction. The warehouse's c. 1962 construction postdates the rise in the commercial warehouse building type, which dates to the late 1940s. The subject property is not the first, the foremost, or a novel interpretation of this ubiquitous property type. The property does not display high artistic values. Thus, 863 West 15th Street is not significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that 863 West 15th Street is not likely to yield information important to history. Thus, the property does not appear significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 863 West 15th Street is not eligible for listing in the NRHP/CRHR under Criteria A/1, C/3, and D/4 as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____

Page 5 of 6

*Recorded by Joshua Severn, ICF *Date February 10, 2021

*Resource Name or # (Assigned by recorder) 863 West 15th Street

☒ Continuation ☐ Update

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ParcelQuest. 2020. *863 West 15th Street, Merced, CA*. Available: <https://pqweb.parcelquest.com/#home>. Accessed December 04, 2020.

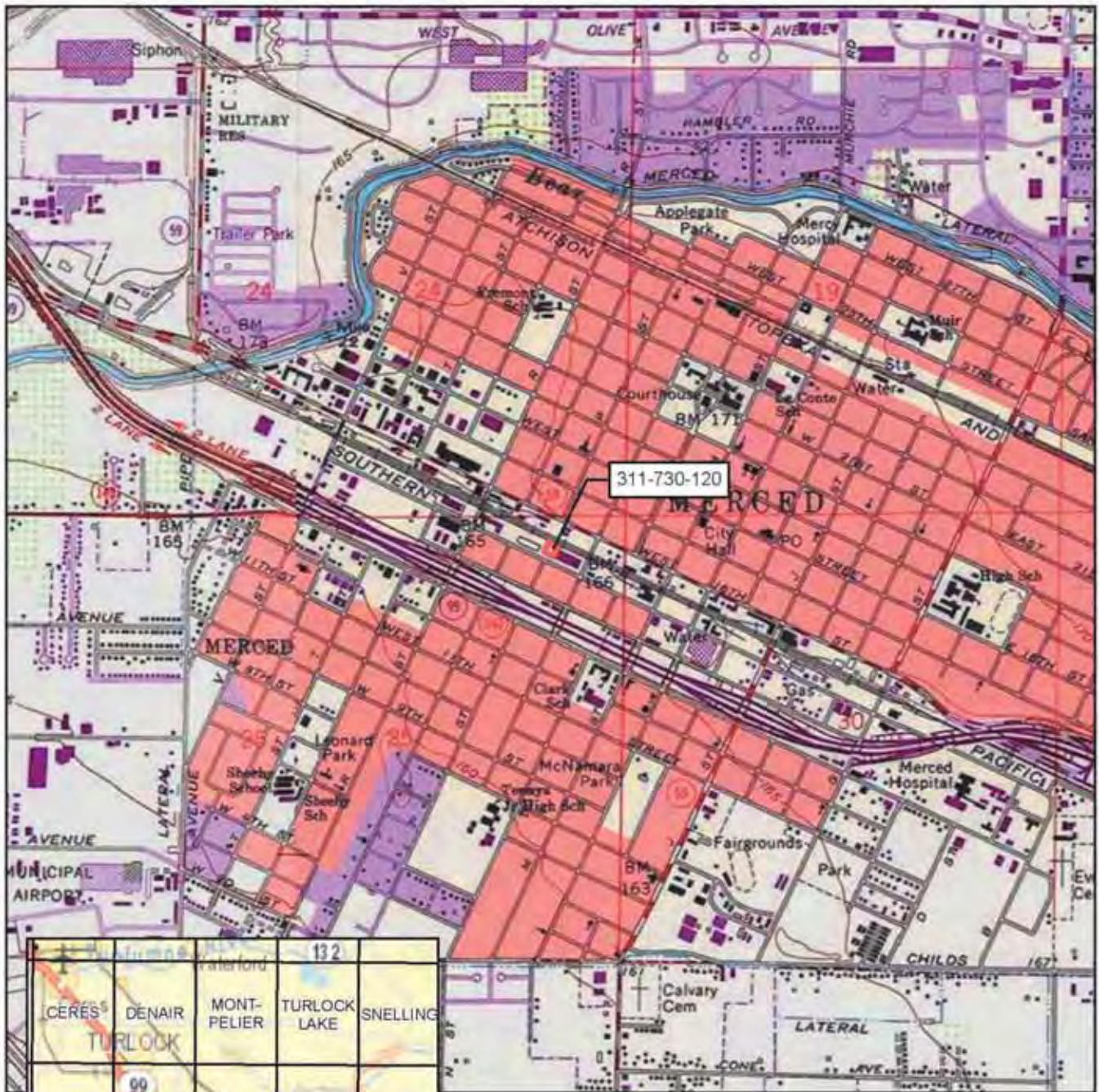
Perez, C. N. 1996. *Land Grant in Alta California*. Rancho Cordova, CA: Landmark Enterprises.

Rice, Richard, William Bullough, and Richard Orsi. 1988. *The Elusive Eden: A New History of California*. McGraw-Hill, Inc. New York, NY.

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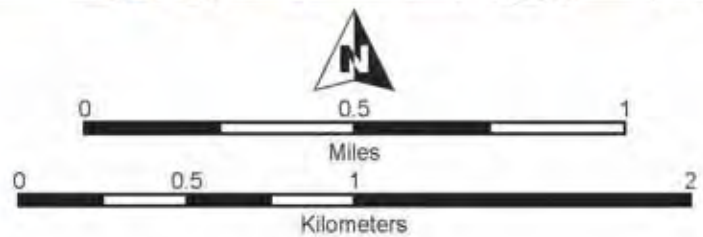
Trulia.com. 2021. *863 W 15th Street, Merced, CA*. Electronic Document. Available: <https://www.loopnet.com/Listing/15832350/863-W-15th-St-Merced-CA/>. Accessed February 10, 2021.

LOCATION MAP



CERES	DENAIR	MONT- PELIER	TURLOCK	SNELLING
HATCH	TURLOCK	CRESSEY	WINTON	YOSEMITE LAKE
GUSTINE	STEVINSON	ARENA	ATWATER	MERCED

Key to USGS 7.5' quads depicted



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*NRHP Status Code 6Z
*Resource Name or # 855 West 15th Street

P1. Other Identifier: 2021-33

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced

*b. USGS 7.5' Quad _____ Date _____ T _____; R _____; $\frac{1}{4}$ of $\frac{1}{4}$ of Sec: _____; _____ B.M.

c. Address: 855 West 15th Street City: Merced, CA Zip: 95340

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

APNs 031-173-021-000 and 031-173-019-000

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

855 West 15th Street consists of a large scale reinforced concrete block warehouse building and office space spanning two rectangular parcels at the northwest corner of O Street and West 15th Street in southwest Merced, CA. The warehouse building has five units. (See continuation sheet.)

*P3b. Resource Attributes: (List attributes and codes) HP6: 1-3 story commercial building; HP8: Industrial building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) 855 West 15th Street, June 2020, view facing northeast, portions of the east elevation warehouse, loading dock, office space, and parking. ICF.

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
c. 1964 (Showcase.com 2020)

*P7. Owner and Address:
Tinetti Stephen G Trustee
2930 G Street
Merced, CA, 95340-9534

*P8. Recorded by: (Name, affiliation, address)
Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

*P9. Date Recorded: June 12, 2020

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: ICF. 2021. Historical Resource Inventory and Evaluation Report, San Joaquin Regional Rail Commission, ACE Ceres to Merced Extension. March. (ICF 00144.20). Sacramento, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI # _____

Page 2 of 6

*NRHP Status Code 6Z
*Resource Name or # 855 West 15th Street

B1. Historic Name:

B2. Common Name: 855 West 15th Street; Dora's Fashion Bounce House

B3. Original Use: Unknown

B4. Present Use: Commercial

***B5. Architectural Style:** Utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations)

Based on a Sanborn map dated to 1950 the commercial warehouse on this parcel dates to c. 1950, with a wood trussed roof and wood floors. The property housed the James Grain Company and was used as a grain warehouse. Two square additions to the north of the rectangular volume housed a farm machine sales and service operation. This addition had a concrete floor and a wood truss roof. According to a historic aerial photograph from 1958, the subject parcel had a long rectangular building with a gabled roof that appears to cover the two northern portions documented in the 1950 Sanborn map. The next available aerial photograph dates to 1999 and shows the office space addition at the southwest portion of the building and a vaulted roof clad in new, white roof cladding. These alterations date to c. 1964, based on publicly available information dating the construction of the building to this year. The building received new roof cladding in 2018. (Nationwide Environmental Title Research LLC 1958; Google LLC 2020; Tinetti Realty Group 2020).

***B7. Moved?** ☒ No ☐ Yes ☐

Date: NA

Original Location: X

***B8. Related Features:** N/A

B9. Architect: Unknown

b. Builder: Unknown

***B10. Significance: Theme** N/A

Area Merced, CA

Period of Significance N/A **Property Type** Commercial

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 855 West 15th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not meet any of the significance criteria necessary for eligibility for listing in the NRHP or CRHR. The property has been 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. (See continuation sheet)

B11. Additional Resource Attributes: N/A (List attributes and codes)

***B12. References:**

See continuation sheet.

B13. Remarks:

***B14. Evaluator:**

Joshua Severn
ICF, 980 9th Street, Suite 1200
Sacramento, CA 95814

***Date of Evaluation:**

December 04, 2020

(This space reserved for official comments.)



Page 3 of 6

*Recorded by Joshua Severn, ICF *Date December 4, 2020

*Resource Name or # (Assigned by recorder) 855 West 15th Street

☒ Continuation ☐ Update

P3a. Description (continued)

The wood, steel beam, composition, and foam roof (restored in 2018) has a vaulted form with skylights on two of the warehouse spaces and low-pitched shed-style roofs on two of the northern warehouse spaces and office space. Roof-mounted HVAC units appear on the offices and are visible from the south, east, and west elevations. The south and east elevations display industrial metal roll-top style warehouse doors at dock height, metal-framed commercial swinging doors and fixed-pane and slider, metal frame windows on the ground-level and dock-level office spaces, and a corrugated metal sliding door at dock height. Wall cladding on these elevations show etched concrete cladding, cinderblock, and stucco surfaces. The north elevation of the warehouse features four industrial sliding doors at dock height and at least two metal industrial pedestrian doors with no windows or access stairs. The west elevation is obscured by a neighboring building and has no visible features. Parking lots occupy the south and east borders of the parcel. The building appears occupied in one of the five units, four units appear unoccupied.

***B10. Significance:** (continued from page 2)

HISTORIC CONTEXT

The most appropriate contexts for the evaluation of California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) eligibility for this property include World War II Era Industry and Postwar Era Development and post-World War II commercial warehouses as a building type.

WORLD WAR II ERA INDUSTRY AND POSTWAR ERA DEVELOPMENT

Transit networks connected the San Joaquin Valley to the rest of the nation and the world, enabling the region to play a major role in World War II efforts. War-related industries and activities brought thousands of people to the San Joaquin Valley. Established in 1942, the San Joaquin Depot was made up of distribution facilities at three separate locations—Tracy, Sharpe (Lathrop), and Stockton's Rough and Ready Island. The depots received, stored, and shipped supplies throughout the United States and the Pacific overseas combat areas. In addition, Permanente Metals, a manufacturer of aircraft parts and magnesium bombs, came to Lathrop. Lathrop was an ideal location for a magnesium plant, because a natural gas pipeline ran underneath the town and was a ready supplier to maintain the numerous furnaces required for production. Between 1942 and 1944, the plant became the most important source of magnesium in California, which was used to make aircraft parts and bombs. During World War II, the government ordered wartime internment of Japanese Americans, depleting Japanese American communities across the United States. Japanese American internees were evacuated and taken to temporary assembly centers, where they were processed and later relocated to larger internment camps. Temporary assembly centers for Japanese American internees were established throughout the San Joaquin Valley in Stockton, Turlock, Salinas, Merced, Fresno, and Tulare. The Stanislaus County Fairgrounds in Turlock operated as a temporary assembly center from April to August 1942. Over 3,500 detainees from the Sacramento River Delta and Los Angeles areas were held at this location before being transported to a permanent internment camp in Gila, New Mexico.

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

POST-WORLD WAR II COMMERCIAL WAREHOUSES

Warehouse buildings' main function centers on goods (e.g., storing, processing, distributing, and often light manufacturing). Warehouse buildings exhibit utilitarian features by the nature of their use. Several issues have historically inspired their design. Fire safety and theft prevention needs resulted in builders using thick masonry walls and fire-resistant materials, such as iron for doors and shutters. The need to economize space led to the elimination of features, such as interior ceilings, partitions, and exterior ornamentation. Changing construction technologies allowed builders to adapt warehouse designs, from load-bearing brick to concrete construction (Page & Turnbull, Inc. 2009:93).

In 1916, creation of the forklift enabled warehouses to be organized more compactly, eventually changing the building typology from a multistory to single-story construction. Because of their utilitarian nature, warehouses often have compact rectangular footprints, with building heights made to accommodate multiple, stacked shipping pallets for storage. During the post-World War II period, warehouse development increased across the nation as industry became decentralized through the use of automobile/truck transportation (Munce 1960:54–55).

As technology improved, warehouses became less dependent on ventilation and natural light. Lighting, air-conditioning, and heating systems were eventually moved inside warehouses, which stripped exterior façades to having few or no windows, further reducing exterior detail. Additionally, as building materials improved, low-cost prefabrication options further stripped warehouse façades. Most warehouses became simple utilitarian buildings with simplistic footprints, boxed massing, flat roofs, and modest siding with exposed concrete or concrete block (Munce 1960:47–48).

Page 4 of 6

*Resource Name or # (Assigned by recorder) 855 West 15th Street

*Recorded by Joshua Severn, ICF *Date December 4, 2020

☒ Continuation ☐ Update

Hybrid commercial warehouse buildings are often zoned for commercial use, but their exteriors resemble standard warehouses. Commercial warehouse buildings emerged from the post-World War II era. During that time, commercial warehouse, warehouse, and light-industrial buildings across the United States were built at city peripheries, in areas outside of older downtowns where trucking and shipping of goods could be accommodated. Often cities zoned such developments nearby but not intermixed with new housing developments. Commercial warehouses usually contain smaller business enterprises than dedicated warehouses; they contain space for warehouse use (e.g., storing, processing, and distributing goods), as well as consumer use with designated space for retail.

Commercial warehouse buildings have architectural elements of the standard warehouse typology. Key features include a rectangular footprint, one-story height, simple massing, raised foundation with loading docks, roll-up doors for vehicular use, minimal fenestration or complete lack of windows, utilitarian style, often with no ornamentation, prefabricated materials, and simple siding. In addition to their warehouse function, commercial warehouse buildings also feature architectural elements representing their commercial use, such as a discernable primary entrance, often with glazed doors, interior space for visitors, such as product showrooms, building signage displaying a product name, and adjacent parking for visitors. Finally, some smaller commercial warehouse properties have less interior storage space and rely on paved outdoor lots or yards for mechanical equipment, materials, or vehicles.

OWNERSHIP RECORD

As of 2020 the property owner is Stephen G. Tinetti, Trustee. Prior associated owners include the Lao Family Community Inc, an immigration support organization for Southeast Asian immigrants, which was founded in 1981 and occupied the property at least from 1989 through the early 2000s. As of 2020 there is one current occupant, Doras Fashion Bounce House, a party equipment rental service. No other ownership information appeared in background research (Nationwide Environmental Title Research LLC 2016; ParcelQuest 2020).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, 855 West 15th Street has association with the theme of community development in the San Joaquin Valley as a reflection of general mid-20th century growth in population and residential growth but no evidence of an important association with any theme of significance. No research revealed that 855 West 15th Street best reflects "new agricultural, industrial, and real estate industries" that emerged in San Joaquin, Stanislaus, and Merced Counties after World War II that resulted in residential and population growth. No research suggested this building has important association with the internment of Japanese Americans in World War II. Lao Family Community Inc., a non-profit immigration assistance organization supporting Southeast Asian immigrants, was founded in 1981 and operated at the property during the late 1980s through the early 2000s. This organization appears reflective of the establishment of the Refugee Act of 1980, which established a coherent Federal response for assisting and resettling Southeast Asian refugees in the wake of the fall of Vietnam in 1975. Other organizations in California, such as the Southeast Asian Community Center in San Francisco, dates to 1975 with the aim to "provide hands-on assistance to the thousands of Southeast Asians who were fleeing from Vietnam." (Southeast Asian Community Center 2021) The Lao Family Community Inc. organization appears to embody this pattern of events associated with this period of history. No research revealed that the organization's work at this location embodies an early or novel development within this pattern of events. While the building embodies a reflection of the rise in commercial warehouses in the postwar period, no evidence suggests this building reflects the early adoption of the development in the Merced area or that the building imparted an important influence of development of the building type. Thus, 855 West 15th Street does not appear significant NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion B or CRHR Criterion 2, 855 West 15th Street does not appear to have an association with any significant persons important to history. Research into Tinetti Real Estate Group and Steve Tinetti revealed no works of significance to history associated with this building. The Lao Family Community Inc., an immigration support organization dating to 1981, operated at this building from the late 1980s through the early 2000s, however no research revealed that this organization's work has important association to this property. Research revealed limited records about past owners of the resource. Due to COVID-19 research constraints, research only uncovered minimal information about property ownership. As a result, significance under Criterion B/2 could not be evaluated.

Under NRHP Criterion C or CRHR Criterion 3 855 West 15th Street does not appear to have architectural significance. 855 West 15th Street has hallmarks of the commercial warehouse typology, including commercial retail entrances facing public thoroughfares, modest exterior architectural embellishment, use of fire-resistant wall cladding and construction materials, and simplified rectangular footprints. Commercial warehousing dates to the postwar period as technology surrounding organization and storage of products improved. Warehouse properties became ubiquitous across the country as transportation networks improved and warehouses on the fringes of established communities expanded immediately following World War II. These types of properties rarely express a distinct architectural style, reflective of their utilitarian function. The office spaces attached to the warehouse building display ubiquitous features of commercial warehouse operations including entrances facing public parking, modest metal frame windows, metal-framed glass entrances with utilitarian handles and locks, and wide expanses of empty wall space where business signage may appear. No evidence suggests that the commercial warehouse property at 855 West 15th Street has any direct connections to a master builder or architect. No evidence suggests that this property reflects the first or foremost, novel, or innovative example of this building typology that best embodies a type, period, or method of construction. The warehouse's c. 1964 construction postdates the rise in the commercial

Page 5 of 6

*Resource Name or # (Assigned by recorder) 855 West 15th Street

*Recorded by Joshua Severn, ICF *Date December 4, 2020

☒ Continuation ☐ Update

warehouse building type, which dates to the late 1940s, such that this expression is unlikely to be the first, foremost, or novel interpretation of a ubiquitous property type. The property does not display high artistic values. Thus, 855 West 15th Street does not appear significant under NRHP Criterion C or CRHR Criterion 3.

Finally, the lack of associated historical significance described in the application of NRHP Criteria A or C and CRHR Criteria 1 and 3 supports a conclusion that 855 West 15th Street is not likely to yield information important to history. Thus, the property does not appear significant under NRHP Criterion D or CRHR Criteria 4.

CONCLUSION

In conclusion, 855 West 15th Street is not eligible for listing in the NRHP/CRHR as an individual resource or as part of a potential historic district due to its lack of historical and architectural significance. This property was 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 appears not to be a historical resource for the purposes of CEQA.

*B12. References

Burton, Jeffery F., Mary M. Farrell, Florence B. Lord, and Richard W. Lord. 2000. "Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites." In *Publications in Anthropology 74* (Revised). Tucson, AZ: Western Archaeological and Conservation Center, National Park Service, U.S. Department of the Interior.

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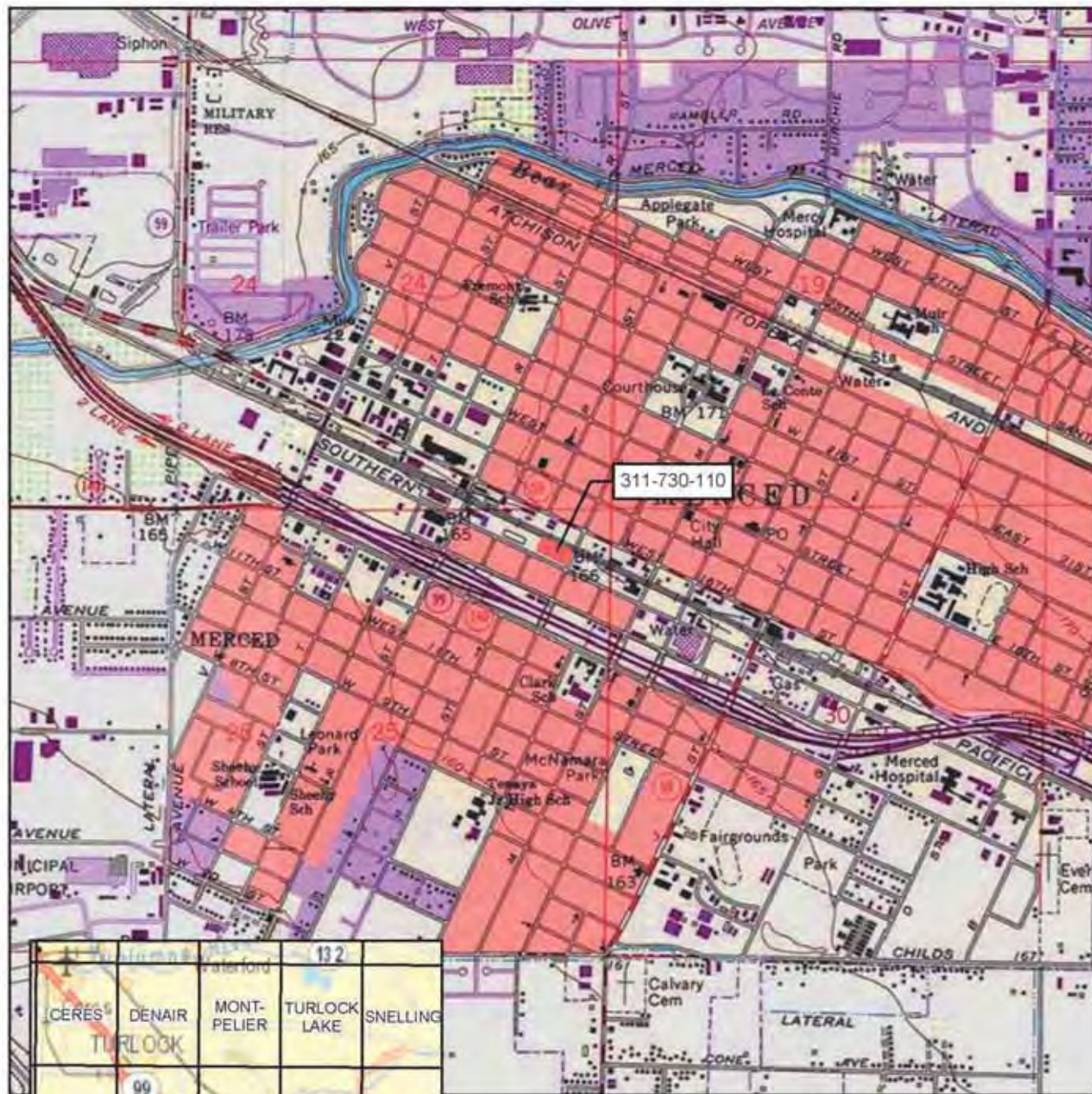
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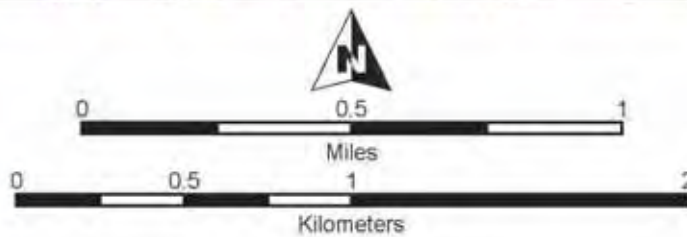
Showcase.com. 2020. *855 W 15th Street, Atwater, California*. Electronic Document. Available: <https://www.showcase.com/855-w-15th-st-merced-ca-95340/18154419/>. Accessed: December 3, 2020.

Tinetti Realty Group. 2020. *855 15th St, Merced, CA, 95340*. Electronic Document. Available: <https://mercedrealestate.com/property/855-15th-St-Merced-CA-95340/344-363954233>. Accessed December 3, 2020.

LOCATION MAP



Key to USGS 7.5' quads depicted



SCALE 1:24,000

Attachment F-2
Previously Prepared State of California Department of
Parks and Recreation (DPR) 523 Form Sets

PRIMARY RECORD

* See also P-50-000071 (2 1/2)

Other Listings
Review Code

Primary # P-50-000073
HRI #

Trinomial CA-57A-426H
NRHP Status Code

(should have
had separate
records numbers)

Page 1 of 15

*Resource Name or #: Turlock Irrigation District Water Conveyance System

Date

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Cressy, Turlock, Hatch, Stevenson, Gustine, Ceres, Denair, Montpelier, Paulsell, Brush Lake, Westly

Date:

c. Address:

d. UTM: Zone: 10 ; Point A: 0706880 mE/ 4167426 mN

Point B: 0708059 mE/ 4145952 mN

Point C: 0680424 mE/ 4135385 mN

T R 1/4 of 1/4 of Sec ; M.D. B.M.

City:

Point D: 0662092 mE/ 4164553 mN

Point E: 0677777 mE/ 4166381 mN

(NAD 84)

Zip:

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

See map of Turlock Irrigation District Water Conveyance System on Continuation Sheets, pages 4 and 5.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)
The Turlock Irrigation District (TID) is bordered by the San Joaquin, the Tuolumne and the Merced Rivers. Water is collected as it comes down from the Sierra Nevada Mountains and directed to the low lying, level land in the Central Valley in and around Turlock.

Surveys for laying out the canals and ditches from the La Grange area on the Tuolumne River began in 1887 after the passing of the Wright Act in the California Legislature. After a sale of public bonds to pay for the new irrigation system, the excavation of the first canal and dam began in La Grange in February 1890. The La Grange Dam was completed in 1893. The canal from La Grange to Hickman was finished in late 1898. The work on the Turlock Main Canal, which ran due south from Hickman, was started in December 1898. The system of canals and laterals down to Lateral 2 was completed in 1899. All of the canals and laterals were completed in 1900, and water was diverted to individual parcels of land. (Go to Continuation Sheet - page 3)

*P3b. Resource Attributes: (List attributes and codes) AH 6 (Water Conveyance System)

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)

Turlock Irrigation District Main Canal in Ceres, Mitchell Road, view looking north, March 8, 2009.

*P6. Date Constructed/Age and

Sources: ☒ Historic

☐ Prehistoric ☐ Both

Constructed in 1898.

Dates of construction found in:
Paterson, Alan Land, Water and Power, A History of the Turlock Irrigation District 1887-1987, Arthur Clark Company, Washington, 2004

*P7. Owner and Address:

Turlock Irrigation District
333 East Canal Drive
Turlock, CA 95381

*P8. Recorded by: (Name, affiliation, and address)

Pamela Daly, M.S.H.P.
Cultural Resources Assoc.
295 East 6th Street
Chico, CA

*P9. Date Recorded: March 18, 2009.

*P10. Survey Type: (Describe) Pedestrian

*P11. Report Citation: (Cite survey report and other sources, or enter "none")

Cultural Resources Inventory for the Hughson-Grayson 115V Transmission Line and Substation Project in Stanislaus County, California. *Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object

Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record

☐ Artifact Record ☐ Photograph Record ☐ Other (List):

DPR 523A (1/95)

*Required information

BUILDING, STRUCTURE, AND OBJECT RECORD

CA-STA-426H

Page 2 of 15

*NRHP Status Code

*Resource Name or # (Assigned by recorder) Turlock Irrigation District Water Conveyance System

B1. Historic Name: Turlock Irrigation District (TID)

B2. Common Name

B3. Original Use: irrigation canal system

B4. Present Use: irrigation canal system

*B5. Architectural Style:

*B6. Construction History: (Construction date, alterations, and date of alterations)

Original construction of dirt lined canals and laterals: 1898 to 1900.

Canals and laterals lined with concrete or gunite: 1917 to 1920.

Water diversion features, i.e. regulator gates (both operated by hand and automatic counter-balance system), waste gates, concrete culverts and bridges: 1917 to 1920.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date:

Original Location:

*B8. Related Features: Pump systems moving water from local water table to supplement the flow of water in the irrigation canals.

B9a. Architect: George Manuel, Surveyor and designer of irrigation system

b. Builder: James A. Waymire, prime contractor; R.W. Morgan, subcontractor Turlock Main Canal.

E.M. Roberts subcontractor, Ceres canals and laterals; H.S. Crane and George Bloss, subcontractor of Turlock laterals and main canal.

*B10. Significance: Theme: Irrigation System

Area: San Joaquin Valley

Period of Significance: 1887 to 1925

Property Type: Irrigation canal

Applicable Criteria: NR/CR

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Turlock Irrigation District (TID) is the oldest example of a publicly owned irrigation district in California. Established in 1887, the district is bordered by the San Joaquin, the Tuolumne and the Merced Rivers. Water is collected as it comes down from the Sierra Nevada Mountains and directed to the low lying, level land in the Central Valley. The TID provides irrigation water to 307 acres.

With the introduction of the Central Pacific Railroad into the region in 1871, a stopping point was established on John Mitchell's land that was to grow into the town of Turlock in Stanislaus County. The town of Ceres was established about nine miles north by Daniel Whitmore. Wheat was the major crop with hundreds of thousands of acres planted between Stockton and Merced. In the 1860s, the first irrigation systems were constructed in Southern California, in San Bernardino County and the new town of Anaheim. Due to adequate rainfall, the need for man-made watering in the San Joaquin Valley area was not seriously investigated until the drought of 1871. (See Continuation Sheet — page 3)

B11. Additional Resource Attributes: (List attributes and codes) AH 6 (Water conveyance system)

*B12. References:

See Continuation Sheet.

B13. Remarks: Under the proposed project, there will be no physical impacts to the canals or associated features.

(Sketch Map with north arrow required.)

See Continuation Sheet

*B14. Evaluator:

Pamela Daly, M.S.H.P.,
Cultural Research Assoc.,
295 E. 8th St.,
Chico, CA 95928

*Date of Evaluation: March 18, 2009

(This space reserved for official comments.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # *P50-000073*
HRI#
Trinomial *CA-STA-426H*

Page 3 of 15

*Resource Name or # (Assigned by recorder) *Turlock Irrigation District Water Conveyance System*

Continued from DPR 523A: P 3a. Description:

The Turlock Irrigation District was responsible for the maintenance and upkeep of the main canals and laterals. The irrigation system was made up of dirt-lined ditches which needed continual dredging and scraping to keep plant growth from developing and slowing down the passage of water. The expense of annually cleaning out all the water channels got to such a large sum that in 1917, TID began a program of lining all their canals and laterals with either a two-inch thick covering of concrete or gunite over chicken wire that was laid over the dirt walls. Automatic regulator gates, waste gates and bridges were also installed during this period and they all added a substantial measure of water conservation and efficiency to the system.

While the canals vary in depth and width they are similar in that the bottom of the canal bed is flat, and then the canal sides are angled away from the canal bed, with the top of the canal wider than the channel. The Main Canal runs in a north/south direction and is approximately twenty feet deep and thirty feet wide. The laterals (smaller canals) run generally in an east/west direction and are constructed with the same materials, but are not as deep, nor as wide, as the Main Canal. The average width of a lateral is 15 feet, with a depth of 6 to 8 feet.

Several water diversion features consisting of regulator gates (many made of wood in steel and concrete frames), valves, checks, drops and chutes are found throughout the system. Some of the drop gates have counterweights for automatic adjustment, while others have large iron wheels and screws for manual adjustment. Some of the larger iron fixtures bear the name of Stockton Iron Works.

Continued from DPR 523B: B 10. Statement of Significance:

The first proposal of creating a cooperative institution to build and operate a private irrigation system was developed by the Merced and San Joaquin Irrigation Canal Company in 1873. Many plans came and went due to problems with land-ownership issues, financing problems, nationwide recessions, and legal hurdles. Finally in 1887, the Wright Act, named after its sponsor the Modesto attorney and assemblyman, C.C. Wright, passed into legislation. The Wright Act set up the regulations and framework for the creation of public irrigation systems in California. The Turlock Irrigation District was the first to organize under the Wright Act with its first Board of Directors meeting held on June 15, 1887.

Surveys for laying out the canals and ditches from the La Grange area on the Tuolumne River began immediately. After the sale of bonds to pay for the new systems, the excavation of the first canal and dam began in La Grange in February 1890. When it was completed in 1893, the La Grange Dam was the highest overflow dam in the United States. The canal from La Grange to Hickman was finished in late 1898. The work on the Turlock Main Canal, which ran due south from Hickman, was begun in December 1898. The canals down to Lateral 2 were completed in 1899. The canals and laterals were completed in 1900, and water was diverted at last from the systems to individual parcels of land. Within just three years of the irrigation system being completed, the town of Ceres had grown in size with new streets and a public park.

The Turlock Irrigation District was responsible for the maintenance and upkeep of the main canals and laterals. The irrigation system was made up of dirt-lined ditches which needed continual dredging and scraping to keep plant growth from developing and slowing down the passage of water. The expense of annually cleaning out all the water channels got to such a large sum that in 1917, TID began a program of lining all their canals and laterals with either a two-inch thick covering of concrete or gunite over chicken wire that was laid over the dirt walls. Automatic regulator gates, waste gates and bridges were also installed during this period and they all added a substantial measure of water conservation and efficiency to the system.

The dams, reservoirs, power houses, and systems of irrigation canals and ditches of the TID were constructed without substantial federal or state assistance. In the 1920s with power produced off the dams that they had constructed, TID sold its electric power directly to its consumers within the district.

Although the Turlock Irrigation District appears eligible for listing in the National Register and California Register for its association with the development of the first publicly owned irrigation district in California, the individual canal segments that are being evaluated for this survey have lost their integrity in workmanship, setting, materials, and feeling. The canals are constantly being repaired for both large and small maintenance issues. Many of the water diversion features have had their historic parts replaced, or altered, to adapt to current conditions.

Continued from DPR 523B: B 12. References:

JRI* Historical Consulting Services and California Department of Transportation. *Water Conveyance Systems in California*. 2000.

Paterson, Alan. *Land, Water and Power. A History of the Turlock Irrigation District 1887-1987*. Arthur Clark Company Washington; 2004.

Turlock Irrigation District Water and Power, *Our History*. www.tid.org

Turlock Irrigation District. *Turlock Irrigation District: The First Century*. Brochure published by Turlock Irrigation District. No date.

TID Water & Power, *Leadership and Innovation*. Brochure published by Turlock Irrigation District. (Printed after 2005.)

*Recorded by: Pamela Daly, M.S.H.P. *Date: March 18, 2009
DPR 523L (1/95)

☒ Continuation

☐ Update

*Required information

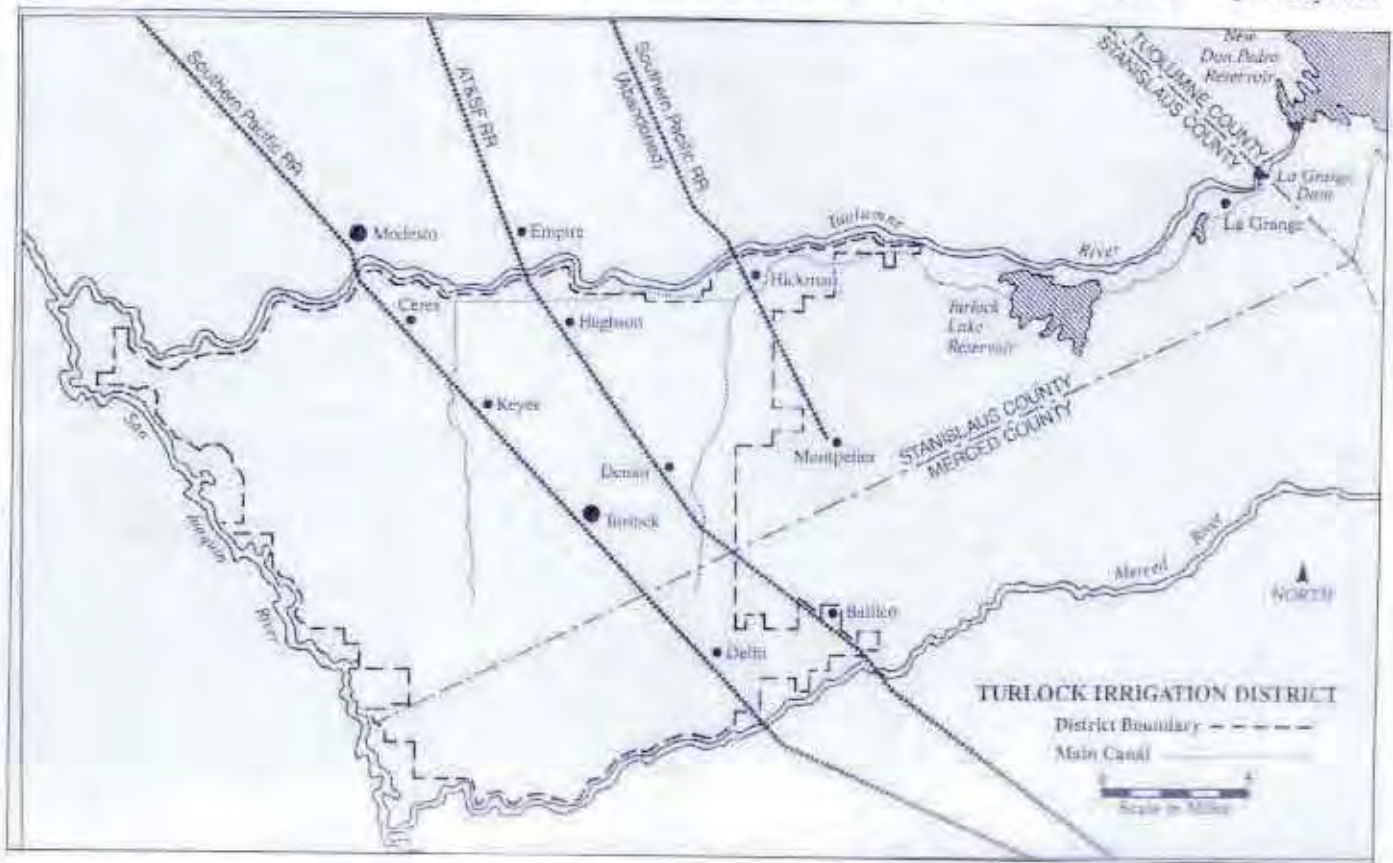
CONTINUATION SHEET

Primary # P-50-000073
HRI#

Trinomial CA-STA-426H

Page 4 of 15

*Resource Name or # (Assigned by recorder) Turlock Irrigation District Water Conveyance System

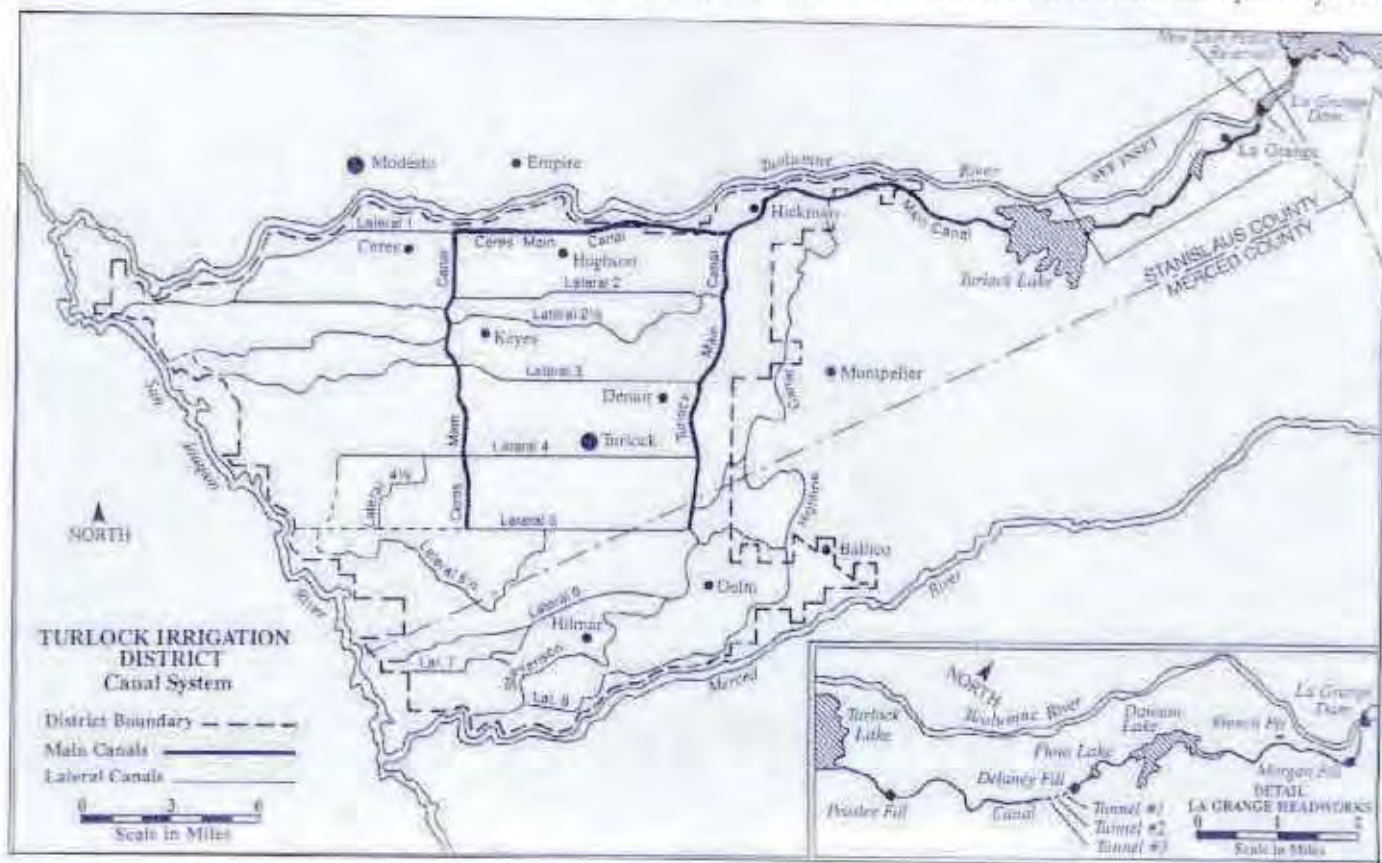


Map of the Boundary Line of Turlock Irrigation District from: Paterson, Alan. *Land, Water and Power, A History of the Turlock Irrigation District 1887-1987*, Arthur Clark Company, Washington; 2004. Page 65. (Note: the Tidewater Southern Railway line, now owned by Union Pacific Railroad, is not pictured on this map. The rail line is located to the west of the Southern Pacific RR line and still operates today.)

*Recorded by: Pamela Daly, M.S.H.P. *Date: March 18, 2009 ■ Continuation
DPR 523L (1/95)

☐ Update

*Required information



Map of the Canal System of Turlock Irrigation District from: Paterson, Alan. *Land, Water and Power, A History of the Turlock Irrigation District 1887-1987*. Arthur Clark Company, Washington; 2004. Page 84.

*Recorded by: Pamela Daly, M.S.H.P.
DPR 523L (1/95)

*Date: March 18, 2009

■ Continuation

□ Update

*Required information

LINEAR FEATURE RECORD

Primary # P-50-000073
HRI #

Trinomial CA-STA-426H

Page 6 of 15

Resource Name or #: Turlock Irrigation District — Ceres Main Canal

L1. Historic and/or Common Name: Ceres Main Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation Designation:

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

Point A: Zone 10, 0682011 mE/ 4159941 mN

Point B: Zone 10, 0682018 mE/ 4159628 mN

L3. Description:

The Ceres Main Canal is one of the two main north/south distribution canals that delivers water from the Turlock Main Canal that runs from the main reservoir at La Grange. The channel was originally just an open dirt ditch when constructed in 1890, and was clad in concrete to aid with maintenance in 1917.

This section of the Ceres Main Canal delivers water to orchards on both sides of the canal. There is also a water control feature with a large wood drop gate set in concrete pillars, an automatic shut-off counterbalance, and a valve gate for allowing water to irrigate the nearby privately owned orchard.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 30'

b. Bottom Width: 15'

c. Height or Depth: 15'

d. Length of Segment: 1,100 feet

L5. Associated Resources: None

L4e. Sketch of Cross-Section (include scale) Facing:

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) In this section, there are orchards on both sides of the canal.

L7. Integrity Considerations: The main canal is still used as part of an active irrigation system that covers 307 square miles. Due to continual upkeep and maintenance, the canal has lost integrity in materials, design, setting and workmanship. This segment is not eligible for listing in the National or California Register.

L8b. Description of Photo: Ceres Main Canal. View looking south along the unpaved section of Mitchell Road.

L8a. Photograph, Map or Drawing



L9. Remarks:

The proposed project will not physically impact the canal.

L10. Form Prepared by:

Pamela Daly, M.S.H.P.
Cultural Research Assoc.
295 E. 8th Street
Chico, CA 95928

L11. Date: 3/19/2009

DPR 523E (1/95)

LINEAR FEATURE RECORD

Primary # P-50-000073

HRI #

Trinomial CA-STA-42CH

Page 7 of 15

Resource Name or #: Turlock Irrigation District — Upper Lateral 2

L1. Historic and/or Common Name:

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation Designation:

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

Point A: Zone 10, 0689645 mE/ 4161401 mN

Point B: Zone 10, 0687384 mE/ 4161346 mN

L3. Description:

Upper Lateral No. 2 is one of the distribution canals that run on a general east/west axis and deliver water from the Ceres Main Canal. The channel was originally just an open dirt ditch when constructed in 1890, and was clad in concrete to aid with maintenance in 1917.

This section of Upper Lateral No. 2 runs under the Burlington Northern Santa Fe Railroad line which runs in a north/south direction. There is also a water control feature with a large wood drop gate set in concrete pillars, an automatic shut-off counterbalance, and a valve gate for allowing water to irrigate the nearby privately owned orchard located in the canal approximately 50 feet to the west of the railroad tracks.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 15'

b. Bottom Width: 5'

c. Height or Depth: 5'

d. Length of Segment: 1.42 miles

L5. Associated Resources: Burlington Northern Santa Fe Railroad line (Atchison, Topeka & Santa Fe Railroad), P-39-000112.

L4e. Sketch of Cross-Section (include scale) Facing:

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate) This section of Upper Lateral No. 2 is located just to the south of East Service Road, a two-lane road, in a mostly agricultural, lightly settled area. The canal runs under the railroad tracks and under Santa Fe Avenue before continuing east. Heading west from the railroad tracks, the canal runs under a bridge on Griffen Road.

L7. Integrity Considerations: The lateral canal is still used as part of an active irrigation system that covers 307 square miles. Due to continual upkeep and maintenance, the canal has lost integrity in materials, design, setting and workmanship. This segment is not eligible for listing in the National or California Register.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing

Upper Lateral No. 2 where it intersects with the Burlington Northern Santa Fe Railroad line. View looking east, March 8, 2009.

L9. Remarks:
None

L10. Form Prepared by:
Pamela Daly, M.S.H.P.
Cultural Research Assoc.
295 E. 8th Street
Chico, CA 95928

L11. Date: 3/19/2009

DPR 523E (1/95)

L1. Historic and/or Common Name:

L2a. Portion Described:

☐ Entire Resource

☒ Segment

☐ Point Observation

Designation:

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

Zone 10: Point A: 0683650 mE/ 4160878 mN

Point B: 0687331 mE/ 4161325 mN

L3. Description:

Upper Lateral No. 2 is one of the distribution canals that run on a general east/west axis and deliver water from the Ceres Main Canal. The channel was originally just an open dirt ditch when constructed in 1890, and was clad in concrete to aid with maintenance in 1917.

This section of Upper Lateral No. 2 runs parallel with East Service Road to the north, and Redwood Road to the South.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 15'

b. Bottom Width: 5'

c. Height or Depth: 5'

d. Length of Segment: 2.38 miles

L4e. Sketch of Cross-Section (include scale) Facing:

L5. Associated Resources:

L6. Setting: (Describe natural features, landscape

characteristics, slope, etc., as appropriate.) There are several water diversion features located in this section of the canal. The canal in this section is bordered by orchards and vineyards, and light agricultural buildings.

L7. Integrity Considerations: The lateral canal is still used as part of an active irrigation system that covers 307 square miles. Due to continual upkeep and maintenance, the canal has lost integrity in materials, design, setting and workmanship. This segment is not eligible for listing in the National or California Register.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing

Upper Lateral No. 2 where it intersects with Washington Road. View looking west March 8, 2009.

L9. Remarks:

None

L10. Form Prepared by:

Pamela Daly, M.S.H.P.
Cultural Research Assoc.
295 E. 8th Street
Chico, CA 95928

L11. Date: 3/19/2009

DPR 523E (1/95)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-50-000077 P-50-
HRI # 000071
Trinomial CA-STA-426H

Page 9 of 15

Resource Name or #: Turlock Irrigation District — Upper Lateral No. 2 ½

L1. Historic and/or Common Name:

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation Designation:

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

UTM Zone 10. Point A: 0683676 mE/ 4159798 mN; Point B: 0682942 mE/ 4159248 mN

L3. Description:

Upper Lateral No. 2 ½ is one of the distribution canals that run on a general east/west axis and deliver water from the Ceres Main Canal. The channel was originally just an open dirt ditch when constructed in 1890, and was clad in concrete to aid with maintenance in 1917.

This section of Upper Lateral No. 2 ½ crosses under the Southern Pacific/Union Pacific Railroad line.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 15'

b. Bottom Width: 5'

c. Height or Depth: 5'

d. Length of Segment: Approximately 1.25 miles.

L4e. Sketch of Cross-Section (include scale) Facing:

L5. Associated Resources:

Southern Pacific Railroad/Union Pacific Railroad line.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

This section of Upper Lateral No. 2 ½ extends to the east and west from its intersection with Route 99 and the Southern Pacific/Union Pacific Railroad lines. The canal in this section is bordered by orchards and vineyards, and light agricultural buildings.

L7. Integrity Considerations: The lateral canal is still used as part of an active irrigation system that covers 307 square miles. Due to continual upkeep and maintenance, the canal has lost integrity in materials, design, setting and workmanship. This segment is not eligible for listing in the National or California Register.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing

Upper Lateral No. 2 ½ where it intersects with Prairie Flower Road. View looking west. March 8, 2009

L9. Remarks:
None

L10. Form Prepared by:
Pamela Daly, M.S.H.P.
Cultural Research Assoc.
295 E. 8th Street
Chico, CA 95928

L11. Date: 3/19/2009

DPR 523E (1/95)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P50-000073
HRI #

Trinomial CA-STA-4244

Page 10 of 15

Resource Name or #: Turlock Irrigation District — Lower Lateral No. 2

L1. Historic and/or Common Name:

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation Designation:

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

UTM: Zone 10 Point A: 677608 mE/ 4160340 mN (NAD 84)

Point B: 678000 mE/ 4160356 mN

L3. Description:

Lower Lateral No. 2 is one of the distribution canals that run on a general east/west axis and deliver water from the Ceres Main Canal. The channel was originally just an open dirt ditch when constructed in 1890, and was clad in concrete to aid with maintenance in 1917.

This short section of Lower Lateral No. 2 runs under the historic Tidewater Southern Railway lines (now Union Pacific Railroad lines).

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 15'

b. Bottom Width: 5'

c. Height or Depth: 5'

d. Length of Segment: 1/4 mile

L4e. Sketch of Cross-Section (include scale) Facing:

L5. Associated Resources:

L6. Setting: (Describe natural features, landscape

characteristics, slope, etc., as appropriate.) This section of Lower Lateral No. 2 is located just to the south of West Service Road and north of Grayson Road. There is a water diversion feature located in the canal to the west of the intersection with the railroad line near Point A. The canal in this section is bordered by orchards and vineyards, and light agricultural buildings.

L7. Integrity Considerations: The lateral canal is still used as part of an active irrigation system that covers 307 square miles. Due to continual upkeep and maintenance, the canal has lost integrity in materials, design, setting and workmanship. This segment is not eligible for listing in the National or California Register.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing

Lower Lateral No. 2. View looking west from Morgan Road towards intersection of canal with railroad line. March 8, 2009.

L9. Remarks:

None

L10. Form Prepared by:

Pamela Daly, M.S.H.P.
Cultural Research Assoc.
295 E. 8th Street
Chico, CA 95928

L11. Date: 3/19/2009

DPR 523E (1/95)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # *P-50-000073*
HRI#
Trinomial *CA-STA-4264*

Page 11 of 15

*Resource Name or #: Turlock Irrigation District, Ceres Main Canal

*Map Name: Ceres
DPR 523J (1/95)

*Scale: 1:24,000 *Date of Map: 1963 rev 1987
*Required information



Zone 10 Point A: 0682011 mE/ 4159941 mN
Point B: 0682018 mE/ 4159628 mN

LOCATION MAP

Primary # *P-5U-000073*
HRI#

Trinomial *CA-STA-426H*

Page 12 of 15

*Resource Name or #: Turlock Irrigation District, Upper Lateral No. 2

*Map Name: Ceres
DPR 523J (1/95)

*Scale: 1:24,000 *Date of Map: 1963 rev 1987

*Required information



LOCATION MAP

Primary # *P-50-000073*
HRI#

Trinomial *CA-STA-426H*

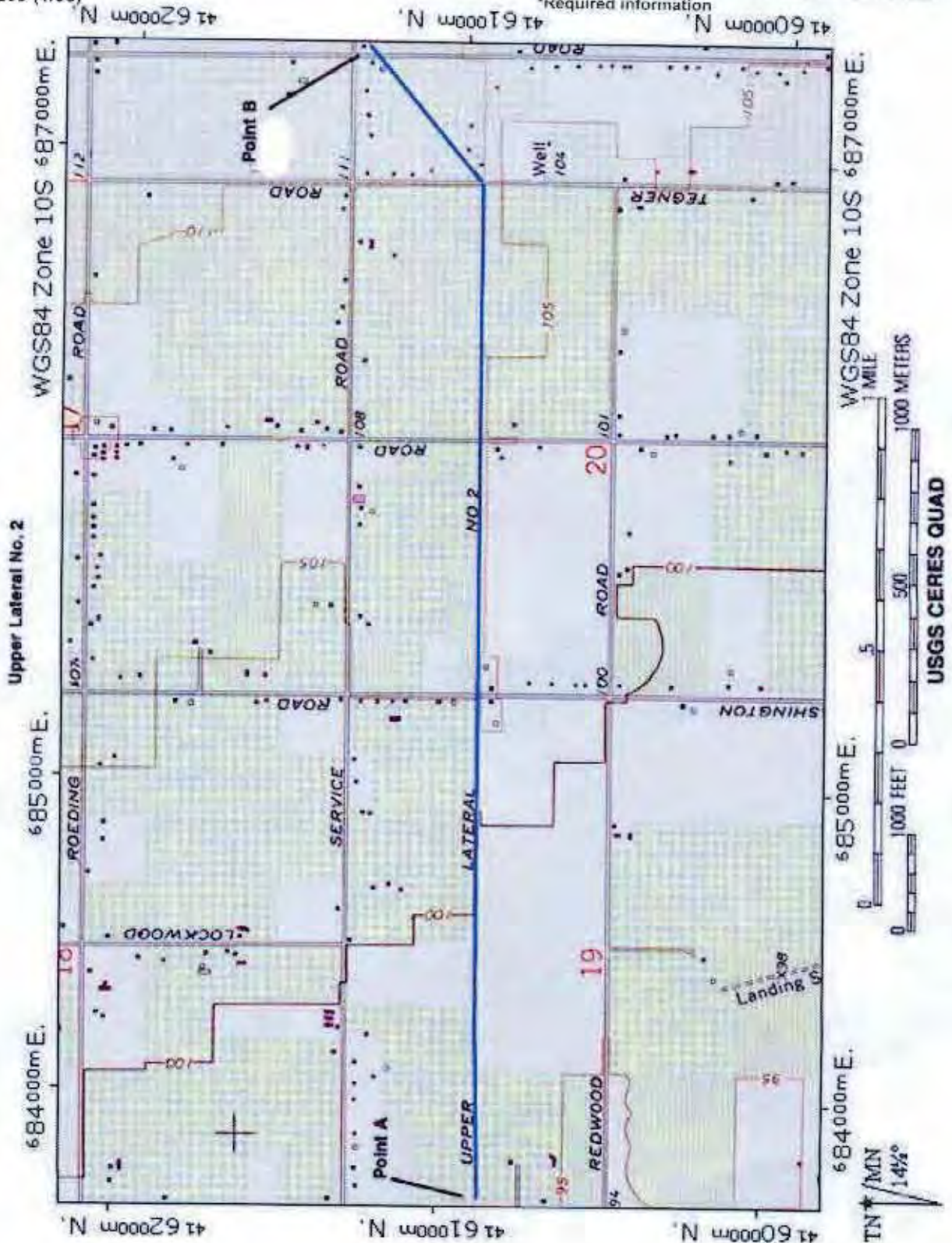
Page 13 of 15
Washington Street, Ceres)

*Resource Name or #: Turlock Irrigation District, Upper Lateral No. 2 (crossing with

*Map Name: Ceres
DPR 523J (1/95)

*Scale: 1:24,000 *Date of Map: 1963 rev 1987

*Required information



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # *P-50-000071* 71
HRI#

LOCATION MAP

Trinomial *XXXXXXXXXXXXXXXXXXXX*

Page 14 of 15

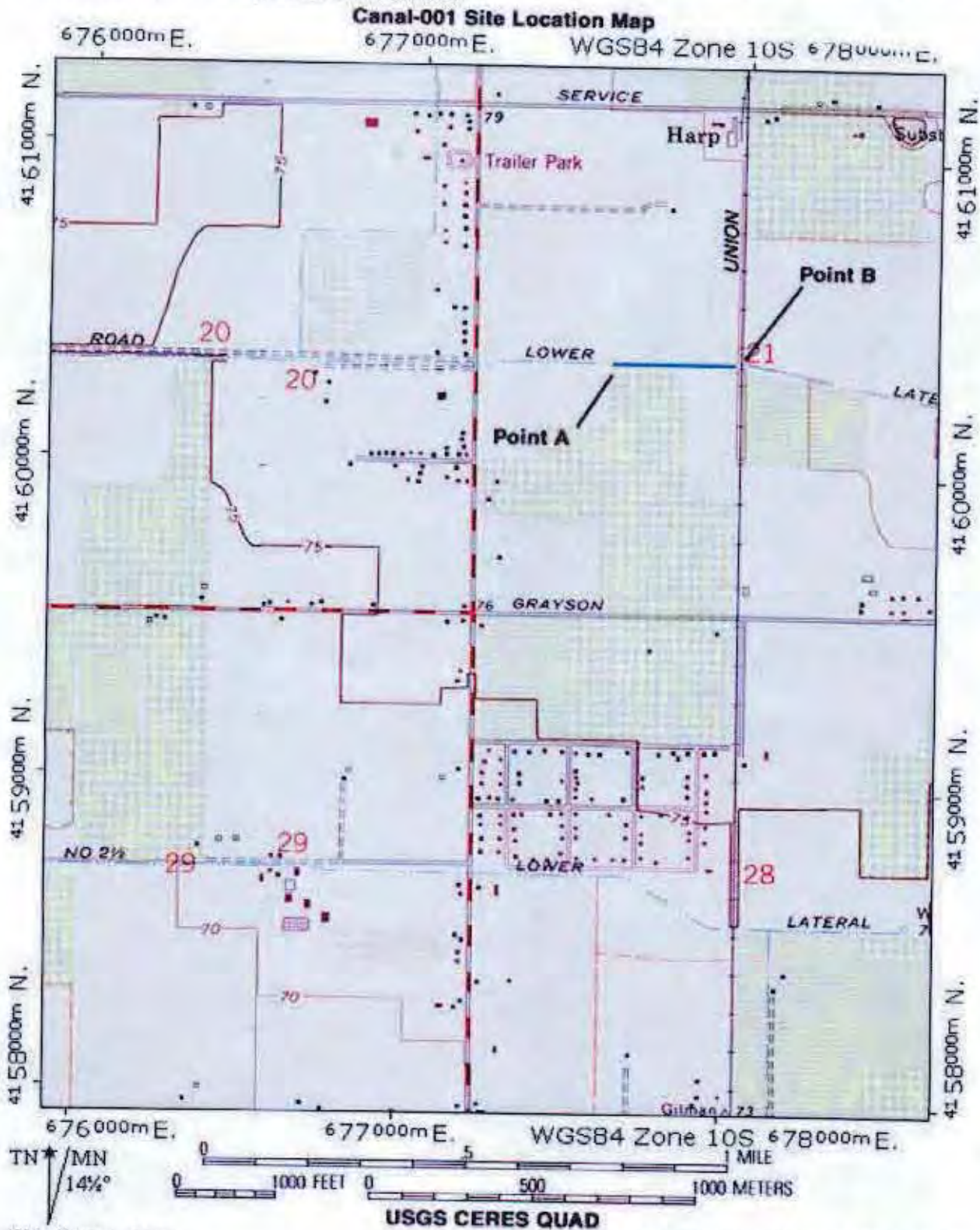
*Resource Name or #: Turlock Irrigation District, Upper Lateral No. 2 1/2 (crossing with historic Southern Pacific Railroad, now the Union Pacific Railroad)

Canal-002 Site Location Map



line.)
*Map Name: Ceres
DPR 523J (1/95)

*Scale: 1:24,000 *Date of Map: 1963 rev 1987
*Required information



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-50-000073 (update)
HRI #
Trinomial CA-STA-426H

Page 1 of 4

Resource Name or #: TID System/Ceres Main Canal Segment C (Roeding Road to Service Road)
Ceres 7.5'

L1. Historic and/or Common Name: Ceres Main Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Segment C

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) Portions of the canal intersect the project area, which primarily consisted of the eastern berm. This segment parallels Moore Road to the west, trending south from Roeding Road and terminating at Service Road, in the city of Ceres.
No UTM's 6/2017

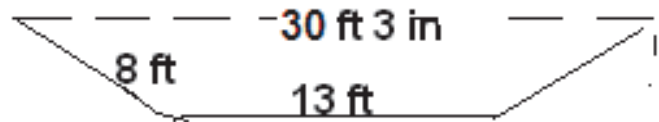
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

The canal is constructed as described in the 2015 record by Marvin for Segment B, Whitmore Avenue to Roeding Road. The previous segment was determined ineligible for the NRHP. The current segment as documented herein has been evaluated as ineligible as well. In addition to the canal, an artifact assemblage was identified along the entire length of the eastern berm. The assemblage is a moderate-sized scatter of historic debris including several hundred fragments of: white improved earthenware (WIE); amethyst, aqua, green, clear, cobalt, and brown glass; heavy aggregate concrete rubble; and various metal fragments. The constituents represent structural and domestic debris of varying ages. There is no direct provenience for the assemblage, which appears to have been deposited within fill for the berm. The artifacts represent a wide date range and reflect diverse activities, therefore providing limited potential to address historical questions about past populations. Likely imported within fill material, the source of the artifacts is unlikely to be identified, further reducing their information potential (Criterion D). The deposit is evaluated as not eligible to the NRHP and no further research is recommended.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

- a. Top Width: 30 ft. 3 in.
- b. Bottom Width: 13 ft.
- c. Height or Depth: 8 ft.
- d. Length of Segment: 2,640 feet

L4e. Sketch of Cross-Section (include scale) **Facing:** East



L5. Associated Resources: Along the eastern berm:

Feature A includes a broken concrete foundation in line with an intake valve. A metal pipe stand extending from the ground and pumping into the canal is adjacent to the intake valve. Feature B is a concrete box with a heavily corroded metal lid with two hinges. Feature B is adjacent to a dam.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) The canals of the TID system course through agricultural lands planted with orchards, vineyards, and row crops, consistent with the original setting of 1900. They pass by small farms, past rural residences, and through communities, conveying water from the same sources and for the same uses as they did when first constructed. This segment of canal is surrounded by industrial and residential property as well as vacant fields.

L7. Integrity Considerations: Originally an earthen-bermed canal, constructed with horses, graders, scrapers, and manual labor, the canal has been improved and maintained over the ensuing years by lining it with concrete, replacing original metal culverts and gates, checks, valves, etc. During the 1920s-1930s the canals were lined with concrete and have undergone periodic modifications to features since their construction. Although the Turlock Main Canal follows the same course as when completed in the early 1900s, it was lined with concrete in 1927, resurfaced with Gunitite in 1958 and 1985, and upgraded to modern standards. Consequently, it lacks integrity and is not eligible for the National Register.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing

Canal facing south with Caltrans Bridge 38C0245 in foreground.

L9. Remarks:

L10. Form Prepared by: Melinda Pacheco Patrick (Patrick GIS Group, Inc.) 1256 W. Lathrop Road, #216, Manteca, CA 95336 and Judith Marvin (Foothill Resources, Ltd.), P.O. Box 2040, Murphys, CA 95247

L11. Date: June 2016



Photo 753. Feature A – cement foundation and pipe (right background) on the east side of the canal in the berm, adjacent to an intake valve (left background). Facing west.



Photo 753. Feature B – metal box (left) on the eastern berm of the canal, associated with the dam. Facing southwest.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # P-50-000073 (update)

HRI#

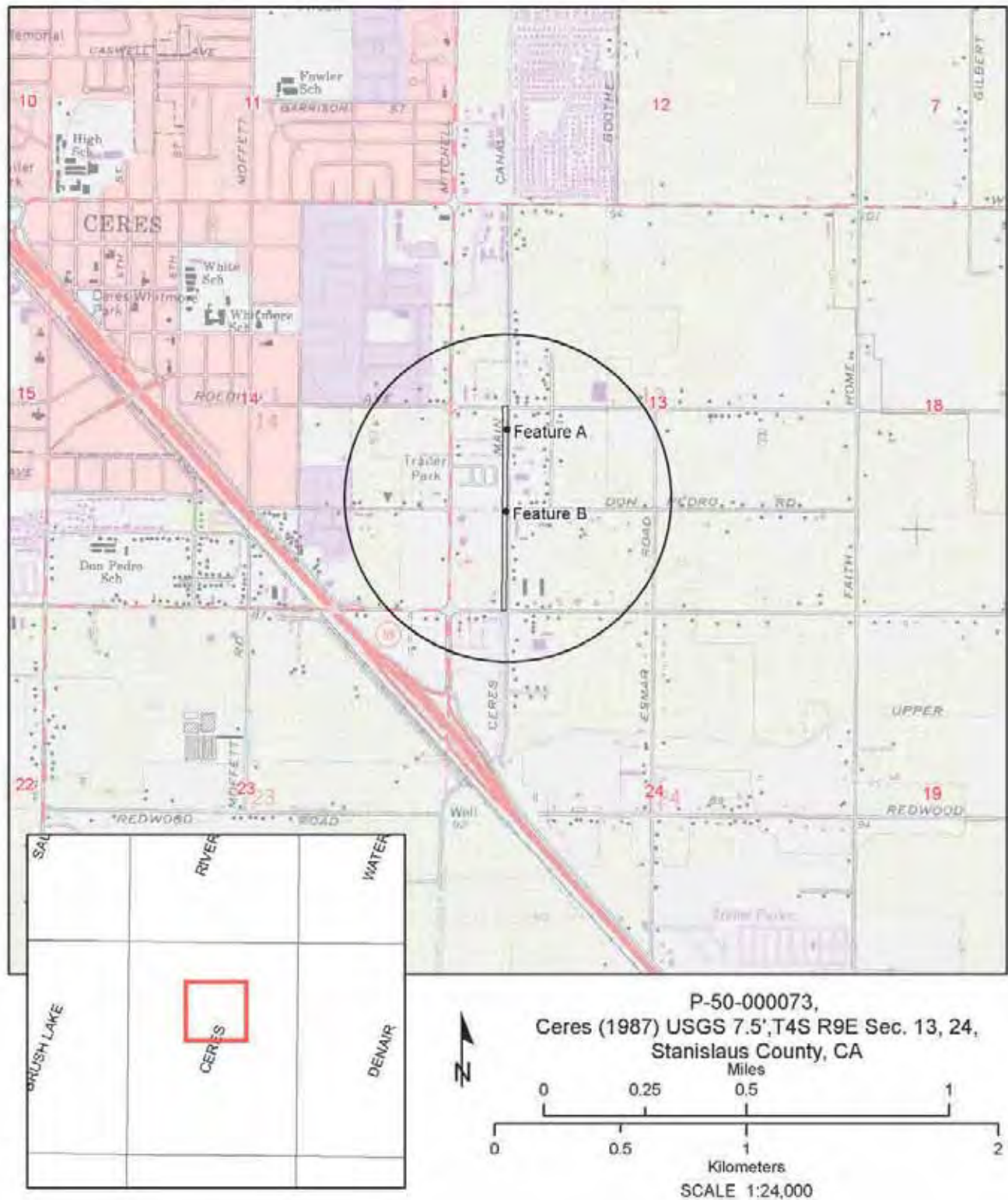
Trinomial CA-STA-426H

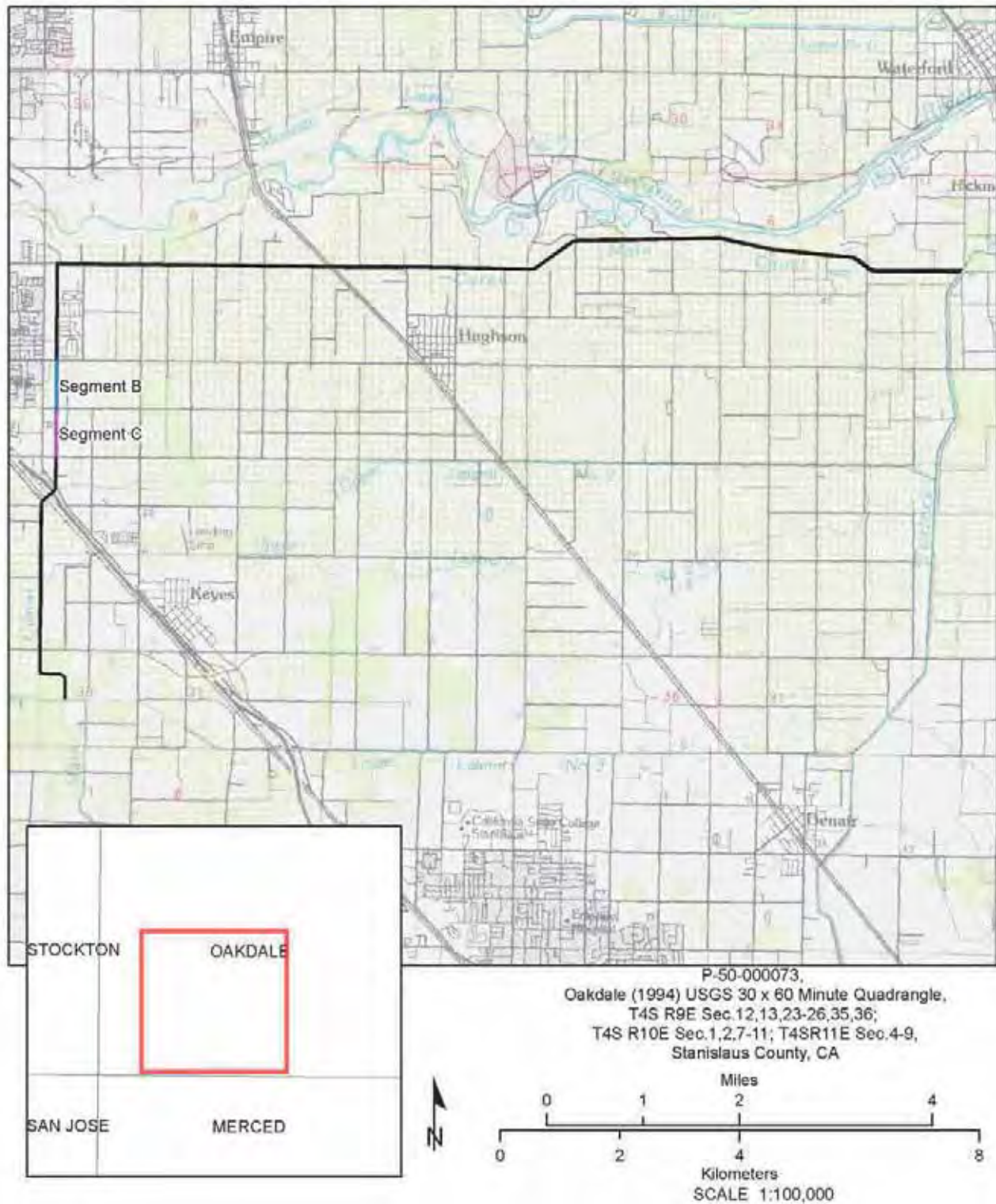
Page 3 of 4

*Resource Name or #: TID System/Ceres Main Canal Segment C (Roeding Road to Service Road Segment)

*Map Name:

*Scale: *Date of Map:





p Name:

DPR 523J (1/95)

*Scale: *Date of Map:

*Required information

*Ma

segment in this record is Ceres 7.5' only

State of California—The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P- 50-000073
 HRI # _____
 Trinomial CA-STA-426H

Page 1 of 6

*Resource Name or # (Assigned by recorder) Whitmore Avenue to Roeding Road Segment
TID System/Ceres Main Canal

*Recorded by: Judith Marvin, Foothill Resources, Ltd. *Date 8 May 2015 ☐ Continuation ☒ Update

P1. Other Identifier: _____

6/2017

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Stanislaus

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Ceres, Calif. Date 1969 PR 1987 T 4 S R 9 E, W $\frac{1}{2}$ of NW $\frac{1}{4}$ of Sec. 13; MDBM
 No UTMs

c. Address _____ City Ceres Zip _____

d. UTM: (Give more than one for large and/or linear resources) Zone 10 _____ mE/ _____ mN

e. Other Locational Data: e.g., parcel #, directions to resource, elevation, etc., as appropriate)

*P3a. Description: Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries).

This resource includes the water conveyance systems and related features of the Turlock Irrigation District (TID) Ceres Main Canal system, completed in this location by March of 1900 (Paterson 1987:100-102). The Ceres Main Canal branch runs along the TID's northern edge, not far from the Tuolumne River, to a point northeast of Ceres, where it turns south to replenish the laterals it crossed.

This update addresses a 2,587-foot segment of the Ceres Main Canal (P-05-000073) from Whitmore Avenue south to Roeding Road. Features in the APE include the concrete-lined open channel of the canal and control structures consisting of seven gates with weir boards, gate valves, and a water-measuring weir. At this location, the canal measures 30 feet 3 inches wide and 8 feet deep. It was lined with poured concrete ca. 1923 and resurfaced with Gunite in 1958; a roughly 12-inch rise was added at the same time (Troglin 1999). It was resurfaced again in 1985 (Vanderpol 2009). Cultural constituents included amethyst, aqua, green, clear, cobalt, and brown glass; heavy aggregate concrete rubble; and various metal fragments. The constituents are intermixed with modern debris of varying ages. The area is bordered by a trucking yard, fields, and housing. The ground surface is sand intermixed with gravels and there is no vegetation on site, with the exception of extremely sparse weeds. The resources are in good condition, albeit the area has been heavily disturbed by infrastructure, i.e. roads, telephone lines, and utilities. The berm has presumably been modified as the original canal has been retrofitted.

*P3b. Resource Attributes: (List attributes and codes) HP20; Canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☒ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View NW, 28 March 2015
 IMG-3718

*P6. Date Constructed/Age and

Sources: ☒ Historic
☐ Prehistoric ☐ Both
1900

*P7. Owner and Address:

Turlock Irrigation District
 333 E. Canal Drive
 Turlock, CA 95380

*P8. Recorded by: (Name, affiliation, address)

Judith Marvin
 Foothill Resources, Ltd.
 P.O. Box 2040
 Murphys, CA 95247

*P9. Date Recorded: 25 March 2015

*P10. Survey Type (Describe):

Intensive survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historical Resources Evaluation Report for the Mitchell/TID Canal Bike Path Project #CML-5241 (047), Ceres, Stanislaus County, California. Prepared by Judith Marvin for the City of Ceres.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

CA-STA-426H

Page 2 of 6

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) Whitmore Ave.-to Roeding Rd Segment
TID System/Ceres Main Canal

B1. Historic Name: Ceres Main Canal

B2. Common Name:

B3. Original Use: Water Conveyance

B4. Present Use: Water Conveyance

*B5. Architectural Style: Concrete-lined open canal

*B6. Construction History: (Construction date, alterations, and date of alterations)

The Ceres Main Canal was completed and entered use on March 13, 1900; this segment was lined with poured concrete in 1927, and resurfaced with Gunitite in 1958 and 1985; a roughly 12-inch rise was added at the same time (T. Troglin, TID Engineering FAX 7/28/1999).

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

*B8. Related Features: Seven gates with weir boards and gate valves, and a water measuring weir.

B9a. Architect: George Manuel b. Builder: Unknown (Doe, Hunt and Company; Horace Crane, George Bloss, N.O. Hultburg, Hubert Dunn, and others)

*B10. Significance: Theme Water systems Area

Period of Significance 1890-1925 Property Type Canal Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) The first irrigation system to be completed under the Wright Act, the Turlock District was also the first public irrigation district to be established in California, as well as the first to deliver retail electric power. In 1886 members of the Turlock and Ceres granges began actively proposing the formation of irrigation districts for the farmers of their regions. A young Modesto attorney, C. C. Wright, was elected to the State Assembly and chosen "for the express purpose of advocating some measure providing for the municipal control of water for irrigation" (Paterson 1987:53). In the spring of 1887 Wright drafted the Irrigation Districts Act. The Wright Act, approved in March of 1887, provided "for the organization and government of irrigation districts and... for the acquisition of water and other property and for the distribution of water thereby for irrigation purposes." Within three months of passage of the Wright Act, on 6 June 1887, the Turlock Irrigation District was formed. Initially all the irrigable land between the Tuolumne and Merced rivers, from the foothills on the east to the San Joaquin River on the west, 176,210 acres were included in the district. A water right for 225,000 inches was located, near Wheaton's Dam on the Tuolumne River near La Grange. George Manuel of Fresno was hired as district engineer; he surveyed the dam site and canal routes, and reported that estimated costs for the system totaled \$467,544.62. The board called for an election to authorize issuance of \$600,000 in bonds; the first sale of \$50,000 in bonds occurred in November 1887. Not until 1890, however, were any contracts let for construction. The La Grange Dam was completed by the Pacific Bridge Company in 1893; (continued)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: T. Troglin, Turlock Irrigation District Engineer, personal communication 28 July 1999. Alan M. Paterson, 1987, *Land, Water and Power, A History of the Turlock Irrigation District 1887-1987*. The Arthur H. Clark Company, Glendale, California.

B13. Remarks:

*B14. Evaluator: Judith Marvin, Foothill Resources, Ltd.
P.O. Box 2040, Murphys, CA 95247

*Date of Evaluation: 8 May 2015

(Sketch Map with north arrow required.)

See page 3.

(This space reserved for official comments)

Page 3 of 6

*Resource Name or # (Assigned by recorder) Whitmore Avenue to Roeding Road Segment
TID System/Ceres Main Canal

*Recorded by: Judith Marvin, Foothill Resources, Ltd. *Date 8 May 2015 ☒ Continuation ☐ Update

***B10. Significance:** the District issued the contract for the first part of the canal in January 1890 to Hamilton W. Gray. After another sale of bonds, the District awarded a contract to Doe, Hunt and Company for construction of the remainder of the canal system, and they began laying out the laterals. When the first contractor was unable to complete the work, Horace Crane and George Bloss, large Turlock landholders, assisted the District in taking over the construction program. Several other private individuals aided in the construction, including N. O. Hultburg and Hubert Dunn, a TID director, with his horses and men. Located within the project APE, the Ceres Main Canal branch runs along the TID's northern edge, not far from the Tuolumne River, to a point northeast of Ceres, where it turns south to replenish the laterals it crossed. Water was turned into the Ceres Main Canal on March 13, 1900, with Henry Stirring, a Ceres corn grower, the first customer (Paterson 1987:102).

Originally an earthen-bermed canal, constructed with horses, graders, scrapers, and manual labor, the canal has been improved and maintained over the ensuing years by lining it with concrete, replacing original metal culverts and gates, checks, valves, etc. During the 1920s-1930s the canals were lined with concrete and have undergone periodic modifications to features since their construction. Although the Turlock Main Canal follows the same course as when completed in the early 1900s, it was lined with concrete in 1927, resurfaced with Gunitite in 1958 and 1985, and upgraded to modern standards. Consequently, this segment lacks integrity and is not eligible for the National Register. Under Criterion A, although the canal is associated with the Turlock Irrigation District, an important entity in Stanislaus County, it has been upgraded to modern standards and lacks integrity to its 1890-1925 period of significance. Under Criterion C, the canal and its ancillary gates, pipeline, valves, weirs, and other features are standard examples of common resource types, designs used throughout the system, and not associated with any important advancements in engineering or design. It is not associated with any persons significant in the past (Criterion B), nor does it appear able to answer questions important to history (Criterion D).

Other sites related to the TID system—such as reservoirs, dams, siphons, tunnels, channels, canals, laterals, spillways, water conveyance features, power plants, construction camps, maintenance roads and facilities, pump sites and windmills—could potentially be grouped with the Turlock canals as a thematic NRHP District nomination.

(Sketch Map with north arrow required.)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # 50-000073
HRI#
Trinomial CA-STA-426H

Page 4 of 6

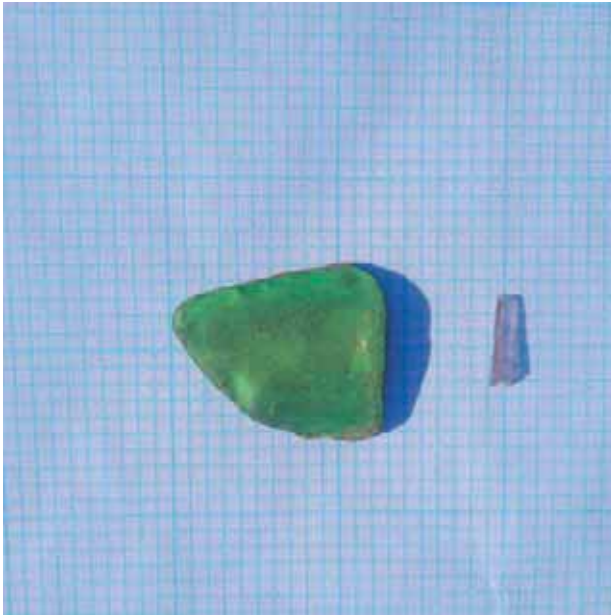
*Resource Name or # T.I.D Ceres Main Canal

*Recorded by: Patrick GIS Group, Inc.

*Date: ☒ Continuation ☐ Update



Caltrans Bridge #38C0245 facing south/southwest with T.I.D. berm in foreground.



Thick, heavily corroded, green glass with patina and amethyst glass.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # 50-000073
HRI #
Trinomial CA-STA-426H

Page 5 of 6 Resource Name or #: TID System/Ceres Main Canal

L1. Historic and/or Common Name: Ceres Main Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation Designation: Hatch Rd at Lateral 1

b. Location of point or segment: The segment surveyed for this project is located in central Stanislaus County on Moore Road between Whitmore Avenue and Roeding Road.

L3. Description (Describe construction details, materials, and artifacts found with each feature. Provide plans/sections as appropriate.): This site includes the water conveyance systems and related features of the Turlock Irrigation District (TID) Ceres Main Canal system. Features associated with this segment included the concrete-lined open channel of the canal. It was lined with poured concrete in 1927, and resurfaced with Gunite in 1958 and 1985; a roughly 12-inch rise was added at the same time (T. Troglin, TID Engineering FAX 7/28/1999).

L4. Dimensions:

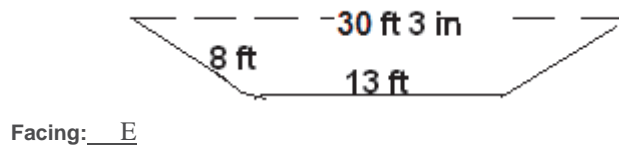
a. Top Width: 30 ft 3 in

b. Bottom Width: ~13 ft

c. Height or Depth: 8 ft

d. Length of Segment: 2587 ft

L4e. Sketch of Cross-Section (include scale):



L5. Associated Resources: Seven gates with weir boards and gate valves (Snow Mfg. Co., Los Angeles), concrete water measuring weir, and pedestrian bridge with pipe rail.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate): The canals of the TID system course through agricultural lands planted with orchards, vineyards, and row crops, consistent with the original setting of 1900. They pass by small farms, past rural residences, and through communities, conveying water from the same sources and for the same uses as they did when first constructed. Within the project area, a subdivision is located along its northwest boundary and Moore Road along its east side.

L7. Integrity Considerations: Originally an earthen-bermed canal, constructed with horses, graders, scrapers, and manual labor, the canal has been improved and maintained over the ensuing years by lining it with concrete, replacing original metal culverts and gates, checks, valves, etc. During the 1920s-1930s the canals were lined with concrete and have undergone periodic modifications to features since their construction. Although the Turlock Main Canal follows the same course as when completed in the early 1900s, it was lined with concrete in 1927, resurfaced with Gunite in 1958 and 1985, and upgraded to modern standards. Consequently, it lacks integrity and is not eligible for the National Register.

L8a. Photograph, Map, or



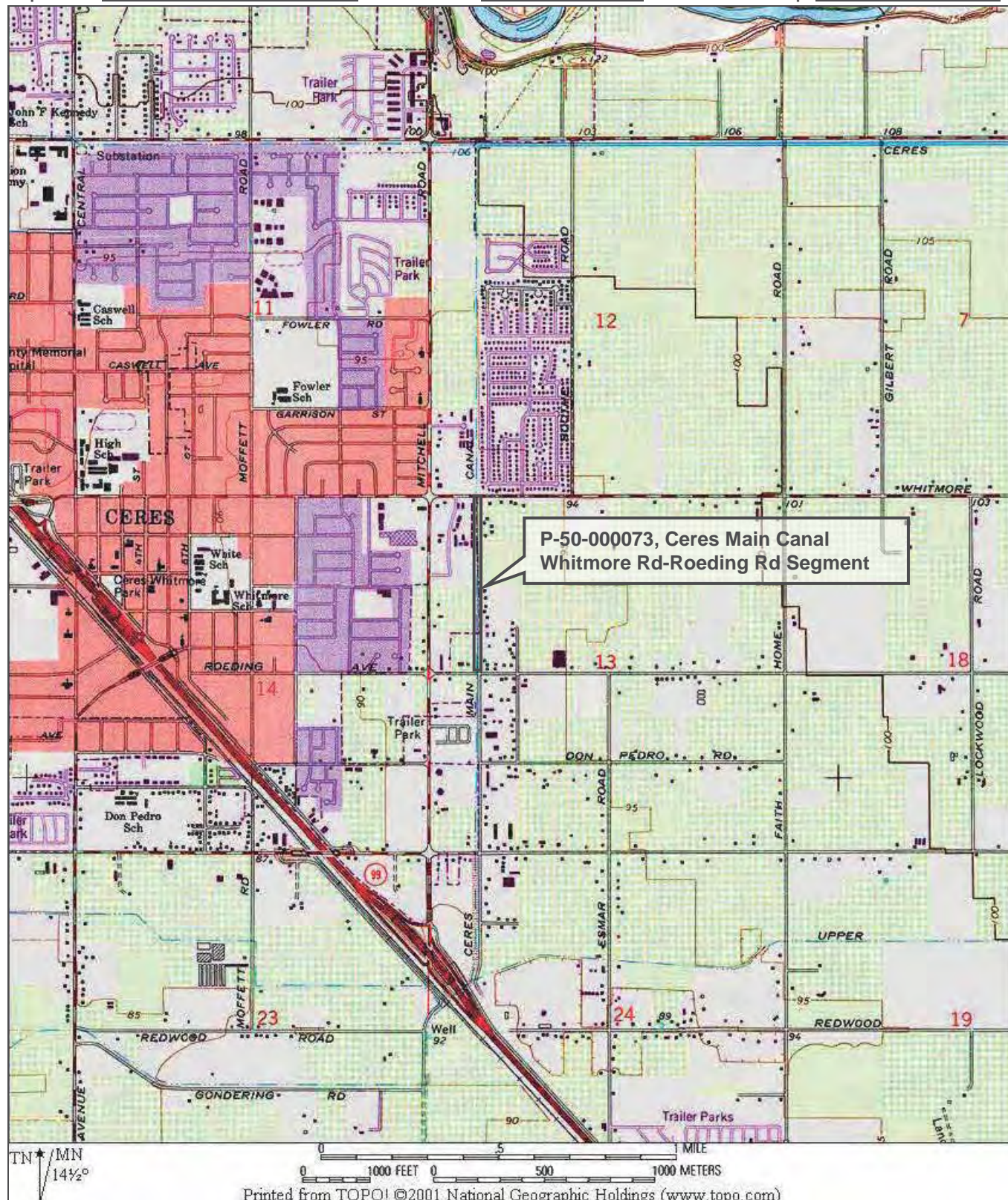
L8b. Description of Photo, Map, or Drawing (View, scale, etc.)
View south (3/25/2015)

L9. Remarks:

L10. Form Prepared by (Name, affiliation, and address)

Judith Marvin,
Foothill Resources, Ltd.
P.O. Box 2040
Murphys, CA 95247

L11. Date: May 8, 2015



Ceres Main
Canal only

Primary # 50-00073
HRI #
Trinomial CA-STA-4264

Page 1 of 5 *Resource Name or # (Assigned by recorder) Ceres Main Canal, Hatch Road at Lateral One
*Recorded by: Judith Marvin *Date 12 March 2009 ☐ Continuation ☒ Update

Ceres 75'

This update records the segment of the Ceres Main Canal along Hatch Road between Mitchell Road and Boothe Road, a length of 1,050 feet. At this point, the Ceres Main Canal branch runs along the Turlock Irrigation District's (TID) northern edge, not far from the Tuolumne River to a point northeast of Ceres, where it turns south to replenish the laterals it crossed.

The portion of the site surveyed as part of this project extends for 1,050 feet along the Ceres Main Canal from Boothe Road west to where the main canal turns south, with Lateral One continuing west about 3,675 feet in an underground concrete pipe. Features in the APE include the concrete-lined open channel of the canal and control structures consisting of gates, drop, weir, and an underground pipeline. At this location, the canal measures 30 feet 3 inches wide and 8 feet deep. It was lined with poured concrete in 1927, and resurfaced with Gunite in 1958. A roughly 12-inch rise was added at the same time (Troglin 1999). It was resurfaced again in 1985 (Vanderpol 2009). A roughly 2-foot concrete rise was added at the head of Lateral One in recent years.

Four gates are located at the Head of Lateral One, constructed of board-formed concrete, with wood gates with metal bottoms, raised with Waterman valves and supported by square metal posts and rails, which divert water from the canal into Lateral One and the Main Canal. Lateral One, which continues west, conveys water through a concrete pipeline, accessed from the head drop through a trash gate (grizzly). Five concrete gates, with a central rectangular board-formed concrete water measuring weir, divert water due south into the Main Canal. A pedestrian bridge, constructed of concrete with board decking, crosses the canal at this point. Another pedestrian bridge, of more recent construction, has a concrete deck and a pipe rail. It provides access across the south branch of the Main Canal. Upstream from the diversion gates, a lateral (13-2) diverts water north through a gate with a Waterman valve, to the agricultural area north of the Main Canal. The age of the Waterman valves and improvements to the canal are unknown, as the TID does not keep historical records of replacements (Vanderpol 2009).



No. 1. Headgates, Head of Lateral One and Ceres Main Canal.



No. 2. Lateral 1 at Ceres Main Canal, view west.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # 50-000073

HRI #

Trinomial CA STA-4264

Page 2 of 5

Resource Name or #: TID System/Ceres Main Canal

L1. **Historic and/or Common Name:** Ceres Main Canal

L2a. **Portion Described:** ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Hatch Rd at Lateral 1

b. **Location of point or segment:** The segment surveyed for this project is located in central Stanislaus County on Hatch Road between Mitchell Road and Boothe Road.

L3. **Description** (Describe construction details, materials, and artifacts found with each feature. Provide plans/sections as appropriate.): This site includes the water conveyance systems and related features of the Turlock Irrigation District (TID) Ceres Main Canal system. Features associated with this segment included the concrete-lined open channel of the canal. It was lined with poured concrete in 1927, and resurfaced with Gunite in 1958 and 1985; a roughly 12-inch rise was added at the same time (T. Troglin, TID Engineering FAX 7/28/1999).

L4. **Dimensions:**

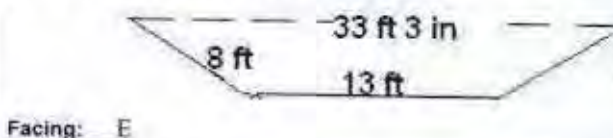
a. **Top Width:** 33 ft 3 in

b. **Bottom Width:** ~13 ft

c. **Height or Depth:** 8 ft

d. **Length of Segment:** 1050 ft

L4a. **Sketch of Cross-Section** (include scale).



L5. **Associated Resources:** Head of Lateral One with drop with four gates with weir boards, trash rack, and concrete pipeline; five gates into south branch of Ceres Main Canal, including a water measuring weir.

L6. **Setting:** (Describe natural features, landscape characteristics, slope, etc., as appropriate): The canals of the TID system course through agricultural lands planted with orchards, vineyards, and row crops, consistent with the original setting of 1900. The pass by small farms, past rural residences, and through communities, conveying water from the same sources and for the same uses as they did when first constructed. Within the project area, a subdivision is located along its south boundary and Hatch Road along its north side.

L7. **Integrity Considerations:** Originally an earthen-bermed canal, constructed with horses, graders, scrapers, and manual labor, the canal has been improved and maintained over the ensuing years by lining it with concrete, replacing original metal culverts and gates, checks, valves, etc. During the 1920s-1930s the canals were lined with concrete and have undergone periodic modifications to features since their construction. Although the Turlock Main Canal follows the same course as when completed in the early 1900s, it was lined with concrete in 1927, resurfaced with Gunite in 1958 and 1985, and upgraded to modern standards. Consequently, it lacks integrity and is not eligible for the National Register.

L8a. **Photograph, Map, or**



L8b. **Description of Photo, Map, or Drawing** (View, scale, etc.)

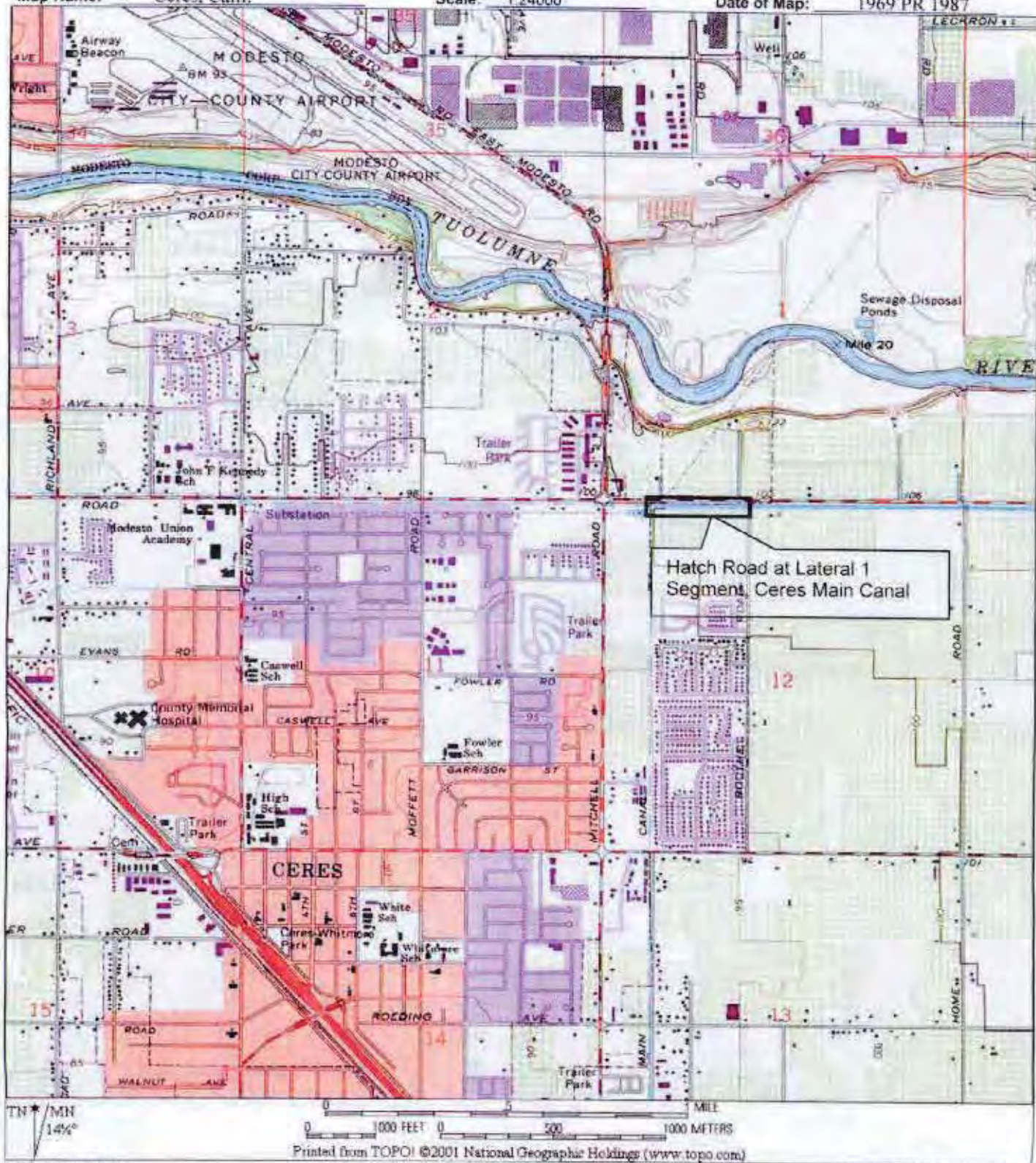
View east (3/12/09)

L9. **Remarks:**

L10. **Form Prepared by** (Name, affiliation, and address)

Judith Marvin,
Foothill Resources, Ltd.
P.O. Box 2040
Murphys, CA 95247

L11. **Date:** 20 March 2009



Page 4 of 5

*Resource Name or #: (Assigned by recorder) TID System

P1. Other Identifier: TID Main Canal

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Stanislaus

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Ceres Date 1969 PR 1987 T 4 S R 9 E

Corners of of Sec. 25,26,35,36; MDBM

c. Address Keyes Rd at TID Main Canal

City

Zip

d. UTM: (Give more than one for large and/or linear resources) Zone 10

mE/

e. Other Locational Data: e.g., parcel #, directions to resource, elevation, etc., as appropriate) About 1½ miles west of Keyes in an unincorporated area of Stanislaus County.

*P3a. Description: Describe resource and its major elements. (Include design, materials, condition, alterations, size, setting, and boundaries.)

This site includes the water conveyance systems and related features of the Turlock Irrigation District (TID) system. The district was formed in 1887, with construction of the La Grange Dam on the Stanislaus River completed in 1893. After great difficulties—economic, engineering, legal, and political—the system was finally completed in 1902. The first phase of construction brought the waters of the Stanislaus River along the south bank of the Tuolumne River to Turlock Lake, through a main supply canal to the northeast edge of the district, near Hickman. At this point the Ceres Main Canal takes off, flows west on the highland above the Tuolumne Channel, and then south through the center of the district. The Turlock Main Canal diverts at the same gate, flows south for about ten miles, and then through the main laterals, running west to the San Joaquin River. In 1923 TID completed construction of the Don Pedro dam, reservoir, and power house and began delivering electric power to its customers soon thereafter. The system consists of dams, reservoirs, canals, tunnels, channels, siphons, laterals, spillways, water conveyance features, power plants, gates, gauges, valves, and other features.

The canal courses through agricultural lands planted with orchards, vineyards, and row crops, and is consistent with its original setting. The portion of the site recorded in detail in this form includes the section of the Ceres Main Canal at Keyes Road. When originally constructed, the canal was an earthen-bermed open channel, 25'9" feet wide and 7 2 in feet deep. The segment in the project area was concreted in 1927, and resurfaced with Gunite in 1958, but has been unchanged except for regular maintenance.

*P3b. Resource Attributes: (List attributes and codes) HP 20 Canal, HP 21 Dam, HP 22 Reservoir

*P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) TID Ceres Main Canal, view southwest, 6/21/99

*P6. Date Constructed/Age and

Sources: ☒ Historic

☐ Prehistoric ☐ Both

1900

*P7. Owner and Address:

Turlock Irrigation District

333 East Canal Drive

Turlock, CA 95381

*P8. Recorded by: (Name, affiliation, address)

Judith Marvin

Foothill Resources, Ltd.

P.O. Box 2040

Murphys, CA 95247

*P9. Date Recorded: 6/21/99

*P10. Survey Type (Describe):

Intensive survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

Historical Property Survey Report (Positive) for the Keyes Road Bridge at Turlock Irrigation District Ceres Main Canal Project, Stanislaus

County, California, submitted to Stanislaus County Dept. of Public Works, August 1999.

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record

☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record

☐ Artifact Record ☐ Photograph Record ☐ Other (List) _____

DPR 523A (1/95)

*Required Information

*Resource Name or #: (Assigned by recorder) TID System Ceres Main Canal

D1. Historic Name: Turlock Irrigation District D2. Common Name: TID System

*D3. **Detailed Description** (discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.) The district includes the Don Pedro, La Grange, and Turlock (Owens) Lake dams and reservoirs, the Main Canal, Ceres Main Canal, Turlock Main Canal, and Laterals of the TID system. It also includes all power plants, tunnels, siphons, spillways, water conveyance features, gates, valves, gauges, and other associated features. Other sites related to the history and operations of the TID system—such as construction camps, maintenance roads and facilities, pump sites, and windmills—could potentially be grouped with the canal system as a thematic District NRHP nomination. The system courses from Don Pedro Reservoir in southwestern Tuolumne County, along the south bank of the Tuolumne River to near Hickman, where it divides into the Ceres Main and Turlock Main Canals. A gravity flow system, the canals course from the foothills in Tuolumne County west to the vast plains of the San Joaquin Valley. The system was built to convey the waters of the Tuolumne River to the agricultural lands in southern Stanislaus County, providing irrigation water to orchards, vineyards, and row crops, passing by small farms, rural residences, and through communities.

*D4. **Boundary Description** (Describe limits of district and attach map showing boundary and district elements.): The district extends from Don Pedro Reservoir in southwestern Tuolumne County, along the south bank of the Tuolumne River to near Hickman, then is diverted into the Turlock Main and Ceres Main Canals. Laterals flow westerly from the Turlock to Ceres canals. It includes virtually all the land south from the Tuolumne River to the Merced Rivers, and from Hickman and Delhi in the east to the San Joaquin River in the west (TID Canal System Map, pg. 4).

*D5. **Boundary Justification:** The district boundaries include all of the area encompassed by the Turlock Irrigation District, as depicted on the TID Canal System Map (pg. 4).

*D6. **Significance: Theme** Irrigation and Power Systems

Period of Significance 1890-1925

Applicable Criteria

Area Stanislaus County

A & C

(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope; also address the integrity of the district as a whole.) The Turlock Irrigation District was the first in California to be established under the 1887 Wright Act, which provided for the formation of irrigation districts under public control. The act was tested in local, state, and federal courts and has survived virtually intact, allowing for the formation of irrigation districts in the Great Central Valley and other parts of the state. The TID system brought irrigation water to the dry lands south of the Tuolumne River, as well as building a publicly-owned hydroelectric plant for its users.

The TID Ceres Main Canal (TID 1) and Turlock Main Canal (TID 2) are only two of the most visible parts of a complex water system extending from the Sierra Nevada foothills to the Central San Joaquin Valley. The entire system includes dams, reservoirs, diversion structures, tunnels, canals, laterals, pipelines, spillways, gates, gauges, valves, siphons, pumps, and other features. The historical significance of the TID canal system lies in its whole, rather than in individual segments or features.

The system appears to retain its integrity to its period of significance and reflects the criteria as to original location, setting, feeling and association to a remarkable degree. It also retains good integrity of design, workmanship, and materials to the period of significance. Although designed as an earthen-bermed system of canals and laterals, all were concreted by the 1920s, during the period of significance, and improvements since that time have been for maintenance purposes, rather than a major change in the system.

The District, the first of its kind to be established in California and the prototype for all others that followed, delivered the water that facilitated the agricultural, community, and residential development of Stanislaus County. Flowing westerly and then southerly through the heartland of Stanislaus County, the segment of the Ceres Main Canal and Turlock Main Canal convey a sense of the time and place when small farms replaced the large grazing ranches of the nineteenth century, forever altering the demographics of the area.

*D7. **References** (Give full citations including the names and addresses of any informants, where possible.): *Historic Property Survey Report (Positive) for the Baldwin Road Bridge at Turlock Irrigation District Ceres Main Canal Project, Stanislaus County, California*, and *Historic Resource Evaluation Report for the Baldwin Road Bridge at Turlock Irrigation District Ceres Main Canal Project, Stanislaus County, California*, both submitted to James Gregg, Supervising Civil Engineer, Stanislaus County Department of Public Works, Modesto California, July 1999.

*D8. **Evaluator:** Judith Marvin

Date: 29 July 1999

Affiliation and Address: Foothill Resources, Ltd., P.O. Box 2040, Murphys, California 95247

SITE NAME: Ceres Main Canal, Turlock Irrigation District, Stanislaus County
SITE NUMBER: KT-8
QUAD SHEET: "Ceres Quadrangle," USGS: 1969, photorevised 1987
PIPELINE LOCATION: Milepost 197.9, Mainline

Description of Feature

Site KT-8 is located at the point where Turlock Irrigation District's Ceres Main Canal crosses the proposed Mojave Pipeline project APE, immediately northeast of the junction of Mitchell and Redwood roads and east of Highway 99, on the edge of the town of Ceres. This site, with its comparison points KT-8(n) and KT-8(s), is located in a mixed agricultural and industrial area of Stanislaus County. JRP recorded the two comparison sites to better place KT-28 in context and consider the lateral's integrity.

The Ceres Main Canal receives water from the Turlock Main Canal just west of Hickman, then flows west to the town of Ceres. It then turns south and supplies the district's lower laterals. The canal also connects with the district's upper lateral system and transfers available water from the upper into the lower laterals. KT-8 is located just to the west of the freeway, railroad, and the canal's confluence with Upper Lateral 2 1/2, and approximately a mile north of the junction of the Ceres Main Upper Lateral 2 (Photograph 1). KT-8 and its comparison sites are located in an area of mixed agricultural, residential, and commercial use. KT-8 is located at the southern end of the point where the canal passes under the freeway and railroad. To the southwest of this site are orchards and an almond processing facility, while to the northwest is a vehicle yard and silo complex. To the southeast across the freeway are subdivisions, while to northeast across the freeway is a sales yard. Site KT-8(s) is completely surrounded by orchards, and is located at the junction of Upper Lateral 2 with the Ceres Main Canal (Photograph 3 of Site LG-28). Comparison site KT-8(n) is located where Service Road crosses the Ceres Main Canal, in an area of small agricultural parcels with homes (Photograph 2).

History of Feature

The Ceres Main Canal is a central feature of the Turlock Irrigation District's original distribution system. TID is one of the first Wright Act districts (along with Modesto Irrigation District). For a brief history of the TID, see above Section 2.2. The district began building its system in 1893, when it joined with the Modesto Irrigation District to build a diversion facility at La Grange on the Tuolumne River. Over the next years the district constructed its main canal system and began work on its laterals. Internal dissension in the district caused main canal construction progress to move forward slowly. By April 1894, TID had underway planning and preliminary work on the district canal and irrigation system. Besides the main headwork at the dam and canals, flumes and tunnels to reach Hickman, where the main canal then terminated, laterals would have to be dug in what the district engineer described as "ground easily scraped." The main canal would run almost due south from Hickman for 18 miles, nearly to the Merced River, with laterals serving separate areas. The main canal terminated with its division into the Turlock and Ceres main canals. (Modesto Daily Evening News, April 7, 1894.) Later that summer

TID's directors accepted a bid from Doe, Hunt & Co. of San Francisco to complete the TID canal system, who began work in June 1894. However, by August, 1894 work stopped because the district had no money to pay their contractors. (Stanislaus County Weekly News May 11, 1894; June 8, 1894; June 29, 1894; July 23, 1894)

For the next few years the district struggled to build its system, and by the end of 1898 TID had finished its main canal sufficiently far to send of water 23 miles from La Grange to Hickman. (Modesto Daily Evening News November 12, 1898; Stanislaus County Weekly News November 18, 1898). TID began irrigation in the spring of 1900. (Stanislaus County Weekly News, March 16, 1900). According to the district, the Ceres Main Canal, and all related laterals, was in place by 1904 (Glauser, July 12, 1993). Shortly thereafter the system was described as a main canal reaching about 25 miles from the diversion dam, connecting with the Turlock Main and Ceres Main canals, each "about 35 miles long and each system having seven laterals aggregating over 100 miles in length." The main canals and portions of the laterals were contracted out in units. (Elias, 1924: 63)

During the 1920s and 1930s the district undertook a program of canal and lateral lining. Asphalt proved impractical, and eventually the district turned to concrete lining. In later years the canals and laterals have also been gunited. In July 1993 the district described changes to their laterals:

Since the date of first construction of the canals the District has conducted routine maintenance and significant upgrades of its water delivery systems. Although the canals were originally constructed near the turn of the century they have been improved over the years with the addition of modern structures and surface lining to improve flow capacity, improve hydraulic control, and improve customer service. Alignments have been changed, cross sections have been increased, drop structures have been installed and improved, and the location of the original turnouts has been changed. The only remnant of the original canal is probably the name of the canal ... (Glauser, July 12, 1993)

Comparison of historic and modern maps indicates that the Ceres Main Canal is, at KT-8 and the comparison points, in its original location. Field inspection of the three sites show that in all cases the Ceres Main Canal has been lined with concrete, in two of the three locations as recently as the 1980s. When the canals were lined, older control structures were redesigned as can be seen within the APE where standardized lateral headgates were integrated into the canal's concrete embankment (Photograph 3).

Evaluation of Feature

The Turlock Irrigation District's Ceres Main Canal at site KT-8 is part of the original irrigation system of one of California's first Wright Act irrigation districts. It has played a significant role in the agricultural development of the area it serves, and is sufficiently old to be considered for the National Register on the basis of its age and local importance under Criterion A. Its period of significance, therefore, dates to the time of its original construction, ca. 1898-1904. At that time the lateral was dirt lined and ran through an

P-50-000073

area of farms and orchards. Since that time, however, the lateral has lost integrity of design, workmanship, materials, setting, and feeling owing to the district's lining projects and the installation of the freeway, electric transmission lines on both banks of the canal, modern bridges and culverts after the period of significance. It no longer runs through an area typified by widely scattered farmsteads, because with the passage time, and with construction of Highway 99 came denser non-agricultural development. Furthermore, because lined irrigation canals are common features in the San Joaquin Valley, the Ceres Main Canal cannot be considered a unique example of a segment of an early irrigation system and thus does not meet Criterion C. It is not eligible for the National Register.

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-50-000073

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 197.9, Mainline

LOCATION NO: KT-8
PHOTO DATE: MAY 28, 1993

1. **Name of Feature:** Ceres Main Canal

2. **Location of recordation:** KT-8 is located at the point where the new Redwood Road bridge crosses the Turlock Irrigation District's Ceres Main Canal. The canal at this point runs roughly due north under Highway 99. The Southern Pacific railroad crosses Ceres Main Canal just to east of Redwood Road.

3. **Other locations for recording this feature:** K-8(n) and K-8(s)

4. **Structures at or near this location:** There are several structures at this site, including the new county Redwood Road bridge (Ceres Main Canal Bridge, No. 38C-321) across the canal, a concrete culvert of apparently recent origin carrying the canal under the railroad, and a low bridge carrying the freeway over the canal. A large power line on steel poles parallels north side of canal.

5. **Setting at this location:** KT-8 is located just to the west of Highway 99 and the SPRR. Across the tracks and freeway to the east are scattered residences. The west side of the railroad is typified by large scale agricultural activities. A livestock ranch is situated to the northwest and on the other side of Redwood Road, and to the southwest are orchards.

6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt canal.

7. **Attributes at this location (measurements in feet):**

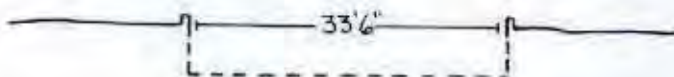
Top width: 33' 6"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: 4" concrete lined

8. **Sketch, in cross section:** Looking west



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-50-000073

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project

MILEPOST: N/A

LOCATION NO: KT-8(n)

PHOTO DATE: May 28, 1993

1. **Name of Feature:** Ceres Main Canal
2. **Location of recordation:** Where the canal crosses Service Road.
3. **Other locations for recording this feature:** KT-8 and KT-8(s)
4. **Structures at or near this location:** Bridge No. 144 carries Service Road traffic over the canal. Outlet gates are located in the west bank of the canal (one on each side of the bridge) to serve local irrigators, and the Turlock Irrigation District's electrical transmission line parallels the canal to the east.
5. **Setting at this location:** This site is located in an area of "ranchettes" and suburban development on the southern edge of Ceres. Residential development has occurred to the southwest, and there is a farm house and old orchard to the northwest. A small homestead and agricultural parcel is located to the northeast, with a similar vineyard and house with outbuildings to the southeast. The area is typified by small parcels rather than large commercial farms.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original earthen canal.

7. **Attributes at this location (measurements in feet):**

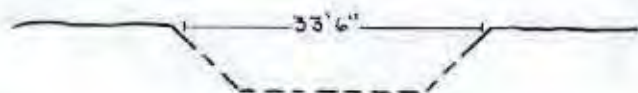
Top width: 33' 6"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: 3" thick concrete done in 1975

8. **Sketch, in cross section:** Looking north



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-50-000073

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: KT-8(s)
PHOTO DATE: May 28, 1993

1. **Name of Feature:** Ceres Main Canal
2. **Location of recordation:** Where Upper Lateral 2 1/2 joins the Ceres Main Canal at the junction of Turner and Mitchell roads.
3. **Other locations for recording this feature:** KT-8 and KT-8(n)
4. **Structures at or near this location:** Mitchell Road extends parallel to the canal.
5. **Setting at this location:** Orchards completely surround this recordation point.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt canal.
7. **Attributes at this location (measurements in feet):**

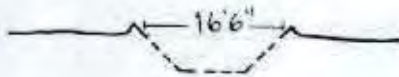
Top width: 16' 6"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete, relined in 1987.

8. **Sketch, in cross section:** Looking south



1

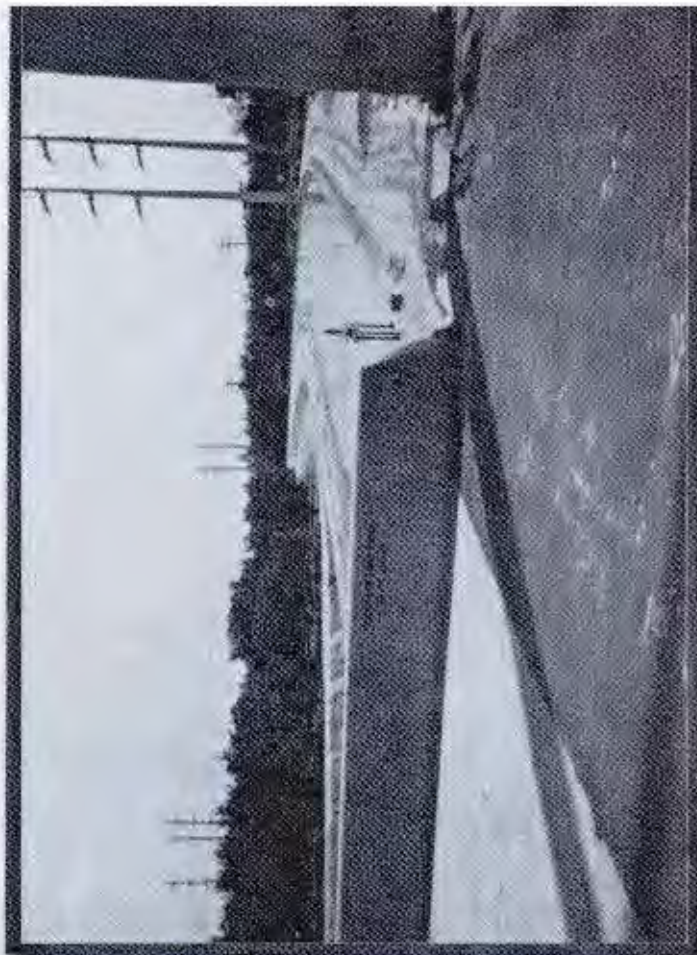


Photograph Number: 1
 Site Number: KT-8
 Common Name: Ceres Main Canal
 Camera Facing: East

Photograph Number: 2
 Site Number: KT-8(n)
 Common Name: Ceres Main Canal
 Camera Facing: North

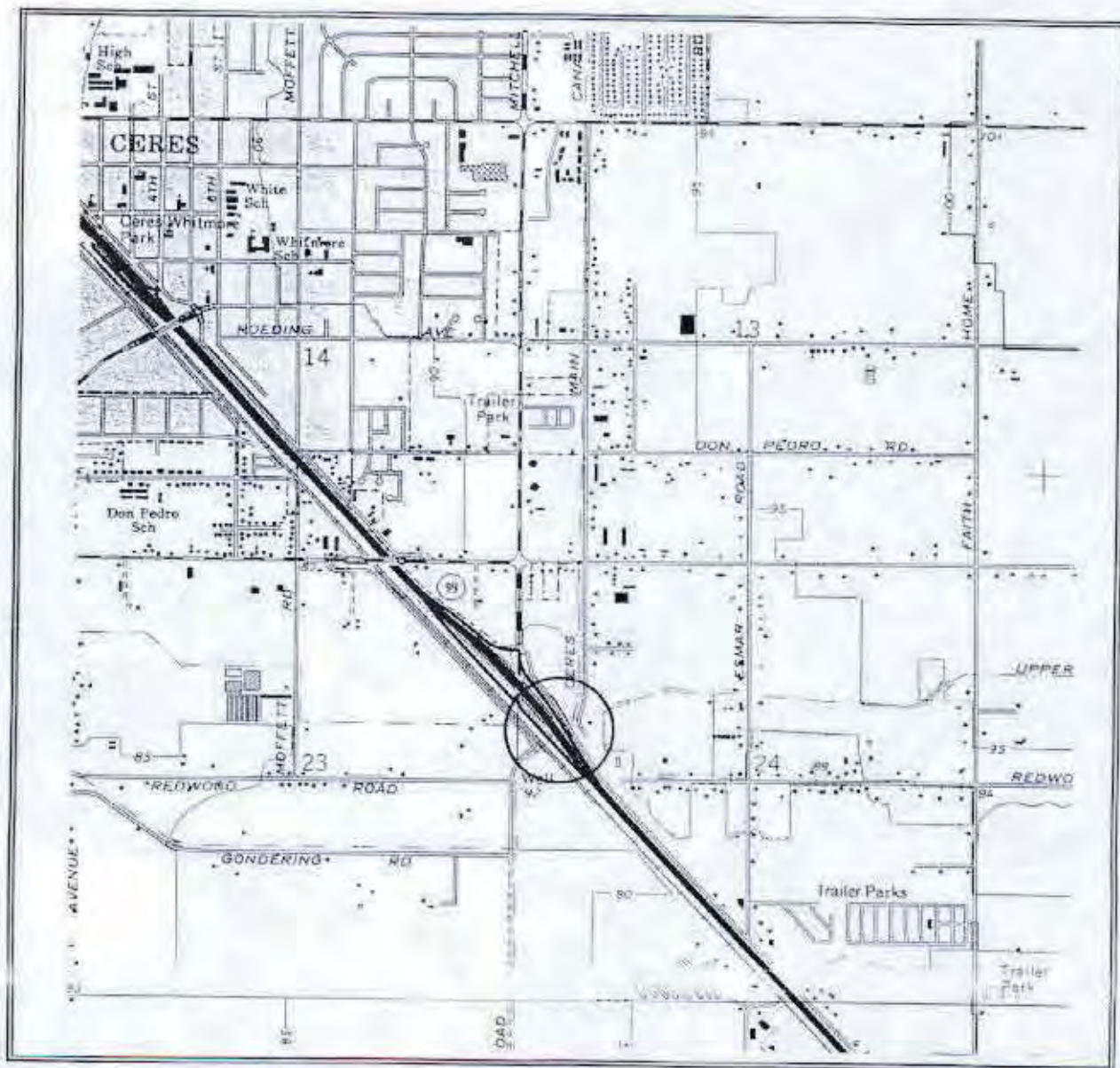
Photograph Number: 3
 Site Number: KT-8
 Common Name: Ceres Main Canal
 Camera Facing: West

3



2





SITE NAME: Ceres Main Canal, Turlock Irrigation District, Stanislaus County
SITE NUMBER: KT-8
QUAD SHEET: "Ceres Quadrangle," USGS: 1969, photorevised 1987
PIPELINE LOCATION: Milepost 197.9, Mainline

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # **P 50-000073**
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 6

*Resource Name or #: T.I.D. Lateral No. 2 (Lower)

8/13

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County: Stanislaus

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Ceres and Brush Lake Date: 1987 and 1986 T 4S; R 9E; Sections 19, 20, 21; M.D.B.M.

c. Address: Lateral No. 2/Lower Lateral No. 2

City: Ceres

Zip:

d. UTM: Zone: 10 ; mE/ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: Irrigation canal paralleling Redwood Road.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Turlock Irrigation District's (TID) Lateral No. 2 connects at the eastern end to the Turlock Main Canal. The segment of the canal recorded begins where the Union Pacific railroad intersects Lateral No. 2 and continues west until Carpenter Road. This portion of Lateral No. 2 connects on the eastern end at the Ceres Main Canal and Laird Slough on the western end. At Crow's Landing, Lateral No. 2 is called Lower Lateral No. 2. Lateral No. 2 was completed in 1899 (Paterson 1989). Originally, Lateral No. 2 was an open dirt canal which was constructed by Fresno scrapers. Parts of the TID canals were lined with cobbles after initial construction to improve water flow. Beginning in the 1920's the TID began a long-term program of canal improvement that focused on the installation of concrete lining which would improve water flow, reduce loss from seepage, and reduce maintenance. The easternmost section of Lateral No. 2 that is recorded here is located between the Union Pacific Railroad line and Crow's Landing Road and was lined with concrete in 1953. Approximately one mile west of Crow's Landing Road at Ustick Road, the concrete lining was installed by 1961. Concrete lining was installed in Lateral No. 2 at Carpenter Road by 1964. Even with this concrete lining, irrigation canals require maintenance and repair on a periodic basis. Several patched cracks were observed along this lateral. In addition to the actual canal, the recorded segment of Lateral No. 2 includes several check dams: D7, D8, D9, D10, and D11.

*P3b. Resource Attributes: (List attributes and codes) HP 20

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) March 16, 2009, View to the west.

*P6. Date Constructed/Age and Sources: ☒ Historic ☐ Prehistoric ☐ Both

*P7. Owner and Address:
Turlock Irrigation District
333 East Canal Drive
P.O. Box 949
Turlock, CA 95381-0949

*P8. Recorded by: (Name, affiliation, and address)
Natalie Lawson/Jessica Feldman
CH2M HILL
6 Hutton Centre, Suite 700
Santa Ana, CA 92707

*P9. Date Recorded: March 16, 2009

*P10. Survey Type: (Describe):
Pedestrian survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") TID Almond Power Plant No. 2, AFC Application

*Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 6

*NRHP Status Code

*Resource Name or # (Assigned by recorder)

B1. Historic Name: T.I.D Lateral No. 2

B2. Common Name: Lateral No. 2/Lower Lateral No. 2

B3. Original Use: Irrigation canal

B4. Present Use: Irrigation canal

*B5. Architectural Style:

*B6. Construction History: (Construction date, alterations, and date of alterations) Constructed 1899

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date:

Original Location:

*B8. Related Features: Check dams and drains.

B9a. Architect:

b. Builder: Turlock Irrigation District

*B10. Significance: Theme: Irrigation/Agriculture

Area: Ceres and Turlock

Period of Significance: 1905-1920

Property Type: Irrigation canal

Applicable Criteria:

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The recorded segment of the TID canal Lateral No. 2/Lower Lateral No. 2 between the Union Pacific Railroad line and Carpenter Road does not appear to meet the criteria for listing in the National Register of Historic Places. It is located west of Turlock in the Central Valley, and it is in the context of the TID that the canal is evaluated. See continuation sheet.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: Paterson, A.M. 1989. Land, Water, and Power: A History of the Turlock Irrigation District 1887-1987. The Arthur H. Clark Company, Spokane, Washington.

B13. Remarks:

*B14. Evaluator:

*Date of Evaluation:

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

P 50-000073

Page 3 of 6

*Resource Name or # (Assigned by recorder) T.I.D. Lateral No. 2/Lower Lateral No. 2

*Recorded by: N. Lawson

*Date: 3/16/09

☒ Continuation

☐ Update

Historic Context

The Central Valley is defined historically by agriculture and transportation. The area around Modesto and Ceres is no exception. In addition to the railroads, such as the Central Pacific and the Western Pacific, ferries serviced the area via several ferry landings and the Tuolumne and the San Joaquin Rivers. The road that would eventually become State Route 99 was planned and permitted in the late 1800's, although the paved highway was not completed until 1968. Ceres was first settled in 1870 and by 1872, the CPRR stopped at Ceres. Wheat was planted on thousands of acres in the region. The settlement of Crow's Landing was founded by J.B. Crow, one of the first wheat growers in the area. Crow established a landing on the San Joaquin River to ship his wheat to market and Crow and his two partners operated a ferry at that landing from 1870 until 1885 (Napton 1991). Crow's Landing Road represents the original road which connected two ferries, the Davis and Maze's Ferry on the Tuolumne and the Fairbank's Ferry on the San Joaquin. This main road was established in 1870. Several small taverns were constructed along this main road and served as way stations for (Brotherton 1982).

Hot dry summers and over cultivated lands made wheat growing less and less prosperous as the 19th century drew to a close. In 1887, the Wright bill, a bill that proposed the creation of irrigation districts in California, passed the California Senate and Assembly and was signed into law by then Governor Washington Bartlett. Local irrigation districts, including the TID and the Modesto Irrigation District (MID), created water conveyance systems in the early 1900s and started the flow of water into the area. Farmers began to diversify their crops and experimented with fruit and nut trees that did not require as much water as wheat. The combined efforts of the TID and the MID resulted in the construction of the La Grange Dam in 1893. The promise of water and cheap land brought an influx of settlers into the area. Expanding rail lines and ferry service made travel into the region easier.

In 1900, the area was still a big grain farming region. Irrigation, however, allowed the planting of orchards, vineyards, and row crops which were better suited to farmers able to devote a few acres and put considerable effort into them rather than to the large grain fields planted and harvested by transient hired hands. Small farms meant more people, more towns, and more trade. This vision of irrigation propelled the local crusade for the Wright Act and became a part of the national reclamation movement for a federal irrigation program. In 1901, only 3700 acres were irrigated by the TID in the northern part of the district. A scant two years later 10,000 acres were irrigated and by 1908, the TID provided water to almost 58,000 acres (Hohenthal 1971:207).

Settlers to the area, unless they bought property adjacent to the TID canals, faced the prospect of creating ditches which connected to the lateral canals of the TID. Farmers depended on the so-called community ditch system to connect their farms to the water supply. The community ditches, hundreds of miles of them were built and maintained by the irrigators using them, generally without any formal organization. Once water reached a farm, it could be sent into crop fields in a number of ways. One was called "wild flooding". In this method, supply ditches running along the high ground were temporarily dammed to divert small streams into field ditches dug down the slopes. These smaller ditches were plugged at intervals to force water out onto the field, letting the water flood down the hill without restraint. Another method, furrow irrigation, sent a small head of water through the rows of crops or orchards. The check method of flooding and its variants divided the land into a series of level basins or checks that were surrounded by levees. A large flow of water was turned into each check until the area was just covered by water. By the time irrigation reached the TID area, the standard practice was to create checks of up to one acre (Paterson 1989: 123).

The TID system began a revolution in the region's agriculture. The system formed the basis for new industries and caused the reduction in the size of landholdings as the large ranches of the late 1800s were broken into small parcels with dairies, orchards, and row crops. New towns were founded and wheat was replaced by melons, grapes, and peaches.

*Recorded by: N. Lawson

*Date: 3/16/09

☒ Continuation

☐ Update

New settlers in the area first planted alfalfa, raised a few dairy cows, and sold cream to the nearest creamery. Others raised poultry. Both practices readily raised needed cash. In the first few years of irrigation in the TID, alfalfa was the main crop. It grew readily, could usually be cut twice in its first year and would yield about four cuttings annually thereafter, thus producing approximately five to six tons of good quality hay per acre. Alfalfa acreage peaked in 1914 at approximately 72 percent of the acreage, or 68,000 acres, in the TID. It rapidly decreased in acreage, accounting for less than 31,000 acres in 1920. Between 1911 and 1925, the Turlock was called the Watermelon Capitol of the World. After the lowering of the water table, however, the melon boom in the TID quickly faded. For a time, grapes were a major fruit crop of the region following the decline of melons. Orchard land reached just over 5000 acres in 1920 and grew to 11,500 acres in 1927. Although the acreage devoted to grapes declined for a time in the 1930's, ultimately acreage devoted to vineyards grew again until the 1970s (Hohenthal 1971: 214).

By 1912, the Tidewater Southern Railroad connected Modesto with Stockton. This line operated as a freight feeder system and connected with the Western Pacific Railroad at Manteca Junction. Modesto was connected with Turlock via rail by 1916 (Paterson 1989) providing easy access to rail lines for local growers. A rise in canneries throughout the region provided convenient buyers for local fruit and vegetable sellers who, prior to the opening of the canneries had to haul their figs, apricots, and peaches to San Jose or Santa Clara for processing.

The main Turlock diversion canal leads from the La Grange Dam along the south bank of the Tuolumne River for approximately 7 miles to Turlock Lake, historically known as Owen Reservoir. The Main Supply Canal diverts near the western end of Turlock Lake, and carries water to the northeastern edge of the TID. At this point, the Ceres Main Canal carries the water west to the highland above the Tuolumne channel and south through the center of the TID. The Turlock Main Canal diverst at the same gate as the Ceres Main, flows south for approximately 10 miles, and then the main laterals divert the water at intervals of two and three miels, running west to the San Joaquin River (Hohenthal 1972).

Until the late 1930's, concrete lining predominated canal improvement work. By 1940, only 20 miles of the 132 miles of improved community ditches had pipelines. During the 1944-1945 growing season, a short stretch of concrete lining was removed from a community ditch to make way for underground pipe and from this project, the trend continued. By 1951, the local improvement districts had more miles of pipeline than concrete lined open canals. The TID canals, however, remained open canals. By 2002, only 3 miles of the 250 miles of TID canals have been replaced with pipeline (TID documents). Local community ditches, however, have been largely replaced with underground pipe line, and only the relief standpipes and gate structures of these underground lines are visible (Paterson 1989:263).

Period of Significance

From the standpoint of agriculture, which was the primary occupation of the people that settled the TID region, the years from 1900 to 1920 were the ones of growth and development. These were the pioneering times when many families livened in one end of a barn while their cattle resided in the other end until the family could afford a barn and a house. World War I brought a sharp increase in the price of agricultural products and the local gross farm income soared from 14,300,000 dollars in 1910 to 34,204,000 dollars in 1919. Prices crashed in 1920 and did not recover until World War II (Hohenthal 1972: 217).

Lateral No. 2 was completed in 1899, thus making irrigation agriculture and farm settlement possible. Although the lateral was completed in 1899, the first irrigation waters did not flow until 1900. Using 1900 to 1920 as the period of significance effectively captures the important historical context of the historic built environment in the immediate project area. Buildings, farms, and associated outbuildings were constructed in direct response to the presence of Lateral No. 2 and the sale of smaller parcels, such as 40, 60, and 80 acres.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

P-50-000073

Page 5 of 6

*Resource Name or # (Assigned by recorder) T.I.D. Lateral No. 2/Lower Lateral No. 2

*Recorded by: N. Lawson

*Date: 3/16/09

☒ Continuation

☐ Update

Lateral No. 2 was originally an open earth canal that was later improved with concrete lining beginning in the 1950s and continuing through 1970. Over the decades, the concrete lining was repaired and maintained. Repairs and upgrades to the check dams and flow controls along the canal have occurred over the decades, as well. The canal segment recorded here possesses integrity of location, as it is in the same location as when it was originally constructed in 1899. However, the canal only retains some integrity of setting. Although a part of the area of the recorded canal segment remains predominately rural farmland, several post 1920 structures are located in the vicinity of the canal, including industrial and agri-business development. Additional roads cross the canal and The canal has sustained a loss of integrity of materials and workmanship as it is no longer an open earth canal, but rather lined with concrete which has been continually repaired and maintained. Also, although the check dams retain much of their original construction, all have been upgraded and modern metal bridges have been added at each dam. The canal segment does retain some integrity of association, as the canal segment is still used for irrigation. Since the materials and workmanship of this canal segment have been replaced with more modern materials, the canal no longer retains integrity of feeling of the TID area before 1920. This recorded segment does not retain the essential physical features that made up its character or appearance during the period of its association.

The canal segment being a very small part of a much larger canal system, does not itself convey clear association with significant trends in agriculture on a national level (Criterion A), nor is it associated with individuals that made a significant contribution to history at the local, state or national level (Criterion B). The canal segment is not an important example of a type or method of construction (Criterion C) and because of repeated repairs and extensive upgrades, it can not serve as a source of important information about historic canal construction or technology (Criterion D). Thus, this segment does not appear to meet the criteria for listing in the National Register of Historic Places.

This canal segment was 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. This canal segment does not appear to meet any of the significance criteria as outlined in these guidelines.

References Cited or Consulted

Brotherton, J. 1982. *Annals of Stanislaus County, Volume I: River Towns and Ferries*. Western Tanager Press, Santa Cruz.

Hohenthal, H.A., J.E. Caswell, and V. Sonntag. 1972. *Streams in a Thirsty Land*. City of Turlock, California.

National Register Bulletin, No. 15. How to Apply the National Register Criteria for Evaluation. 1990. National Park Service.

Paterson, A.M. 1989. *Land, Water, and Power: A History of the Turlock Irrigation District 1887-1987*. The Arthur H. Clark Company, Spokane, Washington.

LOCATION MAP

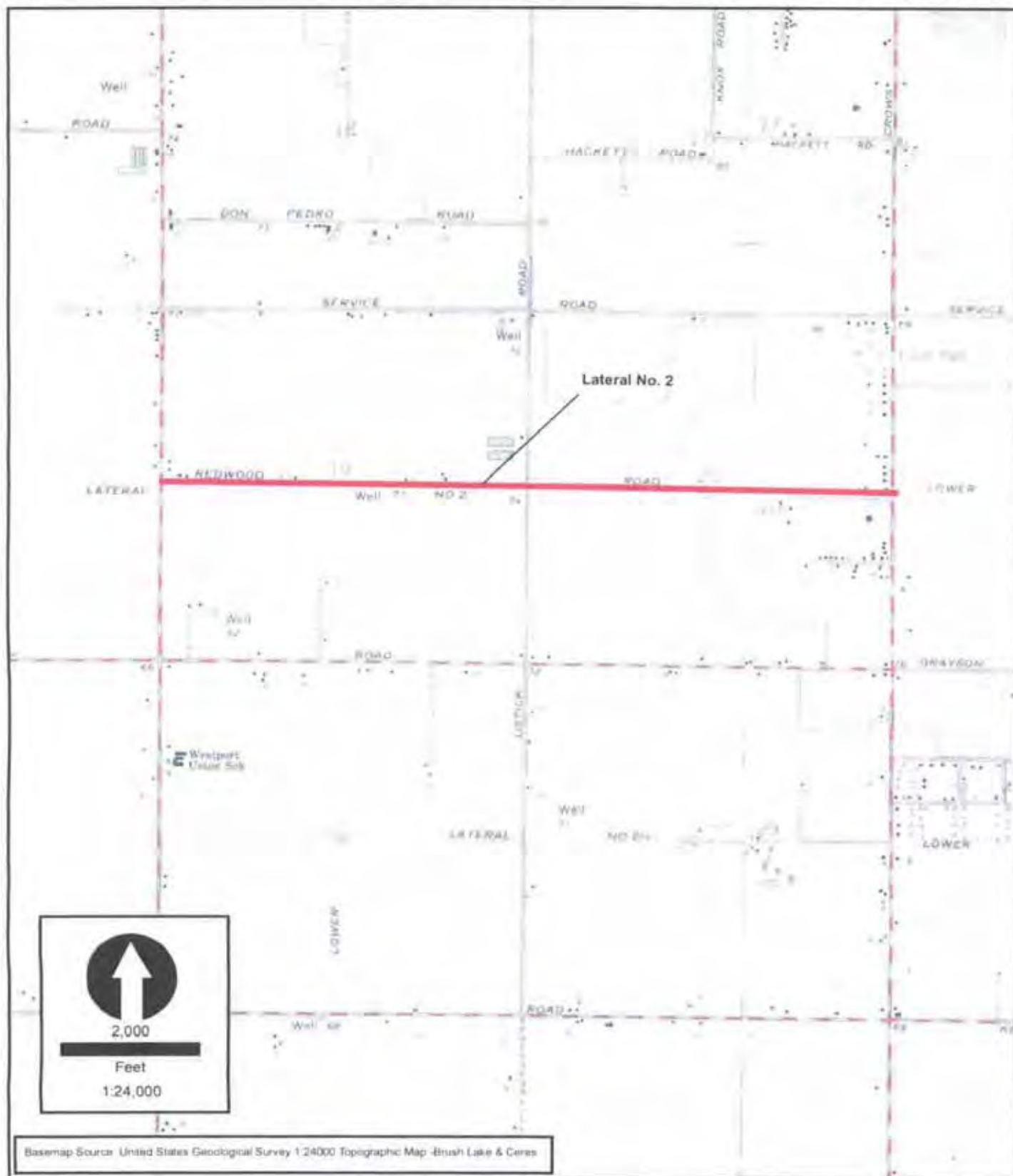
Page 6 of 6

Resource Name or #: T.I.D Lateral No. 2

Map Name: Brush Lake & Ceres 7.5 min USGS Topographic Quadrangle

Scale: 1:24000

Date of Map: 1976 & 1987



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # *P 50-000072*
HRI#
Trinomial

Page 1 of 3

*Resource Name or # (Assigned by recorder) T.I.D. Lateral No. 3 / Lower Lateral No. 3

8/13

*Recorded by: N. Lawson

*Date: 3/16/09

☐ Continuation

☒ Update

P2. Location:

b. USGS 7.5' Quad: *Ceres and Brush Lake* Date: 1987 and 1986 T 5S;R 8E; Sections 1; T 5S;R 9E; Sections 5,6; M.D.B.M.

c. Address: Lateral No. 3 / Lower Lateral No. 3 / Upper Lateral No. 3

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Irrigation canal at the intersection of Taylor and Crow's Landing Roads and approximately one-half of a mile south of Taylor Road.

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Turlock Irrigation District's (TID) Lateral No. 3 also referred to as the Upper Lateral No. 3 and Lower Lateral No. 3, depending upon the location of the section, connects at the eastern end to the Turlock Main Canal. Two 100 foot segments of this canal are recorded here. One segment is located at the intersection of Taylor and Crow's Landing Roads and the other is located along Carpenter Road approximately one half of a mile south of Taylor Road. This portion of Lateral No. 3 connects on the eastern end at the Ceres Main Canal and the Westport Drain on the western end. At Crow's Landing, Lateral No. 3 is called Lower Lateral No. 3. Lateral No. 3 was completed in 1899 (Paterson 1989). Originally, Lateral No. 3 was an open dirt canal which was constructed by Fresno scrapers. Parts of the TID canals were lined with cobbles after initial construction to improve water flow. Beginning in the 1920's the TID began a long-term program of canal improvement that focused on the installation of concrete lining which would improve water flow, reduce loss from seepage, and reduce maintenance. The easternmost sections of Lateral No. 3 recorded here were lined with concrete in the 1990s. Even with this concrete lining, irrigation canals require maintenance and repair on a periodic basis. The concrete of Lateral No. 3 is in excellent condition, as it is relatively new.

Period of Significance

From the standpoint of agriculture, which was the primary occupation of the people that settled the TID region, the years from 1900 to 1920 were the ones of growth and development. These were the pioneering times when many families lived in one end of a barn while their cattle resided in the other end until the family could afford a barn and a house. World War I brought a sharp increase in the price of agricultural products and the local gross farm income soared from 14,300,000 dollars in 1910 to 34,204,000 dollars in 1919. Prices crashed in 1920 and did not recover until World War II (Hohenthal 1972: 217). Lateral No. 3 was completed in 1899, thus making irrigation agriculture and farm settlement possible. Although the lateral was completed in 1899, the first irrigation waters did not flow until 1900. Using 1900 to 1920 as the period of significance effectively captures the important historical context of the historic built environment in the immediate project area. Buildings, farms, and associated outbuildings were constructed in direct response to the presence of Lateral No. 3, which allowed for the additional influx of settlers into the TID area and the additional flow of water. Lateral No. 3 was originally an open earth canal that was later improved with concrete lining beginning in the 1950s and continuing through the 1990s. Over the decades, the concrete lining was repaired and maintained. Repairs and upgrades to the check dams and flow controls along the canal have occurred over the decades, as well.

Similarly to the other recorded segment of this canal, the canal segment recorded here possesses integrity of location, as it is in the same location as when it was originally constructed in 1899. However, the canal only retains some integrity of setting. Although a part of the area of the recorded canal segment remains predominately rural farmland, several post 1920 structures are located in the vicinity of the canal, including industrial and agri-business development. Additional roads cross the canal and the canal has sustained a loss of integrity of materials and workmanship as it is no longer an open earth canal, but rather lined with concrete which has been continually repaired and maintained. Also, although the check dams retain much of their original construction, all have been upgraded and modern metal bridges have been added at each dam. The canal segment does retain some integrity of association, as the canal segment is still used for irrigation. Since the materials and workmanship of this canal segment have been replaced with more modern materials, the canal no longer retains integrity of feeling of the TID area before 1920. This recorded segment does not retain the essential physical features that made up its character or appearance during the period of its association.

CONTINUATION SHEET

Primary #

HRI#

Trinomial

P-50-000072

Page 2 of 3

*Resource Name or # (Assigned by recorder) T.I.D. Lateral No. 3 / Lower Lateral No. 3

*Recorded by: N. Lawson

*Date: 3/16/09

☐ Continuation

☒ Update

These canal segments being a very small part of a much larger canal system, do not themselves convey clear association with significant trends in agriculture on a national level (Criterion A), nor are they associated with individuals that made a significant contribution to history at the local, state or national level (Criterion B). These canal segments are not important examples of a type or method of construction (Criterion C) and because of repeated repairs and extensive upgrades, they can not serve as a source of important information about historic canal construction or technology (Criterion D). Thus, these segments do not appear to meet the criteria for listing in the National Register of Historic Places.

These canal segments were 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. These canal segments does not appear to meet any of the significance criteria as outlined in these guidelines.

References Cited or Consulted

Brotherton, J. 1982. *Annals of Stanislaus County, Volume I: River Towns and Ferries*. Western Tanager Press, Santa Cruz.

Hohenthal, H.A., J.E. Caswell, and V. Sonntag. 1972. *Streams in a Thirsty Land*. City of Turlock, California.

National Register Bulletin, No. 15. How to Apply the National Register Criteria for Evaluation. 1990. National Park Service.

Paterson, A.M. 1989. *Land, Water, and Power: A History of the Turlock Irrigation District 1887-1987*. The Arthur H. Clark Company, Spokane, Washington.

LOCATION MAP

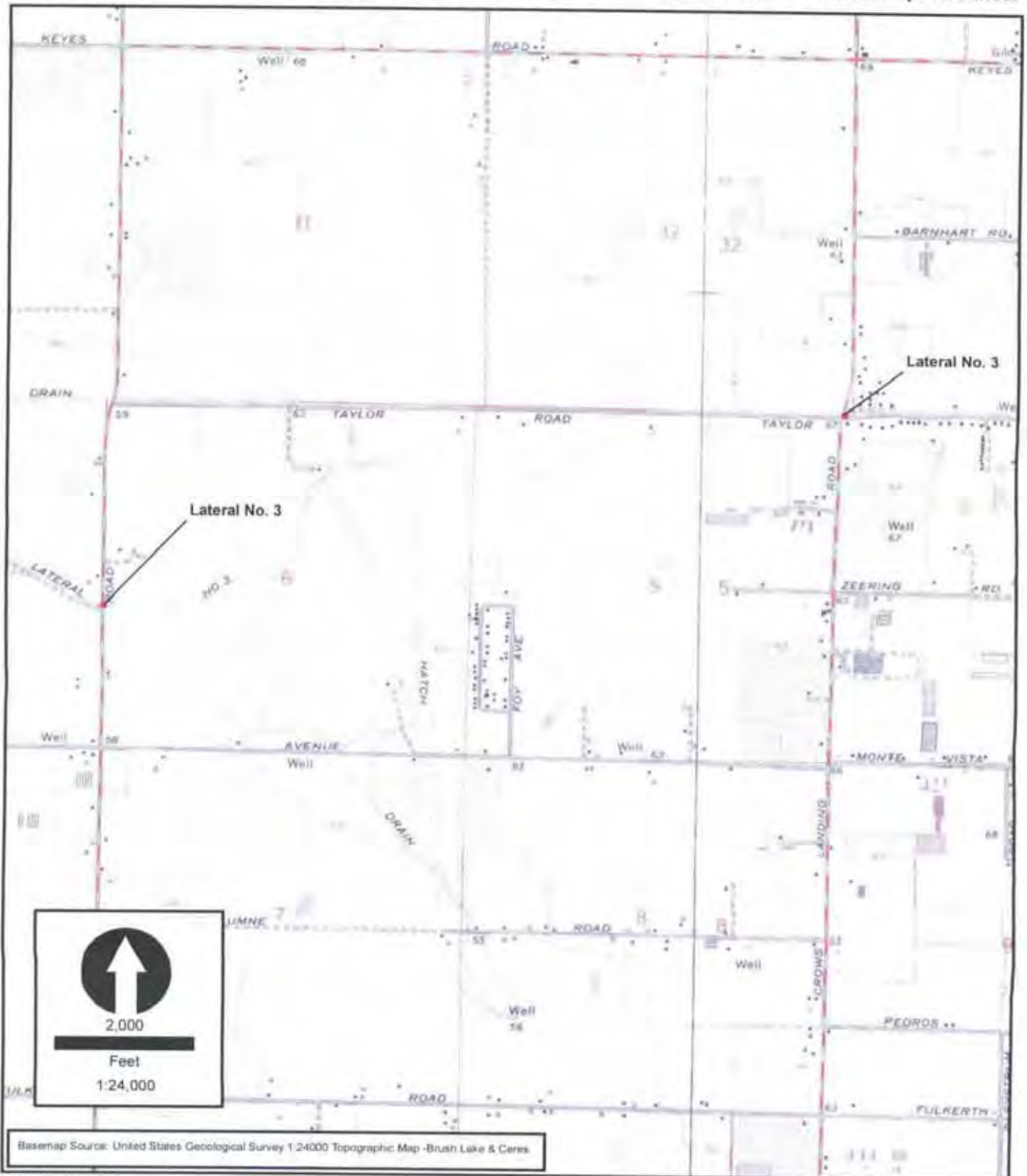
Page 3 of 3

Resource Name or #: T.I.D Lateral No. 3

Map Name: Brush Lake & Ceres 7.5 min USGS Topographic Quadrangle

Scale: 1:24000

Date of Map: 1976 & 1987



Basemap Source: United States Geological Survey 1:24000 Topographic Map -Brush Lake & Ceres

4/96

SITE NAME: Upper Lateral 3, Turlock Irrigation District, Stanislaus County
SITE NUMBER: KT-6
QUAD SHEET: "Ceres Quadrangle," USGS: 1969, photorevised 1987
PIPELINE LOCATION: Milepost 194.8, Mainline

Description of Feature

Site KT-6 is located at the point where Turlock Irrigation District's (TID) Upper Lateral 3 crosses the proposed Mojave Pipeline project APE, near the junction of the SPRR (and Old Highway 99) and Taylor Road. This site, with its comparison points KT-6(n) and KT-6(s), is located about two miles southeast of the town of Keyes, in an agricultural area of Stanislaus County. JRP recorded the two comparison sites to better place KT-6 in context and consider the lateral's integrity.

Upper Lateral 3 flows from the Turlock Main Canal on the east to the Ceres Main Canal on the west, and passes through an area of open fields and orchards, along the south side of Taylor Road to its junction with Freeway 99. It passes under the freeway overcrossing of Taylor Road, under Old Highway 99 and the SPRR, then continues west to Washington Road, where it heads to the northwest across agricultural land. The lateral is concrete lined, and varies in width from 18 to 20'. JRP was unable to measure its depth or bottom width because it was full at the time of field recordation. It passes under the SPRR and Washington Road in short siphons, while Old Highway 99 is carried across the lateral on a bridge built in 1927. To the northeast of KT-6 is a fruit processing facility, and to the southeast a trailer park (**Photograph 1**). To the immediate north and south on both sides of Taylor Road at KT-6 are orchards. Freeway 99 is about one-third mile to the east. KT-6(n) is located at the junction of Tegner and Taylor roads, where the lateral is crossed by a concrete county bridge built ca. 1925 (**Photograph 2**). KT-6(s) is located at the junction of Taylor and Washington roads where it passes under Washington Road in a siphon (**Photograph 3**).

History of Feature

Upper Lateral 3 is one of Turlock Irrigation District's original distribution laterals. TID is one of the first Wright Act districts (along with Modesto Irrigation District). For a brief history of the district see Section 2.2 above. The district began building its system in 1893, when it constructed a diversion facility at La Grange on the Tuolumne River. Over the next years the district constructed its main canal and began work on its laterals. Internal dissention in the district caused main canal construction progress to move forward slowly. By April 1894, TID had underway planning and preliminary work on the district canal and irrigation system. Besides the main headworks at the dam and canals, flumes and tunnels to reach Hickman, where the main canal then terminated, laterals would have to be dug in what the district engineer described as "ground easily scraped." The main canal would run almost due south from Hickman for 18 miles, nearly to the Merced River, with laterals serving separate areas. These laterals were dubbed Ceres (No.

1, 15 miles long), Keyes (No. 2, 17 miles long), Turlock (No. 3, 15 miles long) and River (No. 4, to a point midway between Turlock and the Merced River). The main canal decreased in capacity after serving each lateral (Modesto Daily Evening News, April 7, 1894). Later that summer TID's directors accepted a bid from Doe, Hunt & Co. of San Francisco to complete the TID canal system, who began work in June 1894. However, by August, 1894 work stopped because the district had no money to pay their contractors (Stanislaus County Weekly News May 11, 1894; June 8, 1894; June 29, 1894; July 23, 1894).

For the next few years the district struggled to build its system, and by the end of 1898 TID had finished its main canal sufficiently far to send of water 23 miles from La Grange to Hickman (Modesto Daily Evening News November 12, 1898; Stanislaus County Weekly News November 18, 1898). TID began irrigation in the spring of 1900, and by 1904 had almost all of its main canals and laterals in place (Stanislaus County Weekly News, March 16, 1900; Glauser, July 12, 1993). By 1905 TID's main canal "was about 25 miles long, the Turlock canal dividing into two main branches about 35 miles long and each system having seven laterals aggregating over 100 miles in length." (Elias, 1924: 63).

During the 1920s and 1930s the district undertook a program of canal and lateral lining. Asphalt proved impractical, and eventually the district turned to concrete lining. In later years the canals and laterals have also been gunited. In July 1993 the district described changes to their laterals:

Since the date of first construction of the canals the District has conducted routine maintenance and significant upgrades of its water delivery systems. Although the canals were originally constructed near the turn of the century they have been improved over the years with the addition of modern structures and surface lining to improve flow capacity, improve hydraulic control, and improve customer service. Alignments have been changed, cross sections have been increased, drop structures have been installed and improved, and the location of the original turnouts has been changed. The only remnant of the original canal is probably the name of the canal ... (Glauser, July 12, 1993).

Field inspection of the site, along with KT-6(s) and KT-6(n) indicates that the lateral was recently lined. At KT-6(s) the canal lining was stamped "82" and at KT-6(n) it was stamped "83." Comparison of modern and historic maps indicates that Upper Lateral 3 appears to be in its original location.

Evaluation of Feature

Upper Lateral 3 at site KT-6 is part of the original irrigation system of one of California's first Wright Act irrigation districts. It has played a significant role in the agricultural development of the area it serves, and is sufficiently old to be considered for the National Register on the basis of its age and local importance under Criterion A. Its period of significance, therefore, dates to the time of its original construction, ca. 1898-1904. At that time the lateral was dirt lined and ran through an area of farms and orchards. Since

that time, however, the lateral has lost integrity of construction, workmanship, materials, and feeling owing to the district's lining projects and the installation of modern control structures, bridges, and culverts after the period of significance. Furthermore, lined irrigation laterals are common features in the San Joaquin Valley, so Upper Lateral 3 is not a unique example of a segment of an early irrigation district system and thus does not meet Criterion C. It is not eligible for the National Register.

CANAL FEATURE INVENTORY FORM

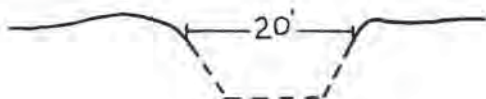
Developed by JRP Historical Consulting Services

P-50-000072

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 194.8, Mainline

LOCATION NO: KT-6
PHOTO DATE: May 28, 1993

1. **Name of Feature:** Turlock Irrigation District Upper Lateral No. 3
2. **Location of recordation:** This site is located at the point where the Southern Pacific railroad crosses the lateral. Taylor Road parallels Upper Lateral 3 to the north.
3. **Other locations for recording this feature:** KT-6(n) and KT-6(s)
4. **Structures at or near this location:** There are a variety of structures at this site, for the most part unrelated to the lateral. These include railroad gates, lights, and signals. The lateral passes under the railroad in a siphon. There are concrete bulkheads on both sides of the siphon. A highway bridge, built in 1927, carries Old Highway 99 over the canal.
5. **Setting at this location:** Freeway 99 is visible to the east about one quarter of a mile away. There are orchards located to the south and southwest of the APE, and open ground is situated to the northwest. To the northeast, across Taylor Road and the SPRR, is an equipment company and food processing plant. To the southeast of Taylor, along Old Highway 99, is a mobile home park.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt construction.
7. **Attributes at this location (measurements in feet):**
 - Top width: 20
 - Bottom width: Unable to observe due to high flows
 - Height or Depth: Approximately 7
 - Material: Concrete: the concrete lining is about 2-3 inches thick.
8. **Sketch, in cross section:** Looking west



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

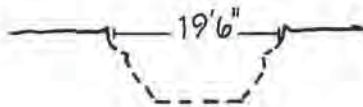
P-50-000072

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: KT-6(n)
PHOTO DATE: May 28, 1993

1. **Name of Feature:** Turlock Irrigation District Upper Lateral No. 3
2. **Location of recordation:** Where Washington Road crosses the lateral.
3. **Other locations for recording this feature:** KT-6 and KT-6(s)
4. **Structures at or near this location:** Upper Lateral 3 at this location passes underneath Washington Road in a siphon, conveyed through concrete inlet and outlet walls.
5. **Setting at this location:** KT-6(s) is located in agricultural land about one mile west of Freeway 99. To the south are plowed fields. Irrigated pasture-land is located northwest of this site, and orchards are located to the northeast. The southwest bank of the lateral is lined with walnut trees. Widely dispersed ranch complexes surround this recordation site.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt construction.
7. **Attributes at this location (measurements in feet):**
 - Top width:** 19' 6"
 - Bottom width:** Unable to observe due to high flows
 - Height or Depth:** Unable to observe due to high flows
 - Material:** West of Washington Road the canal is lined with concrete, installed in 1983. East of Washington Road the concrete lining appears to be older.

8. **Sketch, in cross section:** Looking east



CANAL FEATURE INVENTORY FORM

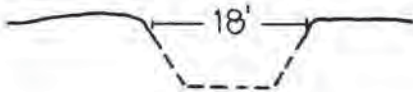
Developed by JRP Historical Consulting Services

P-50 - 000072

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: KT-6(s)
PHOTO DATE: May 28, 1993

1. **Name of Feature:** Turlock Irrigation District Upper Lateral No.3
2. **Location of recordation:** At the junction of Tegner and Taylor roads, where Tegner Road crosses the canal.
3. **Other locations for recording this feature:** KT-6 and KT-6(n)
4. **Structures at or near this location:** A county bridge built ca. 1925 carries Tegner Road over the lateral. A pump-house ("No. 10") is situated to the southeast of the canal.
5. **Setting at this location:** This site is dominated by commercial agriculture and scattered farmhouses. Orchards surround the site to the north and southeast, and to the southwest are open fields. Located nearby, just to the southeast, is a farmhouse.
6. **Integrity considerations for this feature:** Upper Lateral 3 was relined with concrete in 1982.
7. **Attributes at this location (measurements in feet):**
 - Top width: 18
 - Bottom width: Unable to observe due to high flows
 - Height or Depth: Unable to observe due to high flows
 - Material: Concrete (3 inch) lining installed in 1982.
8. **Sketch, in cross section:** Looking east





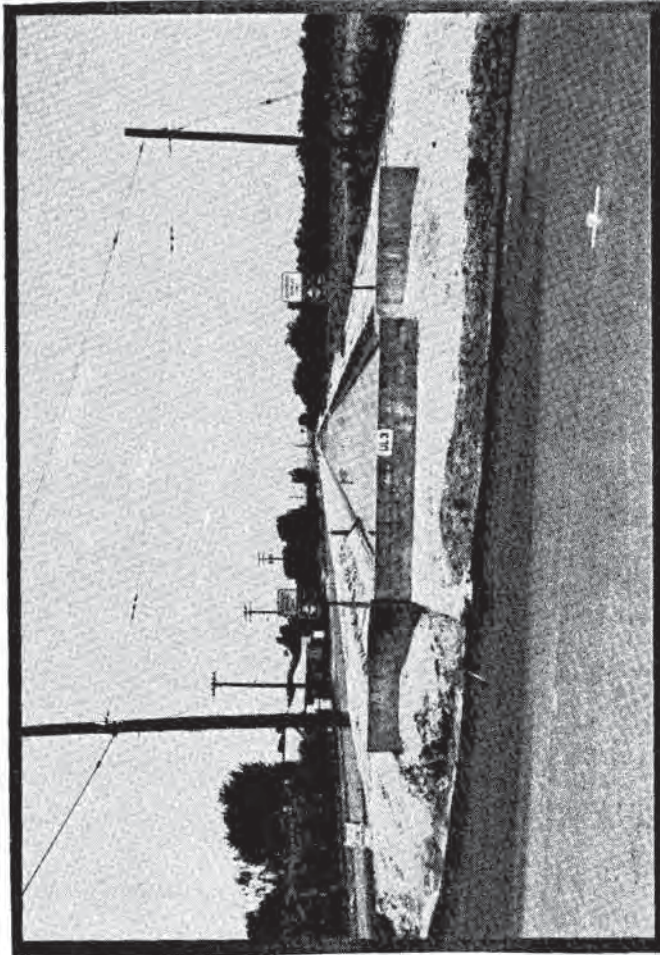
1

Photograph Number: 1
Site Number: KT-6
Common Name: Upper Lateral 3
Camera Facing: West

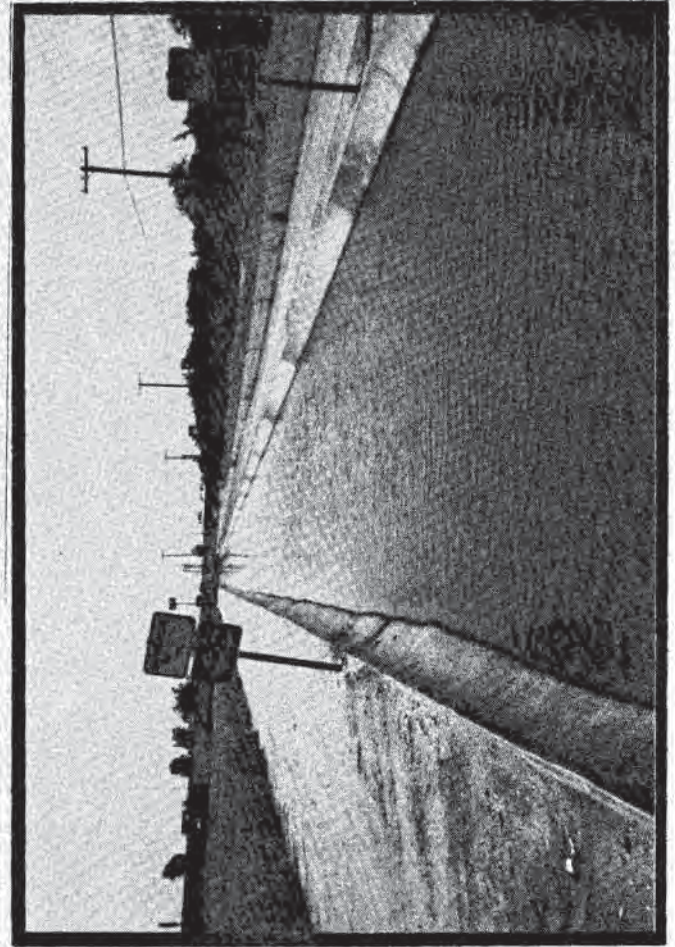
Photograph Number: 2
Site Number: KT-6(n)
Common Name: Upper Lateral 3
Camera Facing: West

Photograph Number: 3
Site Number: KT-6(s)
Common Name: Upper Lateral 3
Camera Facing: East

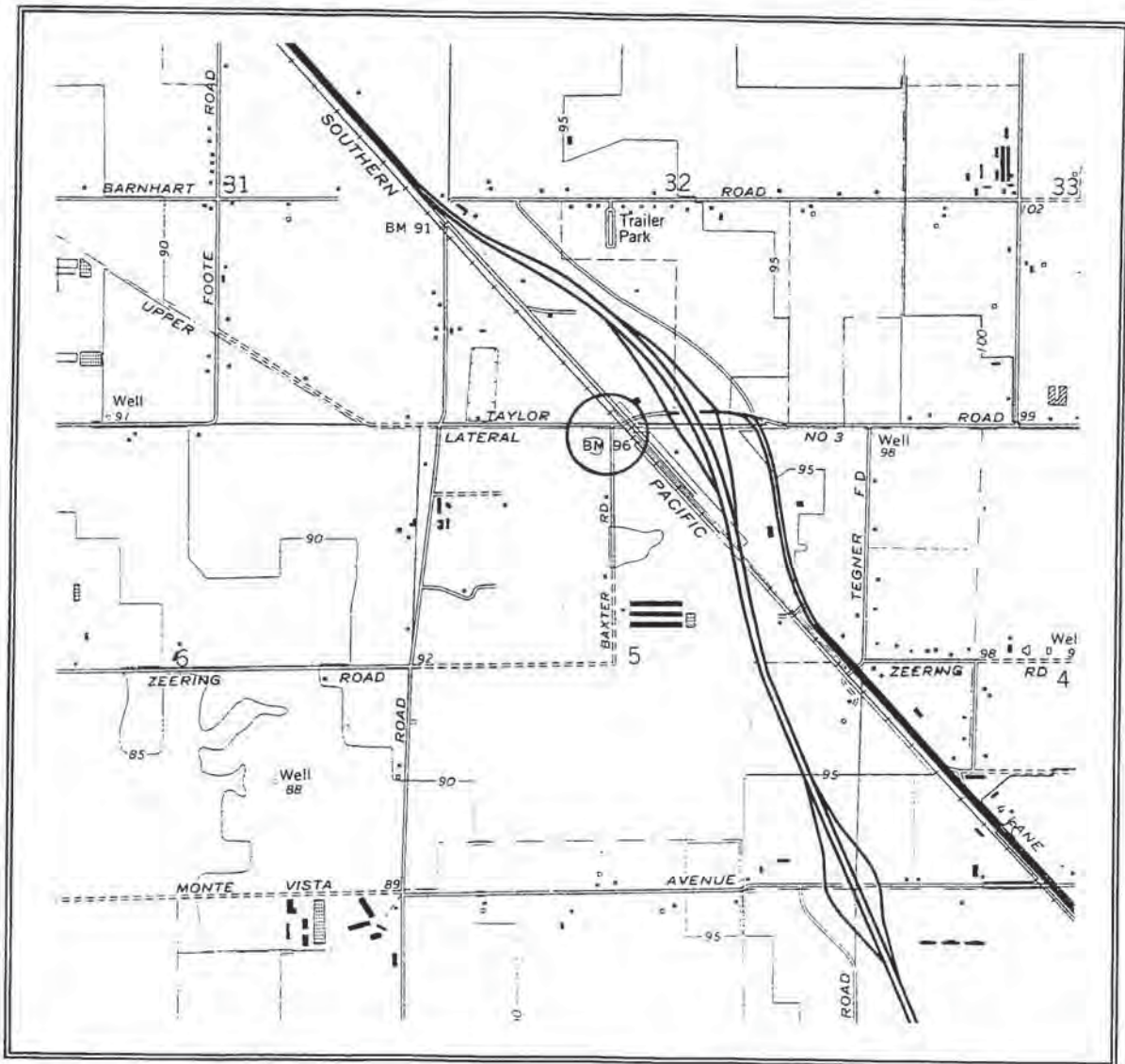
3



2



P. 50-000072



SITE NAME: Upper Lateral 3, Turlock Irrigation District, Stanislaus County
SITE NUMBER: KT-6
QUAD SHEET: "Ceres Quadrangle," USGS: 1969, photorevised 1987
PIPELINE LOCATION: Milepost 194.8, Mainline

**FEATURE KT-6, REROUTE A-119
ADDENDUM TO HISTORIC FEATURE EVALUATION FORM**

ALT #	A-119
ORIGINAL SITE #	KT-6
SEGMENT	Mainline
MILEPOSTS	194.8
QUAD NO., NAME	34, Ceres (1969/1987)

COMMENTS:

The original alignment at KT-6 ran west of Highway 99 and the Southern Pacific Railroad tracks at the point where they intersected with Turlock Irrigation District Upper Lateral No. 3. The lateral passed beneath the highway and railroad in siphons. The proposed realignment is on private property 15' west of the railroad right of way. JRP recorded KT-6 at the original location east of the proposed realignment. Field crews also took photographs upstream and downstream from the site. Evaluation of site photographs indicates that the area immediately to the west of KT-6 is similar in condition and construction to original KT-6 and thus needs no further field work nor evaluation. (see Site Form KT-6 in main body of Class III Report)

Denver 7.5'

MER = P-24-000642

SJO = P-39-000469

* STA = P-50-000527in
Merced, San
Joaquin &
Stanislaus
Counties

TEMPORARY DETENTION CAMPS FOR JAPANESE AMERICANS.

Ray Okamura
"

MERCED COUNTY LIBRARY

DEC 29 1980

TEMPORARY DETENTION
CAMPS FOR
JAPANESE AMERICANS
by
RAY OKAMURA

Name of Proposed Landmark Temporary Detention Camps for Japanese AmericansLocation See Appendix A, page 14County See Appendix A, page 14

Name and Address of Landowner upon Whose Property Landmark is Proposed _____

Not applicable for this applicationName and Address of Applicant Ethnic Minority Cultural Phone No. (415) 527-4629Resources Survey Japanese Americans, Box 799, El Cerrito, Bus. Phone No. ---
Calif. 94530Is this landmark of statewide significance as described in the State of Policy? Yes

Explain (use extra sheet if necessary):

The Temporary Detention Camps (a.k.a. "Assembly Centers")¹ represent the first phase of the mass incarceration of 92,785 Californians² of Japanese ancestry during World War II.

Pursuant to Executive Order 9066 signed by President Franklin D. Roosevelt on February 19, 1942, twelve makeshift detention facilities were constructed at various horse racetracks, fairgrounds, and labor camps in California.³ Three additional temporary camps were established in Arizona, Oregon, and Washington. These facilities were for the purpose of temporarily confining Japanese Americans until the more

Is bibliography complete? (To enable verification of statements and claims made herein.) YesIs permission of property owner for registration attached? Not applicableIs approval of property owner to place a plaque attached? Not applicableIs proof of reasonable protection for requested landmark attached? Not applicableAre photographs, prints, or drawings (two views) attached? Yes

permanent concentration camps--such as Manzanar and Tule Lake in California-- could be built in isolated areas of the United States.

Beginning on March 30, 1942,⁴ all native-born Americans and long-time legal residents of Japanese ancestry⁵ living in California were ordered to surrender themselves for detention. Individuals were imprisoned solely due to his or her ancestry. Citizenship, age, constitutional guarantees, or innocence of wrongdoing did not matter.

Japanese Americans were held behind barbed wire fences and guard towers at these Temporary Detention Camps for two to seven months until they were transferred to one of the permanent concentration camps. An entire population of loyal and productive Californians was eliminated from the public scene.

The incarceration of Japanese Americans had a profound effect on the military, political, and economic affairs of the state at the time; and the episode remains as a major blot in the history of American law.⁶ United States citizens and lawful permanent residents were imprisoned without charges, without evidence, without trial, and in violation of every basic constitutional right.⁷

The Temporary Detention Camps are a sobering reminder to all Americans of what can happen if constitutional principles are not vigorously defended against racism, political expediency, and economic opportunism.

HISTORY

Superficially, World War II might be seen as the impetus for the mass incarceration of Japanese Americans. The causes, however, were much more complex and deeply rooted in California history. Racial hate against Asian Americans emerged during the highly competitive and lawless Gold Rush days, inexorably grew in intensity during the next century, and finally reached its culmination in 1942. In the long historical context, the elimination of Japanese Americans from California was a logical extension of all that had transpired before; and the war itself was only a pretext to accomplish a "final solution" of sorts.⁸

During the peak gold mining years in California, there were over 9,000 Chinese miners, comprising 25% of the total number of miners. Viewed as unwanted competitors for the riches of California, the Chinese were driven from the mines through acts of violence and terrorism. By the early 1850's, racism against the Chinese became institutionalized in the law. Among other restrictions, Chinese Californians were denied the right to vote, to become naturalized citizens, to testify in court against a white person, or to engage in occupations of their choice. The California State Constitution had an entire article devoted to requiring discrimination against the Chinese and any "Mongolian."⁹ A series of Chinese Exclusion Acts between 1882 and 1904 effectively reduced economic competition by controlling and eventually barring Chinese immigration to the United States.¹⁰

By the time the first sizable number of Japanese immigrants arrived in California during the late 1890's and early 1900's, governmental discrimination against Asian minorities was firmly established. Japanese immigrants were initially recruited by the California agricultural industry to fill an acute need for laborers. But like all other immigrant groups, the Japanese Californians did not remain docile, underpaid

orkers for long, and they soon set out to gain what they
Perceived as a new "yellow peril" threat, the white establishment applied much of
the existing anti-Chinese laws to the Japanese as well, including denial of the right
to naturalized citizenship.¹² Also, the California "Alien Land Laws" of 1913 and
1920 were specifically directed against the Japanese denying them the right to own
or lease land—a right possessed by white aliens.¹³ Like the earlier Chinese exclusion
movement, anti-Asian organizations in California lobbied the federal government to
stop all immigration from Japan. In response to the pressures from California,
Congress terminated Japanese immigration in 1924.¹⁴

In the years preceding World War II, racism against Asian Americans was a fact
of life on the West Coast. Discrimination in housing, employment, education, public
accommodations, and social relations was pervasive. Moreover, the media constantly
reinforced negative stereotypes: newspapers, radio, movies, comic strips, and pulp
novels inundated the public with lurid tales of Japanese spies and saboteurs.¹⁵ This
historical background is indispensable for an understanding of what happened to
Japanese Americans during the war years.

Japan had been waging a war in Asia since 1937, and United States-Japan relations
had steadily worsened. A breaking point came in July 1941 when the United States
imposed a total trade embargo and effectively cut off Japan's oil supply. With no
domestic source of oil and only a few months of reserves, Japan faced military and
economic collapse. The United States had broken Japan's top secret code and was
aware of the crisis in Japan and the probability for armed conflict.¹⁶

With the expectation of war, the U. S. government undertook precautionary
measures. In October 1941, the State Department ordered a covert investigation of
the Japanese American communities on the West Coast and Hawaii; the Federal Bureau
of Investigation (FBI) and the military intelligence services intensified secret
surveillance programs which had been in existence for several years. All of these

intelligence reports certified that the Japanese American population as a whole posed no threat to national security.¹⁷ Curiously, on December 5, 1941—just two days before the outbreak of war—FBI Director J. Edgar Hoover instructed his agents to be ready for the "immediate apprehension" of Japanese nationals who had been targeted for "custodial detention."¹⁸

When the global war finally came to the United States on December 7, the government was well prepared to handle domestic security. Using previously prepared lists, the FBI summarily arrested over 2,000 Japanese nationals during the first few days of the war. No criminal charges were ever filed against these individuals; apparently, they were considered suspicious due to their leadership positions in the Japanese American community.¹⁹ Organization officers, Buddhist and Shinto priests, newspaper editors, language and martial arts instructors were all imprisoned at one of 26 Internment Camps operated by the Justice Department.²⁰ Dependents were left without a source of livelihood, and the Japanese American community was stripped of its established leadership.

Despite the shock of Pearl Harbor, there was very little public hysteria or panic. With the home front completely secure, public opinion was generally favorable toward Japanese Americans during the first month of the war. Newspapers published editorials and letters sympathetic to Japanese Americans; and even the California State Legislature passed a resolution urging federal officials "to prevent any and all racial discrimination in the national defense program."²¹

It took a little time before the long-standing anti-Japanese groups in California realized what a potent weapon they had in their hands, but when they did, they seized the opportunity to attain a goal they had been seeking for over 40 years, i.e. to get rid of the Japanese Americans once and for all. An organized hate campaign centered in California ensued; and as a result, public opinion started to turn against Japanese Americans in late-January 1942. Latent prejudices were aroused, but the

average citizen remained law-abiding and acts of violence or vandalism against Japanese Americans were rare.²²

Newspapers published unsubstantiated rumors about spies and saboteurs among the Japanese Americans. Because of the long history of prejudice and stereotypes, many white Americans believed the false stories. The truth was that there were absolutely no proven cases of espionage or sabotage committed by any person of Japanese ancestry living in the United States.²³ On the other hand, at least ten white persons were charged and convicted in courts of law as spies for Japan.²⁴

Like the previous immigration exclusion campaigns, California politicians and pressure groups lobbied the federal government to remove and/or lock up all Japanese Americans.²⁵ Even though Attorney General Francis Biddle and FBI Director Hoover advised against it, President Franklin D. Roosevelt authorized the mass expulsion and incarceration of Japanese Americans by signing Executive Order 9066 on February 19, 1942.²⁶ The order itself was carefully worded to avoid constitutional challenges: it did not single out a specific group, nor did it say people were to be locked up. But there was a common understanding that Executive Order 9066 was designed primarily for the purpose of removing and/or imprisoning the Japanese Americans. With no public demands for locking up German Americans and Italian Americans, the government chose to forgo the theoretical option of incarcerating descendants of the European enemy nations as well.

On February 20, Secretary of War Henry L. Stimson designated Lt. General John L. DeWitt, head of the Western Defense Command, to carry out the intent of Executive Order 9066. Just to make sure DeWitt correctly understood his assignment, both Stimson and Assistant Secretary of War John J. McCloy directed him to include all persons of Japanese ancestry—irrespective of citizenship—in his plans, but that persons of German or Italian ancestry were to be left alone unless there was hard evidence to prove an individual was dangerous.²⁷

The first action under authority of Executive Order 9066 was the expulsion of

the entire Japanese American community from Terminal Island (San Pedro Bay, Los Angeles County) on February 25-27. Armed soldiers marched into the old fishing village and ordered every person of Japanese ancestry, including native-born Americans, to leave their homes within 48 hours. The majority of Terminal Island residents were United States citizens, but they were evicted without a hearing. The eviction was especially harsh because most of the men had been arrested earlier by the FBI and the move had to be made almost entirely by women and children. The government made no provisions for alternative housing, and some 2,000 Japanese Americans became displaced persons.²⁸

On March 2, DeWitt declared the Western halves of California, Oregon, and Washington, plus the Southern half of Arizona as "Military Area #1," and announced his intention to remove every person of Japanese ancestry therefrom. Japanese Americans were urged to "voluntarily" give up their homes and jobs before they were forcibly expelled by the army. A total of 10,312 Japanese Americans hurriedly left the proscribed areas, with 4,310 moving to the Eastern side of California, which was then a "free zone."²⁹

On March 11, DeWitt created the Wartime Civil Control Administration (WCCA) as a sub-unit of the Western Defense Command and appointed Colonel Karl R. Bendetsen as the military director responsible for implementation of the expulsion/detention program.³⁰ In the meantime, Congress passed Public Law 77-503 on March 21 which made it a federal offense for a civilian to disobey a military order issued under authority of Executive Order 9066.³¹

On March 24, all Japanese Americans on Bainbridge Island, Washington were ordered to report for imprisonment under "Civilian Exclusion Order #1."³² Subsequently, "Civilian Exclusion Order #2" issued on March 30 applied to the Long Beach-San Pedro area in California. Eventually, 108 separate "Civilian Exclusion Orders" were issued, each applying to a different locale in Arizona, California,

Oregon, and Washington. Japanese Americans were directed to bring only what they could carry in their hands and turn themselves in at a "Civil Control Station" near their homes. Upon reporting, they were registered, numbered, tagged with shipping labels, and placed aboard buses, trains, and trucks under armed guard for transportation to one of the 15 Temporary Detention Camps. From that point on, Japanese Americans became prisoners of their own country. On arrival at the camps, they were forced to submit to body and baggage searches, fingerprinting, and long interrogations about their background.³³

Japanese Americans were imprisoned on the basis of ancestry and ancestry alone. There was no evidence they had done anything illegal, or were dangerous in any way. Native-born Americans were locked up without charges or trial, and in complete disregard for their constitutional rights.

DeWitt gave the rationale of "military necessity" to protect the West Coast against sabotage in case of invasion, but such a claim was contrary to the actual U. S. Army "estimate of the situation" which correctly concluded that an invasion of the West Coast was extremely unlikely.³⁴ The claim was also inconsistent with the fact that Japanese Americans in Hawaii were not similarly incarcerated en masse. Hawaii was the site of the Pearl Harbor attack, was some 3,000 miles closer to the enemy, and was in far greater danger of any invasion. There were 159,534 Japanese Americans in Hawaii, comprising 34.2% of the population, but Lt. General Delos Emmons, the military commander in Hawaii, decided that "military necessity" there required the Japanese Americans to remain free and help in the war effort.³⁵

The "military necessity" excuse was further contradicted by the fact babies, children, blind or paralyzed persons, infirm or bedridden old people--those who could not possibly commit acts of sabotage or espionage--were also incarcerated. Even orphans in institutions and children adopted by white families were ordered imprisoned if they had any Japanese ancestry at all.³⁶

By March 24, all Japanese Americans were placed on a dusk to dawn curfew.

/ were further required to have travel permits and were prohibited from possessing any camera, radio, or weapon. Although these regulations applied to all enemy nationals, Japanese Americans were the only United States citizens to be included in the restrictions.³⁷

On March 27, DeWitt abruptly prohibited any further "voluntary" movement of Japanese Americans away from "Military Area #1." Japanese Americans were "frozen" in their homes until arrangements could be made for their incarceration; they were trapped with no option aside from imprisonment.³⁸ DeWitt methodically issued detention orders almost daily, and an average of 3,750 persons a day were forced out of their homes and locked up in the Temporary Detention Camps.³⁹

In a corollary act, the California State Personnel Board summarily fired all state employees of Japanese ancestry on April 2. Blanket dismissal charges were filed against anyone with a Japanese surname. Those who had taken leaves to enter the Temporary Detention Camps were dismissed in absentia, while those who were still free were ordered to promptly vacate their jobs.⁴⁰

On June 2, DeWitt proclaimed the Eastern half of California as "Military Area #2" and prohibited Japanese Americans from leaving that area as well until they, too, could be ordered to report for detention.⁴¹ By this action, DeWitt betrayed an earlier promise to spare those who moved to the Eastern half of California during the "voluntary" period. Significantly, only the Eastern half of California was proscribed; the Eastern halves of Oregon and Washington were left alone. This discrepancy was due to the continued political pressures from California to eliminate Japanese Americans from the entire state.⁴²

About this time, an important turning point in the Pacific War occurred. The U. S. Navy annihilated the core of the Japanese Navy at the Battle of Midway on June 3-6; from that point on, Japan totally lacked the capability to attack the West Coast. The U. S. government and military knew that any danger of invasion had vanished. However, instead of canceling the detention program and saving millions

in funds, war materiel, and personnel, the government relentlessly continued to build new concentration camps and locked up more Japanese Americans.⁴³ Detention orders for the Eastern half of California started to appear on June 27.⁴⁴

The detention process progressed from district to district, county to county, over a five month period. By June 6, all Japanese Americans on the Western half of the West Coast states had been locked up; and by August 7, 1942, the entire process was completed. A total of 92,785 Californians, and an overall total of 120,313 Japanese Americans ended up in government custody.⁴⁵

While the Japanese Americans were confined in the Temporary Detention Camps, the War Department built ten large concentration camps--each designed to hold an average of 12,000 prisoners--in the interior desert and swamp regions of the United States. Two of these concentration camps were located in California (Manzanar and Tule Lake), while the other eight were in the states of Arizona (2), Arkansas (2), Colorado, Idaho, Utah, and Wyoming.⁴⁶

Beginning on May 26, and continuing through October 30, approximately 500 detainees per day were taken from the Temporary Detention Camps and placed aboard trains under armed guard for transfer to the permanent concentration camps. The movement required the use of 171 special trains--at a time when railroads were critically needed to transport military supplies. Each detainee had spent an average of 102.3 days in a Temporary Detention Camp before he or she was transferred; and a total of 9,485,202 detainee-days had been spent under the guns of the WCCA/Western Defense Command.⁴⁷

DESCRIPTION

Horse racetracks, fairgrounds, rodeo grounds, and labor camps were used as sites for the Temporary Detention Camps. The WCCA/Western Defense Command expropriated twelve such locations in California and hurriedly converted them into

transient detention facilities.⁴⁸ Existing horsestalls and grandstands were used for living quarters, and flimsy tarpaper barracks were hastily built for additional housing. The entire compound was surrounded by a high barbed wire fence and guard towers; sentries in the towers were armed with machine guns; soldiers with bayonet-tipped rifles patrolled the camp perimeter; and searchlights crisscrossed the camp interior at night.⁴⁹

Detainees made the following observations:

Estelle Ishigo (Pomona),⁵⁰

The first sight of the barbed wire enclosure with armed soldiers standing guard as our bus slowly turned in through the gate stunned us.... Here was a camp of sheds, enclosed within a high barbed wire fence, with guard towers and soldiers with machine guns.

Charles Kikuchi (Tanforan),⁵¹

I saw a soldier in a tall guardhouse near the barbed wire fence and did not like it because it reminds me of a concentration camp.

Mine Okubo (Tanforan),⁵²

We were close to freedom and yet far from it. The San Bruno streetcar line bordered the camp on the east and the main state highway on the south. Streams of cars passed by all day. Guard towers and barbed wire surrounded the entire center. Guards were on duty night and day.

The fence and guards were not there to "protect" the Japanese Americans; the barbed wire tops were turned inward, and the guards had their weapons trained into the camp. DeWitt, himself, explained the purpose of the security measures;⁵³

The Assembly Centers in the combat area are generally located in grounds surrounded by fences clearly defining the limits for the evacuees. In such places the perimeter of the camp will be guarded to prevent unauthorized departure of evacuees.... Should an evacuee attempt to leave camp without permission he will be halted, arrested, and delivered to camp police.

In order to make it absolutely clear to the Japanese Americans that they were prisoners, DeWitt issued "Civilian Restrictive Order #1" on May 19 ordering the inmates to remain within the boundaries of the Temporary Detention Camps at all times. Anyone who attempted to leave without written authorization was

threatened with ominous, unspecified "penalties and liabilities."

The camp interiors were arranged like prisoner of war camps or overseas military camps, and were completely unsuited for family living. Barracks and horsestalls were divided into blocks and each block had a central mess hall, latrine, showers, wash basins, and laundry tubs. Toilets, showers, and bedrooms were unpartitioned; there was no water or plumbing in the living quarters; and anyone going to the lavatory at night was followed by a searchlight. Eight person families were placed in 20 x 20 ft. rooms, six person families in 12 x 20 ft. rooms, and four person families in 8 x 20 ft. rooms. Smaller families and single persons had to share unpartitioned units with strangers. Each detainee received a straw mattress, an army blanket, and not much else. Privacy was non-existent; everything had to be done communally; and endless queues formed for eating, washing, and personal needs. Sanitation and food quality were poor; outbreaks of diarrhea and communicable diseases were common; and the stench in the horsestall areas was overwhelming.⁵⁵

In spite of the stark reality of the prison facilities, the WCCA/Western Defense Command called these places "Assembly Centers." Army officials (particularly WCCA Director Bendetsen, who was a lawyer) were aware of the serious constitutional issues which could be raised if they admitted that Americans were being confined against their will without due process of law. In order to circumvent any legal difficulties, the army coined numerous euphemisms to camouflage the truth. One indication of the tortured lengths to which army thinkers went to cover-up what was actually happening was their use of the phrase "non-alien" to refer to native-born citizens of the United States of America.⁵⁶

The United States was not alone in the use of deceptive terminology during World War II. Canada expelled all Japanese Canadians from their homes in British Columbia and confined them in inland prison camps which were variously named "Clearing Stations," "Assembly Centres," "Interior Housing Centres," "Interior

"Settlements," "Housing Projects," and Relocation Centres."⁵⁷ Interestingly, Japan also used the name "Assembly Centers" (Shukaisho) to refer to their internment camps in occupied China.⁵⁸

Germany's nomenclature for their concentration and extermination camps best illustrate the thesis that official government names are not necessarily accurate, nor desirable for continued use today. The Nazi operated camps were known at the time as "Work-study Camps" (Arbeitserziehungslager), "Protective Custody Camps" (Schutzhaftlager), "State Retirement Homes" (Reichsaltersheim), "Health Resorts" (Heilbad), "Jewish Self-administration Centers" (Judische Selbstverwaltung), and "Paradise Quarters" (Paradeisghetto).⁵⁹

APPENDIX A — TEMPORARY DETENTION CAMPS IN CALIFORNIA, 1942

<u>Name</u>	<u>Location</u> ⁶⁰	<u>County</u> ⁶¹	<u>Previous use</u> ⁶²
Fresno	Fresno	Fresno	Fairgrounds
Marysville	Arboga	Yuba	Labor camp
Merced	Merced	Merced	Fairgrounds
Pinedale	Pinedale	Fresno	Labor camp
Pomona	Pomona	Los Angeles	Fairgrounds
Sacramento	Walerga	Sacramento	Labor camp
Salinas	Salinas	Monterey	Rodeo grounds
Santa Anita	Armadia	Los Angeles	Horse racetrack
Stockton	Stockton	San Joaquin	Fairgrounds
Tanforan	San Bruno	San Mateo	Horse racetrack
Tulare	Tulare	Tulare	Fairgrounds
Turlock	Turlock	Stanislaus	Fairgrounds
Manzanar ⁶³	Owens Valley	Inyo	Aqueduct land

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Tulare	Tulare	Tulare	Fairgrounds
Turlock	Turlock	Stanislaus	Fairgrounds
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APPENDIX B — TEMPORARY DETENTION CAMPS IN CALIFORNIA, 1942

<u>Name</u>	<u>Dates of operation</u> ⁶⁴	<u>Maximum detainees at any one time</u> ⁶⁵	<u>Total detainees</u> ⁶⁶
1. Fresno	May 6 to October 30	5,120	5,344
2. Marysville	May 8 to June 29	2,451	2,465
3. Merced	May 6 to September 15	4,508	4,669
4. Pinedale	May 7 to July 23	4,792	4,823
5. Pomona	May 7 to August 24	5,434	5,514
6. Sacramento	May 6 to June 26	4,739	4,770
7. Salinas	April 27 to July 4	3,594	3,608
8. Santa Anita	March 27 to October 27 ⁶⁷	18,719	19,348
9. Stockton	May 10 to October 17	4,271	4,390
10. Tanforan	April 28 to October 13	7,816	8,033
11. Tulare	April 20 to September 4	4,978	5,061
12. Turlock	April 30 to August 12	3,662	3,699
13. Manzanar ⁶³	March 21 to May 31 ⁶⁷	9,666	9,681

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APPENDIX C -- TEMPORARY DETENTION CAMPS IN CALIFORNIA, 1942

<u>Name</u>	<u>Origins of detainees</u> ⁶⁸	<u>Concentration camp destinations</u> ⁶⁹
1. Fresno	Central San Joaquin Valley; Amador County	Gila, Jerome
2. Marysville	Placer and Sacramento Counties	Tule Lake
3. Merced	Northern California Coast; West Sacramento Valley; North San Joaquin Valley	Granada
4. Pinedale	Sacramento and El Dorado Counties; Oregon; Washington	Poston, Tule Lake
5. Pomona	Los Angeles, San Francisco, and Santa Clara Counties	Heart Mountain
6. Sacramento	Sacramento and San Joaquin Counties	Tule Lake
7. Salinas	Monterey Bay Area	Poston, Tule Lake
8. Santa Anita	Los Angeles, San Diego, and Santa Clara Counties	Gila, Granada, Heart Mountain, Jerome, Manzanar, Poston, Rohwer, Topaz
9. Stockton	San Joaquin County	Gila, Rohwer
10. Tanforan	San Francisco Bay Area	Topaz
11. Tulare	Southern California Coast; Los Angeles and Sacramento Counties	Gila
12. Turlock	Sacramento River Delta; Los Angeles	Gila
Manzanar ⁶³	Los Angeles, Amador, and San Joaquin Counties; Washington	--

<u>Name</u>	<u>Origins of detainees</u> ⁶⁸	<u>Concentration camp destinations</u> ⁶⁹
1. Fresno	Central San Joaquin Valley; Amador County	Gila, Jerome
2. Marysville	Placer and Sacramento Counties	Tule Lake
3. Merced	Northern California Coast; West Sacramento Valley; North San Joaquin Valley	Granada
4. Pinedale	Sacramento and El Dorado Counties; Oregon; Washington	Poston, Tule Lake
5. Pomona	Los Angeles, San Francisco, and Santa Clara Counties	Heart Mountain
6. Sacramento	Sacramento and San Joaquin Counties	Tule Lake
7. Salinas	Monterey Bay Area	Poston, Tule Lake
8. Santa Anita	Los Angeles, San Diego, and Santa Clara Counties	Gila, Granada, Heart Mountain, Jerome, Manzanar, Poston, Rohwer, Topaz
9. Stockton	San Joaquin County	Gila, Rohwer
10. Tanforan	San Francisco Bay Area	Topaz
11. Tulare	Southern California Coast; Los Angeles and Sacramento Counties	Gila
12. Turlock	Sacramento River Delta; Los Angeles	Gila
Manzanar ⁶³	Los Angeles, Amador, and San Joaquin Counties; Washington	--

APPENDIX C — TEMPORARY DETENTION CAMPS IN CALIFORNIA, 1942

<u>Name</u>	<u>Origins of detainees</u> ⁶⁸	<u>Concentration camp destinations</u> ⁶⁹
Fresno	Central San Joaquin Valley; Amador County	Gila, Jerome
Marysville	Placer and Sacramento Counties	Tule Lake
Merced	Northern California Coast; West Sacramento Valley; North San Joaquin Valley	Granada
Pinedale	Sacramento and El Dorado Counties; Oregon; Washington	Poston, Tule Lake
Pomona	Los Angeles, San Francisco, and Santa Clara Counties	Heart Mountain
Sacramento	Sacramento and San Joaquin Counties	Tule Lake
Salinas	Monterey Bay Area	Poston, Tule Lake
Santa Anita	Los Angeles, San Diego, and Santa Clara Counties	Gila, Granada, Heart Mountain, Jerome, Manzanar, Poston, Rohwer, Topaz
Stockton	San Joaquin County	Gila, Rohwer
Tanforan	San Francisco Bay Area	Topaz
Tulare	Southern California Coast; Los Angeles and Sacramento Counties	Gila
Turlock	Sacramento River Delta; Los Angeles	Gila
Manzanar ⁶³	Los Angeles, Amador, and San Joaquin Counties; Washington	--

NOTES

1. The name Temporary Detention Camp accurately describes the true nature of the sites being nominated for historical landmark registration. At the time, the U. S. Army used the euphemism "Assembly Center," but these sites were not merely places of assemblage. Instead, they were essentially and primarily detention camps to hold people against their will. "Assembly Center" is a misnomer and misrepresentation, and therefore is unacceptable for use as a landmark name. Justification for this position is given in the Description Section, pages 10-13.
2. Statistical data contained in this application are from U. S. War Department, Final Report: Japanese Evacuation from the West Coast, 1942 (Washington: U. S. Government Printing Office, 1943), p. 362 et passim. Two-thirds majority of the detainees were native-born Americans; while it is recognized that the minority were Japanese nationals, the terms Japanese Americans or Californians will be used to include all long-time residents of the United States (see note #5).
3. Manzanar was one of the original Temporary Detention Camps, which made a total of thirteen in California. But on June 1, 1942, Manzanar was redesignated as a permanent concentration camp, and the inmates stayed in place. Manzanar's primary significance rests on its permanent camp status (California State Historical Landmark #850); and the experience at Manzanar was slightly different from the purely temporary camps. Although Manzanar is listed in the tables as an early Temporary Detention Camp, it is not part of this application. For the sake of readability, the special circumstances of Manzanar is not included in the text discussions.
4. The first group of Californians locked up were covered under "Civilian Exclusion Order #2" dated March 30, 1942. An earlier group from Bainbridge Island (Puget Sound), Washington was imprisoned under "Civilian Exclusion Order #1" dated March 24. Although the residents of Terminal Island (San Pedro Bay), Los Angeles County were evicted from their homes in late February, they were not incarcerated.
5. "All Persons of Japanese Ancestry" was defined to mean anyone with 1/16 or more Japanese ancestry. Immigrants from Japan were prohibited by statute and court decision from becoming naturalized American citizens (see note #12). Since immigration from Japan was cut off in 1924, all Japanese immigrants had lived in the United States for a minimum of 18 years, and most had lived here for over 30 years (see note #14).
6. Nanette Dembitz, "Racial Discrimination and the Military Judgement," Columbia Law Review, 45 (March 1945), p. 175; Harrop Freeman, "Genesis, Exodus, and Leviticus," Cornell Law Quarterly, 28 (June 1943), p. 414; Eugene Rostow, "The Japanese American Cases--A Disaster," Yale Law Journal, 54 (June 1945), p. 489.
7. The following articles of the U. S. Constitution were abrogated or abridged: Amendment 1 (freedom of religion, speech, press, and assemblage); Amendment 2 (right to keep and bear arms); Amendment 4 (freedom from unreasonable search and seizure); Amendment 5 (right to life, liberty, and property, and due process

of law); Amendment 6 (right to speedy and public trial; informed of charges, to be confronted with witnesses against, to call witnesses for, and to legal counsel); Amendment 7 (right to trial by jury); Amendment 8 (right to reasonable bail, freedom from cruel and unusual punishment); Amendment 13 (freedom from involuntary servitude); Amendment 14 (right to equal protection of the law); Amendment 15 (right to vote); Article 1, Section 9 (right to writ of habeas corpus).

8. Walton Bean, California: An Interpretive History (New York: McGraw Hill, 1968), pp. 163-165, 233-236, 242, 332-335; Robert F. Heizer, The Other Californians (Berkeley: University of California Press, 1971), pp. 154-194; Paul Jacobs, To Serve the Devil: Colonials and Sojourners (New York: Random House, 1971), Vol. 2, pp. 71-84, 93-108, 169-185; Andrew F. Rolle, California: A History (New York: Crowell, 1963), pp. 373-385.
9. Article XIX of the California State Constitution adopted on May 7, 1879. This article was not repealed until November 4, 1952 (1953 Cal Stat cxxxi).
10. For a summary of the numerous anti-Chinese laws, see Thomas W. Chinn, A History of the Chinese in California (San Francisco: Chinese Historical Society, 1969), pp. 23-32; Stanford M. Lyman, Chinese Americans (New York: Random House, 1974), pp. 54-85; Cheng-Tsu Wu, "Chink!": A Documental History of Anti-Chinese Prejudice in America (New York: World Publishing Company, 1972), pp. 11-103.
11. Bean, op. cit., p. 294.
12. Takao Ozawa v. U. S. (260 US 178, 1922). See Consulate-General of Japan, Documental History of Law Cases Affecting Japanese in the United States, 1916-1924 (New York: Arno Press, 1978), Vol. 1, pp. 1-120; Yuji Ichioka, "The Early Japanese Immigrant Quest for Citizenship," Amerasia Journal, 4:2 (1977), pp. 1-22.
13. 1913 Cal Stat 206 (1913); 1921 Cal Stat 1307 (1920). See Frank F. Chuman, The Bamboo People (Del Mar, Calif.: Publisher's Inc., 1976), pp. 39-51, 73-89, 117-125; Yamato Ichihashi, Japanese in the United States (Stanford: Stanford University Press, 1932), pp. 261-281.
14. Immigration Act of 1924 (43 Stat 153). See Chuman, op. cit., pp. 91-103; Roger Daniels, The Politics of Prejudice (Berkeley: University of California Press, 1962), pp. 1-107; Ichihashi, op. cit., pp. 298-317.
15. Michio Kaku, "Media: Racism in the Comics," Bridge, 3:1 (February 1974), pp. 25-29; Dennis M. Ogawa, From Japs to Japanese (Berkeley: McCutchan, 1971), pp. 2-25; Irvin Paik, "That Oriental Feeling," Roots: An Asian American Reader (Los Angeles: University of California, 1971), pp. 30-36; Jacobus tenBroek, Prejudice, War and the Constitution (Berkeley: University of California Press, 1954), pp. 22-67; Eugene F. Wong, On Visual Media Racism (New York: Arno Press, 1978), pp. 56-119.

6. P. J. Clark, The Man Who Broke Purple (Boston: Little, Brown, 1977), pp. 138-178; John K. Fairbank, East Asia: The Modern Transformation (Boston: Houghton Mifflin, 1965), pp. 606-612; Anne R. Fisher, Exile of a Race (Seattle: F. & T. Publishers, 1970), pp. 1-30.
17. Bob Kumamoto, "The Search for Spies," Amerasia Journal, 6:2 (Fall 1979), pp. 45-75; Michi Weglyn, Years of Infamy (New York: William Morrow, 1976), pp. 33-53.
18. Kumamoto, op. cit., p. 69.
19. Chuman, op. cit., p. 154; Bill Hosokawa, Nisei: The Quiet Americans (New York: William Morrow, 1969), pp. 237-240; Betty E. Mitson, "Interviews of Herbert V. Nicholson," Valiant Odyssey (Upland, Calif.: Brunk's Printing, 1978), pp. 9-25; tenBroek, op. cit., pp. 100-102.
20. Internment Camp was the term used by the Justice Department. In this respect, the Justice Department was more honest about what they were doing. Justice Department prisoners at least had some measure of due process: each internee was accorded an administrative hearing, was allowed to appeal to a neutral consul (Spain), and was granted protections of the Geneva Prisoners of War Convention of 1929. Detainees held by the Western Defense Command had none of these rights.
21. Morton Grodzins, Americans Betrayed (Chicago: University of Chicago Press, 1949), pp. 377-399; tenBroek, op. cit., p. 76.
22. There were 36 cases of violence or vandalism against Japanese Americans in all of the West Coast states during the first four months of the war; and only seven of those attacks were known to have been committed by white persons. See Grodzins, op. cit., p. 140.
23. Stetson Conn, Office of the Chief of Military History, Department of the Army, "The Decision to Evacuate the Japanese from the Pacific Coast," Command Decisions (New York: Harcourt, Brace, 1959), p. 100.
24. Most people failed to see an obvious point: real spies had to be inconspicuous, and only white people could fulfill such a role. Individuals convicted of espionage for Japan are named in Saburo Kido, Brief of the Japanese American Citizens League, Amicus Curiae, Fred Korematsu v. United States, In the Supreme Court of the United States, October Term 1944, No. 22, pp. 30-37.
25. Roger Daniels, The Decision to Relocate the Japanese Americans (Philadelphia: J. B. Lippincott, 1975), pp. 3-58; Grodzins, op. cit., pp. 19-225; tenBroek, op. cit., pp. 68-96.

27. U. S. War Dept., op. cit., pp. 25-29.

28. Mass eviction notices were posted in the streets on the afternoon of February 25; soldiers handed each household an individual notice on February 26; and all Japanese Americans had to be off Terminal Island by midnight February 27. Earlier, the Harbor Commission announced on February 14 that all leases held by Japanese Americans were subject to cancellation in 30 days--but that warning gave residents until March 14 to settle their affairs. See Paul Bailey, City in the Sun (Los Angeles: Westernlore Press, 1971), pp. 29-35; Audrie Girdner, The Great Betrayal (New York: Macmillan, 1969), pp. 110-114; Hosokawa, op. cit., pp. 309-311.

29. Public Proclamation #1, March 2, 1942 (7 Fed Reg 2320); U. S. War Dept., op. cit., p. 107. DeWitt issued hundreds of military orders applying exclusively to civilians of Japanese ancestry. For a chronology and discussion of the key orders, see Sue K. Embrey, The Lost Years, 1942-1946 (Los Angeles: Moonlight Publications, 1972), pp. 5-13; Dillon S. Myer, Unrooted Americans (Tucson: University of Arizona Press, 1971), pp. xciii-xxx; tenBroek, op. cit., pp. 116-134; Dorothy S. Thomas, The Spoilage (Berkeley: University of California Press, 1946), pp. 9-13.

30. General Orders #35, March 11, 1942, Headquarters, Western Defense Command and Fourth Army; U. S. War Dept., op. cit., pp. 41, 66.

31. Public Law 77-503, March 21, 1942 (56 Stat 173).

32. Civilian Exclusion Order #1, March 24, 1942 (7 Fed Reg 2581).

33. Bailey, op. cit., p. 42; Girdner, op. cit., pp. 134-147; tenBroek, op. cit., p. 124; U. S. War Dept., op. cit., pp. 118-124.

34. Roger Daniels, Concentration Camps USA (New York: Holt, Rinehart and Winston, 1972), p. 38.

35. Bean, op. cit., p. 435; Daniels, Decision to Relocate, op. cit., pp. 27-28; Hosokawa, op. cit., pp. 457-467; Girdner, op. cit., pp. 20-21; Carey McWilliams, Prejudice: Japanese Americans (Boston: Little, Brown, 1945), pp. 141-147.

36. WCCA Director Bendetsen stated: "I am determined that if they (the children) have one drop of Japanese blood in them, they must go to camp." See Weglyn, op. cit., p. 77.

37. Public Proclamation #3, March 24, 1942 (7 Fed Reg 2543).
38. Public Proclamation #4, March 27, 1942 (7 Fed Reg 2601).
39. tenBroek, op. cit., p. 126.
40. Dorothy S. Thomas, The Salvage (Berkeley: University of California Press, 1952), pp. 564-569.
41. Public Proclamation #6, June 2, 1942 (7 Fed Reg 4436).
42. Thomas, Spoilage, op. cit., p. 12.
43. Bean, op. cit., p. 434; Allan R. Bosworth, America's Concentration Camps (New York: W. W. Norton, 1967), p. 125.
44. tenBroek, op. cit., pp. 132-133; Thomas, Spoilage, op. cit. pp. 12-13.
45. U. S. Department of the Interior, War Relocation Authority, The Evacuated People: A Quantitative Description (Washington: U. S. Government Printing Office, 1946), p. 8; U. S. War Dept., op. cit., p. 362.
46. U. S. War Dept., op. cit., pp. 248-273.
47. Ibid., pp. 227-233, 282-284, 288, 370.
48. Ibid., pp. 151-183.
49. Bailey, op. cit., p. 42; Bosworth, op. cit., p. 117; Girdner, op. cit., pp. 146-147; Anthony L. Lehman, Birthright of Barbed Wire (Los Angeles: Westernlore Press, 1970), p. 24; tenBroek, op. cit., p. 126; U. S. War Dept. op. cit., p. 444.
50. Estelle Ishigo, Lone Heart Mountain (Los Angeles: Anderson, Ritchie and Simon, 1972), p. 9.
51. Charles Kikuchi, The Kikuchi Diary (Urbana: University of Illinois Press, 1973), p. 54.

52. Mine Okubo, Citizen 13660 (New York: Columbia University Press, 1946), p. 81.
53. U. S. War Dept., op. cit., p. 216.
54. Civilian Restrictive Order #1, May 19, 1942 (8 Fed Reg 982).
55. Bailey, op. cit., pp. 43-53; Maisie Conrat, Executive Order 9066 (San Francisco: California Historical Society, 1972), pp. 76, 81, 86, 87, 94; Daniels, Concentration Camps, op. cit., pp. 89-90; Girdner, op. cit., pp. 148-167; Ishigo, op. cit., pp. 9-10; Lehman, op. cit., pp. 21-27; Okubo, op. cit., pp. 34-86; U. S. War Dept., op. cit., pp. 183, 186; Weglyn, op. cit., pp. 80-82.
56. See samples of "Civilian Exclusion Order" and "Instructions to All Persons of Japanese Ancestry" in U. S. War Dept., op. cit., pp. 97-100. Other commonly used euphemisms were: "evacuation" instead of expulsion, "relocation" instead of incarceration, "reception center" instead of concentration camp, "evacuee" instead of prisoner.
57. Ken Adachi, The Enemy That Never Was (Toronto: McClelland and Stewart, 1976), pp. 218, 251-252.
58. Weglyn, op. cit., p. 202 (Japanese edition, p. 229).
59. Gerald Green, The Artists of Terezin (New York: Hawthorn Books, 1969), p. 20; Julius Schatzle, Stationen zur Holle (Frankfurt am Main: Roderberg-Verlag GmbH, 1974), p. 80; John Tolan, Adolph Hitler (Garden City: Doubleday, 1976), Vol. 2, p. 861.
60. U. S. War Dept., op. cit., pp. 155-165.
61. Ibid.
62. Wartime Civil Control Administration/Western Defense Command press releases dated March 28, April 1, April 4, 1942.
63. Manzanar is not part of this application. See note #3.
64. U. S. War Dept., op. cit., p. 227.
65. Ibid.

56. U. S. War Dept., op. cit., p. 373.

57. The first detention order applicable in California was issued on March 30. But some "volunteers" entered these installations earlier to help prepare the camp for the main body of detainees.

58. U. S. War Dept., op. cit., pp. 363-366, map insert II.

59. Ibid., p. 381.

8 x 10 photographs enclosed:

1. Santa Anita Detention Camp -- Arrival of detainees
2. Stockton Detention Camp -- Baggage inspection on horse track
3. Stockton Detention Camp -- Detainees being led to barracks
4. Tanforan Detention Camp -- Unfinished horsestall living quarters
5. Tanforan Detention Camp -- Mud and horse manure front yards
6. Tanforan Detention Camp -- Communal latrine/laundry room by horsestall units
7. Tanforan Detention Camp -- Mess hall queue; detainees had to bring own plates
8. Salinas Detention Camp -- Walking back to tarpaper homes
9. Santa Anita Detention Camp -- Guard tower with machine gun emplacement
10. Santa Anita Detention Camp -- Dawn departure for a permanent concentration camp

NOTE: The enclosed photographs are for reference use only; and are not for publication without written permission from the applicant.

ALL SOURCES HAVE BEEN CITED IN THE NOTES

MERCED COUNTY LIBRARY

DEC 29 1981

Raymond Y. Okamura

RAYMOND Y. OKAMURA
Application Writer

Isami Arifuku Waugh

ISAMI ARIFUKU WAUGH
Survey Coordinator

Signature _____

Date _____

March 17, 1980

This form and all related correspondence is to be sent to the California Historical Landmarks Advisory Committee, Post Office Box 2390, Sacramento, California 95811.

An application must be considered solely on its historic or architectural merits and not for commercial gain, political benefits, or other non-historical reasons.

Any individual committee member can advise and counsel an applicant, but all applications must be considered by the full committee meeting in regular session.



(916) 445-8006

June 9, 1980

Mr. Raymond Y. Okamura
Ethnic Minority Cultural Resources
Survey--Japanese Americans
Post Office Box 799
El Cerrito, CA 94530

Dear Mr. Okamura:

The State Historical Resources Commission, sitting in regular session in Santa Cruz, on May 2, 1980, considered your application for registration of the Temporary Detention Camps for Japanese Americans. You will be pleased to know that the Commission recommended registration of these landmarks.

Thank you very much for your continued interest in our state landmark program.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'K. Mellon'.

Dr. Knox Mellon
State Historic Preservation Officer

sje

A G E N D A

VII. APPLICATIONS, FEDERALLY SUBMITTED:

	PENDING	TABLED	DENIED	APPROVED
1980				
1980				
E S				

XI. APPLICATIONS

A. Registrations:

Trimmer Hill, Monterey County

Lodi Arch, San Joaquin County

Mount Diablo Coal Field, Contra Costa County

Site of Llano del Rio Cooperative Colony, Los Angeles County

Temporary Detention Camps for Japanese Americans, Fresno, Inyo,
Los Angeles, Merced, Monterey, Sacramento, San Joaquin, San
Mateo, Stanislaus, Tulare, and Yuba Counties

K

B. Plaques:

Trimmer Hill, Monterey County

Lodi Arch, San Joaquin County

Mount Diablo Coal Field, Contra Costa County

Site of Llano del Rio Cooperative Colony, Los Angeles County

No. 179 Castro House, San Benito County

No. 180 Plaza Hotel, San Benito County

No. 342 Site of Santa Cruz Mission, Santa Cruz County

No. 416 Edwin Markham Home, Santa Clara County

No. 417 First Normal School in California, Santa Clara County

No. 525 Sutter's Fort, Sacramento County

XII. POINT OF HISTORICAL INTEREST:

Colusa County
Sacramento Valley Museum

Inyo County
Cartago Boat Landing

Monterey County
Trimmer Hill

Riverside County
Piracate and the Piracate Mining District

JAPANESE AMERICANS

P. O. Box 799, El Cerrito, California 94530
Information: Isami Waugh 527-4629, Ray Okamura 540-2195

FOR IMMEDIATE RELEASE (5/2/80)

SANTA CRUZ -- The sites of the 1942 Temporary Detention Camps for Japanese Americans have been designated as California State Historical Landmarks. Some 93,000 Californians of Japanese ancestry were confined at these locations while the more permanent concentration camps were being built.

At a meeting here on Friday, May 2, the California State Historical Resources Commission unanimously approved an application submitted by the Ethnic Minority Cultural Resources Survey--Japanese Americans. Commissioners present and voting for the proposal were: Julia Costello, Ernestine Elster, Robert Ferris, Amanda Frost, and Nadine Hata.

Nearly three months after the United States entered World War II, President Franklin D. Roosevelt signed Executive Order 9066 authorizing the mass detention of Japanese Americans. This action resulted from the long history of prejudice and legal discrimination against Japanese Americans, and the organized hate campaign of anti-Japanese groups in California.

The U. S. Army expropriated various fairgrounds, horse racetracks, rodeo grounds, and labor camps and rapidly converted them into detention facilities. Existing horsestalls, livestock exhibition halls, and grandstands were used for living quarters, and flimsy tarpaper barracks were built for additional housing.

Euphemistically called "Assembly Centers" at the time, the compounds were surrounded by high barbed wire fences, guardtowers, searchlights, and sentries armed with machine guns. The inmates were forbidden from going beyond the camp boundaries by order of General John L. DeWitt, head of the Western Defense Command.

MORE

Twelve Temporary Detention Camps existed in California between March 27 and October 30, 1942. Each detainee spent an average of 102 days in a temporary camp before being transferred to one of the more permanent camps built in the interior desert and swamp regions of the United States.

The newly registered landmark areas are: The Big Fresno Fair/Fresno County Fairgrounds, Fresno; farmlands North of the Marysville Municipal Golf Course, Arboga; Merced County Fairgrounds, Merced; housing tract West of the old Air Force Depot, Pinedale; Los Angeles County Fairgrounds, Pomona; Palmgate tract (Camp Kohler/Walerga), Foothill Farms; California Rodeo grounds, Salinas; Santa Anita Park, Arcadia; Central Valley Exposition/San Joaquin County Fairgrounds, Stockton; Tanforan Park Shopping Center, San Bruno; Tulare County Fairgrounds, Tulare; Stanislaus County Fairgrounds, Turlock.

Local groups who wish to have a memorial placed at the site of the former detention camp in their community may now apply for a plaque under the general landmark registration. The state does not automatically install a plaque at every registered landmark, so a separate plaque application, with proposed wording, must be submitted.

Each plaque may be worded differently, reflecting the perceptions and sentiments of the local community. The Ethnic Minority Cultural Resources Survey has not proposed any plaque wording and does not intend to apply for any plaque. Plaque applications and plaque wordings are left completely within the jurisdiction of local committees.

Information on plaque applications may be obtained from the Office of Historic Preservation, P. O. Box 2390, Sacramento, California 95811, (916) 445-8006.

#####

American Concentration Camps

Tule Lake (Newell)

LOCATION
California, Modoc County, at Newell, Cal. 139 South of Tulelake, past Stronghold, on East side by Road 176, and around Newell, and at the airport.

DATES OF OPERATION
May 27, 1942 to March 20, 1946.

NUMBER OF DETAINEES
18,789 maximum at any one time; 29,490 total.

ORIGIN OF DETAINEES
Initially from Sacramento, East Sacramento Valley, Northwestern Oregon, Western Washington. After segregation from all West Coast states and Hawaii.

AT THE SITE
California state historical landmark monument, administrative buildings, barracks, collapsed guardtowers, arthouse, maintenance shops, military police quarters, parade, warehouses (much of Newell consists of former camp buildings).

IN OTHER AREAS
Cross on The Peninsula (Castle Rock); barracks at Lava Beds National Monument headquarters and on Rim Road south of the Tule Lake Sump; cemetery at Klamath Falls, Oregon; memorabilia at the California State Archives built in Sacramento (not in time capsule at monument as originally planned).

SURVEY MAPS
Tulelake, California, 15 minute, 1951, \$1.25
U. S. Geological Survey, Branch of Distribution, Box 25286, Federal Center, Denver, Colorado 80225

PUBLICATIONS

Daisuke Kitagawa, *Issei and Nisei*, Seabury Press, New York, 1967.

Life, Volume 16, Number 12, March 20, 1944, \$3.00 (see Manzanar for source address)

Edward Miyakawa, *Tule Lake*, House by the Sea Publishing Company, 8610 Highway 101, Waldport, Oregon 97394, 1979, \$7.95 (novel).

Kazuo Miyamoto, *Hawaii*, Charles Tuttle, Rutland, Vermont, 1964, \$5.25 (novel).

Gary Okihiro, "Tule Lake Under Martial Law," *Journal of Ethnic Studies*, Volume 5, Number 3, Fall 1977, Western Washington University, Bellingham, Wash. 98225, \$3.00.

Max Templeman, *Kibei*, Daimax Publishing House, 860 Hoomaemae Street, Pearl City, Hawaii 96782, 1979, \$11.95 (novel).

Dorothy Thomas, *The Spoilage*, University of California Press, Berkeley, 1971, \$14.00.

Rosalie Wax, *Doing Fieldwork*, University of Chicago Press, Chicago, 1971, \$11.50.

Michi Weglyn, *Years of Infamy*, William Morrow, New York, 1976, \$5.00 from Pacific Citizen.



Manzanar

LOCATION
California, Inyo County, 5 miles South of Independence, 1395 South from Independence or North from Lone Pine, across from abandoned Manzanar airport, look for large green building on West side.

DATES OF OPERATION
March 21, 1942 to November 21, 1945.

NUMBER OF DETAINEES
10,046 maximum at any one time; 11,062 total.

ORIGIN OF DETAINEES
Los Angeles, San Fernando Valley, San Joaquin County, Bridge Island (Washington).

AT THE SITE
California state historical landmark plaque / rock arthouse, auditorium, cemetery, memorial monument, foundations, garden remains.

IN OTHER AREAS
Barracks at Ranch Motel and Willow Motel in Lone Pine, and next to Catholic Church in Independence; memorabilia at Eastern California Museum in Independence.

SURVEY MAPS

Lone Pine, California, 15 minute, 1958, \$1.25
U. S. Geological Survey, Branch of Distribution, Box 25286, Federal Center, Denver, Colorado 80225

PUBLICATIONS

Ansel Adams, *Born Free and Equal*, U.S. Camera, New York, 1944 (photographs).

Jerome Charyn, *American Scrapbook*, Viking Press, New York, 1969 (novel).

Jessie Garrett, *Camp and Community*, California State University, Fullerton, 1977, \$7.95.

Arthur Hansen, "The Manzanar Riot," *Amerasia Journal*, Volume 2, Number 2, Fall 1974, UCLA Asian American Studies Center, Los Angeles, Calif. 90024, \$3.25.

Arthur Hansen, *Voices Long Silent*, California State University, Fullerton, 1974.

Jeanne Wakatsuki Houston, *Farewell to Manzanar*, Houghton Mifflin, Boston, 1973, \$5.95 (autobiography).

Life, Volume 12, Number 14, April 6, 1942, Time Incorporated, Subscription Service, Time-Life Building, Chicago, Ill. 60611, \$3.00 (photographs).

Toyo Miyatake, *Two Views of Manzanar*, UCLA Arts Council, Los Angeles, 1979, \$5.95 (photographs).



Compiled by Raymond Okamura, 1150 Park Hills Road, Berkeley, Ca. 94708 • November 30, 1979

With Assistance from Mary Ruth Blackburn, Sue Embrey, Bill Hosokawa, Eugene Itogawa, George Sakaguchi, Karen Seriguchi, Masa Tsukamoto, Minoru Yasui, Frank Yoshimura.

LEGEND—The location of the camp sites are marked by circles five miles apart. The scale in miles is constant for all the maps, as expertly transferred from the "Final Report: Japanese American Evacuation, 1942", by Gen. D.L. Witt. The area covered by these maps is approximately 63 miles by 102 miles.

● INDO-CHINA PROJECT SITE — OTHER INDIA
 ● INDO-CHINA SITE — INDIA PROJECT
 ○ SMALL CITIES AND TOWNS □ FEDERAL PRISON
 — RIVER ROUTE □ STATE PRISON

Pacific Citizen Holiday Issue / December 21-28, 1979

* Merced County

State of California—The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD * see P-24-001910 + 001911
NRHP Status Code: 3
Review Code Reviewer

* Primary #: P-24-001909
HRI #: P-22-003197
Trinomial
Other Listings:
Date

Page 1 of 8

PJ. Other Identifier:

filed in quote

*Resource Name or #: Merced Irrigation District 12/10

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County: Merced + Mariposa Co. + Hornitos
*b. USGS 7.5' Quads: Coulterville, Penon Blanco Peak, Merced Falls, Snelling, Turlock Lake, Yosemite Lake, Winton, Cressev, Turlock, Planada, Merced, Atwater, Arena, Stevinson, Gustine, Turner Ranch, Sandy Mush, El Nido, Plainsburg, Le Grand. Portions of R9 through R16 East and T8 through T3 South MDBM

c. Address: 744 West 20th (Headquarters)

City: Merced

Zip: 95340

d. UTM:

e. Other Locational Data: none. Elevation: 1000-95 feet asl

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The MID is located throughout much of the northeast portion of the County of Merced and the boundary is defined in a map created by the MID in 1973 (attached). According to MID's website, the District owns, operates and maintains ditches, canals, laterals, wells, pumping plants, the New Exchequer and McSwain Dams, reservoirs, and hydroelectric facilities. These serve farmers and domestic water users. The dams are the primary water storage facilities on the Merced River and are located in the foothills on the western slope of the Sierra Nevada mountain range. The two dams and reservoirs are integral parts of the 1964 Merced River Development Project, and are licensed by the Federal Energy Regulatory Commission (FERC). McSwain Dam was completed in 1967 and is a regulating reservoir. The New Exchequer Dam Project was completed in 1967 as a multi-purpose facility providing facilities and water for all beneficial uses, including domestic and irrigation water, flood control, hydroelectric power generation, recreation, and the environment. The original Exchequer dam was removed (built 1924-1926). The MID water system diverts water from the Merced River at two locations. The Northside Canal diversion is small and located slightly downstream from Merced Falls and serves about 10,000 acres of farm ground north of the Merced River. The Main Canal diversion is larger and has a capacity of 2,000 cubic feet per second, and is located three miles downstream of the McSwain Dam. The diversion is from a small reservoir created by the Crocker-Huffman Diversion Dam, owned and operated by the District. The Diversion Dam also provides water to salmon and trout hatcheries and rearing facilities.

Staff did not review all of the physical parts of the MID, just a segment of the McCoy Lateral and the Garibaldi Lateral that are the subject of the referenced analysis by Dice and Lord (2010).

*P3b. Resource Attributes: HP11, HP20, HP21, HP22. Eng. structure, Canal, Dam, Lake (reservoir)

*P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☐ Site ☒ District
☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing see Photo pages

P5b. Description of Photo: (View, date, accession #) None on this page. See photo list.

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both

*P7. Owner and Address:

Merced Irrigation District 744 West 20th
Merced, CA. 95340 (209.722.5761)

*P8. Recorded by: (Name, affiliation, and address)

Michael H. Dice, M.A. Michael Brandman Associates
621 Carnegie Drive, Suite #100 San Bernardino, CA. 92408

*P9. Date Recorded: October 10, 2010.

*P10. Survey Type: (Describe)

NEPA Linear Survey of District lateral segments

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Dice, M.H., and K.J. Lord 2010. Section 106 Cultural Resource Impact Analysis for the McCoy Lateral and Garibaldi Lateral Project, Merced Irrigation District, County of Merced, California. Draft Dated November 2 2010.

Report
HB-7704
rec'd @
CCIC
2013

*Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☒ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☒ Photograph Record ☒ Other (List): Official Map of 1973 District showing boundary against Township and Ranges

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 8

*NRHP Status Code: 3

*Resource Name or #: Merced Irrigation District

B1. Historic Name: Merced Irrigation District

B2. Common Name: MID

B3. Original Use: Water conveyance system

B4. Present Use: Water conveyance system

*B5. Architectural Style: No style: vernacular based on topography.

*B6. Construction History: (Construction date, alterations, and date of alterations)

Prior to development of the MID, most of the creeks and rivers flowing into and through Merced County were known to be useful for irrigation and mining purposes but much of the water was from spring runoff that ended up in the tributaries of the San Joaquin River. During California's state-wide development boom of the 1880's, hundreds of agricultural colonies were developed with the intent on selling land to immigrants from the east. The value of an irrigatable property hinged on several factors: soil type, reliable water sources, legally protected water rights, and rail transportation. The Crocker-Huffman Land and Water Company was one of many colonies formed in the Merced region of the Central Valley. Crocker-Huffman's water had been entitled for several decades prior to the coming of the MID and was originally part of the Robla Canal Company, which had built water delivery canals beginning in 1870.

The MID was created through the coalescing of a series of irrigation canals and ditches that had been built privately between 1870 to 1922. As a public entity, the MID formed in 1919, sold bonds, and began buying up the private irrigation systems. Once the Crocker-Huffman canal system and water rights were purchased, the MID became the leading irrigation district in the County. Roughly 180,000 acres were included in the District in the 1920's. McSwain (1978) records that the primary types of crops grown using MID water (1934-1976) were "field crops" (mostly sweet potatoes), grain (wheat, barley, hay, alfalfa), pasture, rice, nut trees (walnuts and later almonds and pistachios), peaches, and grapes. These crops can be seen in the area today.

Successful farming ventures on lands adjacent to the Merced and San Joaquin Rivers in 1920 were dependent upon control of the Merced upstream from the rivers' confluence to Merced Falls at the Mariposa County line. Upstream control of the San Joaquin as it meandered through its wide, slough-filled floodplain was also important. Small sloughs lined the Merced River throughout its 38 mile meander west across the County, but because of its drop (350-60 feet) the Merced was tightly reined in its floodplain. The San Joaquin River watershed exhibited a maze of sloughs and meandering channels running between 110 and 60 feet above sea level through the County. Given the existing topography, thousands of acres of low-lying farmland could be protected from flooding and still be irrigated reliably if and only if a large number of landholders could work cooperatively. The San Joaquin River was used for irrigation in the westernmost portion of the County, but the San Joaquin was already being used for irrigation in Fresno, Kings and Kern counties so the water rights were more complicated. Dams for storing water would have to be built in several areas not only to control flooding but to smooth delivery. These included Yosemite Lake (built 1888), which was a reservoir built for regulation of the Main Canal at a point east of the City of Merced, and Exchequer Lake (aka Lake McClure, built 1927) upstream on the Merced in Mariposa County, which formed the primary water storage facility for the MID.

The MID was designed to be a publically-owned utility that relied on taxes and hydropower sales. Land sales were undertaken if and only if a farmer lost his title to the MID for non-payment of taxes. Records show that the District taxed landowners within the District at yearly varying rates per 100 acre units with an expected 15 percent delinquency rate. It was those tax payments that allowed the farmer to take whatever water he needed as he paid taxes on the amount of acreage he had rather than how much water he used or what he grew. Certain crops, particularly rice, required a constant flow of irrigation water and required permits from the District with added fees. The rest could be irrigated during daylight hours only, which was the preferred method for most. If a farmer closed his sluices but didn't unblock the weir, backups and spills could occur, and might damage other farmers' properties. This would create ill will and legal action so the District hired "ditchtenders" who would maintain the Laterals locally and make certain local mishaps were reduced. Ditchtenders usually got a small house to live in and used their own vehicles for mileage.

Rice was grown in the MID because of the existence of the Yamato Colony, a Japanese agricultural community begun in 1904 by Kyutaro Abiko (CDPR 1988), who was somehow able to purchase 3,000 acres without legal recriminations. Unusual for the time, the Yamato Colony was one of three colonies begun by Issei (first generation Japanese immigrants) in the Central Valley in the early 1900's. Originally located slightly east of the town of Livingston, many farmed parcels in this area are today owned by ethnic Japanese.

High water tables and seepage across the canal walls appear to have been the first complaints registered with the MID in the early days because all of the facilities were either hard-packed dirt canals, former creeks and washes, or unlined tunnels. Prior to MID development, most farmers except the riparian farmers along the Merced and the San Joaquin drew their water from wells and used the land for pasture. When the water table rose after regional irrigation began, drainage wells had to be built which would take the excess ground water out and pump it back into the canals, Laterals and drains. Pumping requires electricity, so the District included hydroelectric power generation as part of the financing effort to build the Exchequer Dam. With power generation beginning in 1927, the MID used whatever power it needed, and sold the remainder to San Joaquin Power and Light (absorbed by PG&E in the 1950's).

BUILDING, STRUCTURE, AND OBJECT RECORD, cont.

Page 3 of 8

*NRHP Status Code: 3

B6 (continued)

Nearly all of the MID was unlined until after the Crocker-Huffman was purchased: complaints and litigation forced the District to begin lining its canals and Laterals with concrete. Lining the system took years and was expensive, and a few farmers apparently did their own lining of the Lateral segments as it crossed their land. Research shows that the lining process was probably undertaken first in those sections of the MID which carried the largest capacity and/or had the biggest seepage and break problems. Examination of the entirety of the McSwain (1978) shows that while several localities were difficult to keep running smoothly and were subject to constant litigation over seepage damage, neither the Garibaldi and McCoy Laterals nor the ranches they served were ever mentioned as places that needed repairs or where litigation was occurring. Subsequently, we estimate that the McCoy and Garibaldi APE was probably lined during the 1935-1937 period when the New Deal made Reconstruction Finance Corporation (RFC) monies available to the MID. That section of the Garibaldi between the corner of Vineyard and River Road and the Merced is unlined to this day and demonstrates what the entirety of the system must have looked like before the MID was created.

In the 1950's and 1960's McSwain notes that although lining (and relining) was still taking place, the amount of needed lining work slackened off. The types of crops grown changed to meet new post-War demands. As an example, nut orchard acreage had increased dramatically by 1976. With the MID mature and the farm economy more stable now than during the periods before the War, farmers could grow products that would require a long-term investment, such as nuts and grapes. Almonds and walnuts appear to be flood-irrigated in the MID, while grapes are drip irrigated. Grapes are deep rooted plants and poor drainage can kill an old and valuable orchard quickly. It would have been necessary to place grape orchards away from areas subject to seepage. In sum, the essential elements of a publicly-owned irrigation district developed in the 1920's remain to this day: storage behind dams used to regulate gravity flow, hydropower electricity generation, delivery downstream using a series of main canals, miles of gravity-fed Laterals with concrete weirs and Calco sluice gates, delivery of water to farmed parcels at the high point on the property, taxation on the basis of acreage owned, and reduction of the irrigated water table through well pumping. These factors are what make the MID system a potential *Historic District*.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown

Date:

Original Location:

*B8. Related Features: Contributing features of the MID include Dams, Reservoirs, Main Canals, Laterals and Wells.

B9a. Architect: MID

b. Builder: MID

*B10. Significance: Theme: Water Conveyance Development in the Central Valley Area: County of Merced

Period of Significance: 1919-1939

Property Type: Engineering Structure

Applicable Criteria: Criterion A, B, C and D

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The integrity of the historic property's location, design, setting, materials, workmanship, feeling, or association must be considered as part of this analysis. We consider these important aspects of the original integrity to be reflected in the Laterals and Lateral segments that will be affected by the undertaking. The basic framework for the MID includes reservoirs, dams, primary canals, Laterals, wells and drains that allow the District to operate and serve its constituents ably. It can be considered a Historic District with contributing and non-contributing elements. The Irrigation District's water delivery framework was created during the Period of Significance and although the system is self-sustaining and improvements to the basic structure have occurred on a regular basis, the basic framework still remains and is essentially unchanged. The MID system is therefore considered wholly intact and the integrity of the MID system within its period of significance is considered *good*.

B10 (continued)

Criteria A, Event: the property must make a contribution to the broad patterns of American history.

The Merced Irrigation District reflects a California-wide pattern of water delivery development during the early part of the 20th Century in response to the States' quickly developing agricultural landscape. Its historical contribution to the development of Central Valley agribusiness is in fact well known to persons beyond the County of Merced. In our view the MID system does currently qualify for the NR under Criterion A as a Historic District because there is good evidence to support the idea that the MID makes a significant contribution to historical patterns at the local, State or national level of analysis.

Criteria B, Person: the property must be associated with persons or people significant in the American past.

The original developers of the MID system were persons who built the earliest canals and waterworks, and it was the local bankers and landowners who were able to create the MID through a vote of the people and put the whole of the MID together. These local figures have not gained national or State prominence and while their names may be known to local historians and County historical societies, we do not consider that they have a storied place in State history. In our view the MID Historic District does not currently qualify for the NR under Criterion B.

Criteria C, Design/Construction: the property must exhibit distinctively American characteristics through its construction and architecture, including having high artistic value or being the work of an American master.

It is clear that the MID system reflects a State-level trend in waterworks construction that was occurring during its period of significance. Many Irrigation Districts built before World War II in the Central Valley exist to this day and serve their constituents well. The initial framework of design reflects effective use of a gravity-fed technology at a time when these technologies could serve newly developing agricultural "colonies" and landscapes. Once built, lands that were pasture and irrigated with wells, or lands that would flood yearly upon which long-term agribusiness concerns (vineyards, nut tree orchards) could not be constructed, could be confidently developed so that the agricultural climate of the region would be vastly improved. The system of reservoirs, canals and irrigated land is distinctive to the Central Valley and important to American history at the State level of analysis. For these reasons and in our view the MID Historic District does currently qualify for the NR under Criterion C.

Criteria D, Information Potential: the property has yielded or may be likely to yield information important to American prehistory or American history.

Review of historic records at the MID archives plus knowledgeable research on the part of other authors has shown that the MID's historic background will invariably yield additional information associated with the development of these types of public water control systems in the Central Valley. Not all of the original contributing elements have yet to be recorded or examined by a qualified historian. Therefore, the MID Historic District does currently qualify for the NR under Criterion D.

B11. Additional Resource Attributes: (List attributes and codes) none

***B12. References:** McSwain, K. 1978. *History of the Merced Irrigation District, Merced and Mariposa Counties California 1919-1977*. Merced Irrigation District, Merced.

Outcalt, J. 1925. *History of Merced County, California*. Historic Record Company, Los Angeles.

(This space reserved for official comments.)

Record (Record Steam Book and Job Printing House). 1873. *Irrigation In California: the San Joaquin and Tulare Plains*. Pamphlet by Record Steam Book and Job Printing House, Sacramento

Dice, M. and K. Lord. (2010). Section 106 Cultural Resource Impact Analysis for the Garibaldi Lateral and McCoy Lateral Project, Merced Irrigation District, County of Merced, California. On-file CCIC and MID. Michael Brandman Associates, Inc. San Bernardino, CA.

B13. Remarks:

***B14. Evaluator:** Michael Dice, M.A.

***Date of Evaluation:** November 10, 2010

Page 5 of 8

*NRHP Status Code: 3

*Resource Name or #: Merced Irrigation District

D1: Historic Name: Merced Irrigation District

D2: Common Name: MID

*D3: Detailed Description (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

The MID was created through the coalescing of a series of irrigation canals and ditches that had been built privately between 1870 to 1922. MID boundaries encompasses 164,000 gross acres. Total irrigable lands in the MID amount to 138,000 acres. Of the 825 total miles of water distribution facilities, earthen-lined channels account for 596 miles, or 75 percent; concrete-lined channels, 109 miles, or 14 percent; and 89 miles of pipelines or 11 percent. The MID also maintains some 4,100 delivery gates, as well as 1,500 check structures. In addition to providing irrigation water, the MID also uses its existing irrigation distribution system for local flood control by routing local foothill runoff and stream flood waters away from populated areas. At the end of 2007, there were approximately 14,062 residential, commercial, industrial, and government parcels located primarily within the urban area of Merced Irrigation District that received flood protection.

In February 1888 the Crocker and Huffman Land and Water Company opened the gates of the Yosemite Reservoir to allow water to flow into the downstream portion of the Main Canal, which had been placed into "Canal Creek". Irrigation water was made available to the City of Merced and nearby smaller towns. During the early period in Central Valley irrigation history, the biggest primary canals were built in modified creek beds, and Laterals were brought off the main canals (possibly using old washes) via excavation. Water was delivered through a series of siphons or gravity draws. Canals such as the Arena or the Livingston leading to the northwest portion of the MID, where the APE is located, were probably excavated before 1900. Old washes may not have been used for these canals because the natural slope is to the west-southwest. Despite a thorough search of available records, it is not known exactly when the Livingston and the Arena canals were first built but they may have been part of the Crocker-Huffman system.

In 1922, the District purchased the Crocker Huffman Land and Water Company canal system for \$2.25 million. The Exchequer Mining Company property on the Merced River (in Mariposa County) was chosen as the ideal location to construct the District's primary storage dam. Planning for the dam started in 1921, with construction taking place between 1922 and 1926. After selling bonds totaling \$16 million through 1926, in 1927 the District had a completed a fully operational dam, an extended canal system, and hydropower facilities generating a supply of electricity exceeding local demand. The Exchequer Dam, one of the largest concrete gravity arch dams at the time, was 326 feet high, backed up water for a run of 14 miles and allowed storage of 281,000 acre-feet. The District built two generators in the powerhouse, each with a rated capacity of 15,625 kilowatts. When the reservoir was depleted, irrigation water would be shut off (typically early October) and not be restarted until March. Between those months, the MID wouldn't sell hydropower and the canal system would be cleaned and repaired. In excellent water years, hydropower would be produced earlier or later by allowing the water to flow into the Merced. Droughts would force agricultural rationing (a minor problem because of a high water table sustained by irrigation) and loss of electrical revenues (a major source of the MID income). This is exactly what happened between 1928 and 1932.

During the 1931-1936 period in its history, the national economic collapse took a toll on the ability of the MID to survive. Saddled with debt and several years of a state-wide drought that saw stored water reserves dwindle, the MID was unable to generate electric power for sale at levels that would make the entirety of the venture feasible. In 1932, newspaper reports showed that MID was essentially bankrupt. The late 1932 through 1934 period saw the MID delay interest payments to bondholders, local banks' refinancing schemes essentially failed, and half its employees were laid off. Massive drops in land value occurred, reducing tax receipts significantly. Virtually all farmers lost money during this period and although the water kept flowing, much of the land in the MID in 1934 lay fallow. Hundreds of properties were seized and sold at auction for non-payment of District taxes. In 1935-1936 with the advances made toward the Roosevelt Administration through its lobbyists and backed by federal loans, MID operations and financing was restructured and by the end of the 1930's had gotten back on its feet from an economic standpoint. During the 1940's, no development of capacity occurred due to shortages brought on by the War. By 1947, construction-related commodities were available once again.

*D4. Boundary Description (Describe limits of district and attach map showing boundary and district elements.): The District is located in the north-central portion of the County of Merced. The District boundaries are shown on a MID map created in 1973, and is attached. The farmland inside the MID boundary is taxed for water service and flood control.

*D5. Boundary Justification: Official taxed limits, locations of laterals and dams.

Page 6 of 8

*NRHP Status Code: 3

*Resource Name or #: Merced Irrigation District

***D6. Significance**

Theme: The theme associated with the analysis of the MID system Historic District is the idea of water conveyance development in the Central Valley.

Area: County of Merced.

Period of Significance: 1919-1939: The Merced Irrigation District was formed from simple, earlier water transportation systems through public activism. During this Period, the MID formed, expanded, nearly failed, was reinvigorated by New Deal legislation, and finally matured enough to provide water to more than 180,000 potential acres just in time for World War II when the expansion process was curtailed. Because of the MID, a significant portion of the Central Valley was able to grow crops in support of the War effort efficiently with cooperative water use. The earliest period of significance allows the MID to be considered eligible for the NR because it was initiated more than 50 years ago.

Applicable Criteria: (Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.) The basic framework for the MID includes reservoirs, dams, primary canals, Laterals, wells and drains that allow the District to operate and serve its constituents ably. It can be considered a Historic District with contributing and non-contributing elements. The Irrigation District's water delivery framework was created during the Period of Significance and although the system is self-sustaining and improvements to the basic structure have occurred on a regular basis, the basic framework still remains and is essentially unchanged. The MID system is therefore considered wholly intact and the integrity of the MID system within its period of significance is *good*. Applicable criteria should be evaluated at the State level of analysis.

Criteria A, Event: the property must make a contribution to the broad patterns of American history.

The Merced Irrigation District reflects a California-wide pattern of water delivery development during the early part of the 20th Century in response to the States' quickly developing agricultural landscape. Its historical contribution to the development of Central Valley agribusiness is in fact well known to persons beyond the County of Merced. In our view the MID system does currently qualify for the NR under Criterion A as a Historic District because there is good evidence to support the idea that the MID makes a significant contribution to historical patterns at the local, State or national level of analysis.

Criteria B, Person: the property must be associated with persons or people significant in the American past.

The original developers of the MID system were persons who built the earliest canals and waterworks, and it was the local bankers and landowners who were able to create the MID through a vote of the people and put the whole of the MID together. These local figures have not gained national or State prominence and while their names may be known to local historians and County historical societies, we do not consider that they have a storied place in State history. In our view the MID Historic District does not currently qualify for the NR under Criterion B.

Criteria C, Design/Construction: the property must exhibit distinctively American characteristics through its construction and architecture, including having high artistic value or being the work of an American master.

It is clear that the MID system reflects a State-level trend in waterworks construction that was occurring during its period of significance. Many Irrigation Districts built before World War II in the Central Valley exist to this day and serve their constituents well. The initial framework of design reflects effective use of a gravity-fed technology at a time when these technologies could serve newly developing agricultural "colonies" and landscapes. Once built, lands that were pasture and irrigated with wells, or lands that would flood yearly upon which long-term agribusiness concerns (vineyards, nut tree orchards) could not be constructed, could be confidently developed so that the agricultural climate of the region would be vastly improved. The system of reservoirs, canals and irrigated land is distinctive to the Central Valley and important to American history at the State level of analysis. For these reasons and in our view the MID Historic District does currently qualify for the NR under Criterion C.

Criteria D, Information Potential: the property has yielded or may be likely to yield information important to American prehistory or American history.

Review of historic records at the MID archives plus knowledgeable research on the part of other authors has shown that the MID's historic background will invariably yield additional information associated with the development of these types of public water control systems in the Central Valley. Not all of the original contributing elements have yet to be recorded or examined by a qualified historian. Therefore, the MID Historic District does currently qualify for the NR under Criterion D.

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

McSwain, K. 1978. *History of the Merced Irrigation District, Merced and Mariposa Counties California 1919-1977*. Merced Irrigation District, Merced.

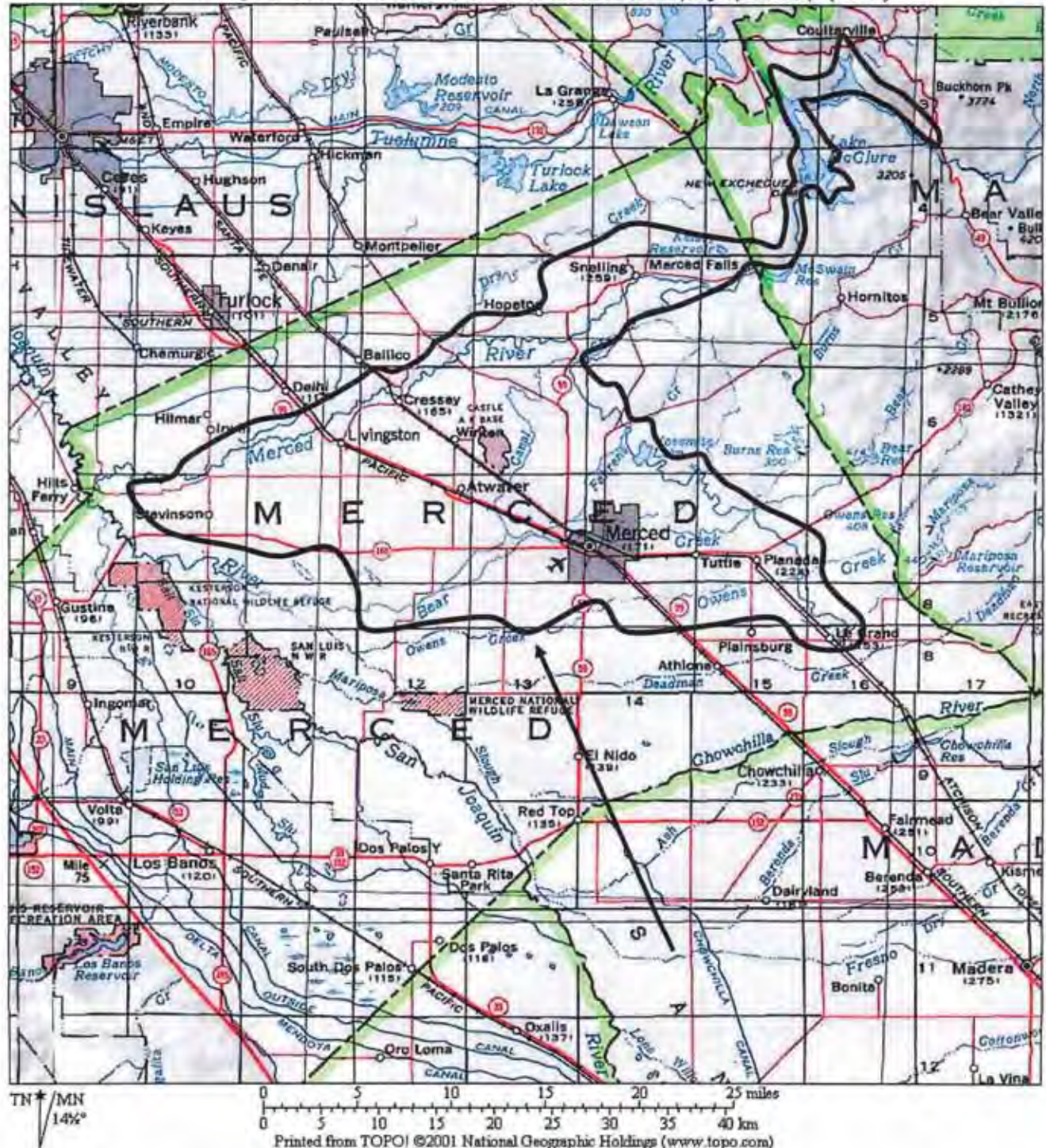
Outcalt, J. 1925. *History of Merced County, California*. Historic Record Company, Los Angeles.

***D8. Evaluator:** Michael Dice, M.A.

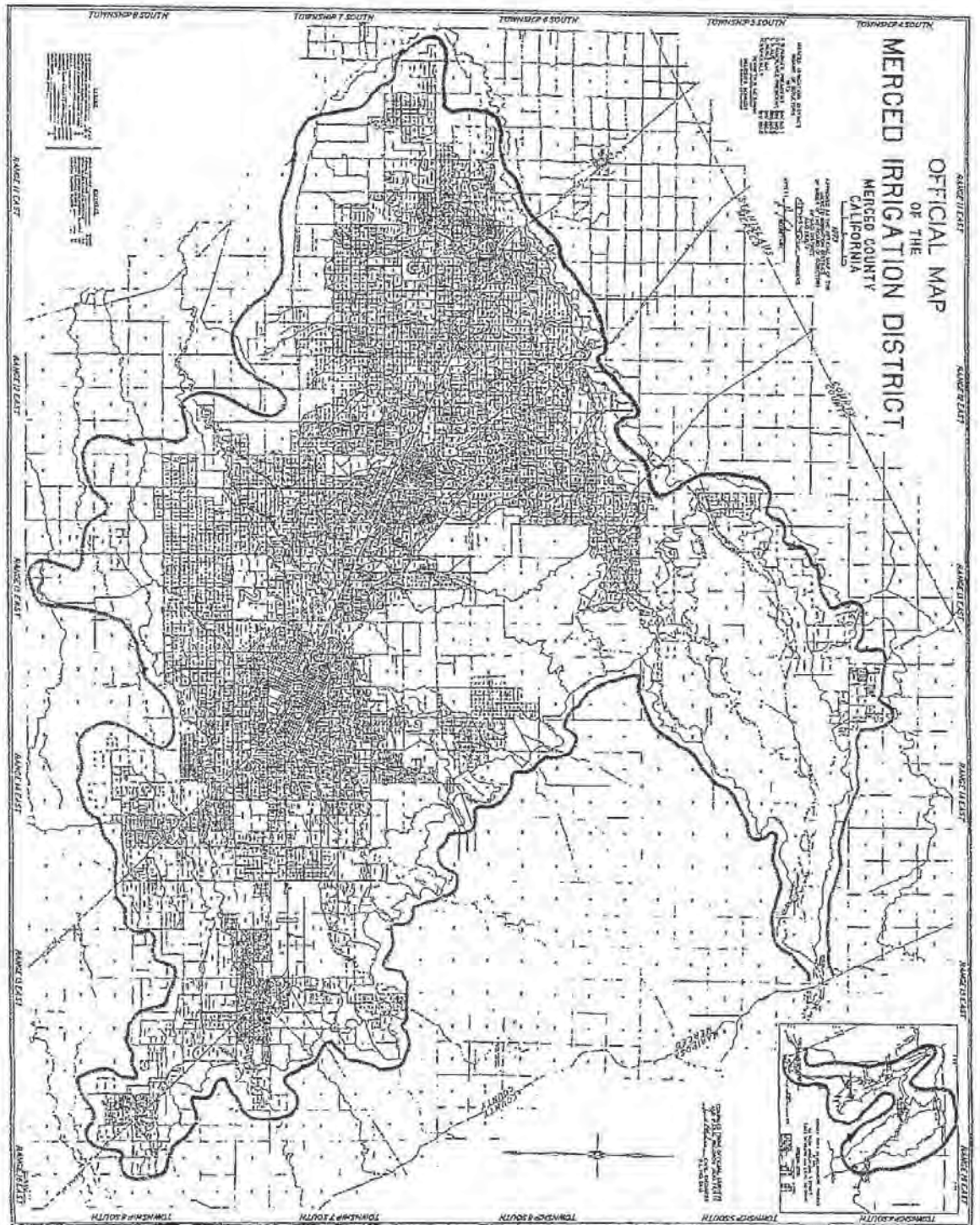
Date: November 10, 2010

Affiliation and Address: Michael Brandman Associates 621 Carnegie Drive, Suite #100 San Bernardino, CA. 92408

MBA Project #3866.0001.0 USGS 1:500,000 scale topographic map (1973)

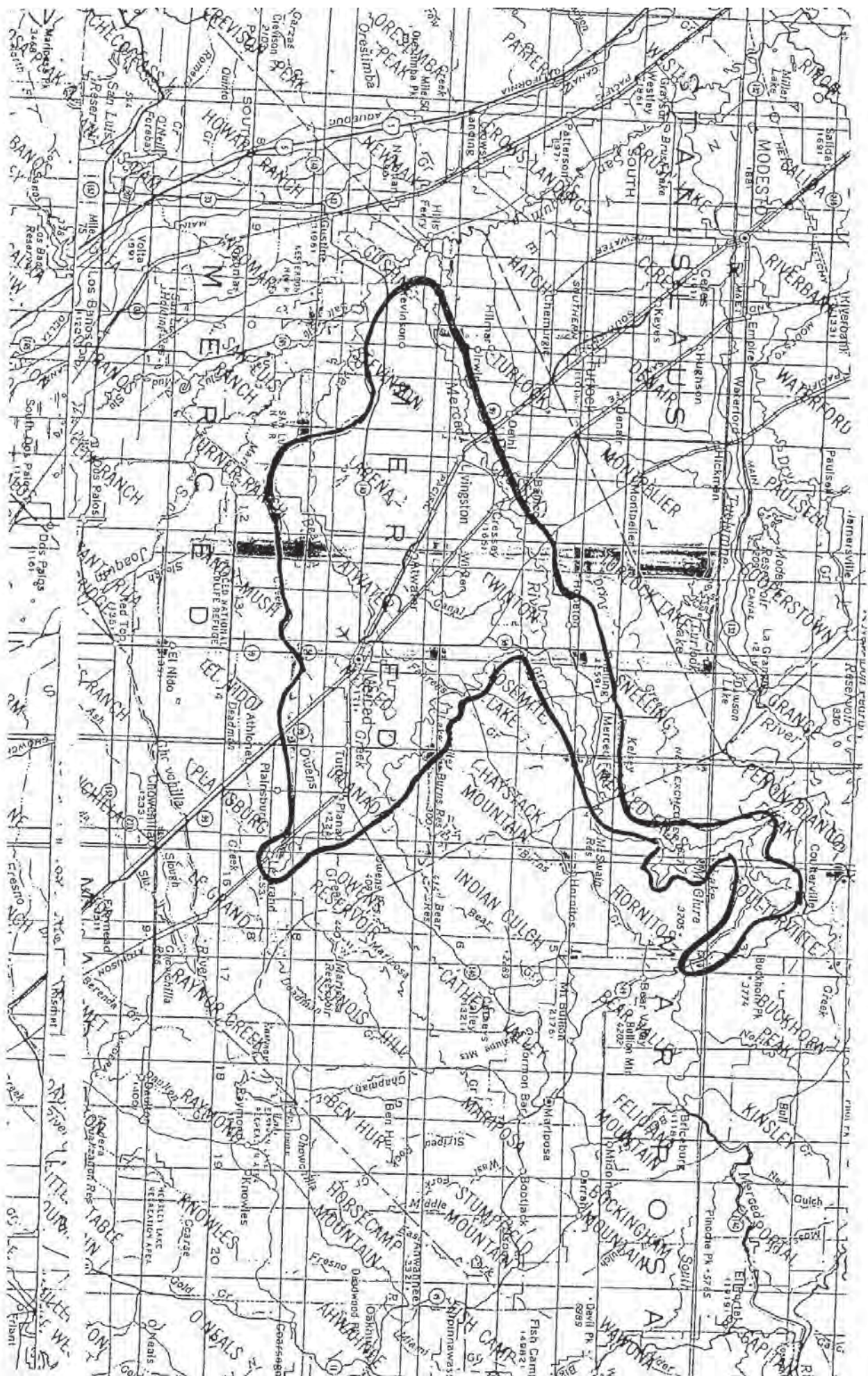


NOTE: The approximate limits of the MID are shown. NOTE: map is USGS 1:500,000 scale State Series (1973)



NOTE: This image shows the full extent of the MID using a copy of the official 1973 Merced Irrigation District map. The boundary of the District is shown as a heavy line.

2-4-001909



(Keep this copy in Custine 7.5')

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P24-001909/P22-003197

HRI#

Trinomial

Page 1 of 1

*Resource Name or #: Merced Irrigation District

Cressey 7.5'

*Recorded by: Shannon L. Loftus MA HP RPA/RPH

*Date: 1/29/2011

☐ Continuation

☒ Update

The site record (Dice and Lord 2010) for P24-01909/P22-003197 was reviewed for the purposes of a Section 106 records search study undertaken in support of the Livingston High School cell site candidate study.

Recommended Status Code Changes:

11/11

From 3 to:

7N1: "Needs to be reevaluated — may become eligible for NR w/restoration or when meets other specific conditions" to replace the present Status Code of 3, with respect to the MID as a whole.

Additionally, a Status Code of 5D3: "Appears to be a contributor to a district that appears eligible for local listing or designation through survey evaluation" with respect to the McCoy Lateral and Garibaldi Lateral, the two laterals investigated by Dice and McCoy in October 2010.

The District was documented and mapped as an area-based district covering in excess of 900 square miles. This mass-area was determined by a circa 1937 map created by the Merced Irrigation District. As opposed to a modern-era linear feature-based district, limited to the actual historical framework of the district, thus in conflict with the description of the district; "The basic framework of the MID [Merced Irrigation District] includes reservoirs, dams, primary canals, laterals, wells and drains that allow the District to operate and serve its constituents ably" (Dice and Lord 2010: Building Structure, Object Record for P24-001909/P22-003197).

Additionally, Dice and Lord indicate that the entirety of the MID was not inventoried. Rather, "Staff did not review all of the physical parts of the MID, just a segment of the McCoy Lateral and the Garibaldi Lateral that are the subject of the referenced analysis by Dice and Lord (2010)" (Dice and Lord 2010: Primary Record). This statement is in conflict with a recommendation of 3S, as no formal survey of the entire MID was undertaken. This brings into question the following statement:

"The integrity of the historic property's location, design, setting, materials, workmanship, feeling, or association must be considered as part of this analysis. We consider these important aspects of the original integrity to be reflected in the laterals and lateral segments that will be affected by the undertaking. The basic framework for the MID includes reservoirs, dams, primary canals, laterals, wells and drains that allow the District to operate and serve its constituents ably. It can be considered a Historic District with contributing and non-contributing elements. The Irrigation District's water delivery framework was created during the Period of Significance [1919-1939] and although the system is self-sustaining and improvement to the basic structure have occurred on a regular basis, the basic framework still remains and is essentially unchanged. The MID system is therefore considered wholly intact and the integrity of the MID system within its period significance is considered good" (Dice and Lord 2010: Building, Structure and Object Record).

As such, the mapped area of the MID is seemingly erroneous at this time. Utilization of a historic map, a circa 1937 archival resource (indicated above) to document a potential district in excess of 900-square miles, without performing in-field survey of the potential district in entirety, does not provide adequate documentation of the potential district. Nor does survey and evaluation of two isolated laterals of the water conveyance system seemingly provide an adequate basis for the findings above in regard to the entirety of the MID. The basic framework of the MID was not inventoried and thus the finding above cannot be substantiated. It is premature to state that the MID is "wholly intact" and the integrity of the MID is "good" when no reconnaissance has been undertaken in this regard. At best, the McCoy Lateral and Garibaldi Lateral can be said to retain historical integrity and satisfy the criteria for contributing elements of a larger potential historic district, when identified.

Therefore, as part of the present undertaking a DPR Update form has been prepared and a Status Code of 7N1: "Needs to be reevaluated — may become eligible for NR w/restoration or when meets other specific conditions" to replace the present Status Code of 3, with respect to the MID as a whole. Additionally, a Status Code of 5D3: "Appears to be a contributor to a district that appears eligible for local listing or designation through survey evaluation" is also recommended with respect to the McCoy Lateral and Garibaldi Lateral, the two laterals investigated by Dice and McCoy in October 2010.

Assoc'd report is ME-7488 (ACE Environmental, LLC, 2011)

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-24-001909
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 75

See also P-24-000088,000090, -000091,-000552
-000574, 001783, -001899 and East Ashe Lat., Bear Creek, Black Rascal Cr.

P1. Other Identifier: portions of Merced Irrigation District

***P2. Location:** ☐ Not for Publication ☒ Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***a. County:** Merced Hess Lat., a Drainage Ditch

***b. USGS 7.5' Quad:** Atwater **Date:** 1960 (1987) **T** _____; **R** _____; $\frac{1}{4}$ of Sec _____; _____ **B.M.**

c. Address _____ **City** _____ **Zip** _____

d. UTM: (give more than one for large and/or linear resources) See Linear Records

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Located between Atwater and Merced roughly bounded by SR 59, Bellevue Road, Buhach Road, and SR 140.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Merced Irrigation District (MID) incorporated in 1919 and consists of over 750 miles of canals that irrigate more than 110,000 acres. This form evaluates a portion of that system in the area between the cities of Atwater and Merced described in P2e above. An overall description of each canal follows on the attached continuation sheets. Also attached are Linear Feature Records for each point surveyed. The sections of this form are arranged by major canals and their associated minor laterals are grouped together. Engineering structures, such as headgates, are grouped with their associated canal. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Canal (HP20); Engineering Structure (HP11)

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) Photograph 1. Canal Creek, camera facing east. 12/12/07.

***P6. Date Constructed/Age and Sources:**

☒ Historic ☐ Prehistoric ☐ Both

1876-1957; alterations and improvements to present; John Outcalt, A History of Merced County, California; USGS Atwater Quad; Galloway, Report on the Merced Irrigation; McSwain, History of the Merced Irrigation District.

***P7. Owner and Address:**

Merced Irrigation District
744 W. 20th Street
Merced, CA 95340

***P8. Recorded by:** (Name, affiliation, address)

Meta Bunse/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 12/12/06; 1/22/07

***P10. Survey Type:** Intensive

***P11. Report Citation:** JRP Historical Consulting, LLC, "Historical Resources Inventory and Evaluation Report, Atwater-Merced Expressway Project, Merced County, California," 2007.

***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

Page 2 of 75

*NRHP Status Code 6Z

*Resource Name or # MR1

B1. Historic Name: Canal Creek, Main Ashe Lateral, East Ashe Lateral, Canal Creek Lateral Headgate, Bear Creek, Meadowbrook Lateral, Black Rascal Creek, Hess Lateral, Buhach Lateral, Drainage Ditch, Henderson Lateral, Mason/Curtis Lateral, Livingston Canal, Livingston Canal Headgate

B2. Common Name: see B1

B3. Original Use: irrigation water conveyance and distribution B4. Present Use: irrigation water conveyance and distribution

*B5. Architectural Style: utilitarian

*B6. Construction History: (Construction date, alteration, and date of alterations) 1876-1957, alterations up to the present; See Continuation Sheet Section B10 "Significance" for construction histories of each canal.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: Farmer's Canal Company, Crocker-Huffman Land and Water Company, Merced Irrigation District

*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This form evaluates a portion of the Merced Irrigation District (MID) system located between the cities of Atwater and Merced approximately bounded by SR 59, Bellevue Road, Buhach Road, and SR 140. The following section contains historic context for the development of the MID, including its predecessors. Also included are brief histories of each canal evaluated within this form and following the historic context are evaluations of the relevant canals. The canal histories and evaluations are arranged with major canals grouped together with their associated minor laterals. The properties contained on this form have been evaluated in accordance with Section 15064.5 (1)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. None of the properties appear to be historic resources for the purposes of the California Environmental Quality Act (CEQA) and they do not appear to meet the criteria for listing in California Register of Historical Resources (CRHR). (See Continuation Sheet for evaluations of individual canal segments.)

B11. Additional Resource Attributes: (List attributes and codes) _____

*B12. References: Crocker-Huffman Land & Water Company, "Map Showing Lands of the Crocker-Huffman Land & Water Co., Situated in Merced County, California," 1895, 1903; W.P. Stonerod, "Official Map of Merced County, California, Compiled from Official Surveys & Public Records" (San Francisco: Punnett Brothers, 1900); A.E. Cowell, "Official Map of the County of Merced, California, Compiled from Official Surveys & Public Records," 1909; The Kenyon Company, "Map of Merced County, California," 1919; Merced Irrigation District, "Official Map of the Merced Irrigation District, Merced County, California," 1927; U.S.G.S., *Atwater, Calif.*, 15' series, 1918 (surveyed 1915), 7.5' series 1918 (revised 1946), 1960, 1960 (photorevised 1976), 1960 (photorevised 1987). John Outcalt, *A History of Merced County, California*. (See Footnotes)

B13. Remarks:

*B14. Evaluator: Meta Bunse/Steven J. Melvin

*Date of Evaluation: March 2007

See Location Map 8

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,126mE; 4,137,517mN. Located at the Canal Creek bridge on Fox Road in the S1/2 of Section 33, T6S/R13E MDBM near the intersection of Fox Road and Bellevue Road (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

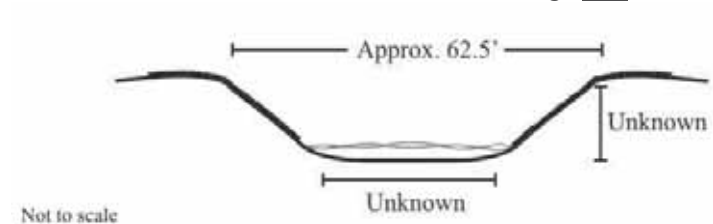
Canal Creek originates in Section 29 T5S/R14E MDBM where it branches off from the MID's Main Canal. This segment of the canal is U-shaped and approximately 62.5 feet wide at the top. It is unlined and vegetation grows along its gently sloping banks which show signs of erosion. On the both sides of the canal are access roads. The canal is crossed by the Fox Road bridge (Photographs 2, 29).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 62.5 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The terrain is flat agricultural land of pastures, orchards, and row crops. Immediately to the northwest of this point is the former Castle Air Force Base.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 2. Canal Creek from Fox Road Bridge, camera facing east. 12/12/06

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting Services, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10, 716,115mE; 4,136,176mN. Located at the Avenue Two bridge over Canal Creek in the SE1/4 of Section 5 T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

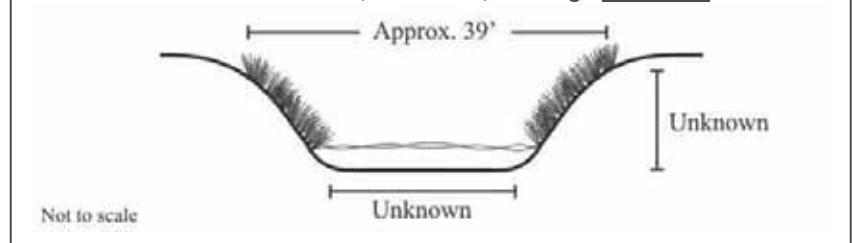
At this point the canal is approximately 39 feet wide. Water in the canal prevented an accurate determination of depth. The unlined channel is U-shaped with bramble growing on its steep banks. The Avenue Two bridge crosses the canal (Photograph 3, 32).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 39 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** northeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The terrain is flat agricultural land used as pastures and for raising alfalfa.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 3. Canal Creek from
Avenue Two, camera facing northeast,
12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/2/06



L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-3

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map. UTM: 715,287mE; 4,135,411mN; located at the Avenue One bridge over Canal Creek in the NW ¼ of Section 8, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

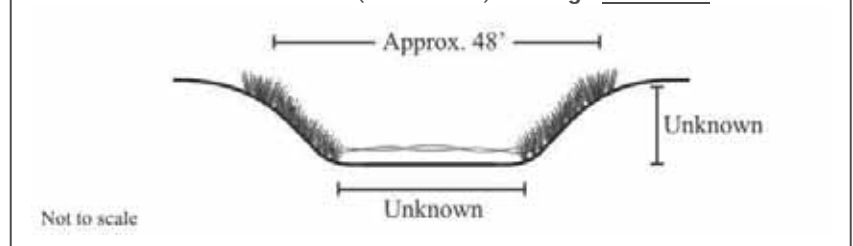
At this point the canal is approximately 48 feet wide (Photographs 4). The unlined channel is U-shaped with bramble and grasses growing on its banks. The Avenue One bridge crosses the canal at this point (Photograph 4).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width:** approximately 48 feet
- b. **Bottom Width:** undetermined (carrying water)
- c. **Height or Depth:** undetermined (carrying water)
- d. **Length of Segment:** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** northeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

To the east of this canal segment the landscape is rural agricultural. To the west is residential development of recent construction.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 4. Canal Creek from
Avenue One bridge, camera facing
northeast. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



Page 6 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-4

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 715,490mE; 4,134,195mN; located at Ashby Avenue bridge over Canal Creek in S1/2 of Section 8, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

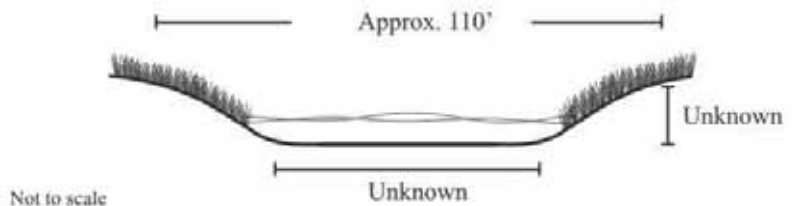
At this point the canal is approximately 110 feet wide. The unlined channel is U-shaped with bramble and grasses growing on its banks. There is an overgrown access road on the west side of the canal. The Ashby Avenue bridge and US 99 cross the canal at this point (Photographs 5).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 110 feet wide
- b. **Bottom Width** undertermined (carrying water)
- c. **Height or Depth** undertermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: northwest



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural to the north of this point. To the south is the four-lane US 99.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 5. Canal Creek from Ashby Avenue bridge, camera facing northwest. 12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



Page 7 of 75

*Resource Name or # **MR1**
P-24-000090

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-5

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 715,516mE; 4,134,107mN; located Southern Pacific Avenue bridge over Canal Creek in N1/2 of Section 17, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

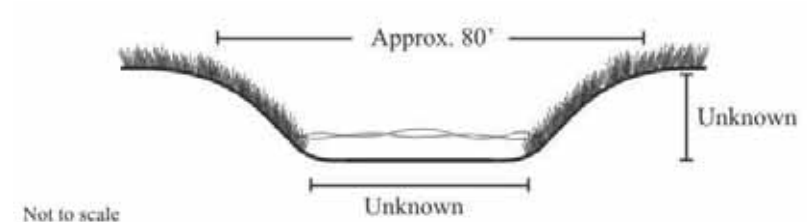
At this point the canal is approximately 80 feet wide. The unlined channel is U-shaped with bramble and grasses growing on its banks. There is an overgrown access road on the west side of the canal. A Union Pacific Railroad bridge and the SP Avenue bridge cross the canal at this point (Photograph 6).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 80 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural to the south of this point. To the north is the four-lane US 99.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing: Photograph 6. Canal Creek passing under US 99 and Union Pacific railroad tracks. Photo taken from Southern Pacific Avenue bridge, camera facing north. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06

Page 8 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-6

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 716,169mE; 4,133,021mN; located at the Canal Creek on Elliot Avenue bridge in SW1/4 of Section 17, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

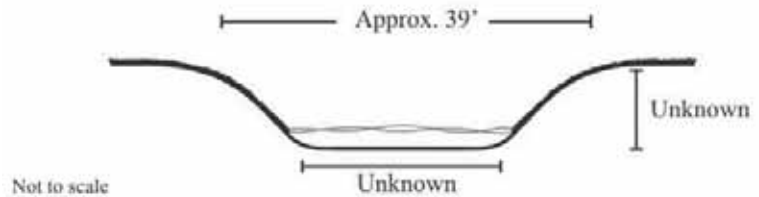
At this point the canal is approximately 39 feet wide The unlined channel is U-shaped with bramble, grasses, and scattered trees growing on its shallow, gently sloping banks. Canal Creek has a natural appearance at this point. The Elliot Avenue bridge crosses the canal (Photograph 7).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 39 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with much of the nearby land devoted to pastures.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 7. Canal Creek from Elliot Avenue bridge, camera facing south.
12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06

P-24-000090

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-7

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 716,373mE; 4,132,341mN; located at the Landram Avenue bridge over Canal Creek in NE1/4 of Section 20, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

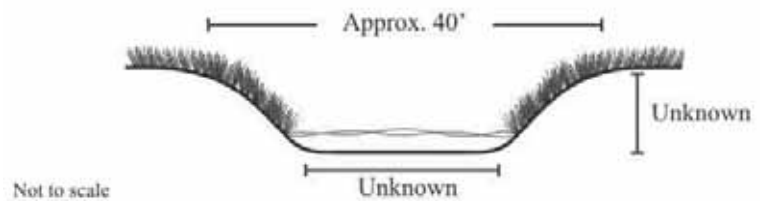
At this point the canal is approximately 40 feet wide. The unlined channel is U-shaped with bramble, grasses, and scattered trees growing on its steep banks. An access road is on the west side of the canal. The Landram Avenue bridge crosses the canal (Photograph 8).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 40 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 8. Canal Creek from
Landram Avenue bridge, camera facing
north. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment Point Observation

Designation: MR1-CC-8

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 100717665mE; 4139125mN; located at Ladino Road bridge over Canal Creek on the section line between Sections 28 and 33, T6S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

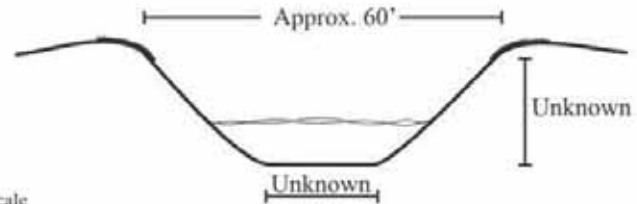
At this point the canal is approximately 60 feet wide. Overall, the channel at this point has a natural, riparian appearance. North of the bridge there is some riprap on the west bank, but this section is mostly covered with bramble, grasses, and scattered trees. A small residential area is also on this side of the bridge. South of the bridge the land appears to be used for grazing and the eroding banks are mostly bare with scattered patches of grass. Also south of the bridge is a metering station and a vertical pipe (Photograph 9).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 60 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with a small concentration of approximately five houses on the north side of the Ladino Bridge east of the creek.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 9. Canal Creek at Ladino Road, view south. 1/22/07

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/22/07



L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** MR1-CC-9

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

UTM: Zone 10; 716,394mE; 4,136,363mN; At confluence with Livingston Canal; SW1/4 of Section 4, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

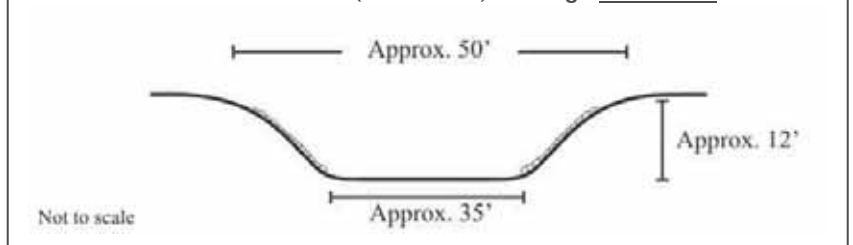
The section of Canal Creek contains the headgate for the Livingston Canal and also a headgate to control the flow of Canal Creek downstream from this point. The headgate has four metal gates set in a concrete structure. The entire structure is approximately thirty feet long and ten feet wide. On both the upstream and downstream faces are concrete wings. The top of the headgate functions as a bridge and there is a metal railing on both sides and a guardrail on the downstream side. Also present on top of the headgate is the gate operating equipment. The canal at this point is approximately 50 feet wide and 12 feet deep and is roughly U-shaped. It is unlined except for a small area the area between the two headgates lined with riprap. The steep banks are wide with little vegetation and show signs of erosion. Immediately upstream from the headgate the canal passes under the BNSF railroad and Santa Fe Drive. Two large drain pipes protrude from the south bank of Canal Creek at this point (Photograph 10, 49, 51).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 50 feet
- b. **Bottom Width** approximately 35 feet
- c. **Height or Depth** approximately 12 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** southwest



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

This segment of canal is set in a relatively isolated area near the BNSF railroad. The land immediately adjacent is uncultivated and with some trees.



L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing: Photograph 10. Canal Creek with flow control headgate, camera facing southwest. 1/22/07.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/22/07

Page 12 of 75

*Resource Name or # **MR1**

L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-1

***b. Location of point or segment:** UTM Coordinates: Zone 10; 716,464mE; 4,136,219mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

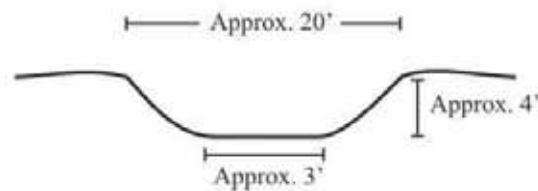
At this point the Main Ashe Lateral canal is approximately 20 feet wide and approximately four feet deep. It originates from Canal Creek in the SW1/4 of Section 4, T7S/R13E MDBM. It is trapezoidal and lined with concrete with metal control gates. Access roads are on both sides of the channel. The Avenue Two bridge crosses the canal at this point (Photograph 11).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 20 feet
- b. **Bottom Width** approximately 3 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** southeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 11. Main Ashe Lateral at Avenue Two, camera facing southeast. 12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07



L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 716,214mE; 4,136,174mN

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

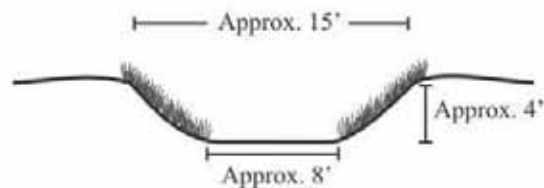
At this point the canal is approximately 15 feet wide and four feet deep. It is trapezoidal and unlined with bramble growing along the banks. There are several concrete and metal control gate structures along this segment. No water was flowing through the canal. A concrete culvert carries the canal under Avenue Two. This lateral crosses Canal Creek via a flume constructed of wood framing set in concrete piers supporting a corrugated metal channel (Photographs 12, 31, 32).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** southwest



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 12. Main Ashe Lateral at
Avenue Two, camera facing southwest.
12/12/06

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

Page 14 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-3

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 715,779mE; 4,135,413mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

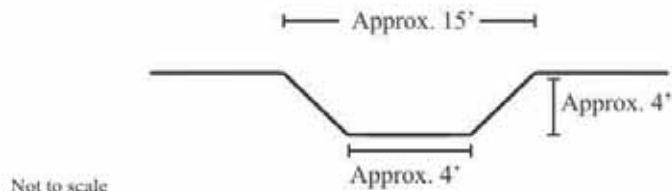
At this point the canal is approximately 15 feet wide and four feet deep. It is trapezoidal and lined with concrete. There are several concrete and metal slide control gates along this segment. It passes through farmland and a portion is adjacent to Avenue One (Photographs 13, 33).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet wide
- b. **Bottom Width** approximately 4 feet wide
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 13. Main Ashe Lateral near
Avenue One, camera facing east.
12/12/06.

L9. Remarks:

L10. Form prepared by:
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JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

Page 15 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Main Ashe Lateral

P-24-000088

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-4

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 716,383mE; 4,133,743mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

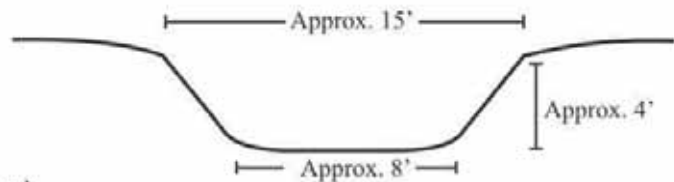
At this point the canal is approximately 15 feet wide and eight feet deep. It is U-shaped and unlined. There are concrete and metal control gates placed intermittently along this segment. The channel is heavily silted and the gently sloping banks show signs of erosion. The canal passes under SP Avenue via a concrete culvert. The Union Pacific railroad is carried over the canal via a bridge. Access roads are along both sides of the canal to the south along Gurr Road. The canal did not carry water at the time of the survey (Photographs 14, 34, 35).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 14. Main Ashe Lateral at SP Avenue and Gurr Road, camera facing south. 12/12/06

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

Page 16 of 75

*Resource Name or # MR1

P-24-000088

L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-5

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 716,372mE; 4,133,022mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

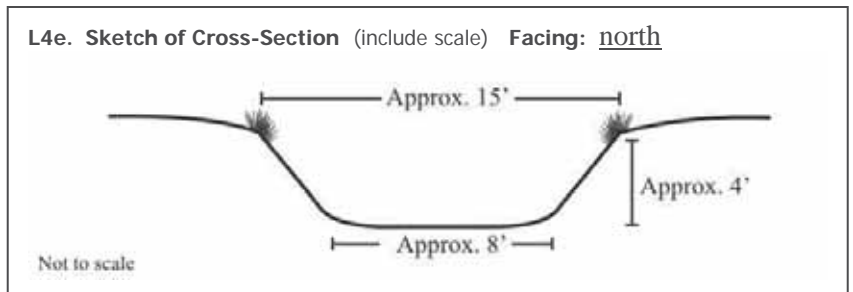
At this point the canal is approximately 15 feet wide and four feet deep (Photograph 15). It is U-shaped and unlined with some vegetation growing along the rim. There are concrete and metal control gates placed intermittently along this segment. The channel is heavily silted and the gently sloping banks show signs of erosion. The canal passes under Elliot Avenue and parallels Gurr Road. The canal did not carry water at the time of the survey.

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 15. Main Ashe Lateral,
camera facing north. 12/12/06

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/06



L1. Historic and/or Common Name: East Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-EA-6

***b. Location of point or segment:** Zone 10; 717,149mE; 4,135,379mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

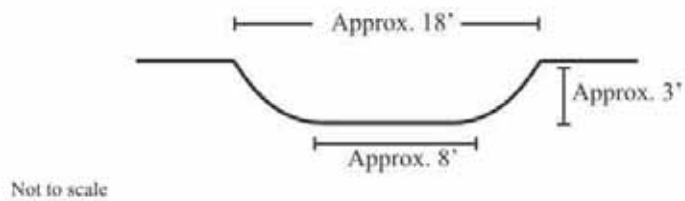
The East Ashe Lateral branches off the Main Ashe Lateral in the NE1/4 of Section 9, T7S/R13E MDBM. At this point the canal is approximately 18 feet wide and 3 feet deep. It is U-shaped, unlined and has gently sloping banks. Metal and concrete control gates are placed intermittently along the canal. The canal did not carry water at the time of the survey (Photographs 16, 36).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 18 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 3 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** southeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:

Photograph 16. East Ashe Lateral, camera facing southeast. 12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

L1. Historic and/or Common Name: Bear Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-BC-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,127mE; 4,131,062mN. Located at the Bear Creek bridge on highway 140 on the section line between sections 21 and 28 T7S/R13E MDBM (See Location Map 2).

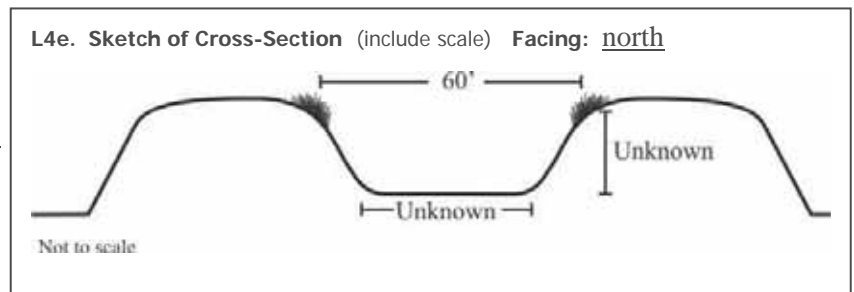
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

At this point the Bear Creek canal is approximately 60 feet wide. Water in the canal prevented an accurate depth measurement. The unlined channel is U-shaped and has vegetation growing on its steep banks. Both sides of the channel are built up forming levees on the banks. It is crossed by the SR 140 bridge. An access road runs on the east side of the canal. (Photographs 17).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 60 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10. "Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 17. Bear Creek passing under SR 140, camera facing north. 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



L1. Historic and/or Common Name: Meadowbrook Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MB-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,127mE; 4,131,062mN. Located at the Bear Creek bridge on highway 140 on the section line between sections 21 and 28 T7S/R13E MDBM (See Location Map 2).

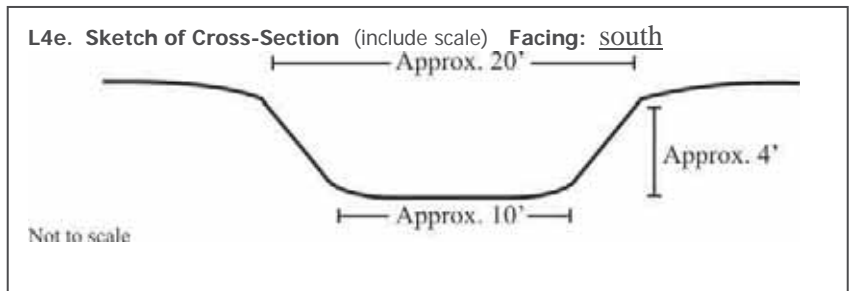
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

On the east side parallel to Bear Creek is the Meadowbrook Lateral canal constructed between 1946 and 1958. The lateral receives its water from the reservoir created by the Crocker Dam in Section 22 T7S/R13E MDBM. It is approximately 20 feet wide and four feet deep. It is unlined and U-shaped and its banks show signs of erosion. Both sides of the channel are built up above the surrounding land. It has concrete and metal gate structures and a concrete culvert passing under the highway. The lateral did not contain water at the time of the survey (Photographs 18, 37).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. Top Width approximately 20 feet
- b. Bottom Width approximately 10 feet
- c. Height or Depth approximately 4 feet
- d. Length of Segment approximately 100 feet

L5. Associated Resources:



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: The Meadowbrook Lateral maintains its integrity to its period of significance defined as the era of its original construction.



L8b. Description of Photo, Map, or Drawing:

Photograph 18. Meadowbrook Lateral, camera facing south. 12/12/06

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin

JRP Historical Consulting, LLC

1490 Drew Ave, Suite 110

Davis, CA 95618

L11. Date: 1/3/07

L1. Historic and/or Common Name: Black Rascal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-BR-1; MR1-BR-2

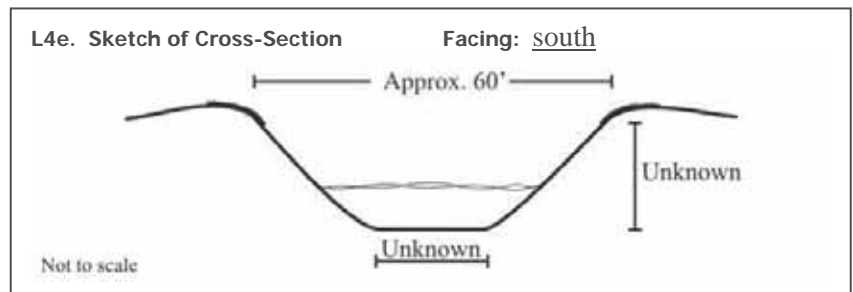
***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) BR1: UTM: Zone 10; 716,381mE; 4,132,192mN. Located at the Black Rascal Creek bridge on Gurr Road in the NW1/4 of Section 21, T7S/R13E MDBM near the intersection of Gurr Road and Landram Avenue. BR2: UTM: Zone 10; 716,175mE; 4,132,213mN. Located at Landram Road approximately .25 miles west of the Black Rascal Creek bridge on Gurr Road NE1/4 of Section 20, T7S/R13E MDBM (See Location Map 3).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 60 feet wide. Water in the canal prevented and accurate determination of depth. The unlined channel is U-shaped and has grassy vegetation growing on its banks. The banks of the canal are higher than the surrounding land. Access roads run on both the north and south sides of the canal east of Gurr Road. Also on the south side near Gurr Road is the Hess Lateral canal (Photographs 19, 38).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 60 feet
- b. **Bottom Width** undertermined (carrying water)
- c. **Height or Depth** undertermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10. "Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 19. Black Rascal Creek from Landrum Road, camera facing south. 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 12/28/06

L1. Historic and/or Common Name: Hess Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-HS-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 716,381mE; 4,132,192mN. Located at the Black Rascal Creek bridge on Gurr Road in the NW1/4 of Section 21, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

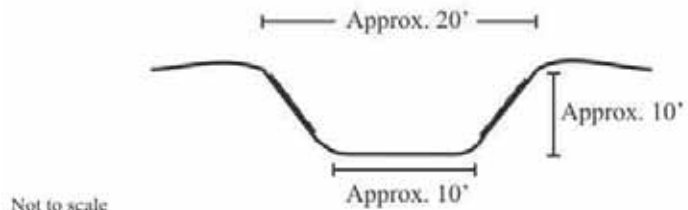
At this point the canal is approximately 20 feet wide and ten feet deep. The lateral receives its water from the reservoir created by the Crocker Dam Bear Creek in Section 22 T7S/R13E MDBM. The unlined channel is trapezoidal and has grassy vegetation growing on its steep banks. The banks of the canal are higher than the surrounding land. Access roads run on both the north and south sides of the canal east of Gurr Road. (Photograph 20).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 20 feet
- b. **Bottom Width** approximately 10 feet
- c. **Height or Depth** approximately 10 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10. "Significance"



L8b. Description of Photo, Map, or Drawing:

Photograph 20. Hess Lateral, camera facing east. 12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/3/07

Page 22 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Henderson Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-HN-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 719,048mE; 4,137,552mN; Point is at the intersection of the Henderson Lateral and Bellevue Road (See Location Map 4).

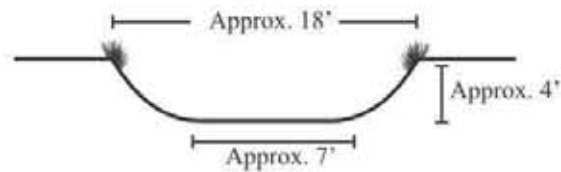
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) At this point the canal is approximately 15 feet wide and four feet deep. It originates from the Main Canal in Section 18 T6S/R14E MDBM. The unlined channel is U-shaped and has vegetation growing on its banks. Some erosion and silting is evident. Access roads run on both sides of the canal. Where the canal intersects Bellevue Road, a culvert carries the water under the roadway. To the east of the canal is a circular holding basin fenced with black plastic. (Photographs 21, 39-42).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 18 feet
- b. **Bottom Width** approximately 7 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations:

See Section B10. "Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 21. Henderson Lateral, camera facing south. 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 1/3/07

L1. Historic and/or Common Name: Henderson Lateral

P-24-001783

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-HN-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,935mE; 4,137,508mN; Point is at the intersection of the Bellevue Road and Franklin Road (See Location Map 4).

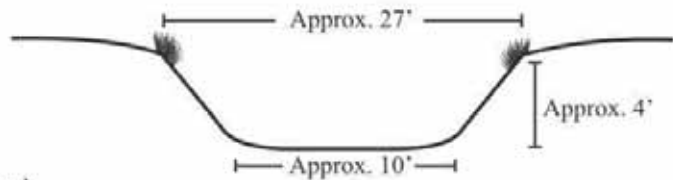
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) This canal is a branch of the Henderson Lateral that extends west from near where the lateral passes under Bellevue Road. This segment is approximately 20 feet wide and four feet deep. The unlined channel is U-shaped and vegetation is growing on its banks. Some erosion and silting is evident. Access roads run on both sides of the canal. Where the canal intersects Franklin Road, the water is piped under the roadway (Photographs 22, 43, 44).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 27 feet
- b. **Bottom Width** approximately 10 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations:

See Section B10. "Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 22. Henderson Lateral, camera facing east. 12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07



L1. Historic and/or Common Name: Mason-Curtis Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MC-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,126mE; 4,137,517mN. Located near Fox Road where it crosses Canal Creek in the S1/2 of Section 33, T6S/R13E MDBM near the intersection of Fox Road and Bellevue Road (See Location Map 4).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

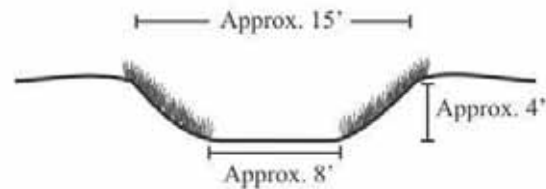
This is a small lateral canal that originates from the Henderson Lateral in Section 34 T6S/R13E MDBM. It is approximately 15 feet wide and four feet deep, U-shaped and unlined. Its banks are raised slightly above the surrounding landscape and are covered in vegetation. This section of the canal runs parallel to Fox Road, and then turns to parallel Canal Creek. The canal ultimately drains into Canal Creek (Photograph 23).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: west



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10. "Significance"



L8b. Description of Photo, Map, or Drawing:

Photograph 23. Mason-Curtis Lateral, camera facing south, 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 1/2/07

Page 25 of 75

*Resource Name or # **MR1**

L1. Historic and/or Common Name: Buhach Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-BH-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 715,556mE; 4,132,990mN. Point located on Elliot Avenue on the section line between sections 17 and 20 T7S/R13E MDBM (See Location Map 5).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

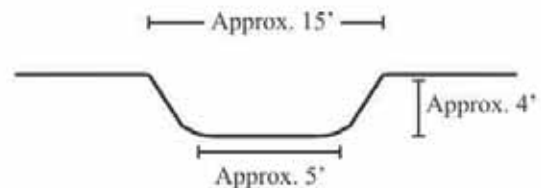
At this point the canal is approximately 15 feet wide and four feet deep. It runs roughly north to south from its origination point in Section 6 T7S/R13E MDBM where it branches off from the MID's Livingston Canal. The channel is trapezoidal and lined with concrete. An access road runs on the east side of the canal. The canal passes under Elliot Road via a concrete culvert (Photographs 24, 45, 46).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15. feet
- b. **Bottom Width** approximately 5. feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: The Buhach Lateral was lined with concrete after World War II, and, therefore, lacks integrity to its period of construction.



L8b. Description of Photo, Map, or Drawing:

Photograph 24. Buhach Lateral, camera facing south, 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 1/2/07

L1. Historic and/or Common Name: none (drainage ditch)

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-DR-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

UTM: Zone 10; 720,665mE; 4,137,617mN. Located at Bellevue Road in the SE ¼ of Section 35, T6S/R13E MDBM (See Location Map 6).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

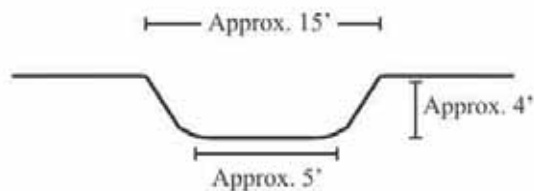
At this point the drainage ditch is approximately 15 feet wide and four feet deep. The unlined channel is U-shaped with some vegetation growing in the channel and on the banks. At the time of this survey the ditch was nearly dry. A field access road crosses the canal near Bellevue Road and water passes through a concrete culvert at this point. Another access road runs along the west side. (Photographs 25, 47, 48).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 4 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads. The ditch at this point passes through orchards.



L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 25. Drainage Ditch, camera facing north. 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 1/2/06

L1. Historic and/or Common Name: Livingston Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** MR1-LC-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

UTM: Zone 10; 716,394mE; 4,136,363mN; At headgate/confluence with Canal Creek; SW1/4 of Section 4, T7S/R13E MDBM (See Location Map 7).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

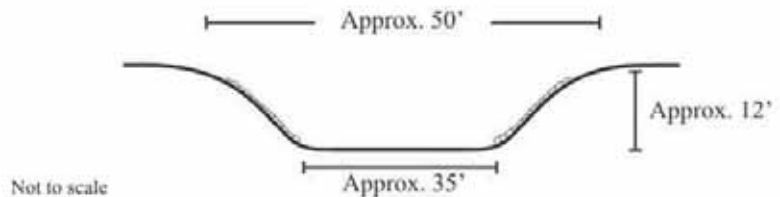
This is where the Livingston Canal begins and draws water from Canal Creek. The section of the canal contains the headgate which consists of a concrete structure with three metal gates raised and lowered mechanically. The structure is approximately thirty feet long and ten feet wide. On both the upstream and downstream faces are concrete wings. The top of the headgate functions as a bridge and there is a metal railing on both sides and a guardrail on the downstream side. Also present on top of the headgate is the gate operating equipment, and, to one side a vertical pipe. Immediately downstream the canal is lined with riprap for approximately 200 feet, after which it is lined with concrete. There is also a set of slide gates in this segment. The canal is approximately 50 feet wide and 12 feet deep and is trapezoidal in shape (Figure 1 and Photographs 26, 49, 50).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 50 feet
- b. **Bottom Width** approximately 35 feet
- c. **Height or Depth** approximately 12 feet
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** west



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

This segment of canal is set in a relatively isolated area near the BNSF railroad. The land immediately adjacent is uncultivated and treelined.



L7. Integrity Considerations: See Section B10 "Significance" on previous page.

L8b. Description of Photo, Map, or Drawing:

Photograph 26. Livingston Canal, camera facing west. 1/22/07

L9. Remarks:

L10. Form prepared by:

JRP Historical Consulting Services, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/22/07

Page 28 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Livingston Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** MR1-LC-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

UTM: Zone 10; 714,727mE; 4,136,660mN; At intersection with Buhach Road; NW1/4 of Section 5, T7S/R13E MDBM (See Location Map 7).

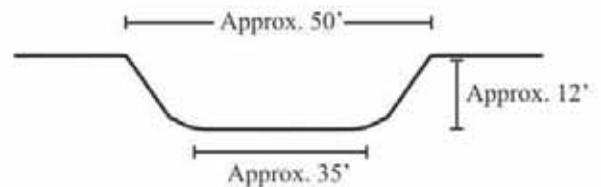
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
This section of the Livingston Canal is approximately 50 feet wide and 12 feet deep. It is trapezoidal in shape and unlined. There are service roads along both sides. The banks are smooth and shaped to a uniform angle. There is a gate on the south bank of the canal west of Buhach Road (Photograph 27).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 50 feet
- b. **Bottom Width** approximately 35 feet
- c. **Height or Depth** approximately 12 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

[The setting is a combination of agricultural and housing.

L7. Integrity Considerations: See Section B10 "Significance" on page 27.



L8b. Description of Photo, Map, or Drawing:

Photograph 27. Livingston Canal, camera facing east. 1/22/07.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/22/07

L1. Historic and/or Common Name: Livingston Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** MR1-LC-3

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

UTM: Zone 10; 713,598mE; 4,137,379mN; At intersection with Bellevue Road; NW1/4 of Section 6, T7S/R13E MDBM (See Location Map 7).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

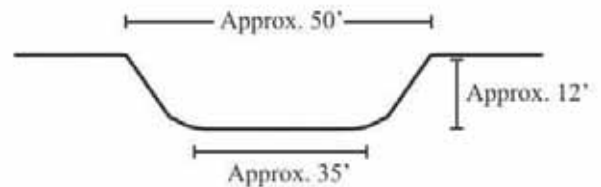
This section of the Livingston Canal is approximately 50 feet wide and 12 feet deep. It is trapezoidal in shape and unlined. There are service roads along both sides. The banks are smooth and shaped to a uniform angle. There is a drain and a vertical pipe on the east bank of the canal north of Bellevue Road (Photograph 28).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 50 feet
- b. **Bottom Width** approximately 35 feet
- c. **Height or Depth** approximately 12 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

This segment of canal passes through suburban housing tracts.

L7. Integrity Considerations: See Section B10 "Significance" on page 27.



L8b. Description of Photo, Map, or Drawing:
Photograph 28. Livingston Canal,
camera facing north. 1/22/07.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618
L11. Date: 1/22/07

*Recorded by M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

P3a. Descriptions (continued):

What follows are general descriptions of the canals recorded for this survey. Descriptions of individual canal recordation points and comparison points appear on the Linear Forms.

Canal Creek **P-24-000090**

Canal Creek (MR1-CC) is an irrigation canal that runs approximately 16 miles north to south from its origination point in Section 29 T5S/R14E MDBM where it branches off from the MID Main Canal. It terminates in the NE ¼ of Section 20 T7S/R13E where it flows into Black Rascal Creek. Canal Creek is a natural watercourse that has had irrigation water conveyed into it from the Main Canal since 1876. Today the route follows the natural route of the creek for much of its length. Small sections of Canal Creek have been realigned into straight segments with right angles and a “man-made” appearance. At many of the points recorded on this form the channel follows a generally natural alignment, but the banks and channel bottom have been dredged, graded, shaped, and maintained (See Linear Feature Records MR1-CC and Photographs 29, 30, 32).

This form does not evaluate Canal Creek in its entirety, but does address an approximately five mile section between the cities of Atwater and Merced within or near the study area (See Location Map 1). JRP recorded nine points along this segment, which is also the downstream portion of the canal. Canal Creek’s junction with the Livingston Canal is located within or near the study area. The Livingston Canal receives much of Canal Creek’s water at this junction and Canal Creek becomes a smaller facility from this point downstream. Upstream Canal Creek carries more water and is wide and shallow with banks that undergo routine maintenance and grading. Downstream from the Livingston Canal diversion, Canal Creek is narrow and deep in places with trees and shrubs growing on its banks. Some sections of the canal have a natural, riparian appearance, while in others extensive channel and bank alterations are apparent (See Linear Feature Record MR1-CC-1). There appears to be few diversions from Canal Creek below the Livingston Canal headgate. Many bridges pass over Canal Creek where it intersects with roads and railroads, and in at least one place a flume of a lateral canal passes over the Canal Creek (See Linear Feature Record MR1-CC-5 and Photograph 32).

There is a lateral headgate across Canal Creek at its junction with the Livingston Canal controlling the flow of Canal Creek downstream from this point. The exact construction date of the gate is unknown, although it is likely a modern structure. It consists of four vertical, rectangular, steel lift gates set in a poured concrete foundation with flaring wings. A roadway runs over the top of the structure (See MR1-CC-9).

Main Ashe Lateral/East Ashe Lateral **Main Ashe = P-24-000088**

The Main Ashe Lateral draws water from Canal Creek at the same point as the Livingston Canal diversion. The East Ashe Lateral branches off of the Main Ashe Lateral in Section 9, T7S/R13E MDBM (See Location Map 1). These two relatively small canals are only a few miles in length and function to transport water from Canal Creek to farm fields. Prevalent along their banks are metal gates that control the flow of water into the fields. Some sections of these laterals are unlined, while others are trapezoidal in cross section and concrete lined. Along their course, they pass under roadways by means of concrete culverts (See Linear Feature Records MR1-MA and MR1-EA and Photographs 31-36).

Bear Creek **P-24-002046**

Bear Creek is an irrigation canal that runs roughly northeast to southwest through the southern end of the study area. It is a natural watercourse that has had water conveyed into it via irrigation canals. The natural channel begins receiving canal

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water into its flow northeast of Merced from the Fairfield Canal (See Location Map 2). The creek then passes through agricultural land, the city of Merced, more agricultural land and ultimately drains into the San Joaquin River. Along its course is the Crocker Dam in Section 22 T7S/R13E MDBM southwest of Merced where Black Rascal Creek branches off from Bear Creek. This form addresses that portion of the creek intersecting SR 140.

The part of the canal surveyed for this project is roughly U shaped in cross section, unlined and has vegetation growing along its steep banks. Its channel has been dredged and its banks enhanced to form a berm or levee. The channel has a groomed appearance and has been deepened, widened, and realigned to make for more efficient water conveyance and flood control. In this area the canal passes through agricultural land irrigating orchards, pastures, and row crops (See Linear Feature Record MR1-BC-1).

Meadowbrook Lateral **P-24-000574**

The Meadowbrook Lateral is an irrigation canal running adjacent to Bear Creek, paralleling its east side (Location Map 2). It is approximately 20 feet wide and four feet deep. It is unlined and roughly U shaped in cross section and its banks show signs of erosion. Both sides of the channel are built up above the surrounding land. It has concrete and metal gate structures and a concrete culvert passing under SR 140. This form addresses that portion of the creek intersecting SR 140 (See Linear Feature Record MR1-MB-1 and Photograph 37).

Black Rascal Creek

Black Rascal Creek is an irrigation canal that runs roughly northeast-southwest from its origination point in the Sierra Nevada foothills northeast of the city of Merced (Location Map 3). The Creek passes through the northern part of the city of Merced and empties into the Bear Creek channel one half mile east of Crocker Dam. At Crocker Dam, Black Rascal Creek splits off from Bear Creek and continues in a generally southwesterly direction. Black Rascal Creek is a natural watercourse that has had water conveyed into it via irrigation canals. This form addresses that portion of the creek intersecting Gurr Road.

The role of this creek as a canal began around 1905 when the Crocker-Huffman Irrigation Company constructed the Livingston Canal, from which Black Rascal Creek drew water. This part of Black Rascal Creek is roughly U shaped in cross section and has vegetation growing along its unlined banks. Black Rascal Creek has a very regular, groomed appearance. Its banks have been raised above the surrounding farmland to form berms or levees and the banks have a uniform slope. The channel also appears straight and angular in alignment, within the segment addressed in this study. In this area the canal passes through agricultural land irrigating orchards, pastures, and row crops (See Linear Feature Record MR1-BR-1 and Photographs 38).

Hess Lateral

The Hess Lateral is a conveyance structure beginning at the Crocker Dam and continues parallel to the north side of Black Rascal Creek for approximately one and a half miles where it passes under the creek via siphon and parallels the south side (Location Map 3). At the point recorded for this survey, the canal is approximately 20 feet wide and ten feet deep. The unlined channel is roughly U shaped in cross section and has grassy vegetation growing on its banks, which are higher than the surrounding land. Access roads run on the berms both the north and south of the canal east of Gurr Road. The Hess Lateral terminates approximately one half mile west of Gurr Road, for a total length of about 2 miles (See Linear Feature Record MR1-HS-1).

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Henderson Lateral **P-24-001783**

The Henderson Lateral is an irrigation canal that runs roughly north-south from its origination point in Section 18 T6S/R14E MDBM where it branches off from the MID's Main Canal. Its course is approximately eight miles, terminating in the SE1/4 of Section 10 T7S/R13E MDBM (Location Map 4). Portions of the Henderson Lateral's route follow natural watercourses, while others are of artificial construction. This form addresses that portion the lateral intersecting and parallel to Bellevue Road. This part of the canal is roughly U shaped in cross section and unlined, with a small amount of vegetation growing along its banks. It is heavily silted and shows signs of erosion. In this area the canal passes through agricultural land irrigating orchards, pastures, and row crops. There are access roads on both sides of the canal north of Bellevue Road (See Linear Feature Records MR1-HN and Photographs 39-44).

Mason-Curtis Lateral **P-24-001899**

The Mason-Curtis Lateral is an irrigation canal that runs roughly northeast-southwest from its origination point in Section 34 T6S/R13E MDBM where it branches off from the Henderson Lateral (Location Map 4). Its course is approximately one and a half miles long, terminating in the SE1/4 of Section 33 of the same township. The last half mile of the canal runs along Fox Road, and then turns to parallel Canal Creek, ultimately draining into the latter. This form addresses that portion the lateral parallel to Fox Road and Canal Creek. This part of the canal is U shaped in cross section, unlined, and overgrown with vegetation. In this area the canal passes through agricultural land irrigating orchards, pastures, and row crops (See Linear Feature Record MR1-MC-1).

Buhach Lateral **P-24-000091**

The Buhach Lateral is an irrigation canal that runs roughly north-south from its origination point in Section 6 T7S/R13E MDBM where it branches off from the MID's Livingston Canal (Location Map 5). The Buhach Lateral was built in the 1890s to serve the Buhach agricultural colony. This form addresses that portion the lateral intersecting Elliot Road. This part of the canal is roughly trapezoidal in shape and lined with concrete. In this area the canal passes through agricultural land irrigating orchards, pastures, and row crops (See Linear Feature Record MR1-BH-1 and Photographs 45, 46).

Drainage Ditch

This drainage ditch, built between 1957 and 1960 borders farm land in Sections 25, 26, 34 and 35, T6S/13E MDBM and is about four miles in total length (Location Map 6). Ditches such as these are common in Merced County and drain irrigation water from fields. The ditch is approximately 14 feet wide at the top and four feet deep. It is unlined and has some vegetation on its banks and shows signs of erosion and of recent excavation. This form addresses that portion the ditch perpendicular and parallel to Bellevue Road. The ditch at this point runs north/south between two fields in Section 35 and east/west parallel to Bellevue Road. Maps and field observation indicate that a portion of the original ditch has been piped and covered recently. The terminus was undetermined, but generally such ditches drain into a natural waterway or canal (Linear Feature Record MR1-DR-1 and Photographs 47, 48).

Livingston Canal **P-24-000552**

The Livingston Canal, constructed in 1879, begins in the SW1/4 of Section 4, T7S/R13E MDBM where it draws water from Canal Creek (Location Map 7). Livingston Canal irrigates land between the cities of Atwater and Livingston. This form addresses that portion of the canal at its junction with Canal Creek. At the points recorded for this survey, the canal has a uniform, trapezoidal shape with no vegetation growing on the banks and access roads along the sides. Some sections are

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lined with concrete or riprap, while others are unlined. The canal follows a circuitous route through residential areas in the city of Atwater as it runs northwest away from the study area. There are periodic metal gates along the canal's course (See Linear Feature Records MR1-LC and Photographs 49, 50).

B10. Significance (continued):

Historic Context

San Joaquin Valley Irrigation

Stimulated largely by the relatively arid conditions of the region, settlers in the San Joaquin Valley were among the first American-era farmers in California to put in works specifically for irrigation. During the late 1850s and 1860s, their ditches were typically earthen, short, roughly made, and diverted water by means of temporary brush dams constructed across the lower courses of the streams running west out of the Sierra Nevada mountains. The earliest of these ditches were built in the vicinity of Visalia in 1852-1853; others spread out through the Kaweah River and Kings River deltas in the 1860s. Further north in the valley, where rain was more abundant and grain could be dry-farmed, irrigation development was slower. The great floods of 1862 and 1868 destroyed most early ditch systems, but San Joaquin Valley farmers continued to experiment with irrigation. Like other Californians, most early San Joaquin settlers in the period from 1850 through the 1860s were not particularly interested in investing time and money in irrigation, focusing instead on cattle raising and dry-farm cultivation of small grains to meet the economic opportunities created by the Gold Rush. By 1870 there were only about 60,000 irrigated acres in California.¹

Challenges faced by early irrigators included California's porous soil, the limited technological knowledge of farmers, high cost of construction, scarce machinery, and conflicting concepts of water rights. Nevertheless, cycles of drought and flooding, an unstable wheat market, soil exhaustion, developing markets for irrigated crops, advancements in irrigation technology, and unreliable precipitation during the 1860s and 1870s led to a growing interest in irrigation. During this period, both private companies and groups of individual farmers attempted to expand and diversify irrigated agriculture. One of the first irrigation companies organized in the San Joaquin Valley was the Fresno Canal and Irrigation Company, which incorporated in 1870, and was providing water by 1872. Many other such companies formed in the 1870s and 1880s.²

As a result of conflicts over water and a desire to expand and diversify irrigation in California, by the 1880s many farmers and landowners became interested in forming irrigation districts. This groundswell culminated in the passage of the landmark Wright Act of 1887, which allowed for the formation of such districts. The Wright Act is significant because it provided the means for local democratic control over water and promoted irrigation as a means for community and regional development.³ The first irrigation district organized under the Wright Act was the Turlock Irrigation District (TID), and unlike many other irrigation districts formed during the late nineteenth century, it has remained active throughout the

¹ JRP Historical Consulting Services, "Historic Mining, Hydroelectric, Irrigation, and Multi-purpose Canals of California, Volume 1: Historic Overview, Typology, and Discussion of Previously Inventoried Canals," 1995, 66 (hereafter, JRP, "Canals of California"); JRP Historical Consulting Services, "Water Conveyance Systems in California," for Caltrans, 2001, 11-12 (hereafter, JRP, "Water Conveyance Systems in California.")

² Paul H. Willison, "Past, Present, and Future of the Fresno Irrigation District," California State University, Fresno, Special Collections (August 1, 1980), 68, 76, 99, 102, 107.

³ Thomas E. Malone, "The California Irrigation Crisis of 1886: Origins of the Wright Act" (Ph.D. diss., Stanford University, 1965), 13; Alan M. Patterson, *Land, Water and Power: The History of the Turlock Irrigation District, 1887-1987* (Glendale, Calif.: The Arthur H. Clark Company, 1987) 52-57; Frank Adams, *Irrigation Districts in California*. California Department of Public Works, Division of Engineering and Irrigation, Bulletin No. 21 (Sacramento, California State Printing Office, 1929), 180.

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twentieth century. TID has evolved from a water conveyance organization dedicated to supplying water to local farmers to a multipurpose supplier of water and hydraulic power to a broad constituency.⁴ The Modesto and Tulare irrigation districts were other early districts organized under the Wright Act.⁵

Forty-nine irrigation districts, mostly in the San Joaquin Valley, were organized under the Wright Act between 1887 and 1897, when the law was repealed in favor of revised irrigation district legislation. By the turn of twentieth century, there were over 2.6 million irrigated acres in California.⁶ Despite this apparent success, a combination of unsympathetic large landowners, owners of riparian water rights, inadequate planning, inexperienced directors and opportunists within districts contributed to the failure of most Wright Act districts. Between 1897 and 1909, no new districts were formed. By the late 1920s only seven of the original districts were still in existence, including the Modesto, Turlock, and Tulare irrigation districts. Progressive legislation passed in 1911-1913 increased state supervision over district organization and financing, making investment in irrigation district bonds more attractive. Demand for agriculture products grew around this time and remained high throughout World War I resulting in a marked increase in district formation beginning in 1915; each year from 1917 to 1925, five or more districts were formed, including 18 in 1920. As a consequence of this resurgence, 94 irrigation districts were active in California by 1930.⁷

Merced Area Irrigation

Irrigation began in the Merced area with ditches in the bottomlands of the Merced River beginning in the 1850s. These were minor diversions from the Merced River constructed by farmers, which collectively irrigated between 1,500 and 2,000 acres by 1880.⁸ Organized, large-scale irrigation in the Merced area began in 1870 when William G. Collier, William P. Sproul, and Stephen Bratzley organized the Robla Canal Company (RCC) in March 1870 and made the first major diversion of water from the Merced River to lands within the current Merced Irrigation District (MID). Collier, who conceived of the enterprise, came to California in 1853 and to Merced County in 1859. Trained as a surveyor and civil engineer, he served as surveyor for Merced County in the 1860s and had experience constructing irrigation canals on Bear Creek. Collier planned to divert water at the current location of the MID Main Canal diversion, and carry it across the uplands commanding the east side plains of the San Joaquin Valley to Bear Creek and beyond. Collier filed for an appropriative water right for his canal system in May 1873.⁹

The RCC, however, had a short history. In November of 1873, RCC sold its entire stock to the Farmers' Canal Company (FCC), which consisted of a group of landowners and farmers who had incorporated the previous May. FCC began to work on the Main Canal and extended it as rapidly as funding would permit. Constructed through hard gravelly soil, excavation costs doubled the original estimates and prevented the company from carrying out its plans as originally proposed. By

⁴ TID and the Wright Act have been the subject of extensive analysis in the annals of the state's water development history. This overview relies on T.E. Malone, "The California Irrigation Crisis of 1886: The Origins of the Wright Act" (Ph.D. Dissertation, Stanford University, 1965); JRP, "Water Conveyance Systems in California"; Donald Pisani, *From the Family Farm to Agribusiness: The Irrigation Crusade in California and the West* (Berkeley: University of California Press, 1984); and other sources as noted.

⁵ JRP Historical Consulting, "Historic Resources Inventory and Evaluation Report: Turlock Irrigation District Upper Main Canal, Stanislaus County, California," May 2006.

⁶ JRP, "Water Conveyance Systems in California," 14-15.

⁷ Harmon S. Bonte, *Financial and General Data Pertaining to Irrigation, Reclamation and other Public Districts in California*. California Department of Public Works, Bulletin No. 37 (Sacramento: California State Printing Office, 1931), 27; *Cost of Irrigation Water in California*, California Department of Public Works, Division of Water Resources, Bulletin No. 36 (Sacramento: California State Printing Office, 1930), 12; California Statistics, 1911, 322 and 1913, 778; JRP, "Water Conveyance Systems in California," 14-15.

⁸ C.E. Grunsky, *Irrigation Near Merced*, USGS, Water Supply Paper No. 19 (Washington: Government Printing Office, 1899), 33, 37-39; S.T. Harding, *Water in California* (Palo Alto: N-P Publications, 1960), 101.

⁹ John Outcalt, *A History of Merced County, California* (Los Angeles: Historic Record Company, 1925), 333-334.

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March 1876, however, the Main Canal had reached Canal Creek, a distance of about eight miles, and made water available for irrigation. The most impressive engineering achievement was an 11.5-foot wide by 9-foot high, 1600-foot long unlined tunnel in the foothills excavated through sandstone and cemented gravel at a cost of \$20,000. The Main Canal itself, as constructed, was unlined and had a bed width of 20 feet. Its depth was four feet with a grade of one foot per mile. In 1879, FCC built a second conduit, the Livingston Canal, which diverted water from Canal Creek just east of present-day Atwater and extended to a point about two miles north of the town of Livingston (See Linear Feature Record MR1-LC). The company built a third canal, the Colony Branch Canal, also to serve the Atwater vicinity.¹⁰

FCC had planned on expanding its system south into the Merced area, but did not succeed in extending the Main Canal beyond Canal Creek. In 1882, FCC sold out to Charles Crocker and C.H. Huffman who organized the Merced Canal & Irrigation Company (MC&IC).¹¹ Huffman was a large grain-raiser in Merced County who owned vast tracts of land in the vicinity of Cressey north of Merced, while Charles Crocker was one of the founders of the Southern Pacific Railroad. In 1883, the new company, under the direction of its chief engineer Charles Barrent, enlarged the Main Canal to a bed width of 60 feet and the tunnel to 22 feet wide, adhering to the alignment of the old canal in all locations except near the head of the canal. The company extended the Main Canal beyond Canal Creek a distance of five miles in 1884 with the assistance of some 200 teams of mules and scrapers. The following year work began on a second tunnel in the foothills eight miles north of Merced. The tunnel was 30 feet wide, 13 feet high, and 2100 feet long; it was constructed with redwood timbers at a cost of about \$70,000. In 1886-1887 another six miles of the Main Canal were completed terminating at a reservoir (present-day Yosemite Lake) that functioned primarily as a domestic water supply for the City of Merced. Water was turned into the reservoir through the completed Main Canal in February 1888. The Main Canal eventually continued southeastward from the reservoir.¹²

In April 1888, the Crocker-Huffman Land & Water Company (Crocker-Huffman) purchased MC&IC to furnish irrigation water for several colonies the company planned to develop in the Merced vicinity. By the 1890s, Crocker-Huffman irrigation water served its own Rotterdam, British, El Capitan, and Buhach colonies as well as V.C.M. Hooper's Yosemite Colony and the Southern Pacific's Bear Creek Colony. Crocker-Huffman furnished the purchasers of land a water right at the rate of \$10-\$20 per acre and \$1-\$2 per annum for water service under contract with a life of 50 years. Total irrigated acreage of the Crocker-Huffman system in 1899 was approximately 12,000 acres.¹³

Crocker-Huffman continued to expand its canal system in subsequent decades including construction of the Fairfield Canal and the Bradley, Merced, Hartley, and Robinson Laterals. The company also constructed the Henderson Lateral during the first decade of the twentieth century to draw water from the Crocker-Huffman Main Canal at a point northwest of Lake Yosemite and diverted it to the land lying between Atwater and Merced. By 1914, however, the Crocker-Huffman wanted to sell its holdings. At the time, its system watered about 50,000 acres of land reaching from northeast of Merced to Livingston and was appraised at approximately \$1.5 million.¹⁴ In general, Crocker-Huffman had allowed the system to

¹⁰ Grunsky, *Irrigation Near Merced*, 34; Outcalt, *A History of Merced County*, 333-334; Kenneth R. McSwain, *History of the Merced Irrigation District* (Merced, Merced Irrigation District, 1978), 1-9.

¹¹ Adams, *Irrigation Districts in California*, 190.

¹² Grunsky, *Irrigation Near Merced*, 35.

¹³ Grunsky, *Irrigation Near Merced*, 34-37; Outcalt, *History of Merced*, 333-338; Harding, *Water in California*, 101.

¹⁴ Grunsky, *Irrigation Near Merced*, 34-37; Outcalt, *History of Merced*, 333-338; Harding, *Water in California*, 101; McSwain, *History of the Merced Irrigation District*, 9; Crocker-Huffman Land and Water Company, *Map Showing Lands and Canals of Crocker-Huffman Land & Water Company Near Merced, California*, 1912.

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languish and did not keep up maintenance on the canals and other works. By 1919, the system as whole was in poor condition and long reaches of the system were overgrown with grass, willows, and other obstacles.¹⁵

It was during this period that local interests began agitating to form an irrigation district in the Merced area. Irrigation districts formed by local residents were being established in many areas of California in the 1910s and these districts often acquired earlier private enterprise irrigation systems. The most common transition occurred when the local citizens formed an irrigation district covering the area served and then purchased the commercial canals serving it. The Fresno, Consolidated, Merced, and Madera irrigation districts were among those formed through acquisition of nineteenth century systems.¹⁶

After years of effort, an irrigation district in Merced County came into being. Spearheaded by the Merced County Farm Bureau, elections in November 1919 created the Merced Irrigation District (MID), a district chartered for the purpose of providing irrigation water to lands in eastern Merced County and to generate electricity. One of the district's first actions was to hire John Debo Galloway, a prominent California water engineer, to find a reservoir site in the Sierra Nevada foothills to store flood waters for irrigation. Galloway chose a site in the Merced River Canyon as the location for the future Exchequer Dam and Lake McClure. District voters approved a \$12 million bond issue to acquire the Crocker-Huffman system and construct the dam and reservoir in November 1921.¹⁷

The fledgling MID quickly embarked on an aggressive expansion and improvement program of the neglected former Crocker-Huffman system. MID constructed many miles of new canals during the 1920s, spending almost \$5 million in construction on the lower portion of its system. The overwhelming majority of control structures in the canal system such as headgates were constructed of timber and MID set out to gradually replace these original structures with concrete in ensuing years. New construction included the Le Grand canal system, North Side Canal, rebuilt the Fairfield Canal, and many new small canals. By the end of the decade, MID owned 1,020 miles of canals and was the fifth largest district in California. Its Main Canal extended 17 miles, passed through two tunnels and had a capacity of about 1,500 cubic feet per second (cfs).¹⁸ Only about ten miles of the district's more than 1,000 miles of canals were concrete lined by 1927.¹⁹

MID's most ambitious building program during the 1920s was the construction of the Exchequer Dam completed in 1926. The dam, built at a cost in excess of \$5 million, created the Lake McClure reservoir capable of storing 289,000-acre feet of water. Like other districts that were beginning to build dams during this period, MID built a hydroelectric power plant at the base of Exchequer Dam and contracted to sell power to the San Joaquin Light and Power Corporation. Exchequer Dam was built across a narrow gap about seven miles above Merced Falls. Rising 326 feet above the Merced River, the water passed through the powerhouse or spillways and flowed down river to a point a few miles below Merced Falls. There, the old Crocker-Huffman diversion dam distributed water to the various district canals.²⁰

During the 1930s, MID experienced financial difficulty as many district farmers became delinquent on their debts. In turn, MID could not pay its debts and declared bankruptcy. The district survived this trauma, however, by selling power from the Exchequer Dam and refunding its debts through the Reconstruction Finance Corporation under the specially enacted federal

¹⁵ John D. Galloway, "Report on the Merced Irrigation District, Merced, California, 1920-1921," p. 511, Water Resources Center Archives, University of California, Berkeley; McSwain, *History of the Merced Irrigation District*, 15; Crocker-Huffman Land and Water Company, "Map Showing Lands and Canals of Crocker-Huffman Land & Water Company Near Merced, California," 1895, 1903, 1912.

¹⁶ JRP, "Canals of California", 68; McSwain, *History of the Merced Irrigation District*, 15-16.

¹⁷ Adams, *Irrigation Districts*, 190-195; McSwain, *History of the Merced Irrigation District*, 15.

¹⁸ Adams, *Irrigation Districts*, 194-195.

¹⁹ Adams, *Irrigation Districts*, 190, 195; Galloway, "Report on the Merced Irrigation District," 509.

²⁰ Adams, *Irrigation Districts*, 192-195; Harding, *Water in California*, 101; Pisani, *From Family Farm to Agribusiness*, 388.

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law. Despite these difficulties, MID did manage to make improvements to its system in the 1930s, and undertook a program of creek cleaning and excavation. MID directors were also interested in implementing a flood control program, which included levee construction along area creeks.²¹

World War II halted work on the MID system, but this was a temporary interruption. The booming economy of the postwar years allowed the district to expand its system and continue to improve its infrastructure. A major component of this work was an accelerated program of canal concrete lining that began in 1946, with lining 10.1 miles of canal at various sites with concrete. Many of the canals built earlier in the century such as the Buhach Lateral (See Linear Feature Record MR1-BH-1), Atwater Lateral, Lingard Lateral, Hartley Lateral, and Arena Lateral were all lined with concrete in the ensuing years.

In addition to concrete lining, MID installed pipeline and realigned many canals in the 1940s and 1950s. The district's purchase of several new draglines at this time facilitated its ability to maintain and realign its many miles of earthen canals, and the use of this canal shaping equipment was the beginning of the end of the horse and Fresno scraper for the district. A dragline, consisting of a crane and bucket device used extensively in strip mining, gave the district the capacity to create smoother and more compacted canal alignments that had been possible previously.²² The MID system was also fundamentally upgraded in the 1960s with construction of New Exchequer Dam and McSwain Dam, both of which greatly increased storage capacity while also supplying flood control and increasing power generation revenue. Improvements have continued up to the present on the MID.²³

Canal Lateral Construction

Concrete linings were first used in canals in southern California in the 1880s when increasing value of water made it necessary to prevent conveyance losses in earth canals. The practice was largely confined to southern California until the early twentieth century. As water became more valuable in the Central Valley, seepage losses became an increasing concern for water companies and irrigation districts and in the first two decades of the 20th century, the practice rapidly spread throughout California. Frequently, old canals were improved by changes in alignment to correct hydraulic gradients before lining. Irrigation districts and private water companies in the Central Valley frequently opted for lining canal segments where conveyance losses by seepage were excessive because conversion of a canal system from an earthen ditch to a concrete canal was an expensive proposition.²⁴

The trapezoidal cross-section became the typical shape of the concrete lined canal since the advent of the practice. A common means of obtaining this shape was to excavate a channel either by hand or horse-drawn scraper, grade the bottom, and then backfill earth around a wooden form. Concrete was then poured in sections using boards much the same way as a sidewalk, then hand screeded and finished. By the 1930s mechanized canal excavation was the norm, and by 1946, the sub-

²¹ Harding, *Water in California*, 101; McSwain, *History of the Merced Irrigation District*, 102, 105.

²² McSwain, *History of the Merced Irrigation District*, 52, 85, 86.

²³ McSwain, *History of the Merced Irrigation District*, 163, 170; JRP Historical Consulting, "Historic Resource Evaluation Report, Livingston Canal, Merced Irrigation District, Merced County, California," 1998, 5; USGS, *Atwater*, 15' quadrangle (Washington, D.C.: Government Printing Office, 1918); USGS, *Atwater*, 7.5' quadrangle (Washington, D.C.: Government Printing Office, 1960).

²⁴ B.A. Etcheverry, *Lining of Ditches and Reservoirs to Prevent Seepage Losses*, California Agricultural Experiment Station, Bulletin No. 188 (Berkeley: Agricultural Experiment Station, 1907), 148-159; Samuel Fortier, *Concrete Lining As Applied to Irrigation Canals*, US Department of Agriculture, Bulletin No. 126 (Washington: US Department of Agriculture, 1914).

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grade slip-form concrete lining machine became the common method for larger lining jobs. It is likely that MID used both methods to line canals depending on cost of labor, availability of equipment, and length of canal.²⁵

Individual Canal Histories and Evaluations

Canals are common elements of the landscape in California, particularly in the Central Valley, Salinas Valley, and other major agricultural regions of the state. Irrigation canals are difficult to assess for historic significance because they are at once very common property types but are also economically important to the communities they serve. It is necessary then, to approach evaluating canals in a different way than other resources.

The first consideration is that there are many irrigation canals in California's Central Valley. Although no comprehensive figures are available, there are hundreds of individually named canals and thousands of miles of irrigation facilities throughout the Central Valley. MID, for example, has nearly 800 miles of canals, organized in dozens of individually named units. Similar figures prevail for the dozens of irrigation districts throughout the Sacramento and San Joaquin valleys. This point provides a useful perspective on irrigation systems generally. Collectively, all of these irrigation canals helped to revolutionize agriculture in the region and the state. Individually, however, any one canal or system of canals is part of a vast system of such properties.

Second, it is important to appreciate irrigation canals as part of a class of infrastructure that delivers benefits to broad constituencies. Most public works projects fall into this category, including state and local road systems, railroads, municipal water systems, sewer systems, airports, and the like. Major utility features such as electric power generating plants, natural gas pipelines, and telephone service also fall into this category. In irrigated farming communities, irrigation canals have become vital elements of the infrastructure, and many have also developed as electric utilities in addition to their water deliveries. These elements of the infrastructure are obviously important to the communities they serve and society has come to depend on these vital elements to function.

These considerations are useful in appreciating how significance might be assessed for such properties. In a sense, every road, bridge, telephone line, canal, and sewer system is important. Unless judgment is exercised, however, each one might be seen as eligible for the National Register for its importance to the local community. To avoid that trivial conclusion, we must assess historical significance of such infrastructure elements relative to similar property types. For a road to be significant, for example, it must be shown to be important within the context of other roads, recognizing that each road has made some type of contribution to the community. A similar type of judgment must be exercised in evaluating irrigation canals.²⁶

It is difficult to establish a single standard for what might constitute significance for an irrigation canal because there are several areas in which that significance might come into play. In general, however, a canal or system should convey some importance that is not common to other canals in the Central Valley or other region of the state. Pioneering construction could be significant if a canal was the first to bring irrigation water to a region. The Persian Ditch in Visalia, for example, was found to qualify for listing in the National Register because it was one of the first canals to be built in the San Joaquin Valley; it dates to the 1860s. Level of service might be another test. Several of the canals of the Bureau of Reclamation's

²⁵ Department of Irrigation Photograph Collection, Photograph # 710-B-a-114, 29 May 1929, Special Collections, University of California, Davis; Etchevery, *Lining of Ditches and Reservoirs*, vol. 2, 118, 121, 156-160; US Bureau of Reclamation, *Lining For Irrigation Canals* (Denver: Bureau of Reclamation, 1952), 14-17; Michael Holleran, *Historic Context for Irrigation and Water Supply Ditches and Canals in Colorado* (Denver: University of Colorado at Denver, 2005), 59.

²⁶ JRP, "Water Conveyance Systems in California," 92-96.

Page 39 of 75

*Resource Name or # MR1

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Central Valley Project (CVP) have been found to qualify in this regard, on their basis of the sheer volume of water that they deliver, enough water in a single canal to change fundamentally the cropping pattern of a region. A canal could also be unusual for its design, either because it represents a breakthrough in canal engineering, or because it represents a rare example of an antiquated historic method of canal design. Some of the CVP canals were found to qualify because they represented breakthroughs in the design of very large canals, and, in fact, the CVP canals rival major rivers in their capacities. Several old stone lined canals in the San Bernardino-Riverside area have been found to qualify for the California Register because they are rare examples of this largely antiquated method of canal construction.

Another consideration in evaluating significance for canals is to establish a defensible period of significance. The period of significance should be defined to take into account the area of significance. If a canal is significant for its design, the period of significance should be restricted to the era in which the canal was built. If it is important for effect on cropping patterns, the period of significance should be restricted to the period when this change took place.

Finally, integrity should be assessed on the basis of the period of significance for a property as specified in the California Register of Historic Resources (CRHR) and, by reference, in the National Register guidelines and regulations. The resource must retain integrity to its potential period of significance if it is to meet the criteria for listing in either the CRHR or NRHP.

The long, linear shape of canals and the nature of the projects that compel their evaluation also make canal evaluations unique. Typically, a project's APE will only intersect a small portion of a canal. At these points the canal is recorded and evaluated. It is usually beyond the scope of a survey to consider an entire canal, or canal system. The standard procedure for evaluating linear features calls for recording the segment in the study area and at comparison points to show typical points of the canal that are representative of the segment. These additional recordation points allow the evaluation of the linear resource to be based upon a better understanding of the nature and general integrity of the feature. There have been several evaluations of MID canals and canal segments in the past, including some of the same canals evaluated on this form. Below is a table of the previous evaluations and attached at the end of this form are copies of the earlier forms.

P-24-

Previously Evaluated Canals in Merced Irrigation District			
Date	Canal	Finding	Citation
2005	Mason Curtis Lateral*	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Inventory And Evaluation Report, Bellevue Substation And Transmission Line Project."
2005	Branch of Henderson Lateral*	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Inventory And Evaluation Report, Bellevue Substation."
2004	Bellevue Ranch Canals	not eligible for CRHR	CalTrans, "Cultural Resources Survey and Assessment Report Woodside Group-Bellevue Ranch Project."
2001	Fairfield Canal	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals of the Merced Irrigation District, Campus Parkway Project."
2001	Tower Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.

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Previously Evaluated Canals in Merced Irrigation District			
Date	Canal	Finding	Citation
2001	Sells Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Yosemite Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Bradley Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Merced Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Robinson Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001; 2000	Hartley Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals;" California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Doane Lateral	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Le Grand Canal	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resource Evaluation Report, Ten Canals." California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2001	Atwater Canal	not eligible for NRHP	California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2000	Farmdale Lateral	not eligible for NRHP	California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
2000	Koff Lateral	not eligible for NRHP	California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
7/1998; 9/1998	O'Donnell Lateral	not eligible for NRHP	JRP Historical Consulting, "Historic Resources Evaluation Report, O'Donnell Lateral, Merced Irrigation District;" CalTrans, "Historic Resources Evaluation Report, Rehabilitation of Bear Creek Bridge and the El Capitan Canal Bridge;" California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
1998	Meadowbrook Lateral*	not eligible for NRHP	CalTrans, "Historic Resources Evaluation Report, Rehabilitation of Bear Creek Bridge and the El Capitan Canal Bridge."
1998	McSwain Lateral	not eligible for NRHP	CalTrans, "Historic Resources Evaluation Report, Rehabilitation of Bear Creek Bridge and the El Capitan Canal Bridge."
1998	El Capitan Canal	not eligible for NRHP	CalTrans, "Historic Resources Evaluation Report, Rehabilitation of Bear Creek Bridge and the El Capitan Canal Bridge."
1998	Deane Canal	not eligible for NRHP	California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
1998	Edendale Creek Turnout and Weir on Canal Creek	no NRHP evaluation/ HAER recordation	NPS, "Merced Irrigation District, Edendale Turnout and Weir," HAER No. CA-192-A.

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Previously Evaluated Canals in Merced Irrigation District			
Date	Canal	Finding	Citation
1998	Livingston Canal*	not eligible for NRHP or CRHR	JRP Historical Consulting, "Historic Resources Evaluation Report, Livingston Canal;" California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.
1993	Main Ashe Lateral*	not eligible for NRHP	JRP Historical Consulting, "Historic Sites Survey and Evaluation on the Proposed Mojave Natural Gas Pipeline Mojave Pipeline Northern Extension."
1993	Buhach Lateral*	not eligible for NRHP	JRP Historical Consulting, "Historic Sites Survey and Evaluation on the Proposed Mojave Natural Gas Pipeline Mojave Pipeline Northern Extension."
1993	Canal Creek*	not eligible for NRHP	JRP Historical Consulting, "Historic Sites Survey and Evaluation on the Proposed Mojave Natural Gas Pipeline Mojave Pipeline Northern Extension."
1992	Main Canal	eligible for NRHP	PAR Environmental Services, "National Register of Historic Places Significance Evaluation, Main Canal, Merced County;" California Office of Historic Preservation, "California Inventory of Historic Resources," Merced County.

* Canals also evaluated on this survey form.

Taking into account this general statement about canal evaluations, the historic context, and the description of the resources, the following section evaluates the potential significance and integrity of the various canal segments in the Merced Irrigation District.

Canals are rarely found eligible under two of the CRHR eligibility criteria (Criteria 2 and 4), discussed here for all of the canals evaluated. The other criteria are addressed by canal segment in the sections below. Under Criterion 2, a property must be associated with an important person's productive life and must be the property that is most closely associated with that person, qualities rarely found in engineering features. Furthermore, a property such as a dam that represents the work of a master engineer would be eligible under Criterion C, as the work of a master, rather than B, as representing an important person. There may be rare instances, however, when a water conveyance system would be eligible under Criterion B, notably when the person's association with the system is very strong and no properties more intimately associated with that person remain. Research did not reveal any individuals important in irrigation planning, construction, or engineering related to any of the canal segments evaluated on this form. Furthermore, none of the canals represent notable engineering accomplishments. Thus, even if there was an association with someone important, none of these canals would best represent their work. Therefore, none of the canal segments evaluated on this form are eligible for listing in the CRHR under Criterion 2 and none are considered a historic resource for the purposes of CEQA.

Under Criterion 4, a property must be likely to yield information important in history or prehistory. In order to be eligible under this criterion, the potential important information must be from the physical properties themselves. The properties most commonly found eligible under Criterion D are archeological sites; buildings, structures, and objects are infrequently found to be eligible for their information potential. A relevant example would be if a canal held potential information about construction techniques. Construction of the canals and the canal types represented on this form are well documented. Therefore, none of the canal segments in the MID evaluated on this form are eligible for listing in the CRHR under Criterion 4 and none are considered a historic resource for the purposes of CEQA.

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Canal Creek

One of the first objectives of the FCC was to divert water from the Main Canal into the Canal Creek streambed north of the study area in Section 29 T5S/R14E MDBM. Downstream from this diversion, a portion of the channel now known as Canal Creek was a stream formerly known as Dry Creek. Water initially flowed through Canal Creek to the area northeast of Atwater in 1876 and it was the first canal in the FCC system to bring water out of the foothills for irrigation (Location Map 1).²⁷

In 1879, the FCC built a major lateral, the Livingston Canal, off of Canal Creek at a point in Section 4, T7S/R13E between the current cities of Merced and Atwater (See Linear Feature Record MR1-LC and Location Map 8).²⁸ The entire flow of Canal Creek was diverted into the Livingston Canal for irrigation of lands west of this confluence.²⁹ South of this diversion, Canal Creek virtually stopped flowing. State engineer William Hammond Hall noted a small channel past this point he described as a “ditch” which continued for about a mile.³⁰ By 1895, more than ten years after Crocker-Huffman acquired the former FCC system, Canal Creek had been extended further south below the Livingston Canal diversion, ultimately emptying into what is now Black Rascal Creek (Location Map 1). Canal Creek was realigned many times in subsequent decades both north and south of the head of Livingston Canal. Canal Creek also underwent periodic cleaning of brush and debris and channel excavation to facilitate efficient irrigation and reduce flooding. Levees were in place along Canal Creek above the Livingston Canal by 1915; below the canal they were constructed between 1946 and 1958.

After MID was formed and began their improvement program in 1920, the flow of Canal Creek above the Livingston Canal headgate was 400 second feet. At the time, it carried the second highest volume of water behind the Main Canal.³¹ In the same year, acreage watered by Canal Creek and the Livingston Canal was 54,890 acres. This total constitutes more than half of the total acreage irrigated by canals in the MID system constructed before 1900.³² A report in 1920 recommended the Canal Creek channel be improved below the Livingston Diversion as an outlet in the event of a breach in the Livingston Canal and to facilitate drainage, and eventually MID undertook this project. There is currently a lateral headgate into Canal Creek the junction with the Livingston Canal and the channel below this point appears to have been deepened, widened, and regularly maintained. Currently there are few diversions from Canal Creek upstream from the Livingston Canal and none below it (See Historic Photos, Figures 1, 2).³³

In addition to the improvements discussed above, it is likely that the entire length of Canal Creek has undergone regular widening, excavating, and maintaining as needed. Within the study area, a major realignment of an approximately one mile

²⁷ Grunsky, *Irrigation Near Merced*, 34.

²⁸ JRP, “Canals of California”, 162.

²⁹ Galloway, “Report on the Merced Irrigation District,” 509.

³⁰ Mark Howell, *Official Map of Merced County* (San Francisco: A.L. Bancroft, 1874); William Hammond Hall, *Detail Irrigation Map, Merced Sheet*, ([Sacramento]: California State Engineering Department, 1885); Charles D. Martin, *Official Map of Merced County* (San Francisco: Dakin Publishing Company, 1888); Galloway, “Report on the Merced Irrigation District,” 510, 672.

³¹ Galloway, “Report on the Merced Irrigation District,” 510, 672; 515, 520.

³² Galloway, “Report on the Merced Irrigation District,” 668, 669.

³³ Crocker-Huffman, *Map Showing Lands of the Crocker-Huffman Land & Water Company* (1895, 1903, 1912); USGS, *Atwater Quadrangle* (1918, 1948, 1960); McSwain, *History of the Merced Irrigation District*, 134-136, 143, 149, 141, 146, 159, 198, 201, 337, 149, 194, 200; A.E. Cowell, *Official Map of the County of Merced, California* (1909); Galloway, “Report on the Merced Irrigation District,” 510, 672.

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section near the intersection of Bellevue and Fox Road, occurred between 1960 and 1973. More recently the MID constructed a reservoir just north of Bellevue Road.³⁴

Under Criterion 1, Canal Creek appears to have important associations with events or patterns of events that are important to our history from the date of its construction, through the initial phase of irrigated agriculture development in the 1890s, although it does not retain integrity to this period. Canal Creek was one of the pioneering irrigation canals under an organized system in the Merced-Atwater region. As the principal lateral from the Main Canal until the early twentieth century, it functioned to bring water out of the foothills 16 miles to arable land. Indeed, until extension of the Main Canal in the late 1880s, Canal Creek was longer than the Main Canal and the majority of the Main Canal's flow went into Canal Creek. In turn, all of Canal Creek's water flowed into the Livingston Canal spawning development between Atwater and the Livingston area. As such, Canal Creek played a central role in the development of irrigated agriculture and settlement patterns of this region.

Although Canal Creek is potentially significant under Criterion 1, the portion within the study area does not retain integrity to its period of significance. An approximately one mile segment of the canal in Section 33, T6S/R13E was realigned between 1960 and 1973, and a section below the Livingston diversion was realigned between 1946 and 1958 and its channel has also been dredged and its banks enhanced and shaped to form levees. These actions greatly diminish the integrity of design, materials, location, and workmanship of Canal Creek as an engineering feature.³⁵ In addition, the construction of Castle Air Force Base in 1941 diminished the integrity of setting. Therefore, the approximately five mile portion of Canal Creek evaluated on this form is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion 3, Canal Creek is not important for its design, engineering, or method of construction. Being a natural waterway, is not a conventional canal. There was relatively little engineering involved in its initial conversion for use in conveying water. The practice of including natural waterways in engineered irrigation systems had been practiced in the San Joaquin Valley since the 1860s. It is possible that hand labor and scrapers were used on some portions of the canal, but these methods were also common in by the 1860s. When compared against other channels of this type, Canal Creek is typical and does not represent important design or engineering accomplishment or innovation. Therefore, Canal Creek is not eligible for listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA.³⁶

A 1993 report by JRP Historical Consulting titled "Historic Sites Survey and Evaluation on the Proposed Mojave Natural Gas Pipeline Mojave Pipeline Northern Extension" also evaluated a segment of Canal Creek and found it ineligible for the NRHP. See Attachment A for a copy of the form from that report.

Main Ashe/East Ashe Lateral

The Crocker-Huffman Company constructed the Main Ashe and East Ashe Laterals around 1890. These canals drew their water from Canal Creek near its junction with the Livingston Canal and served the Ashe Colony in the vicinity of Section 9, T7S/R13E. Like Canal Creek, portions of these laterals flow in former natural streambeds. Initial construction was by hand

³⁴ USGS, *Atwater Quadrangle*, 1960, 1987; WAC Corporation, *Aerial Photographs of Merced County*, 1985, Map Library, University of California, Davis; Merced Irrigation District, *Official Map of the Merced Irrigation District* (Merced: MID, 1973); Current aerial view from www.Google.com.

³⁵ Galloway, "Report on the Merced Irrigation District," photographs at end of report, no page number.

³⁶ Willison, "Past, Present, and Future of the Fresno Irrigation District," 78-79; Ingvar Tielman and W. H. Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties in Central California* (Fresno: Williams and Son, 1943), 6.

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labor and by horse and scraper. Major improvements were not made on these canals until after 1920 when MID began to generally upgrade the system. At some time MID lined portions of the Main Ashe Lateral, using methods similar to those shown in Figures 6-8.

Under Criterion 1, the Main Ashe Lateral and East Ashe Lateral do not have important associations with events or patterns of events that are important to our history. These structures were minor canals in a large system and did not play a major role in development of irrigated agriculture or settlement patterns of the Merced-Atwater region. Therefore, the Main Ashe Lateral and East Ashe Lateral are not eligible for listing in the CRHR under Criterion 1 and are not considered a historic resource for the purposes of CEQA.

Under Criterion 3, the Main Ashe Lateral and East Ashe Lateral are not important for their design, engineering, or method of construction. Constructed around 1890, the Main Ashe Lateral and East Ashe Lateral are common structural types. They were likely originally constructed by hand and by horse and scraper, methods common to the era. Subsequently, they were formed into a trapezoidal shape the Main Ashe Lateral was lined using established design and construction techniques. There is no indication the Main Ashe Lateral and East Ashe Lateral are important examples of the science of irrigation canal construction and maintenance. Therefore, the Main Ashe Lateral and East Ashe Lateral are not eligible for listing in the CRHR under Criterion 3 and are not considered a historic resource for the purposes of CEQA.

In addition to lacking significance, the Main Ashe Lateral and East Ashe Lateral also lack integrity. The concrete lining of the Main Ashe Lateral and the routine maintenance of the East Ashe Lateral diminish the integrity of design, materials, and workmanship of both canals. A 1993 report by JRP Historical Consulting titled "Historic Sites Survey and Evaluation on the Proposed Mojave Natural Gas Pipeline Mojave Pipeline Northern Extension" also evaluated a segment of the Main Ashe Lateral and found it ineligible for the NRHP. See Attachment B for a copy of the form from that report.

Bear Creek/Meadowbrook Lateral

Farmers began to divert water from Bear Creek onto their adjacent land via small, hand dug channels beginning in the 1860s. More intensive use of Bear Creek water did not begin until the later nineteenth century. The Crocker-Huffman Company constructed the Crocker Dam on Bear Creek in 1888 in Section 22, T7S/R13E MDBM, west of Merced outside the study area. Past the dam, Bear Creek split into two channels, both labeled "Bear Creek" at the time. The company also diverted Black Rascal Creek into Bear Creek just upstream from the Crocker Dam. This occurred at some point between 1885 and 1895, and likely coincided with construction of the dam. After 1915, the north channel downstream from Crocker Dam changed in name from "Bear Creek" to "Black Rascal Creek," which it holds to this day (Location Map 2).³⁷

During the first decade of the twentieth century, the Crocker-Huffman Company enhanced the flow of Bear Creek with construction of the Fairfield Canal, which carried water from Lake Yosemite into Bear Creek at a point northeast of Merced. The water then flowed through Bear Creek and irrigated land along its course including the area southwest of Merced in the study area. Levees were in place along the banks of Bear Creek by 1915. In the 1920s, Bear Creek ceased receiving water from the Fairfield Canal after the MID realigned the latter to pass under Bear Creek and irrigate land south and east of Merced. Bear Creek currently receives water from the Applegate Lateral and Black Rascal Creek.³⁸

³⁷ Willison, "Past, Present, and Future of the Fresno Irrigation District," 78-79; Teilman and Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties*, 6; Hall, *Map of Irrigation Near Merced*, 1885; USGS, *Atwater Quadrangle*, 1918; McSwain, *History of the Merced Irrigation District*, 6.

³⁸ JRP, "Historic Resource Evaluation Report: Ten Canals of the Merced Irrigation District, Campus Parkway Project, Merced County, California, June 2001," 4; USGS, *Merced Quadrangle*, 1918, 1948, 1961, 1980.

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Research did not reveal specific references to creek cleaning and excavation work on Bear Creek, but it is likely that it did occur in the 1930s, if not before. Use of machinery for canal excavation and cleaning was the norm, especially because of the availability of surplus equipment from World War I. MID rebuilt the Bear Creek side of Crocker Dam, where Black Rascal Creek splits off from Bear Creek in 1941. Sometime from 1946 to 1948, work concluded on the Meadowbrook Lateral, which commenced at Crocker Dam and ran parallel to Bear Creek on the east side (Figures 1-4). In the post-World War II years, MID has continued to maintain all of the waterways under its jurisdiction including Bear Creek and the Meadowbrook Lateral (Figures 3-5).³⁹

Under Criterion 1, Bear Creek does not have important associations with events or patterns of events that are important to our history. By the time the Crocker-Huffman Company delivered water to Bear Creek for irrigation via the Fairfield Canal in the early twentieth century, the practice of using existing streambeds for this purpose was about 50 years old. Furthermore, extensive irrigation canals had been in place in the region for decades and there was no radical change in regional land use after Bear Creek became a conduit for canal water. In addition, prior to its stream being enhanced, farmers along Bear Creek had dug small canals from its channel, tapping its natural flow. Thus, land along parts of its course had been irrigated for some time. Bear Creek is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion C, Bear Creek is not important for its design, engineering, or method of construction. Bear Creek, being a natural waterway, is not a conventional canal and there was relatively little engineering involved in its initial conversion for use as an irrigation canal. By 1915, it did have embankments constructed along its banks and portions of its channel were likely realigned. It was also periodically cleaned of brush and debris and possibly excavated. When compared against other channels of this type, Bear Creek is typical and does not represent important design or engineering accomplishment or innovation. The canals are useful irrigation conduits that display modern methods of canal maintenance and are generally workmanlike in their construction. There is no indication, however, that this canal is an important example of the science of irrigation canal construction and maintenance, Bear Creek and the Meadowbrook Lateral are not eligible for listing in the CRHR under Criterion 3 and are not considered historic resources for the purposes of CEQA.

In addition to lacking historic significance, Bear Creek lacks integrity to its potential period of significance. This period is defined as the first years after canal water was diverted into the creek for the purposes of irrigation. Routine maintenance performed on Bear Creek over the years has resulted in changes to the shape of the channel and banks. Additional changes affecting the integrity include the replacement of the Crocker Dam, an integral component of Bear Creek as an irrigation canal, the change in design of the related Fairfield Canal, and the construction of the Meadowbrook Lateral. These factors have diminished the integrity of materials, workmanship, setting, and design.

Under Criterion 1, the Meadowbrook Lateral does not have important associations with events or patterns of events that are important to our history. Constructed between 1946 and 1958, irrigation was already well established in the region and it did not drastically alter land use. Therefore, the Meadowbrook Lateral is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion C, the Meadowbrook Lateral is not important for its design, engineering, or method of construction. Constructed between 1946 and 1958, the Meadowbrook Lateral is a common type as well, and such canals have existed in the region and in the MID since at least the early twentieth century. Therefore, the Meadowbrook Lateral is not eligible for listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA. The

³⁹ McSwain, *History of the Merced Irrigation District*, 134-136, 143, 149, 141, 146, 159, 198, 201, 337; USGS *Atwater Quadrangle*, 1918; Holleran, *Historic Context for Irrigation*, 59.

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Meadowbrook Lateral generally retains integrity to its potential period of significance defined as the years construction, but this canal lacks historic significance.

A 1998 report by Caltrans titled “Historic Resources Evaluation Report, Rehabilitation of Bear Creek Bridge and the El Capitan Canal Bridge” also evaluated the Meadowbrook Lateral and found it ineligible for the NRHP. It did not consider Bear Creek a cultural resource and did not evaluate it. See Attachment C for a copy of the form from that report.

Black Rascal Creek/Hess Lateral History

Black Rascal Creek first appears on maps in 1874 as a short, unnamed stream that began northeast of Merced and drained into open land to the north of that town. As irrigation became organized in the later nineteenth century, the Bradley Lateral, Fahrens Creek, and canals passing through the Yosemite Colony north of Merced, began to empty into Black Rascal Creek. About the same time the Crocker-Huffman Company lengthened the channel of Black Rascal Creek west of Merced connecting it with Bear Creek. Immediately west of this confluence the company also constructed the Crocker Dam in 1888 where the channel split into two channels (see above and Location Map 3). Canal Creek empties into Black Rascal Creek downstream from Crocker Dam.⁴⁰

Black Rascal Creek remained part of the system after MID took control of irrigation in the Merced region. The recognition of Black Rascal Creek as a viable irrigation canal was apparent in 1920 when the MID made filings for water rights on Black Rascal Creek in the event that water might be brought to the Planada-Le Grand area northeast of Merced and conveyed to this creek.⁴¹ By 1915, there were levees on both banks of the creek. Research did not reveal specific references to cleaning and excavation of Black Rascal Creek in the 1930s, but it is likely that it did occur at this time if not earlier. In the 1940s, MID performed excavation and “berm” removal on the creek. Reconstruction of the Black Rascal Creek side of Crocker Dam, where Black Rascal Creek splits off from Bear Creek, occurred in 1942. Regular maintenance has been performed on the channel and banks of Black Rascal Creek by MID. Some time between 1946 and 1958, work concluded on the Hess Lateral, which commenced at the Crocker Dam and ran parallel to Black Rascal Creek on the north side, then passed under the creek via a siphon and continued on the south side. Currently some of the flow of Black Rascal Creek is diverted to Bear Creek northeast of Merced (Figures 3-5).⁴²

Under Criterion 1, Black Rascal Creek does not have important associations with events or patterns of events that are important to our history. By the time the Crocker-Huffman Company began diverting water into Black Rascal Creek from its canals north of Merced and altered its channel into Bear Creek, the practice of using existing streambeds as part of irrigation infrastructure was already well established in the region. Furthermore, extensive irrigation canals had already been in place in the area for decades and there was no radical change in regional land use after Black Rascal Creek became a conduit for canal water. Therefore, Black Rascal Creek is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion C, Black Rascal Creek is not important for its design, engineering, or method of construction. Black Rascal Creek, being a natural waterway, is not a conventional canal and there was relatively little engineering involved in its initial conversion. As stated above, irrigators had been using and manipulating natural waterways to convey irrigation water since

⁴⁰ Willison, “Past, Present, and Future,” 78-79; Teilman and Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties*, 6; Hall, *Map of Irrigation Near Merced*, 1885; USGS *Atwater Quadrangle*, 1918.

⁴¹ McSwain, *History of the Merced Irrigation District* 19.

⁴² McSwain, *History of the Merced Irrigation District*, 134-136, 143, 149, 141, 146, 159, 198, 201, 337; USGS, *Atwater Quadrangle*, 1918; JRP, “Historic Resource Evaluation Report: Ten Canals of the Merced Irrigation District,” 4; USGS, *Merced Quadrangle*, 1918, 1948, 1961, 1980.

*Recorded by M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

the 1860s and this conversion does not represent an engineering innovation. When compared against other channels of this type, Black Rascal Creek is typical and does not represent important design or engineering accomplishment or innovation. There is no indication that this canal is an important example of the science of irrigation canal construction and maintenance. Black Rascal Creek is not eligible for listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA. In addition to lacking significance, Black Rascal Creek lacks integrity. Its channel has been excavated and its banks have been altered and enhanced degrading the integrity of design, materials, and workmanship. Construction of the Hess Lateral also diminished Black Rascal Creek's integrity of setting.

Under Criterion 1, the Hess Lateral does not have important associations with events or patterns of events that are important to our history. Constructed between 1946 and 1958, irrigation was already well established in the region and it did not drastically alter land use. The Hess Lateral is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion C, the Hess Lateral is not important for its design, engineering, or method of construction. The Hess Lateral is a common type of lateral, and such canals have existed in the region and in the MID since at least the early twentieth century. The Hess Lateral appears to generally retain integrity, but lacks historic significance. Therefore, the Hess Lateral are not eligible for listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA.

Henderson Lateral/Mason Curtis Lateral

The Henderson Lateral follows a natural creek channel for part of its course, which begins in Section 18 T6S/R14E MDBM off of the Main Canal and runs roughly north to south (Location Map 4). The Crocker-Huffman Company built the canal around 1910 to water land in the area northwest of Merced. Its alignment has remained largely unchanged since its original construction. As with all of the canals in the MID, the Henderson Lateral has received routine maintenance such as cleaning, excavating, and bank enhancement. Field observation at the time of this survey revealed that such actions continue to the present. The Henderson Lateral has a short branch canal that runs parallel to Bellevue Road on the south side to Franklin Road.⁴³

The Mason Curtis Lateral, which branches off the Henderson Lateral north of Bellevue Road is an extension of the MID system likely constructed during the 1920s as part of the development of the Mason and Curtis Colony, a small subdivision located along the west side of Franklin road that was laid out during this time.⁴⁴ This lateral today crosses Fox Road north of Bellevue and then parallels and empties into Canal Creek. Between 1960 and 1973 the MID realigned the Mason Curtis Lateral near Fox Road, including piping a portion of the lateral.⁴⁵

Under Criterion 1, the Henderson Lateral and the Mason Curtis Lateral do not have important associations with events or patterns of events that are important to our history. By the time the Crocker-Huffman Company constructed the Henderson Lateral in the early twentieth century, and MID constructed the Mason Curtis Lateral, extensive irrigation canals had already been in place in the region for decades and there was no significant change in regional land use after the Henderson Lateral

⁴³ McSwain, *History of the Merced Irrigation District*, 134-136, 143, 149, 141, 146, 159, 198, 201, 337, 149, 194, 200.

⁴⁴ McSwain, *History of the Merced Irrigation District*, 73; Crocker-Huffman, "Map Showing Lands and Canals of Crocker-Huffman Land & Water Company Near Merced, California," 1912; USGS, *Atwater Quadrangle*, 1918; Merced Irrigation District, "Official Map of the Merced Irrigation District, Merced County, California," 1927; USGS, *Atwater Quadrangle*, 1946.

⁴⁵ Adams, *Irrigation Districts*, 190, 195; USGS *Atwater Quadrangle*, 1948, 1960, 1987; Aerial image provided by Google.com; Merced Irrigation District, *Official Map of the Merced Irrigation District*.

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or the Mason Curtis Lateral were built. Therefore, the Henderson Lateral and the Mason Curtis Lateral are not eligible for listing in the CRHR under Criterion 1 and are not considered a historic resource for the purposes of CEQA.

Under Criterion 3, the Henderson Lateral and the Mason Curtis Lateral are not important for their design, engineering, or method of construction. Conveying water through natural waterways had been practiced in the Merced area and the San Joaquin Valley for decades. In addition, small, lateral canals of this shape and dimensions were also very common. When compared against other channels of this type, the Henderson Lateral and the Mason Curtis Lateral are typical and do not represent important design or engineering accomplishment or innovation. There is no indication that these canals are an important example of the science of irrigation canal construction and maintenance. Therefore, the Henderson Lateral and the Mason Curtis Lateral are not eligible for listing in the CRHR under Criterion 3 and are not considered a historic resource for the purposes of CEQA.

In addition to lacking historic significance, the Henderson Lateral and the Mason Curtis Lateral lack integrity. The Henderson Lateral has had its channel altered at some point in the 1950s diminishing its integrity of design, materials, and workmanship. The Mason Curtis Lateral has also had its channel altered and part of it piped. Both canals have undergone routine maintenance further diminishing its integrity. In addition, recent construction of an earthen basin or reservoir near the Henderson Lateral crossing of Bellevue Road further degrades the integrity of setting.

A 2005 report by JRP Historical Consulting titled "Historic Resource Inventory And Evaluation Report, Bellevue Substation And Transmission Line Project" also evaluated the Henderson Lateral and the Mason Curtis Lateral and found them ineligible for the NRHP and CRHP. See Attachments D and E for copies of the form from that report.

Buhach Lateral

During the late nineteenth century the Crocker-Huffman Company established many agricultural colonies in the vicinity of Merced, including the Buhach Colony, created in the 1890s. The Buhach Lateral supplied water to this colony, tapping into the Livingston Canal to the north. From this point of origin, the canal flowed south through the Buhach Colony, then southwest before draining into Black Rascal Creek in the NE1/4 of Section 20 T7S/R13E MDBM (Location Map 5). The lateral functioned as an irrigation canal, watering colony fields, and continued to serve in that capacity in the ensuing decades. In the 1930s, the MID undertook a program of improvements to its system and lined many canals with concrete. This work continued into the 1940s and 1950s, when lining of the Buhach Lateral occurred. It remains a lined canal today and still delivers water to the fields of the area, although it currently empties into Canal Creek, just north of its confluence with Black Rascal Creek (Figures 6-8).⁴⁶

Under Criterion 1, the Buhach Lateral does not have important associations with events or patterns of events that are important to our history. By the time the Crocker-Huffman Company built the Buhach Lateral to deliver water to it colony, the practice of irrigation in the region was about 30 years old. An extensive system of irrigation canals was already in place and the Buhach Lateral did not bring about a radical change in regional land use. Therefore, the Buhach Lateral is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion 3, the Buhach Lateral is not important for its design, engineering, or method of construction. Constructed in the late 1890s, the Buhach Lateral, when compared against other channels of this type, is typical and does not represent any important design or engineering accomplishment or innovation. There is no indication that this canal is an important example of the science of irrigation canal construction and maintenance. Therefore, the Buhach Lateral is not eligible for

⁴⁶ Martin, *Official Map of Merced County*, 1888); USGS, *Atwater Quadrangle*, 1960 (1987).

*Recorded by M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA. In addition to lacking historic significance, The Buhach Lateral also lacks integrity. It has been lined with concrete and had its alignment altered. These factors compromise its integrity of design, materials, and workmanship.

A 1993 report by JRP Historical Consulting titled “Historic Sites Survey and Evaluation on the Proposed Mojave Natural Gas Pipeline Mojave Pipeline Northern Extension.” also evaluated the Buhach Lateral found it ineligible for the NRHP. See Attachment F for a copy of the form from that report.

Drainage Ditch

Drainage has been a problem in the irrigated areas of Merced County since the 1880s. The land is flat and does not naturally drain well. In addition, the ground water table is near the surface and it rose rapidly with irrigation. These factors, combined with intensive irrigation and the local soil type, can create water-logged fields. To resolve the issue, farmers formed drainage districts beginning in 1918 and employed drainage pumps and ditches to drain the fields. The ditches allow excess water to flow out of the fields and into irrigation ditches or natural waterways. MID constructed the drainage ditches in the study area sometime between 1957 and 1960. Since that time ditches have undergone routine maintenance and excavation and a section of it in Section 35 T6S/R13E MDBM just north of Bellevue Road has been piped (See Location Map 6 and Figures 9-11).⁴⁷

Under Criterion 1, the drainage ditch does not have important associations with events or patterns of events that are important to our history. By the time the MID constructed this segment of ditch in the late 1950s the practice of constructing such ditches was already well established. This relatively small segment (approximately four miles) did not result in major changes to land use in the region and the drainage ditch is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion 3, the drainage ditch is not important for its design, engineering, or method of construction. Historic photographs of other ditches from the 1920s reveal that this ditch does not represent an unusual, exceptional, or innovative design. The drainage ditch is not eligible for listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA.

In addition to lacking historic significance, the drainage ditch also lack integrity. The recent piping and filling of a segment of the ditch as well as routine maintenance and excavation compromise its integrity of design, materials, and workmanship.

Livingston Canal

The Farmers’ Canal Company constructed the Livingston Canal in 1879 using hand labor and horse-drawn scrapers. This method of construction would have created a channel with a shallow U-shape and timber control structures. Considering the general program of improvement undertaken by the MID in the 1920s, it is likely that some work was undertaken on the Livingston Canal at that time, and certainly the current headgate and canal lining date to much more recent years (See Linear Record Forms MR1-LC, Location Map 7, Figures 1 and 2, and Photographs 49 and 50). The canal was originally designed to take the entire flow of Canal Creek, and did so for many years. As such, it has watered a considerable amount of land

⁴⁷ McSwain, *History of the Merced Irrigation District*, 138; Adams, *Irrigation Districts*, 195; WAC Corporation, *Aerial Photographs of Merced County*, 1957, Map Library, University of California, Davis; USGS, *Atwater Quadrangle*, 1960.

Page 50 of 75

*Resource Name or # MR1

*Recorded by M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

between Atwater and Livingston and contributed to the agricultural development of that area. The Livingston Canal continues to be primary lateral canal in the MID system.⁴⁸

Under Criterion 1, the Livingston Canal appears to have important associations with events or patterns of events that are important to our history from the date of its construction, through the initial phase of irrigated agriculture development in the 1890s, but does not retain historic integrity. The Livingston Canal was one of the pioneering irrigation canals under an organized system in the Merced-Atwater region. Since its construction it received almost the entire flow of Canal Creek and distributed it to farmland in the area between Atwater and Livingston spawning development. As such, the Livingston Canal played a central role in the development of irrigated agriculture and settlement patterns of this region.

Although the Livingston Canal appears to be potentially eligible under Criterion 1, the portion within the study area lacks integrity of design, materials, feeling, setting, and workmanship to its potential period of significance in the late nineteenth century. The canal has undergone significant alterations such as lining, shaping, and replacement of the original structures. Most of these changes occurred after the establishment of MID in 1919, including replacement of the headgate. Such replacement of gates, structures, and other equipment was common along the entire length of the canal. Furthermore, the construction of housing along the Livingston Canal has diminished its integrity of setting. This portion of the Livingston Canal evaluated on this form is not eligible for listing in the CRHR under Criterion 1 and is not considered a historic resource for the purposes of CEQA.

Under Criterion 3, the Livingston Canal is not important for its design, engineering, or method of construction. This canal is a common type, constructed by common methods. The canal was originally formed by Fresno scraper, but has subsequently been re-graded into a trapezoidal shaped cross section. The canal has been partially concrete lined. Both were established design and construction techniques by the 1890s and there is no indication that the Livingston Canal is an important example of irrigation canal construction and maintenance. Therefore, the Livingston Canal is not eligible for listing in the CRHR under Criterion 3 and is not considered a historic resource for the purposes of CEQA.

A 1998 report by JRP Historical Consulting titled "Historic Resource Evaluation Report, Livingston Canal, Merced Irrigation District, Merced County, California" evaluated a different segment of the canal and found it ineligible for the NRHP and CRHP. The California Office of Historic Preservation concurred with this finding. See Attachment G for a copy of the form from that report.

⁴⁸ JRP, "Historic Evaluation Report, Livingston Canal," December 1998, 5-6.

Page 51 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Historic Photographs

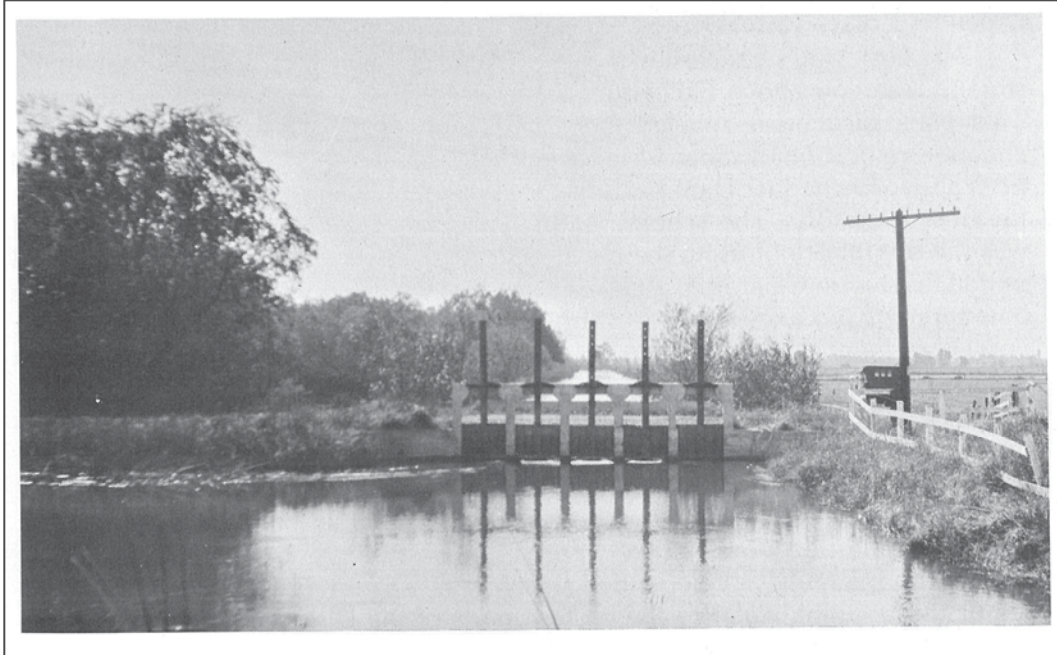


Figure 1. Canal Creek at headgate to Livingston Canal in 1920. (McSwain 29)



Figure 2. Crane cleaning weeds from an unknown canal in 1949. (McSwain 172)

Page 52 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

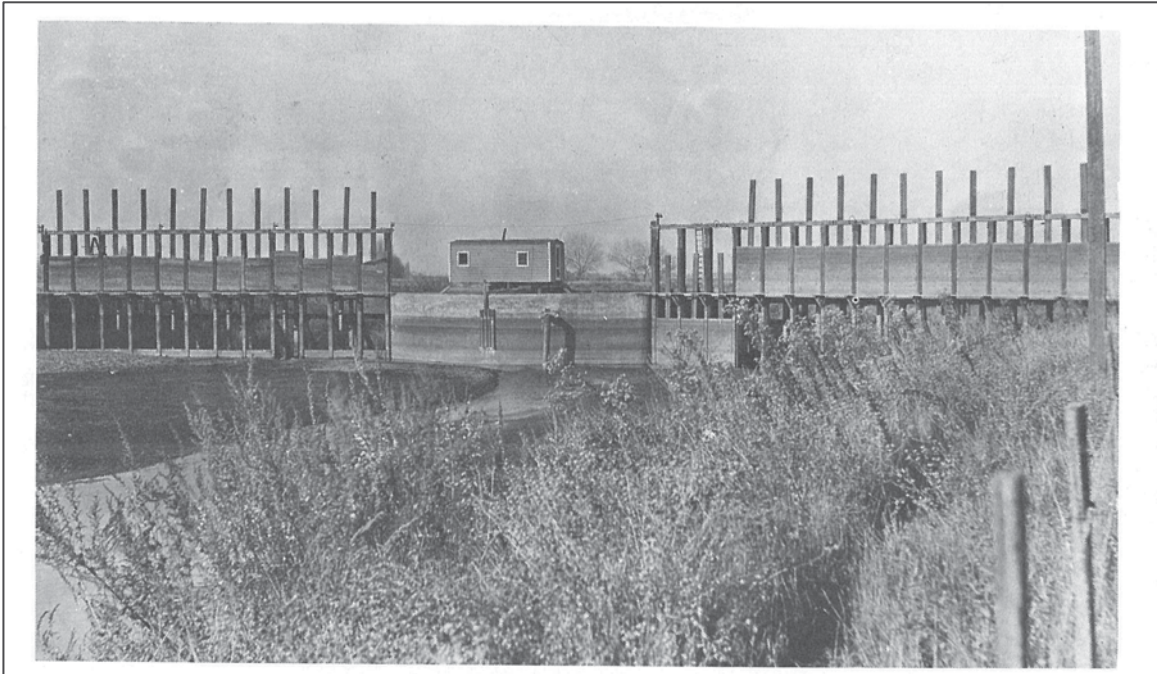


Figure 3. Upstream face of Crocker Dam across Bear Creek in 1913. (McSwain 6)



Figure 4. Bear Creek side of Crocker Dam as being rebuilt in 1940. (McSwain 145)

Page 53 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

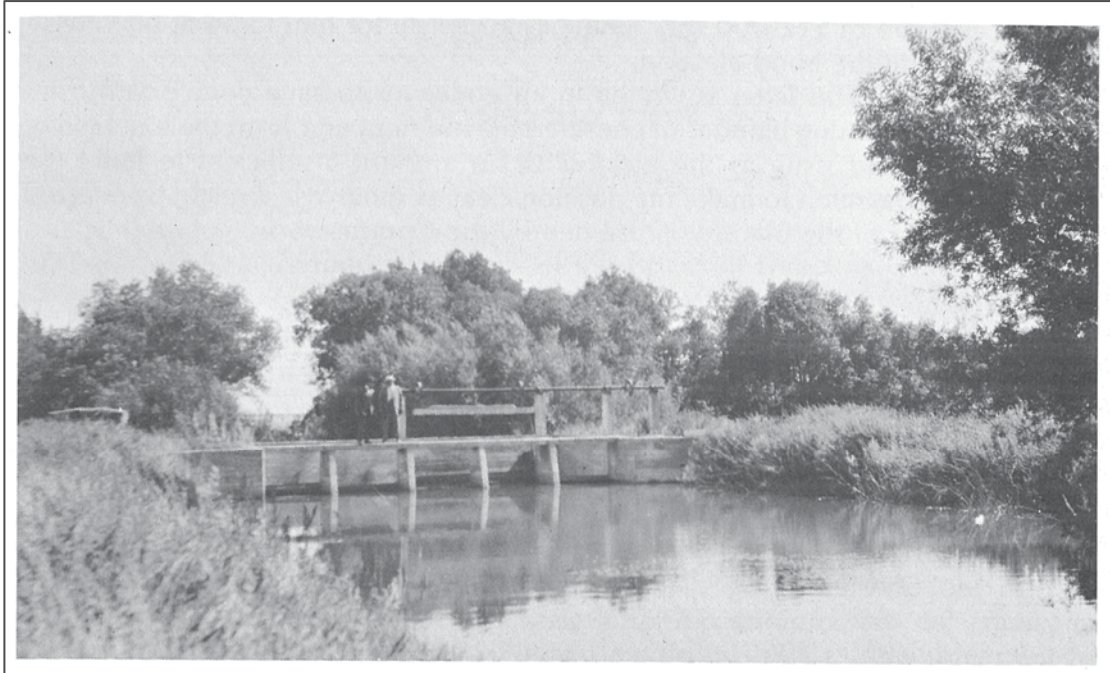


Figure 5. Spillway into Bear Creek from the Fairfield Canal in 1920. (McSwain 37)



Figure 6. Arena Canal being shaped for concrete lining in 1950. (McSwain 174)

Page 54 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Figure 7. Concrete lining of unknown canal in 1930. (McSwain 105)

Figure 8. Newly lined McSwain Lateral in 1930.(McSwain, 102).



Page 55 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Figure 9. Photo from 1920 showing water-logged land north of Atwater. (McSwain, 33)



Figure 10. Photo from 1920 showing drainage ditch near Atwater. (McSwain, 35)

Page 56 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Figure 11. Dragline in 1929 digging a drainage ditch. (McSwain 95)

Page 57 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Field Survey Photographs



Photograph 29. Canal Creek at Fox Road (point CC1), camera facing west. 12/12/06



Photograph 30. Canal Creek at Ladino Road (point CC8), camera facing north. 1/22/07.

Page 58 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 31. Control gates on Main Ashe Lateral at point MA2, camera facing south. 12/12/06.



Photograph 32. Main Ashe Lateral Flume over Canal Creek at point MA2, camera facing south. 12/12/06.

Page 59 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 33. Main Ashe Lateral showing slide gates at point MA3, camera facing southeast. 12/12/06.



Photograph 34. Main Ashe Lateral at SP Avenue showing the canal passing under the UPRR at point MA4, camera facing north. 12/12/06.

Page 60 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 35. Main Ashe Lateral at SP Avenue showing concrete culvert passing under SP Avenue at point MA4, camera facing southeast. 12/12/06.



Photograph 36. East Ashe Lateral near Trinidad Road showing concrete and metal control gates at point EA6, camera facing southeast. 12/12/06

Page 61 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 37. Meadowbrook Lateral siphon pipes at point MB1, camera facing east. 12/12/06.



Photograph 38. Black Rascal Creek at point BR1, camera facing east. 12/12/06.

Page 62 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 39. Henderson Lateral at point HN1, camera facing north. 12/12/06.



Photograph 40. Henderson Lateral at point HN1, camera facing southeast. 12/12/06.

Page 63 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 41. Pump, lower left, timber supports for access road, lower right, fenced basin in background, camera facing northeast, near Henderson Lateral, point HN1. 12/12/06.



Photograph 42. Pump and vertical pipe near Henderson Lateral point HN1, camera facing northeast. 12/12/06.

Page 64 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 43. Control Box at point HN2, camera facing northwest. 12/12/06.



Photograph 44. Pump at point HN2, camera facing northeast. 12/12/06.

Page 65 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 45. Buhach Lateral at point BH1, camera facing north. 12/12/06.



Photograph 46. Culvert under Elliot Avenue at point BH1, Buhach Lateral, camera facing northeast. 12/12/06.

Page 66 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 47. Drainage Ditch at point DR1, camera facing west. 12/12/06



Photograph 48. Former site of an open drainage ditch that has been piped and covered (west of point DR1), camera facing north. 12/12/06.

Page 67 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 49. Livingston Canal headgate (point LC1), Canal Creek in foreground camera facing west. 1/22/07.



Photograph 50. Lateral gates off of Livingston Canal (point LC1), camera facing northwest. 1/22/07.

Page 68 of 75

*Resource Name or # MR1

*Recorded by M. Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Photograph 51. Canal Creek passing at point CC9 passing under the SFBN railroad, camera facing northeast. 1/22/07.

Page 69 of 75

*Resource Name or # MR1

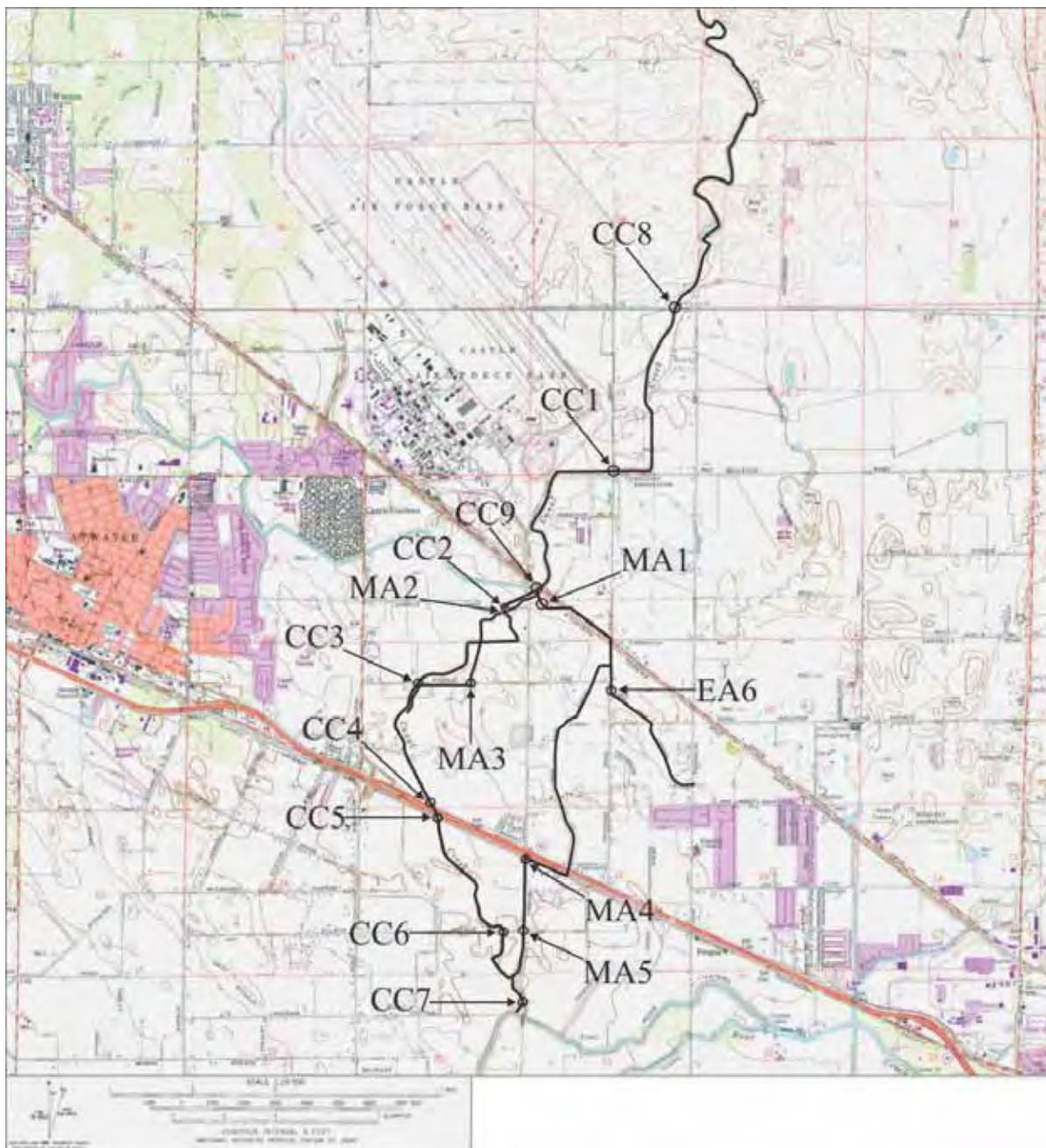
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

Map Name: Winton, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

*Date of Map: 1961 (1987)



Location Map 1. Map showing portion of Canal Creek, Main Ashe Lateral, and East Ashe Lateral.

Page 70 of 75

*Resource Name or # MR1

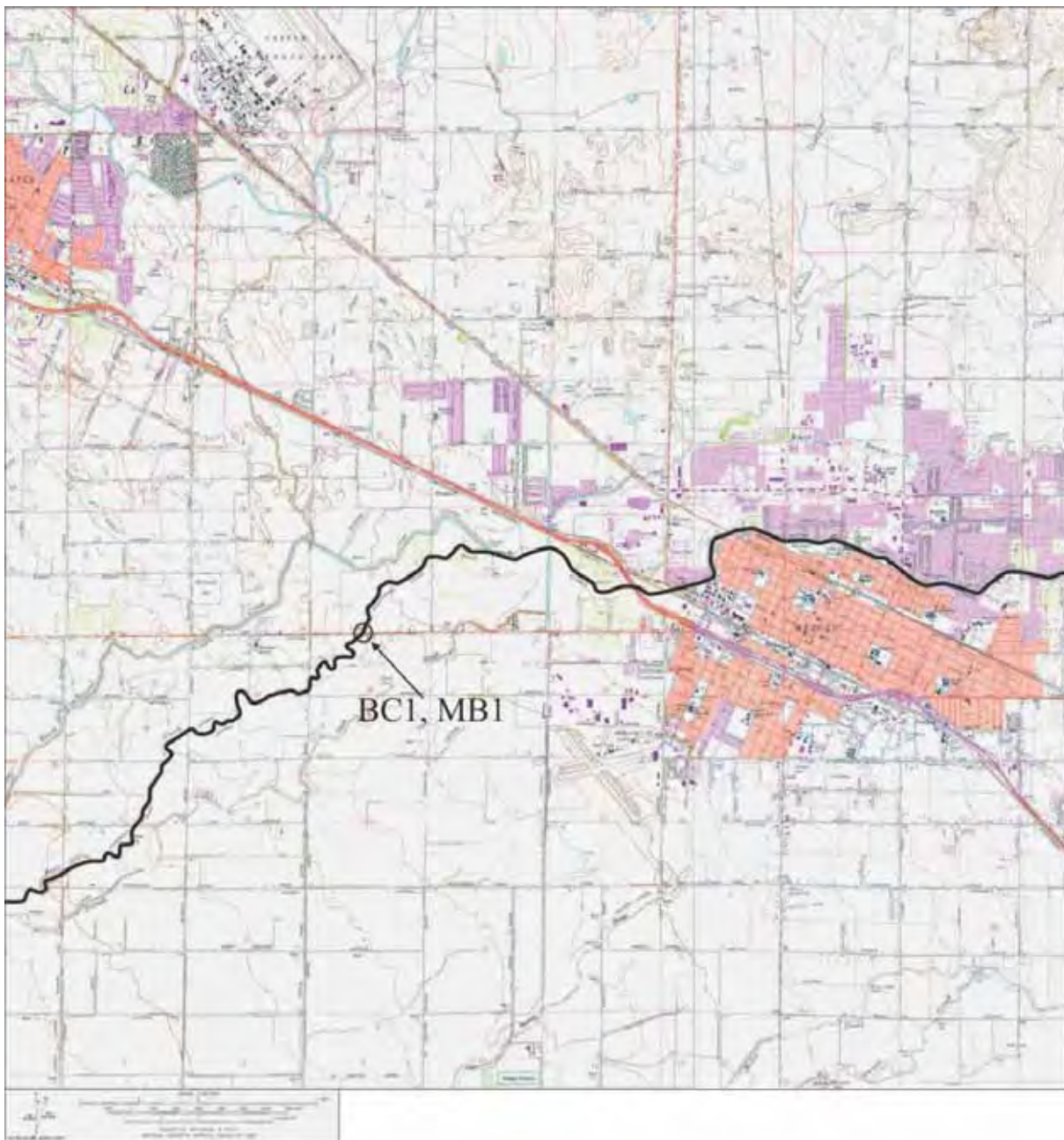
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Merced, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)



Location Map 2. Map showing portion of Bear Creek and Meadowbrook Lateral

Page 71 of 75

*Resource Name or # MR1

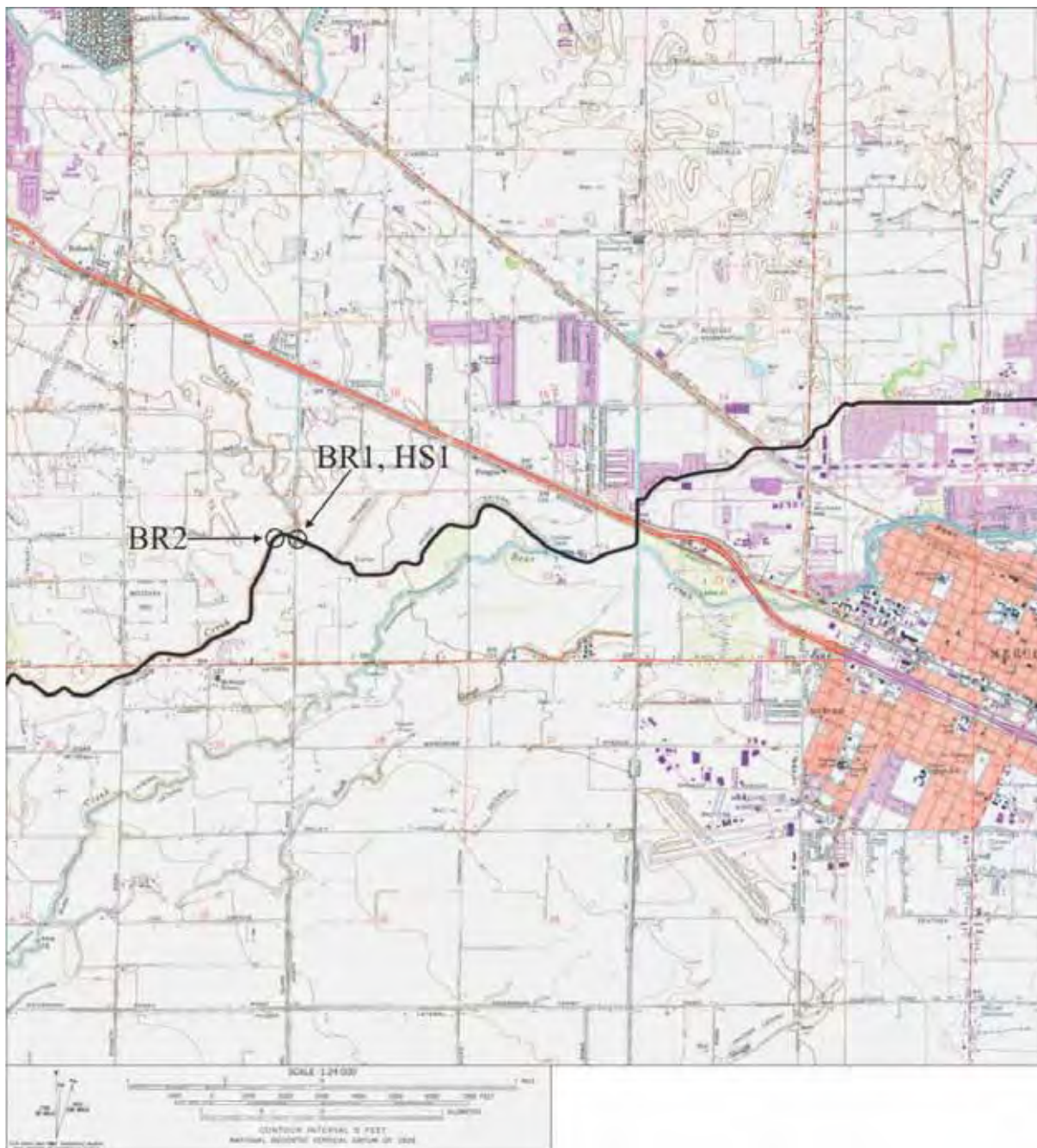
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Merced, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)



Location Map 3. Map Showing portion of Black Rascal Creek and Hess Lateral.

Page 72 of 75

*Resource Name or # MR1

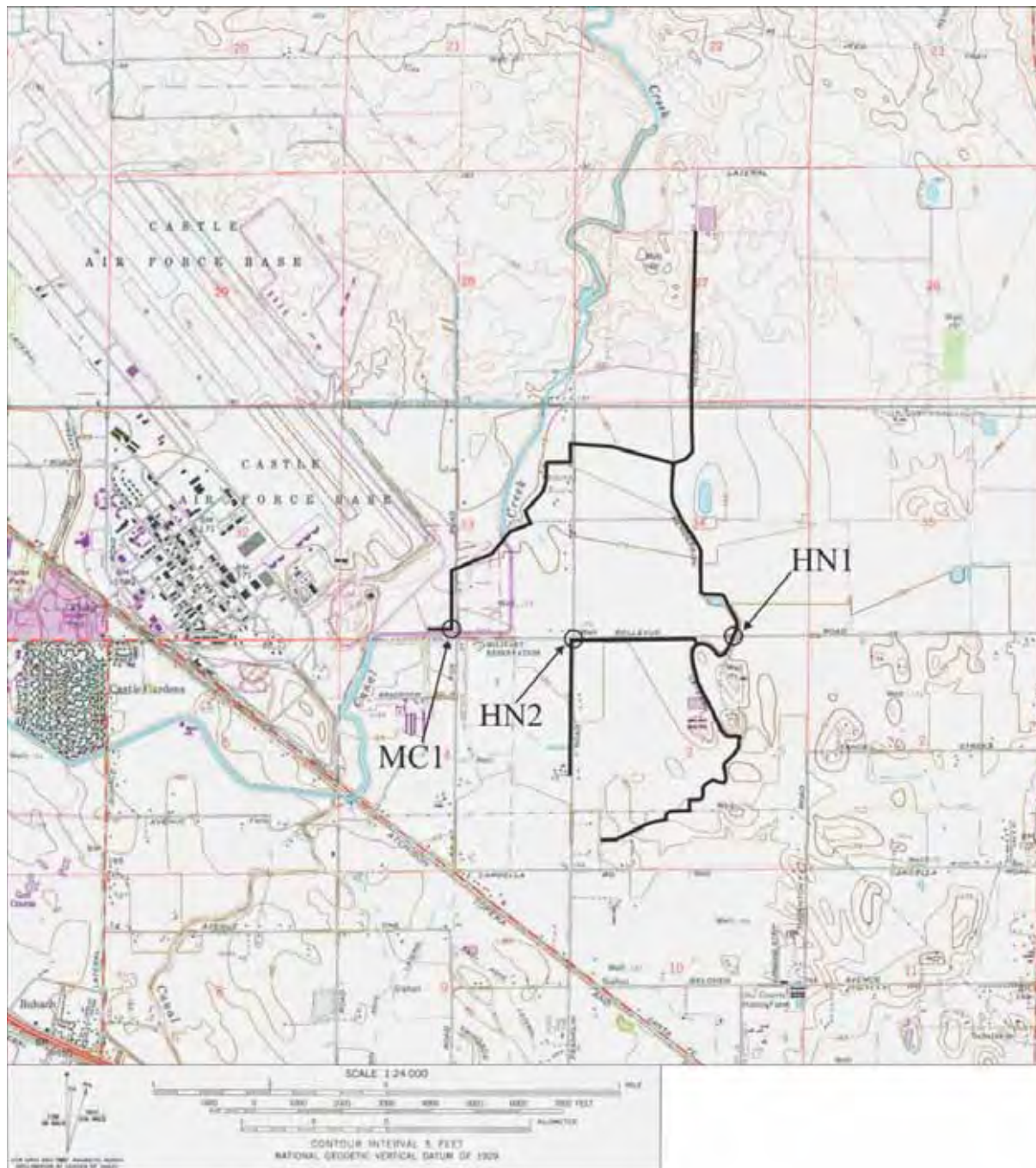
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Winton, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)



Location Map 4. Map showing portion of Henderson Lateral and Mason-Curtis Lateral.

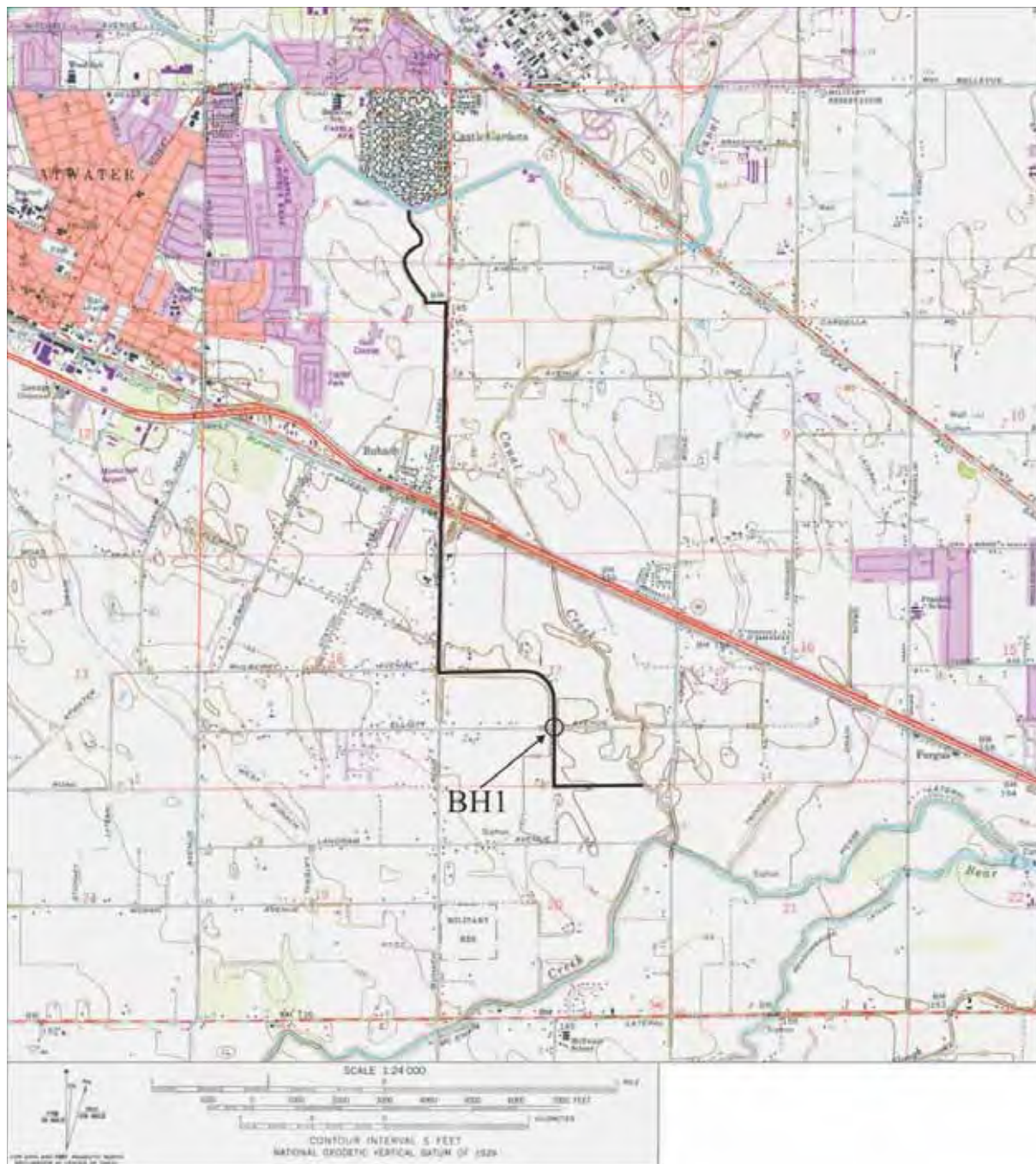
Page 73 of 75

*Resource Name or # MR1

*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)



Location Map 5. Map showing location of Buhach Lateral.

Page 74 of 75

*Resource Name or # MR1

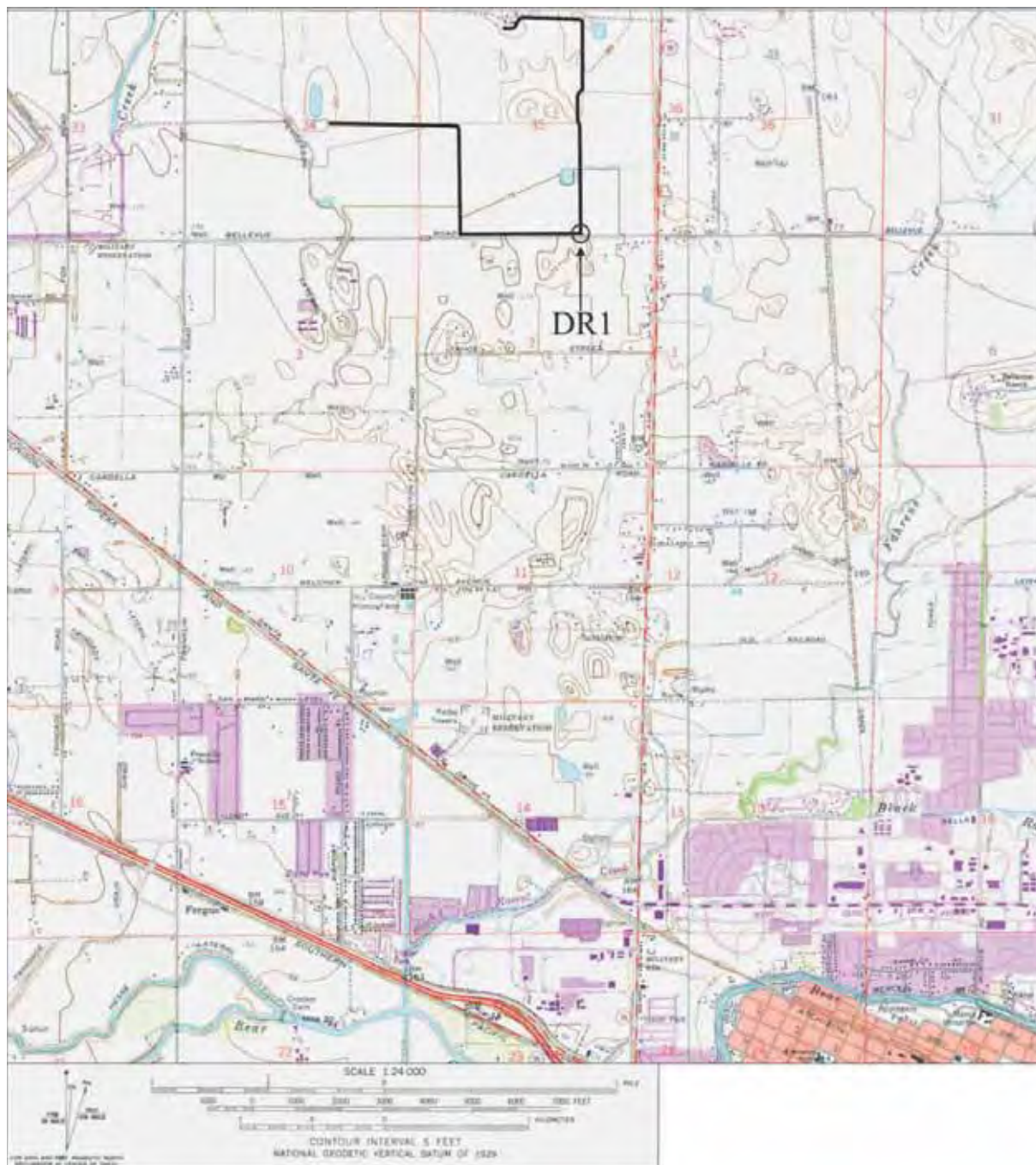
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Merced, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)

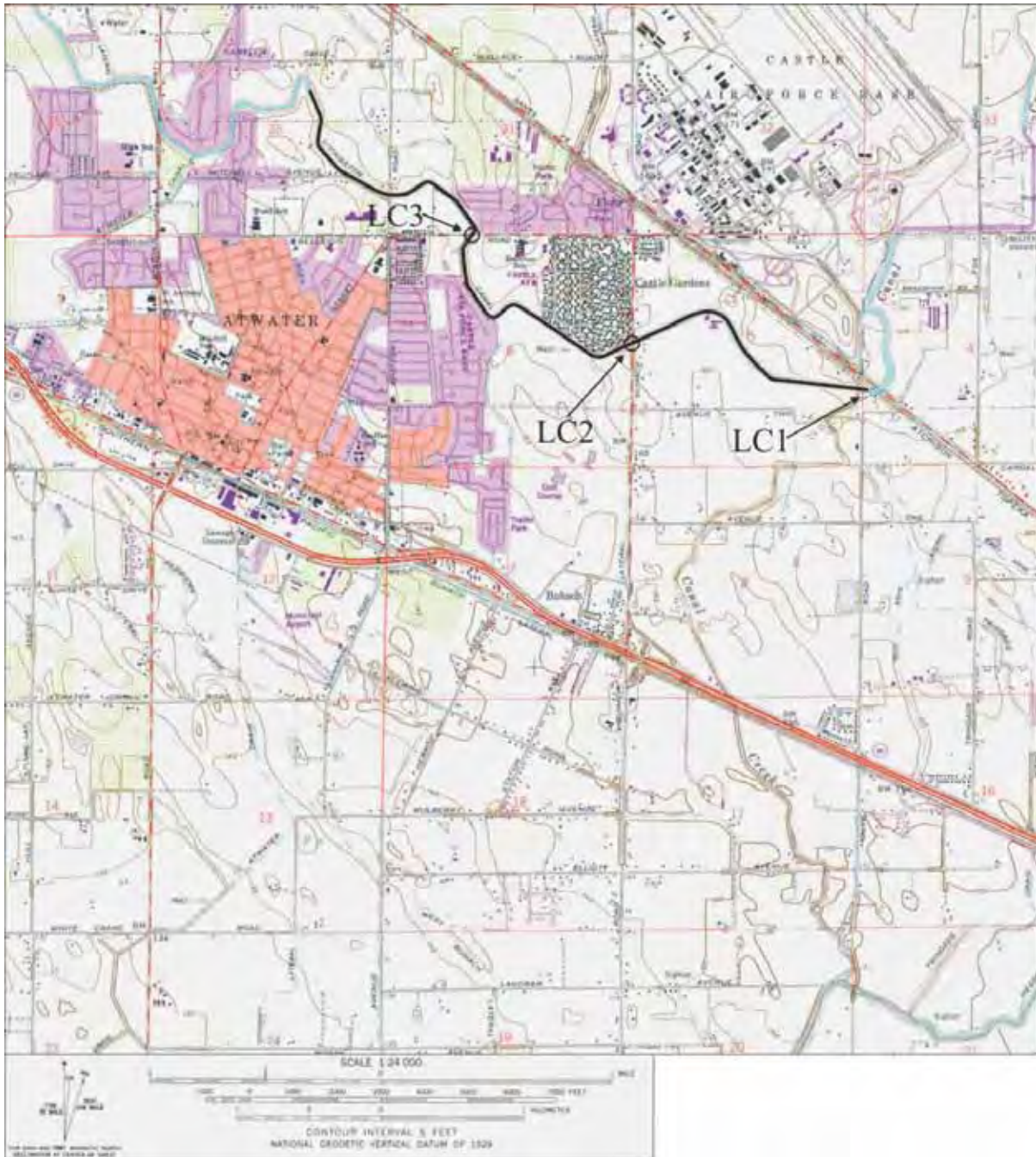


Location Map 6. Map showing location of the drainage ditch.

Page 75 of 75

*Resource Name or # MR1

*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update



Location Map 7. Map showing portion of the Livingston Canal.

SITE NAME: Highline Canal, Turlock Irrigation District, Merced County
SITE NUMBER: KT-2
QUAD SHEET: "Turlock Quadrangle," USGS: 1961, photorevised 1976
PIPELINE LOCATION: Milepost 183.1, Mainline

4/96

Description of Feature

603 H&S 201 12

Site KT-2 is located at the point where Turlock Irrigation District's Highline Canal crosses the proposed Mojave Pipeline project APE, approximately one mile southeast of the outskirts of Delhi. The site is across the railroad tracks and about 1000 feet to the southeast of the point where South Sycamore Street meets Highway 99 and the railroad. Access can be gained from 2nd Avenue South. This site, with its comparison points KT-2(n) and KT-2(s), is located in an agricultural area of Merced County. JRP recorded the two comparison sites to better place KT-2 in context and consider the Highline Canal's integrity.

The Highline Canal flows south from the TID Main Canal east of Hickman, and passes through an area of open fields and orchards to a junction with the SPRR and Freeway 99. It passes under the railroad and freeway in a siphon, emerging on the western side of the highway and railroad. The Highline Canal then generally follows a course roughly parallel with the Merced River until it terminates in a junction with Lateral 7. The Highline Canal is concrete lined, and varies from 41 to 46 feet in width. At site KT-2 it passes under the SPRR and freeway in a siphon (**Photograph 1**). To the northeast and southeast of KT-2 are large orchards, to the west and southwest open agricultural fields and a scattering of houses. KT-2(n) is located on El Capitan .3 miles east of its junction with Pepper Street, where the canal is crossed by a concrete county bridge (**Photograph 2**). KT-2(s) is located about 100 feet west of where Hinton Avenue crosses the canal, where Hinton Avenue passes over the canal on a small bridge (**Photograph 3**).

History of Feature

The Highline Canal is one of Turlock Irrigation District's principal water transfer facilities, and one of the last the district built. TID is one of the first Wright Act districts (along with Modesto Irrigation District). For a brief history of the district see Section 2.2 above. The district began building its system in 1893, when it constructed a diversion facility at La Grange on the Tuolumne River. Over the next years the district constructed its main canal and began work on its laterals. Internal dissention in the district caused main canal construction progress to move forward slowly. By April 1894, TID had underway planning and preliminary work on the district canal and irrigation system. Besides the main headworks at the dam and canals, flumes and tunnels to reach Hickman, where the main canal then terminated, laterals would have to be dug in what the district engineer described as "ground easily scraped." The main canal would run almost due south from Hickman for 18 miles, nearly to the Merced River, with laterals serving separate areas (Modesto Daily Evening News, April 7, 1894). Later that summer TID's directors accepted a bid from Doe, Hunt & Co. of San Francisco to complete the TID canal system, who began work in June 1894. However, by August, 1894 work stopped because the district had no money to pay their contractors (Stanislaus County Weekly News May 11,

1894; June 8, 1894; June 29, 1894; July 23, 1894).

For the next few years the district struggled to build its system, and by the end of 1898 TID had finished its main canal sufficiently far to send of water 23 miles from La Grange to Hickman (Modesto Daily Evening News November 12, 1898; Stanislaus County Weekly News November 18, 1898). TID began irrigation in the spring of 1900, and by 1904 had almost all of its main canals and laterals in place. (Stanislaus County Weekly News, March 16, 1900; Glauser, July 12, 1993). By 1905 TID's main canal "was about 25 miles long, the Turlock canal dividing into two main branches about 35 miles long and each system having seven laterals aggregating over 100 miles in length." (Elias, 1924: 63) The district built the Highline Canal between 1904 and 1912 to serve those areas of the district that were too high to be served from the lateral system as then constructed. (Glauser, July 12, 1993; Paterson 1985: 152)

During the 1920s and 1930s the district undertook a program of canal and lateral lining. Asphalt proved impractical, and eventually the district turned to concrete lining. In later years the canals and laterals have also been gunited. In July 1993 the district described changes to their canals and laterals:

Since the date of first construction of the canals the District has conducted routine maintenance and significant upgrades of its water delivery systems. Although the canals were originally constructed near the turn of the century they have been improved over the years with the addition of modern structures and surface lining to improve flow capacity, improve hydraulic control, and improve customer service. Alignments have been changed, cross sections have been increased, drop structures have been installed and improved, and the location of the original turnouts has been changed. The only remnant of the original canal is probably the name of the canal ... (Glauser, July 12, 1993)

Field inspection of the site, along with KT-2(s) and KT-2(n) indicates that the Highline Canal has been lined with concrete. When lined the canal was equipped with new concrete screw gate diversion structures, and many other control structures were modified or replaced. Concrete lining also changed the geometry of the historic dirt canal. Comparison of modern and historic maps indicates that the canal appears to be in its original location.

Evaluation of Feature

The Highline Canal is part of the original irrigation system of one of California's first Wright Act irrigation districts. It has played a significant role in the agricultural development of the area it serves, and is sufficiently old to be considered for the National Register on the basis of its age and local importance under Criterion A. Its period of significance, therefore, dates to the end of the district's period of its original construction, ca. 1912. At that time the canal was dirt lined and ran through an area of farms and orchards. Since that time, however, the lateral has lost integrity of construction, workmanship, materials, and feeling owing to the district's lining projects and the installation of modern control structures, bridges and culverts after the period of

P-21-000094

significance. Furthermore, irrigation canals are common features in the San Joaquin Valley, so the Highline Canal is not a unique example of a segment of an early irrigation district system and thus does not meet Criterion C. It is not eligible for the National Register.

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24 - 000094

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project

MILEPOST: 183.1, Mainline

LOCATION NO: KT-2

PHOTO DATE: June 2, 1993

1. **Name of Feature:** Highline Canal

2. **Location of recordation:** KT-2 is located 0.4 mile south of 2nd Avenue South and about one quarter mile east of South Sycamore Street, where Pinewood Street crosses the canal.

3. **Other locations for recording this feature:** KT-2(n) and KT-2(s)

4. **Structures at or near this location:** A concrete bridge carries Pinewood Street traffic over the canal. The Highline Canal passes under the railroad and Highway 99 in a siphon. A concrete inlet structure for the siphon is located at the head of the siphon just west of the bridge and 20' east of the railroad tracks. There is a remnant of a concrete structure to the west of the railroad tracks and approximately 35' east of Highway 99 that appears to be a fragment of previous outlet wall for the siphon. On the north bank of the canal is a sidegate.

5. **Setting at this location:** KT-2 is located in an agricultural area of Merced County approximately one mile northwest of the Merced River. On the southeast and northeast are commercial orchards. There is a group of widely dispersed houses to the west of the railroad and the highway.

6. **Integrity considerations for this feature:** Concrete canal lining and post-construction era siphons under the freeway have replaced the original dirt canal in this location.

7. **Attributes at this location (measurements in feet):**

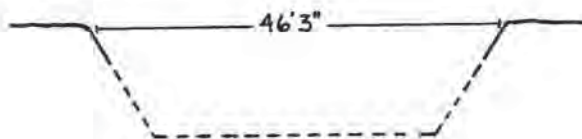
Top width: 46' 3"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking west



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000094

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project

MILEPOST: N/A

LOCATION NO: KT-2(n)

PHOTO DATE: June 2, 1993

1. Name of Feature: Highline Canal

2. Location of recordation: KT-2(n) is located 0.3 mile east of Pepper Street on El Capitan Way, where El Capitan Way crosses the canal, approximately one mile upstream from KT-2.

3. Other locations for recording this feature: KT-2 and KT-2(s)

4. Structures at or near this location: Related structures at this site include dirt access roads on the west and east sides of the canal. A low concrete bridge carries El Capitan Way over the canal.

5. Setting at this location: The area in which KT-2(n) is located is typified by farmsteads set in orchards and fields. To the southwest lie pastures, and to the west of that area farm land. To the northwest and to the southeast of this site are pastures, farms, and orchards. Immediately adjacent to the access road to the northeast is a house and open field. Farther east along El Capitan Way are open fields.

6. Integrity considerations for this feature: Concrete lining has replaced the original dirt canal.

7. Attributes at this location (measurements in feet):

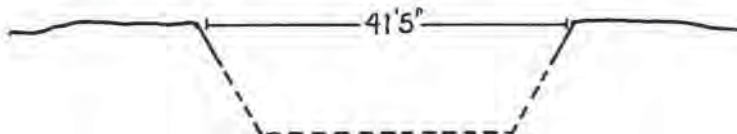
Top width: 41' 5"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. Sketch, in cross section: Looking south



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000094

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: KT-2(s)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Highline Canal

2. **Location of recordation:** This site is situated 100' west of Hinton Ave and 0.3 mile south of Bloss Avenue, about 1.5 miles downstream from KT-2.

3. **Other locations for recording this feature:** KT-2 and KT-2(n)

4. **Structures at or near this location:** Access roads abut both sides of the canal.

5. **Setting at this location:** This site is situated in an agricultural area of Merced County. To the southwest and adjacent to the dirt canal access road is a large farm complex. The entire area is set in orchards.

6. **Integrity considerations for this feature:** Concrete canal lining has replaced original dirt canal construction.

7. **Attributes at this location (measurements in feet):**

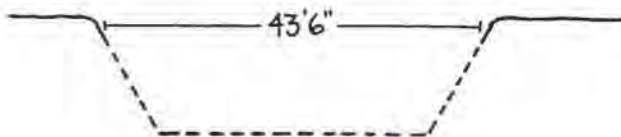
Top width: 43' 6"

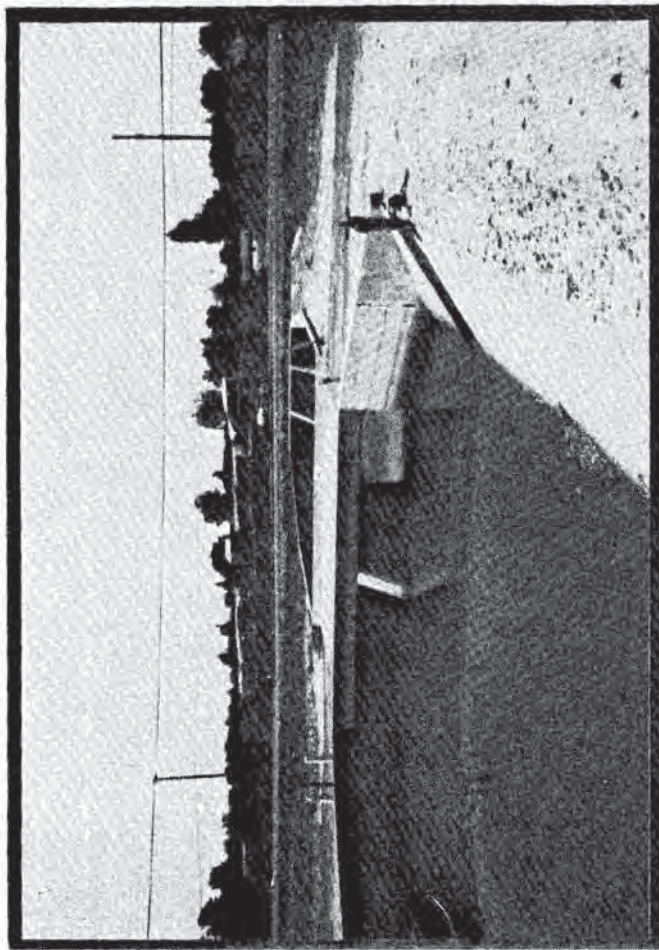
Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking east

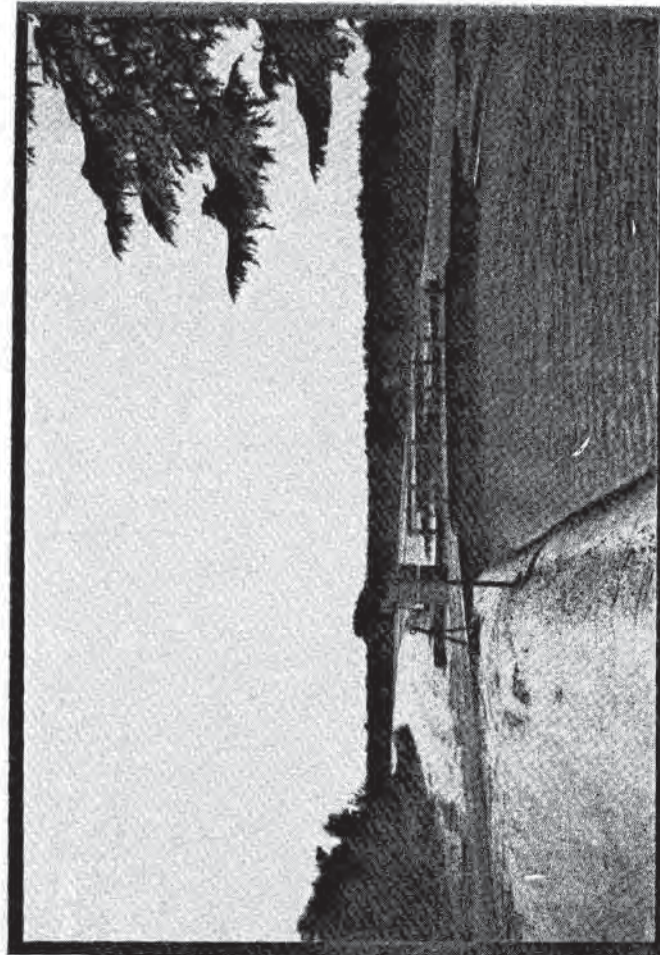
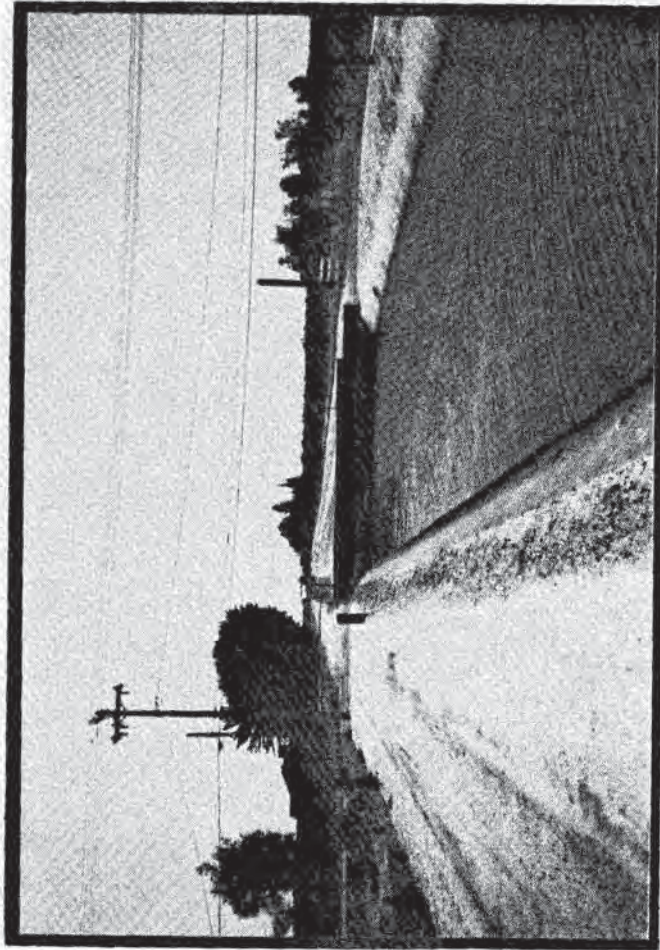




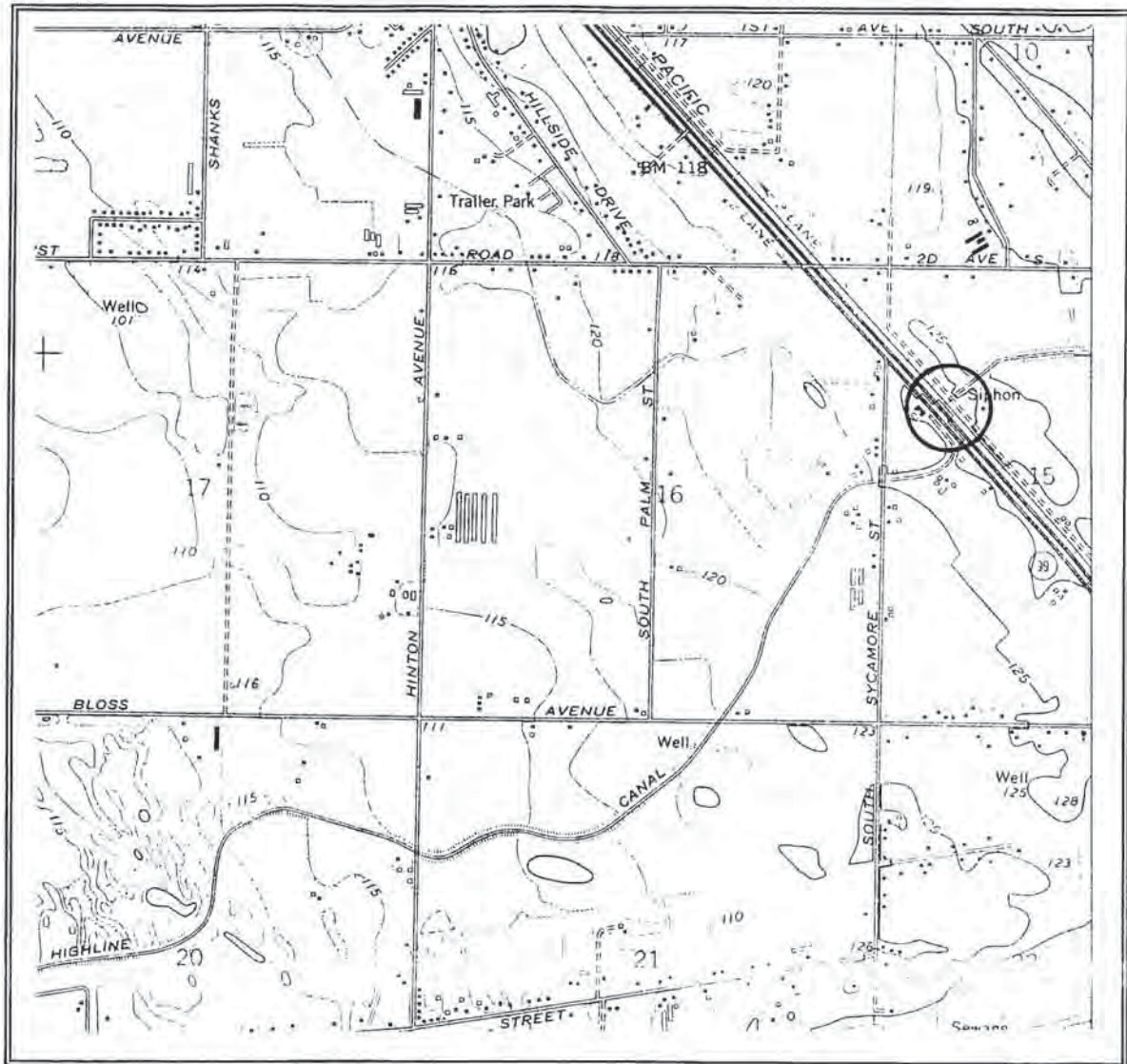
Photograph Number: 1
 Site Number: KT-2
 Common Name: Highline Canal
 Camera Facing: Southwest

Photograph Number: 2
 Site Number: KT-2(n)
 Common Name: Highline Canal
 Camera Facing: South

Photograph Number: 3
 Site Number: KT-2(s)
 Common Name: Highline Canal
 Camera Facing: East



P-24-000074



SITE NAME: Highline Canal, Turlock Irrigation District, Merced County

SITE NUMBER: KT-2

QUAD SHEET: "Turlock Quadrangle," USGS: 1961, photorevised 1976

PIPELINE LOCATION: Milepost 183.1, Mainline

FEATURE KT-2, REROUTE A-115
ADDENDUM TO HISTORIC FEATURE EVALUATION FORM

ALT #	A-115
ORIGINAL SITE #	KT-2
SEGMENT	Mainline
MILEPOSTS	183.1
QUAD NO., NAME	32, Turlock (1961/1976)

COMMENTS:

The original alignment at KT-2 was on the west? side of the railroad, where Highway 99 and the railroad crossed Turlock Irrigation District's Highline Canal. The proposed alignment runs 15' east of railroad right of way. JRP recorded KT-2 at the original location west of the proposed realignment. Field crews also took photographs upstream and downstream from the site. Evaluation of site photographs indicates that the area immediately to the east of KT-2 is similar in condition and construction to original KT-2 and thus needs no further field work nor evaluation. (see Site Form KT-2 in main body of Class III Report)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Update

Primary #: 24-000093
HRI # _____
Trinomial _____
NRHP Status Code: 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 4

*Resource Name or #: Arena Canal
Map Reference No.: 9

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*b. USGS 7.5' Quad Cressey Date 1961 (rev. '87) T 6S; R 12E; Sections 29, 30, 31, and 32.
Arena 1960 (rev. '87)

c. Address N/A City N/A Zip N/A

*d. UTM: westerly point: 704630 mE/ 4138820 mN (Cressey Quad)
easterly point: 705760 mE/ 4138750 mN (Arena Quad)

*e. Other Locational Data:

A short segment of the Arena Canal is within the area covered by this survey. Its westernmost point is where the canal passes under Highway 99, north of Peach Avenue and west of Sultana Drive (Cressey Quad). It then runs parallel to Highway 99 in a southeasterly direction to Sultana Drive. Turning due east, the canal crosses under Sultana Drive and continues parallel to Liberty Road on its south side to Arena Way (Arena Quad).

*P3a. Description:

See Continuation Sheet, page 3.

*P3b. Resource Attributes: HP20 — Canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other



Arena Canal at Sultana Drive

P5b. Description of Photo:
View west
October 2000

*P6. Date Constructed/Age
and Sources: ☒ Historic
ca. 1920

*P7. Owner and Address:
Merced Irrigation District
720 W. 20th Street
Merced, CA 95344

*P8. Recorded by:
Andrew Hope, Caltrans
1120 N Street
Sacramento, CA 95814
(916) 654-5611

*P9. Date Recorded: Oct. 2000

*P10. Type of Survey:
Intensive

*P11. Report Citation: *Historic Architecture Survey Report for the Highway 99 - Livingston Freeway project (reevaluation) in Merced County. EA #316960. Andrew Hope, Caltrans. November 2000.*

*Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record
☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 4

*NRHP Status Code: 6Z

*Resource Name or #: Arena Canal

Map Reference No.: 9

- B1. Historic Name: Arena Canal
B2. Common Name: Arena Canal
B3. Original Use: Irrigation canal
*B5. Architectural Style: N/A
*B6. Construction History:

B4. Present Use: Irrigation canal

The Arena Canal was probably constructed about 1920, contemporary with the organization of the Merced Irrigation District. The original earthen canal was later lined with concrete, resulting in its present appearance. This alteration was probably made in the 1940s.

- *B7. Moved? ☐ No ☒ Yes ☐ Unknown Date: ca. 1949

Original Location: a small portion of the canal was relocated, and the culvert under Highway 99 lengthened, for the widening of Highway 99.

- *B8. Related Features: none

B9a. Architect: N/A

b. Builder: unknown

*B10. Significance: Theme: N/A

Area: N/A

Period of Significance: N/A

Property Type: N/A

Applicable Criteria: N/A

The Arena Canal was evaluated in 1993 by JRP Historical Consulting Services as part of Section 106 compliance for the Majave Natural Gas Pipeline project, and was determined to be ineligible for National Register listing.

The Arena Canal is part of an extensive irrigation system which has its origins in the Farmers Canal Company, which built the Livingston Canal in the 1870s. The system was expanded with the construction of secondary canals and laterals over the next several decades, as settlement created an increased demand. See Continuation Sheet, page 3.

B11. Additional Resource Attributes: N/A

*B12. References:

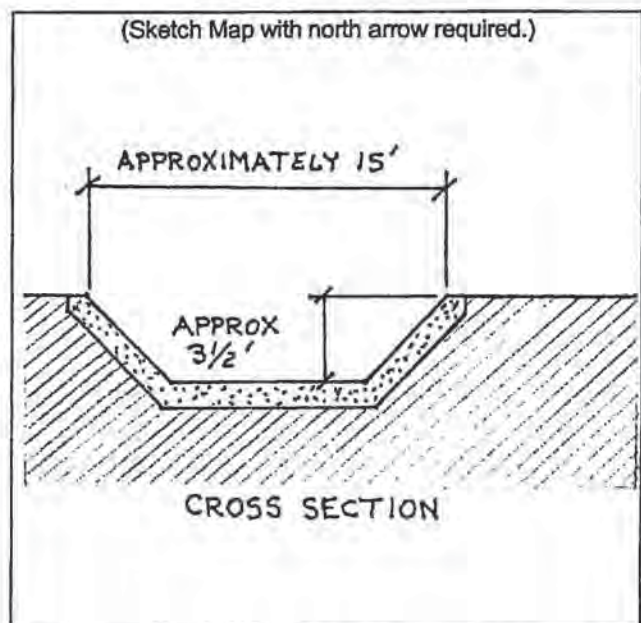
As-built plans for highway widening, 1948
JRP Historical Consulting Services. Evaluation of the Arena Canal, 1993.
USGS "Arena" Quad, 1918, 1948, 1954, 1960, and 1960 (revised 1987)
USGS "Cressey" Quad, 1916, 1948, 1953, 1961, and 1961 (revised 1987)

B13. Remarks: N/A

B14. Evaluator: Andrew Hope, Caltrans
1120 N Street
Sacramento, CA 95814
(916) 654-5611

Date of Evaluation: November 2000

(This space reserved for official comments.)



***P3a. Description (continued from page 1):**

The Arena Canal is a concrete-lined secondary canal, fed by the larger Livingston Canal, which is part of a network of secondary canals and laterals that provide water for irrigation to farms in the vicinity of Livingston. The Arena and Livingston canals are part of a much larger irrigation system managed by the Merced Irrigation District.

The Arena Canal begins at the Livingston Canal just south of Eucalyptus Avenue and about 1/4-mile east of Cressey Way. It extends south along the west side of Cressey Way to Liberty Road, then west parallel to Liberty Road and Peach Avenue. A culvert takes the canal under Highway 99 and the Union Pacific Railroad, just west of Sultana Drive. At the south end of the City of Livingston, the canal leaves its course parallel to Peach Avenue and follows an irregular course, ending at the intersection of several smaller laterals just north of Longview Avenue and east of Robin Avenue, about 1-1/2 miles south of Livingston. The total length of the canal is approximately 8-1/2 miles.

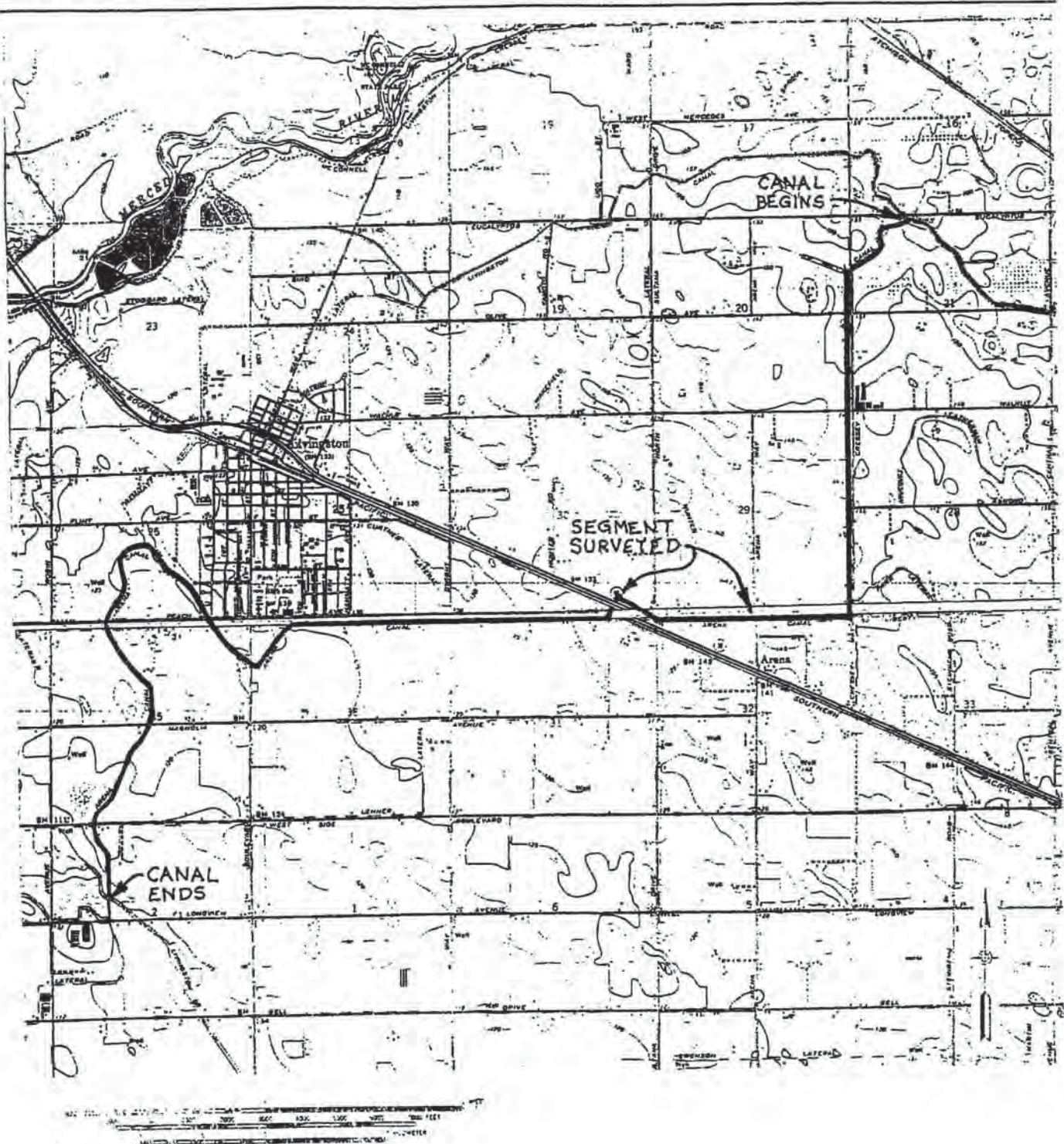
The area surveyed for the Livingston Freeway project includes only a short segment of the canal (about 3200 feet), from the culvert which crosses under Highway 99 to Arena Way. This segment is representative of the entire canal. The canal at this location is trapezoidal in shape, approximately 15 feet wide at the top and 3-1/2 feet deep, with sloping side walls (see sketch map, page 2). Alongside the canal is an unpaved driveway providing access for maintenance vehicles.

***B10. Significance (continued from page 2):**

for water for irrigation. The facilities of the Farmers Canal Company were acquired by the Crocker-Huffman Land and Water Company in the 1880s, and were in turn incorporated into the Merced Irrigation District in 1920. The Arena Canal probably dates to the first improvements of the Merced Irrigation District or slightly earlier, corresponding to the period in which small farms were established in the area. A canal appears on the 1910 plat map of the Hunter Colony, but does not correspond exactly to the location of the Arena Canal. It is likely that the canal shown on this map was prospective, and that the canal was built only when economically justified by increasing settlement.

The original, earthen canal was later lined with concrete, probably in the 1940s, a period in which the Merced Irrigation District was converting its canals to concrete-lined structures and making other improvements in its system. The Arena Canal in its present state does not represent its original appearance during the settlement period of this area in rural Merced County, because the alterations made in the 1940s have resulted in a loss of integrity of design, materials, workmanship, and feeling. This lack of integrity appears to render the canal ineligible for National Register listing when considered in the context of a ca. 1920 period of significance.

Considering a later period of significance, in the context of irrigation canals of the 1940s, the Arena Canal does not appear to be historically significant. In that context, it lacks association with important developments in the area's agricultural history, and is a typical example of a common rural facility. The canal is not significant as a work of civil engineering, and is not associated with significant persons in local history. This property therefore appears to be ineligible for listing on the National Register of Historic Places, and is not considered an historical resource for purposes of CEQA.



4/96

SITE NAME: Arena Canal, Merced Irrigation District, Merced County
SITE NUMBER: LG-21
QUAD SHEET: "Arena Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 178.0, Mainline

Description of Feature

Site LG-21 represents the point at which the APE for the proposed Mojave Pipelines Northward Expansion will cross the Arena Canal, a concrete-lined conduit operated by the Merced Irrigation District. The Arena Canal is a secondary canal, fed by the Livingston Canal, delivering irrigation water to land in the vicinity of Arena, a small community northwest of Atwater, Merced County. Within the APE, the Arena Canal is a modern trapezoidal concrete-lined canal, measuring about 22' at the crest. It is carried in siphon under Highway 99 and the railroad tracks, surfacing about 15' west of the tracks. At this point, the canal proceeds in a straight line to the northwest. The setting within the APE is dominated by Highway 99 and the railroad tracks, with orchard and pasture land to the west. **Photograph 1** shows the canal within the APE.

To provide a comparative context, JRP recorded the canal's physical attributes within the APE and at points north and south of it. Within the APE, the canal measures about 22' at the crest. One comparative record was made about 1/2 mile downstream, as shown in **Photograph 2**. The canal is about 22' wide at this point, nearly identical to that found within the APE. A second measurement was made about 1/2 mile upstream, where the creek is 17' wide. It is shown in **Photograph 3**.

History of Feature

The Arena Canal appears to date to the 1940s in its current concrete-lined configuration, although the canal alignment may date to the early years of the Merced Irrigation District. For a more detailed discussion of the history of the Merced Irrigation District, see Section 2.2. The Merced Irrigation District was organized in late 1919. Like most California irrigation districts, it brought together various privately-built canals and reservoirs, expanding upon these to serve a growing rural population. Private water suppliers served about 40,000 acres in 1919; by 1929, the irrigation district had extended service to more than 180,000 acres (Adams, 1929:191).

An exact date was not established for the Arena Canal. Neither is it possible to establish with precision the date at which the canal was lined in concrete. In 1929, less than one percent of the total length of canals had been lined (Adams, 1929: 195). The work appears to be of relatively recent construction, probably dating at least to the 1930s. Other concrete work within the district dates to the 1940s, indicating a likely date range for this work as well.

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000093

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 178.0, Mainline

LOCATION NO: LG-21
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Arena Canal

2. **Location of recordation:** Where the Southern Pacific railroad tracks intersects the canal, roughly 25' north of where Peach Avenue intersects Sheesley Road.

3. **Other locations for recording this feature:** LG-21(n) and LG-21(s)

4. **Structures at or near this location:** The canal passes under Highway 99 (east of the APE) and the railroad tracks and emerges in the APE in a concrete box culvert.

5. **Setting at this location:** The area south of the APE is dominated by commercial agriculture. North of the APE is Highway 99.

6. **Integrity considerations for this feature:** The original earthen canal has been lined with concrete.

7. **Attributes at this location (measurements in feet):**

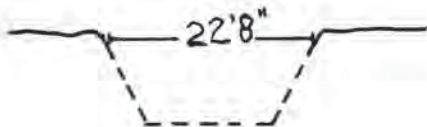
Top width: 22' 8"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking west



P-24-000093

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: LG-21(n)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Arena Canal
2. **Location of recordation:** Just west of the intersection of Almond Avenue and Cressey Way.
3. **Other locations for recording this feature:** LG-21 and LG-21(s)
4. **Structures at or near this location:** Cressey Way parallels the canal to the east.
5. **Setting at this location:** Commercial orchards surround this recordation site.
6. **Integrity considerations for this feature:** The original earthen canal has been lined with concrete.
7. **Attributes at this location (measurements in feet):**

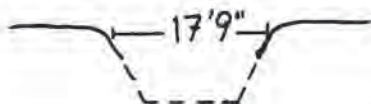
Top width: 17' 9"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking south



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000093

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: LG-21(s)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Arena Canal
2. **Location of recordation:** Where Lincoln Boulevard crosses the canal, about 0.3 mile north of Magnolia Avenue.
3. **Other locations for recording this feature:** LG-21 and LG-21(n)
4. **Structures at or near this location:** A concrete box culvert conveys the canal under Lincoln Boulevard. Dirt access roads parallel the canal south of Lincoln Boulevard.
5. **Setting at this location:** This recordation point is surrounded by agricultural, commercial, and residential projects.
6. **Integrity considerations for this feature:** The original earthen canal has been lined with concrete.
7. **Attributes at this location (measurements in feet):**

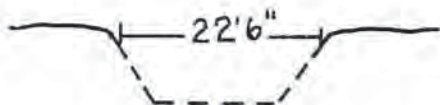
Top width: 22' 6"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking south





1

Photograph Number: 1
 Site Number: LG-21
 Common Name: Arena Canal
 Camera Facing: Northwest

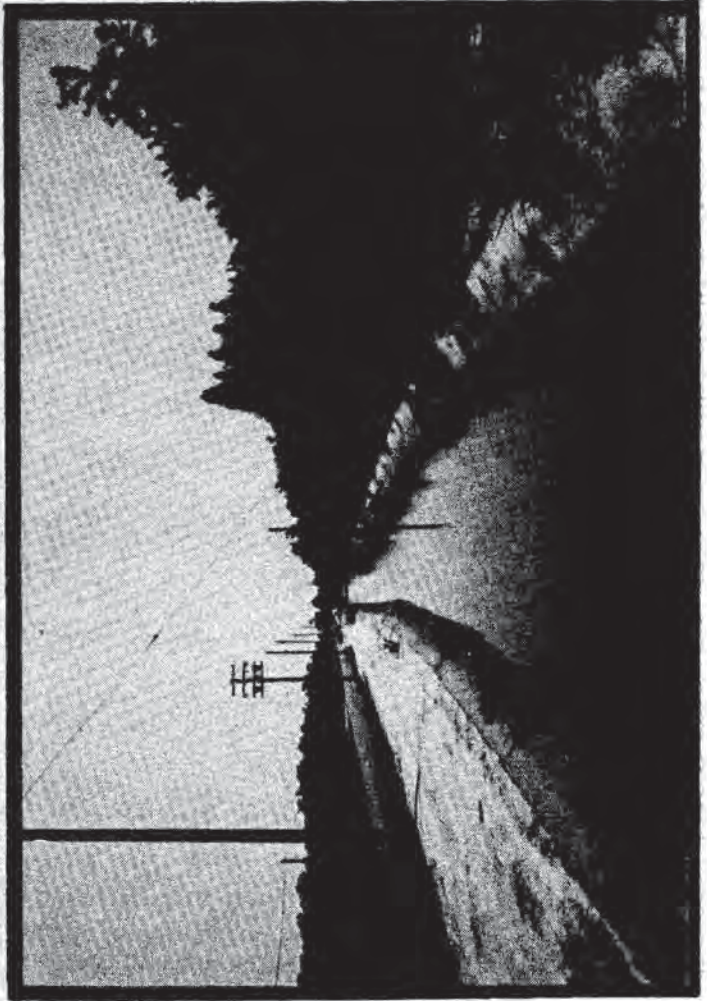
Photograph Number: 2
 Site Number: LG-21(n)
 Common Name: Arena Canal
 Camera Facing: South

Photograph Number: 3
 Site Number: LG-21(s)
 Common Name: Arena Canal
 Camera Facing: Northwest

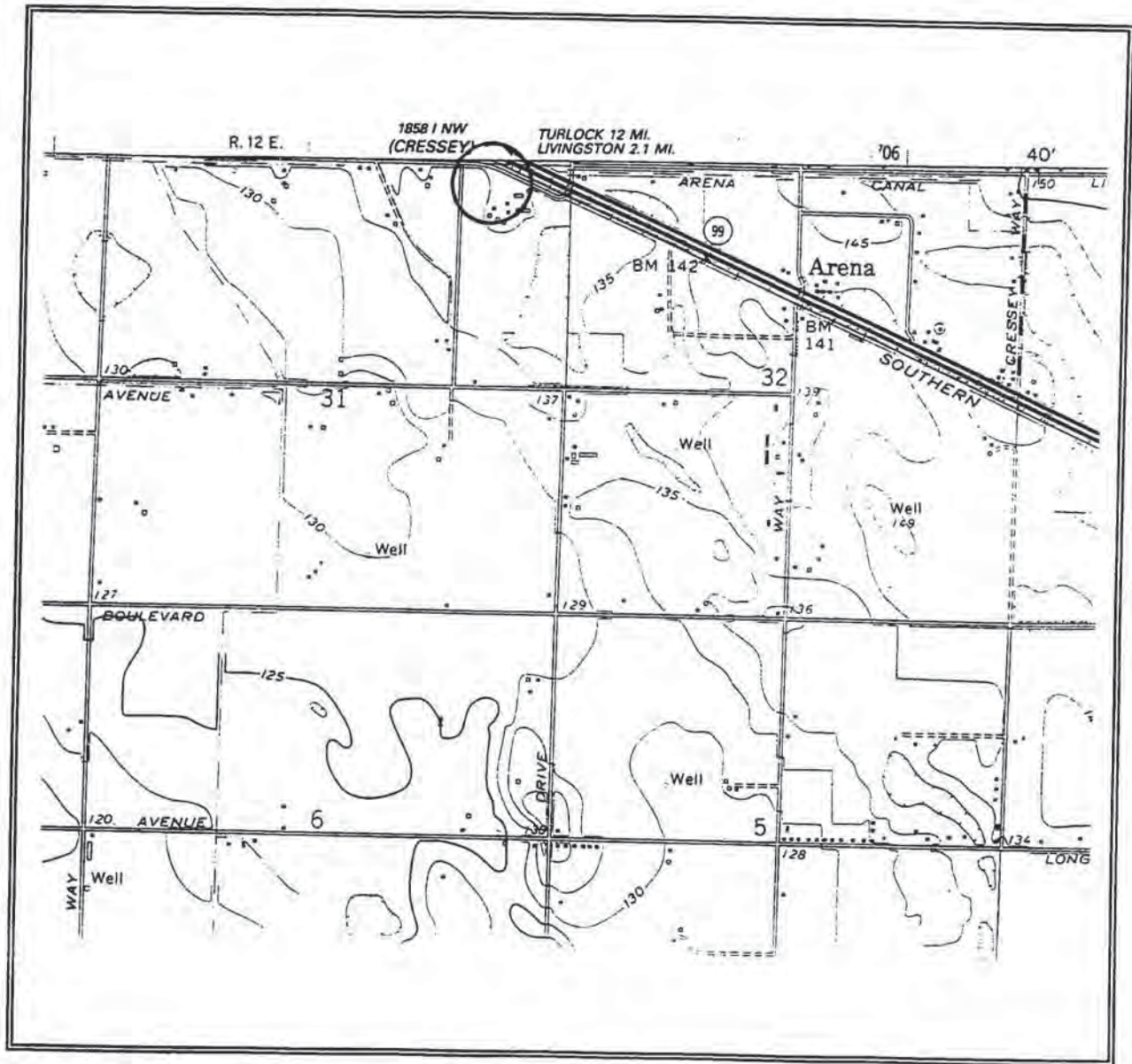
3



2



P.24-000093



SITE NAME: Arena Canal, Merced Irrigation District, Merced County
SITE NUMBER: LG-21
QUAD SHEET: "Arena Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 178.0, Mainline

Evaluation of Feature

Site LG-21, the Arena Canal, does not appear to be eligible for listing in the National Register of Historic Places. This canal is not associated with the pioneer settlement period of the Merced County or the Merced Irrigation District. In its current appearance and function, the canal is effectively a product of recent decades, probably dating to the 1930s or 1940s. The canal does not retain integrity of design, materials, workmanship, feeling or association to the settlement period of the county and does not appear to be significant in the more limited context of recent agricultural or engineering developments in the San Joaquin Valley. For these reasons, it does not appear to meet the National Register eligibility criteria.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P24-000092

HRI # _____

Trinomial _____

NRHP Status Code _____

Other Listings _____

Review Code _____

Reviewer _____

Date _____

10-MER-140 PM EA 0A5801 Map Ref. #3

P1. Resource Name(s) or Number: Atwater Canal

*P2. Location: *a. County: Merced

*b. USGS 7.5' Quads Atwater and Arena, T5S R14E; T5S R13E; T6S R13E; T7S R13E; T6S R12E; T7S R12E

c. Address: N/A

d. Assessor's Parcel Number: N/A

*P3a. Description: The Atwater Canal is a conduit owned and operated by the Merced Irrigation District, near the community of Atwater, Merced County. The Atwater Canal is concrete lined at its origin, where it draws water from the Livingston Canal north of Atwater. The Atwater Canal passes through the town of Atwater and irrigates land southwest of the town. The depth of the canal from the top of the bank to the bottom centerline of the canal varies throughout its length, as does the width of the canal, measured from outside toe-to-toe on top of the banks. Where Bert Crane Road passes over the Atwater Canal it is an unlined earthen ditch about 20 feet wide and 10 feet deep. The bridge where Business 99 (Atwater Boulevard) crosses over the Atwater Canal is date-stamped 1929. Several control elements along the canal are date-stamped 1945, which is a plausible date for the general improvements to the canal.

*P3b. Resource Attributes: ~~N/A~~ HP20; canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5b Photo date: 12/17/00



*P6. Date Constructed/Age and Sources: 1879, per Outcalt (1925); McSwain (1978);

*P7. Owner and Address: Merced Irrigation District
720 W. 20th Street
Merced, Ca 95344-0288

*P8. Recorded by: Gene Heck
Caltrans District 6
3402 N. Blackstone, #201
Fresno, CA 93726-5306

*P9. Date Recorded: 12/18/00

*P10. Survey Type: Intensive

*P11. Report Citation:

Historic Architectural Survey Report and Historic Resource Evaluation Report for Rehabilitation, State Route 165 Merced County, 10-Mer-165, PM 26.9-30.0, EA 381500, by Eugene Heck, December, 2000

*Attachments: ☒ Building, Structure and Object Report; ☒ Photo Sheet

DPR 523A (1/95)

*Required information

BUILDING, STRUCTURE, AND OBJECT RECORD

10-Mer-140; PM 27.0/32,2 ; EA 10-0A5801

Map Reference Numbers: 3

*NRHP Status Code: 6Y

*Resource Identifier: Atwater Canal

B1. Historic Names: Colony Branch

B3. Original Use: Irrigation

B4. Present Use: Irrigation

*B5. Architectural Style: N/A

*B6. Construction History: The upper reaches of the main Atwater canal were probably completed by the Farmers Canal Company c. 1879.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: Headgates; Bridges; Culverts; Check dams; Laterals; Concrete headwalls and concrete siphons; Corrugated Metals Pipes; Recording Stations.

B9a. Architect: N/A

B9b. Builder: Not known.

*B10. Significance: Theme N/A

Area N/A

Period of Significance N/A Property Type N/A

Applicable Criteria N/A

The Caltrans/JRP document *Water Conveyance Systems in California: An Historic Context and Evaluation Procedure*, provided the framework for evaluating the historical and architectural significance of the Atwater Canal. The property does not appear to be associated with important events significant in the history of the region, and therefore does not appear to meet Criterion A. The property is not associated with important aspects of the lives of significant persons in the area, and therefore does not meet Criterion B. The canal and related features have been altered over the years. The canal and related features do not embody the distinctive characteristics of a type, period or method of construction. They do not represent the work of a master. Consequently, they do not appear to be eligible under criterion C. In summary, the Atwater Canal does not appear to meet any of the criteria for listing in the NRHP. Furthermore, this resource has been 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. It appears that this property does not meet the significance criteria as outlined in these guidelines.

B11. Additional Resource Attributes: N/A

*B12. References: Carl Ewald Grunsky, *Irrigation Near Merced, California* (United States Geological Survey. Water-Supply Paper No. 19. Washington: Government Printing Office, 1899.) Keneth R. McSwain, *History of the Merced Irrigation District* (Merced, CA: Merced Irrigation District, 1978); John Outcalt, *History of Merced County, California* (Los Angeles, CA. Historic Record Company, 1925); 1915 and 1961 Arena USGS 7.5 quad; 1915 and 1961 Atwater USGS 7.5 quad; Merced Irrigation District, Records.

B13. Remarks: N/A

*B14. Evaluator: Gene Heck

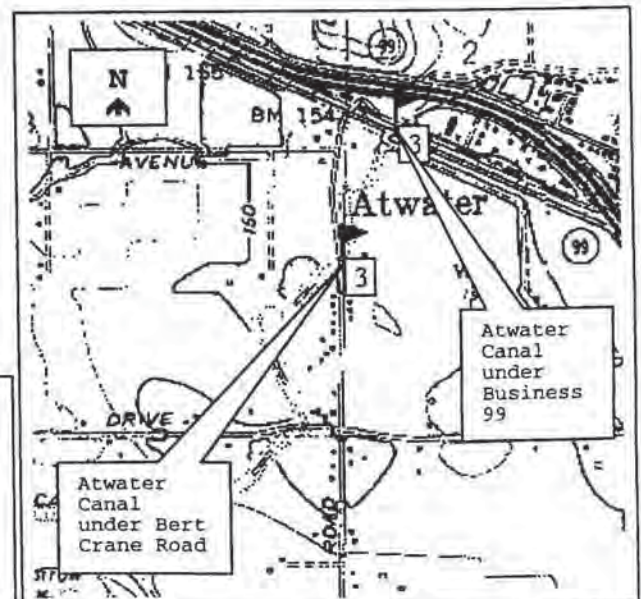
Caltrans District 6

3402 North Blackstone Ave, Suite 201

Fresno, CA 93726

*Date of Evaluation: December 18, 2000

(This space reserved for official comments.)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-24-000092
HRI# _____
Trinomial _____

Page 2 of 2

*Resource Name: Atwater Canal

*Recorded by: Gene Heck

*Date: 12/18/00

☒ Continuation

☐ Update

B6. Construction History (continued):

William G. Collier, a rancher and trained surveyor, was the first to see the potential for irrigating Merced County on a large scale. In 1870, he organized the Robla Canal Company with some other ranchers. They constructed six or seven miles of canal and dug a tunnel before selling out to local farmers who had incorporated as the Farmers Canal Company in 1873 (Outcalt 1925: 334-335). Farmers pushed the work forward by every available means as Collier had planned, using the channels of the streams their canal crossed for carrying water. By 1876 they had gone about eight miles, reaching Canal Creek and making water available for irrigation. The cost of excavating hard soil and digging a 1600-foot-long tunnel exhausted their limited capital and they were unable to extend the canal beyond Canal Creek (Grunsky 1899: 34).

It may be that the Farmers Canal Company built the Atwater Canal and the laterals that were eventually extended into the project area. "C.D. Martin...says that the Farmers Canal Company built a narrow canal about twenty feet wide and about seven miles long, down through the upper tunnel, which was ten feet wide, and they also built the Livingston Canal to about two miles north of Livingston and the Colony Branch to the vicinity of Atwater, to land northeast of Central Camp which was going to be colonized" (Outcalt 1925: 336). Kenneth McSwain, whose father worked for Mr. Martin, adds that the 'Colony Branch' was "*probably the Atwater Canal*" (McSwain 1978: 5).

The Atwater Canal started out as an earthen ditch, but over the years the canal and its related features were continuously modified. The Crocker-Huffman Land and Water Development Company made the canal part of their system and in 1921 sold it to the Merced Irrigation District. The district had a systematic plan to upgrade the old system by lining the laterals with concrete where necessary, replacing wooden structures with iron or concrete and improving pumps and check dams. Improvements were carried out during the Depression years, but came to a halt during World War II. In 1946 improvements to the physical works resumed and by 1950 most of the projects that had been delayed by the war were completed. The canal as it exists today is a modern trapezoidal concrete lined canal with modern control structures.

PHOTO SHEET

Primary #

HRI#

Trinomial

P-24-000092

*Resource Atwater Canal

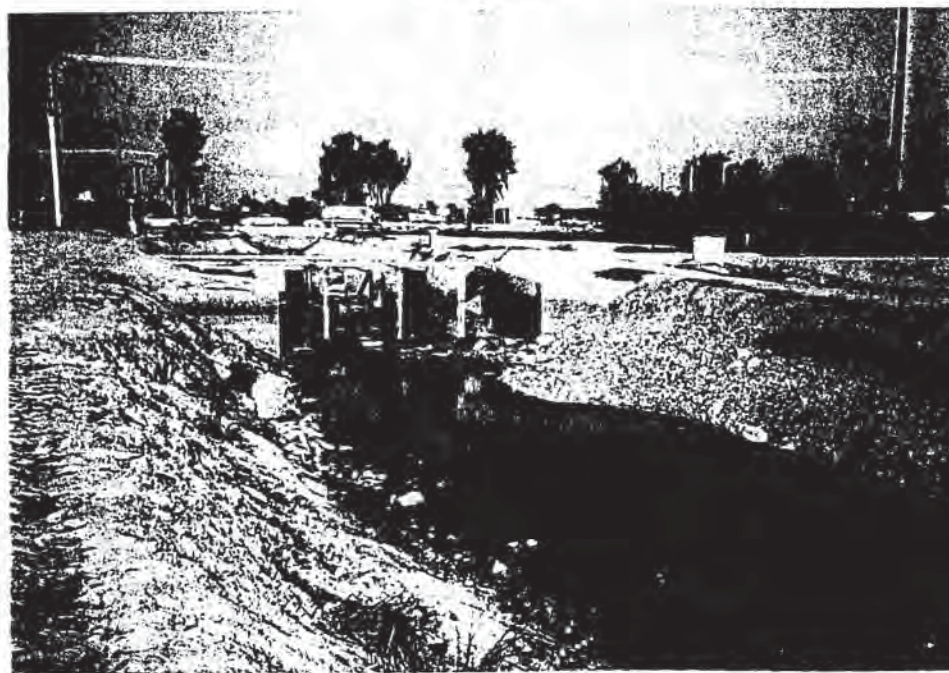
10-MER-140 EA: 10-OA5801

*Taken By: Gene Heck

*Date: 12/17/00

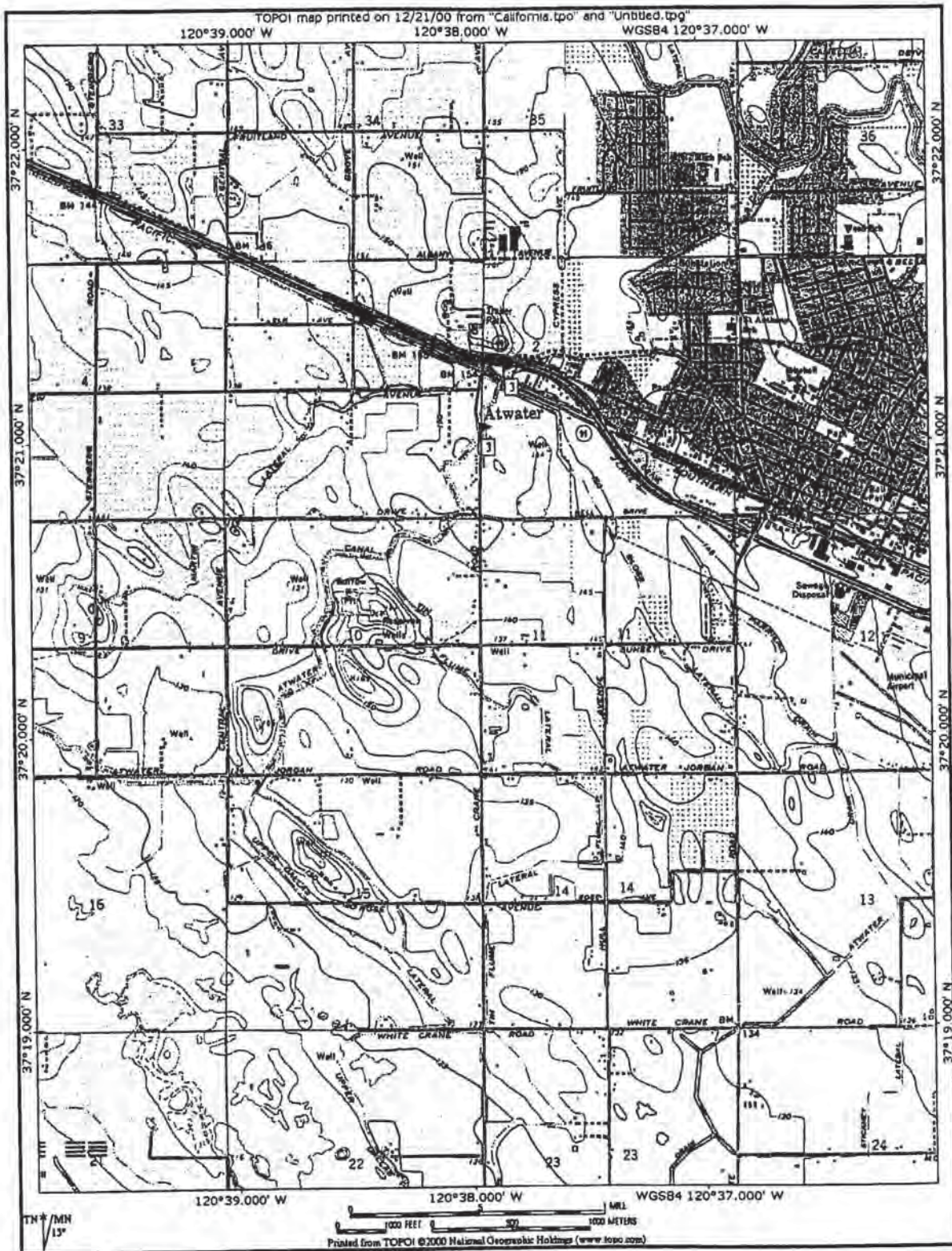


Atwater Canal below Bert Crane Road
(view East)



Atwater Canal near Business 99 (Atwater Boulevard)
(view North)

Figure 4b (Atwater canal)



update

P-24-000092

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: _____
HRI #: _____
Trinomial: _____
NRHP Status Code: 6Z
Other Listings: _____
Review Code: _____ Reviewer: _____ Date: _____

Page 1 of 4

*Resource Name or #: Atwater Canal
Map Reference No.: 8

3/2001

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Merced

*b. USGS 7.5' Quad Arena and Atwater Date both 1960 (rev. 1987)

c. Address N/A City Atwater (vicinity) Zip N/A

*d. UTM: northeasterly point (Atwater Quad): 711650 mE/ 4137880 mN
 southwesterly point (Arena Quad): 705790 mE/ 4133760 mN

*e. Other Location Data:

The Atwater Canal begins at the Livingston Canal, just north of the City of Atwater. It extends for several miles in a southwesterly direction to Atwater-Jordan Road, where it continues in a generally westward direction. The canal branches into smaller laterals just south of the intersection of Atwater-Jordan Road and Arena Way.

*P3a. Description:

See Continuation Sheet, page 3.

*P3b. Resource Attributes: HP20 — canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other



Atwater Canal, just north of Highway 99 and Olive Avenue

P5b. Description of Photo:
View northeast
December 2000

*P6. Date Constructed/Age
and Sources: ☒ Historic
pre-1918 (USGS map)

*P7. Owner and Address:
Merced Irrigation District
720 W. 20th Street
Merced, CA 95344

*P8. Recorded by:
Andrew Hope, Caltrans
1120 N Street
Sacramento, CA 95814
(916) 654-5611

*P9. Date Recorded: Dec. 2000

*P10. Type of Survey:
Intensive

*P11. Report Citation: *Historic Architecture Survey Report for the Highway 99 - Atwater Freeway project in Merced County. EA #414800.* Andrew Hope, Caltrans. January 2001.

*Attachments: ☒ Building, Structure, and Object Record ☒ Continuation Sheet ☒ Location Map

BUILDING, STRUCTURE, AND OBJECT RECORD

P-24-000092
Primary #:
HRI#:

Page 2 of 4

*NRHP Status Code: 6Z

*Resource Name or #: Atwater Canal

Map Reference No.: 8

- B1. Historic Name: Atwater Canal
B2. Common Name: Atwater Canal
B3. Original Use: Irrigation canal
*B5. Architectural Style: N/A
*B6. Construction History:

B4. Present Use: Irrigation Canal

Most of the canal (all but the approximately two miles at its western end) was in place by 1918. The concrete-lining of the northern portion was probably carried out by the Merced Irrigation District, possibly as late as 1945. (Several concrete control structures along the canal show a stamped date of 1945, indicating that an overall program of improvement was undertaken at that time.) The present culvert under Highway 99 dates to the highway realignment (Atwater bypass) constructed in 1956-57.

- *B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: N/A Original Location: N/A
*B8. Related Features: none

- B9a. Architect: N/A b. Builder: unknown
*B10. Significance: Theme: N/A Area: N/A
Period of Significance: N/A Property Type: N/A Applicable Criteria: N/A

The Atwater Canal was evaluated in 1993 by JRP Historical Consulting Services as part of Section 106 compliance for the Mojave Natural Gas Pipeline project, and was determined to be ineligible for National Register listing.

See Continuation Sheet, page 3.

- B11. Additional Resource Attributes: N/A

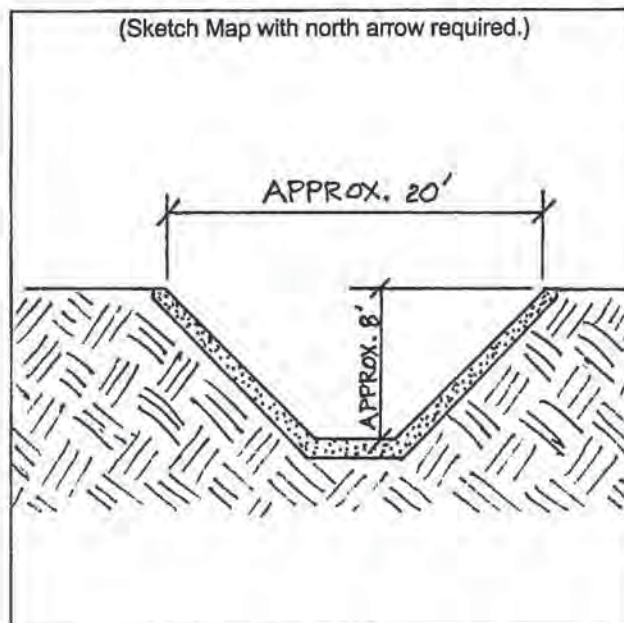
- *B12. References:

JRP Historical Consulting Services. Evaluation of the Atwater Canal, 1993.
JRP Historical Consulting Services and the California Department of Transportation. *Water Conveyance Systems in California*. 2000.
USGS "Arena" Quad, 1918, 1948, 1954, 1960, and 1960 (revised 1987)
USGS "Atwater" Quad, 1960 (revised 1987)

- B13. Remarks: N/A

- B14. Evaluator: Andrew Hope, Caltrans
1120 N Street
Sacramento, CA 95814
(916) 654-5611
Date of Evaluation: December 2000

(This space reserved for official comments.)



* Recorded by: Andrew Hope, Caltrans * Date: December 2000

☒ Continuation ☐ Update

***P3a. Description (continued from page 1):**

The Atwater Canal is a secondary canal, fed by the larger Livingston Canal, which is part of a network of secondary canals and laterals that provide water for irrigation to farms to the west and southwest of Atwater. The Atwater and Livingston canals are part of a much larger irrigation system managed by the Merced Irrigation District.

The Atwater Canal begins at the Livingston Canal to the north of the City of Atwater. It extends south and west to Highway 99 as a concrete-lined channel. Two culverts carry the canal under Highway 99 and the Union Pacific Railroad tracks and the adjacent Railroad Avenue (old Highway 99). After passing under the railroad tracks, the canal continues as an unlined, earthen ditch in a southwesterly direction to Atwater Jordan Road, then continues in a predominantly western direction to a point just south of the intersection of Atwater Jordan Road and Arena Way. At this point, the canal branches into three smaller laterals. The total length of the canal is approximately 10 kilometers (6.2 miles).

Within the Atwater Freeway project area, the canal is approximately 20' wide at the top and 8' deep. The side walls slope down to a flat bottom approximately 5' wide. The unlined portion of the canal, south of the railroad tracks, is wider than the concrete-lined portion. Alongside the canal is an unpaved driveway for maintenance vehicles.

***B10. Significance (continued from page 2):**

The Atwater Canal is part of an extensive irrigation system which has its origins in the Farmers Canal Company, which built the Livingston Canal in the 1870s. The system was expanded with the construction of secondary canals and laterals over the next several decades, as settlement created an increased demand for water for irrigation. The facilities of the Farmers Canal Company were acquired by the Crocker-Huffman Land and Water Company in the 1880s, and were in turn incorporated into the Merced Irrigation District in 1920. In its early years (prior to 1920) the Atwater canal was probably more shallow and narrow than at present, as it served a much smaller amount of irrigated acreage. In addition to widening and deepening the canal, the concrete lining of the northeastern portion was probably carried out after 1920, and possibly as late as 1945. Several concrete gate structures, now dilapidated and without working gates, were also constructed along the canal in 1945. In addition, a portion of the canal was converted to a closed culvert in 1956-57, with the construction of the Highway 99 Atwater Bypass.

The Atwater canal in its present state does not represent its original appearance during the settlement period of this portion of rural Merced County. In particular, the portion that is within the Atwater Freeway project area lacks integrity of design, materials, workmanship and feeling, due to the addition of concrete lining. In the context of improvements made to the canal system in the 1940s, this structure does not appear to be historically significant. It is a typical example of a common rural facility, is not significant as a work of civil engineering, and is not associated with important persons in local history. This property therefore appears to be ineligible for listing on the National Register of Historic Places, and is not considered an historical resource for purposes of CEQA.

P-24-000092

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #

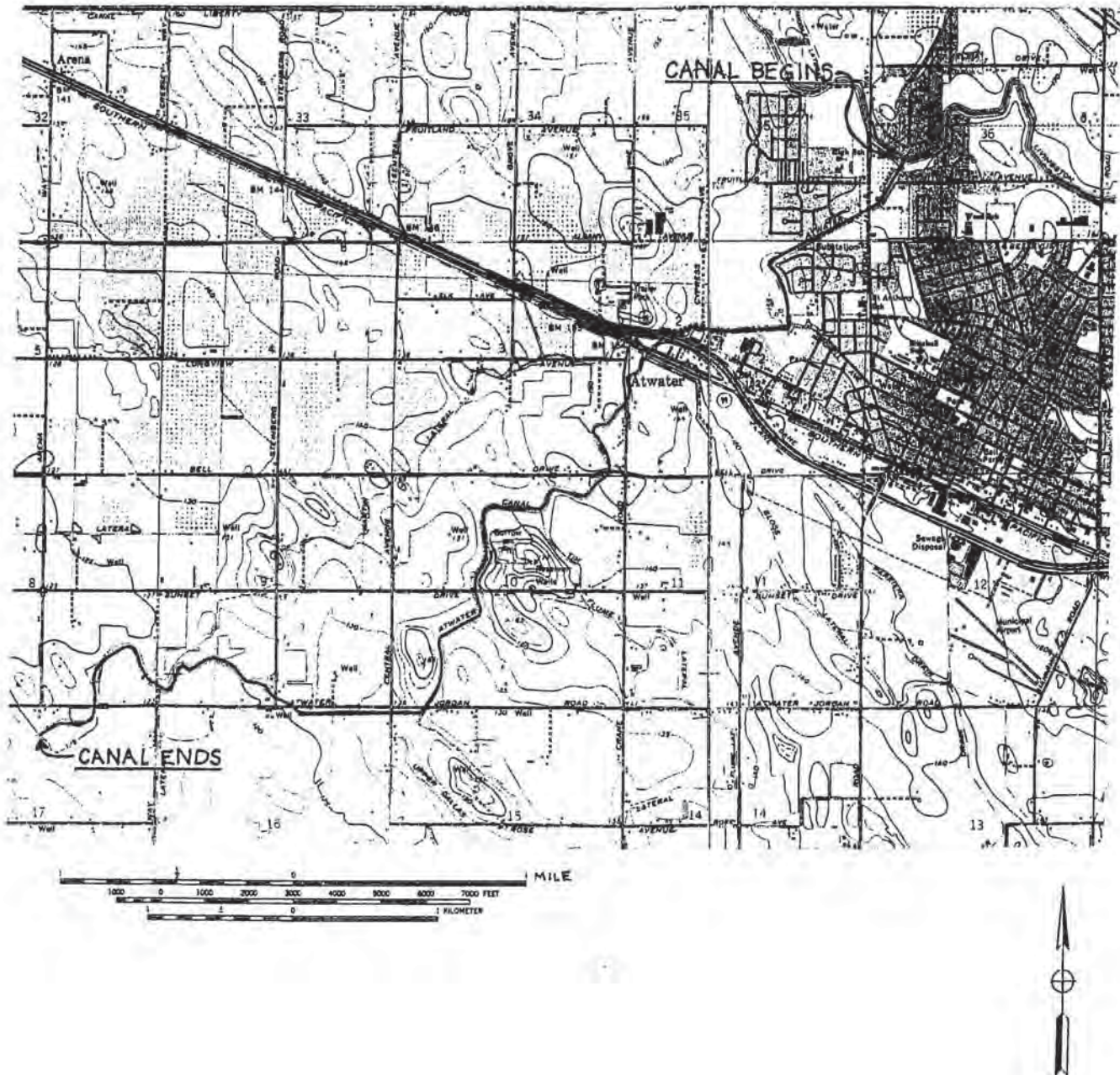
Page 4 of 4

* Resource Identifier: Atwater Canal
Map Reference No.: 8

* Map Name: USGS "Arena" Quad

* Scale: 1 : 24 000

* Date of Map: 1960 (photorevised 1987)



SITE NAME: Atwater Canal, Merced Irrigation District, Merced County
SITE NUMBER: DG-35
QUAD Sheet: "Arena Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 174.8, Mainline

4/96

Description of Feature

Site DG-35 represents the point at which the APE for the proposed Mojave Pipelines Northward Expansion will cross the Atwater Canal, a conduit operated by the Merced Irrigation District, near the community of Atwater, Merced County. The Atwater Canal is a concrete lined lateral that draws water from the Livingston Canal north of Atwater. The Atwater Canal passes through the town of Atwater and irrigates land southwest of town.

The Atwater Canal is a modern trapezoidal concrete lined canal, measuring about 26' at the crest within the APE. The canal crossing is shown in **Photograph 1**. The canal proceeds about 60' to the west before being partially diverted into the Martin Lateral, also a concrete channel. The concrete in the Atwater Canal appears to have been made with coarse aggregate, now partially scoured by the flows, giving it a pebble-dash texture.

The area immediately surrounding the APE is dominated by the tracks and Highway 99 and mixed commercial, agricultural, and industrial areas to the west.

To provide a comparative context, JRP recorded the canal's physical attributes within the APE and at points north and south of it. Within the APE, the Atwater Canal is 26'4" wide at the crest. At a comparison point about one mile upstream, the channel is concrete, measuring 22' 4" at the top, as shown in **Photograph 2**. At a comparison point downstream, the channel is earthen, measuring 53' across. It is shown in **Photograph 3**.

History of Feature

The Atwater Canal appears to date to the 1940s in its current concrete-lined configuration, although the canal alignment probably dates to the early years of the Merced Irrigation District. For a more detailed discussion of the history of the Merced Irrigation District, see Section 2.2. The Merced Irrigation District was organized in late 1919. Like most California irrigation districts, it brought together various privately-built canals and reservoirs, expanding upon these to serve a growing rural population. Private water suppliers served about 40,000 acres in 1919; by 1929, the irrigation district had extended service to more than 180,000 acres. (Adams, 1929:191)

An exact date was not established for the Atwater Canal, although its prominent role in irrigating land around Atwater suggests that it was laid out prior to 1919. Neither is it possible to establish with precision the date at which the canal was lined in concrete. In 1929, less than one percent of the total length of the district's canals had been lined

(Adams, 1929: 195). The bridge on Business 99 near the APE has a date stamp of 1929. That bridge, however, is narrower than the adjacent channel, suggesting that it was built before the canal was improved. Several control structures along the canal are date-stamped 1945, a plausible date for general improvements to the channel.

Evaluation of Feature

Site DG-35, the Atwater Canal, does not appear to be eligible for listing in the National Register of Historic Places. It is an important canal to the local economy and its alignment may date to the early years of settlement of the county. In its current appearance and function, however, the canal is effectively a product of the post-World War II era. The canal does not retain integrity of design, materials, workmanship, feeling or association to the settlement period of the county and does not appear to be significant in the more limited context of recent agricultural or engineering developments in the San Joaquin Valley. For these reasons, it does not appear to meet the National Register eligibility criteria.

P 24-000092

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project

MILEPOST: 174.8, Mainline

LOCATION NO: DG-35

PHOTO DATE: June 2, 1993

1. **Name of Feature:** Atwater Canal

2. **Location of recordation:** Where Business 99 passes over the canal, about 100 yards south of where Bert Crane Road intersects Business 99 north of the city of Atwater.

3. **Other locations for recording this feature:** DG-35(n) and DG-35(s)

4. **Structures at or near this location:** The canal passes under Highway 99, Business 99, and the Southern Pacific railroad tracks in concrete box culverts. The Business 99 culvert is dated "1929." Gates regulating flow into the Martin Lateral are located about 60' east of the railroad tracks.

5. **Setting at this location:** The APE is on the outskirts of Atwater in a mixed industrial, commercial, and agricultural area.

6. **Integrity considerations for this feature:** Concrete lining has replaced the original earthen canal. Also, commercial developments have altered the historic setting of this canal.

7. **Attributes at this location (measurements in feet):**

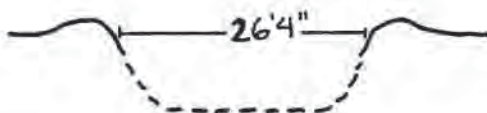
Top width: 26' 4"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete.

8. **Sketch, in cross section:** Looking west



P-24-000092

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: DG-35(n)
PHOTO DATE: June 6, 1993

1. **Name of Feature:** Atwater Canal
2. **Location of recordation:** Where Winton Way passes over the canal, about 0.2 mile north of Bellevue Road.
3. **Other locations for recording this feature:** DG-35 and DG-35(s)
4. **Structures at or near this location:** Steel towers carry power-lines parallel to the north side of the canal. Dirt access roads on berms parallel both sides of the canal.
5. **Setting at this location:** Urban residences and commercial enterprises dominate the area.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original earthen canal. Also, commercial developments have altered the historic setting of this canal.
7. **Attributes at this location (measurements in feet):**

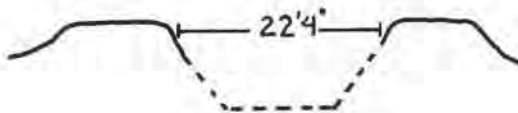
Top width: 22' 4"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking east



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000092

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: DG-35(s)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Atwater Canal
2. **Location of recordation:** Where Sunset Drive crosses over the canal, roughly 0.4 mile east of Central Avenue.
3. **Other locations for recording this feature:** DG-35 and DG-35(n)
4. **Structures at or near this location:** A concrete bridge carries Sunset Drive over the canal. There is a weir in the canal, about 40' north of Sunset Drive. The weir is dated "1-23-45."
5. **Setting at this location:** Commercial agriculture and scattered residences dominate the area. To the northwest is a vineyard and a home fronting Sunset Drive. Northeast of this recordation point is open land. Orchards are located to the southeast. To the southwest are open fields.
6. **Integrity considerations for this feature:** A modern concrete regulating structure, as well as county road developments, have altered the original design of the canal.
7. **Attributes at this location (measurements in feet):**

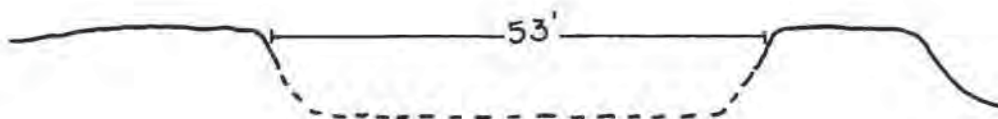
Top width: 53

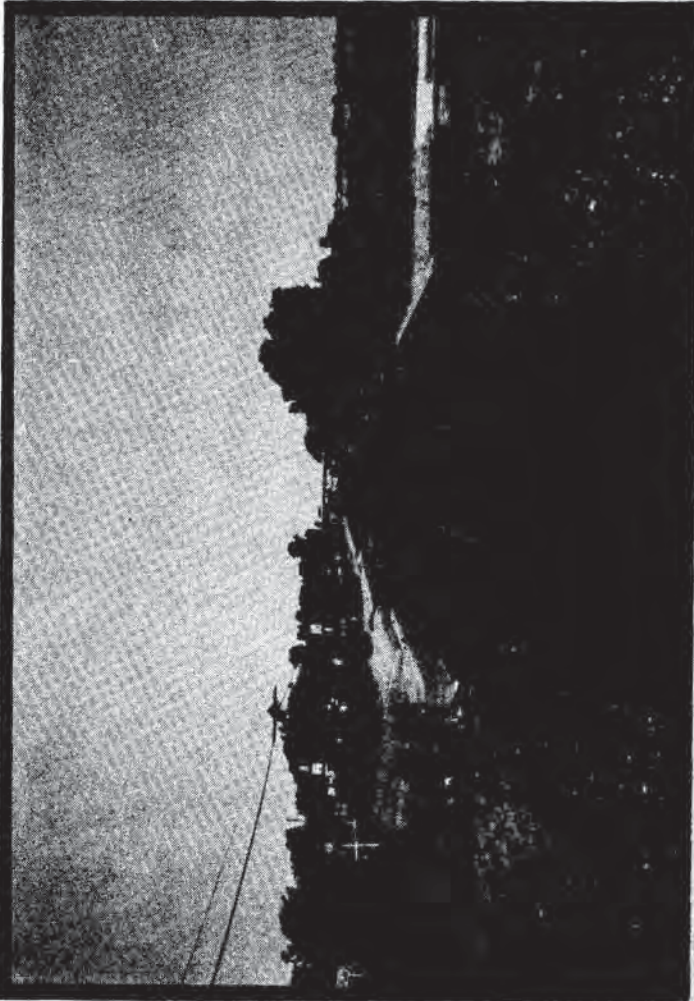
Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Earthen

8. **Sketch, in cross section:** Looking north

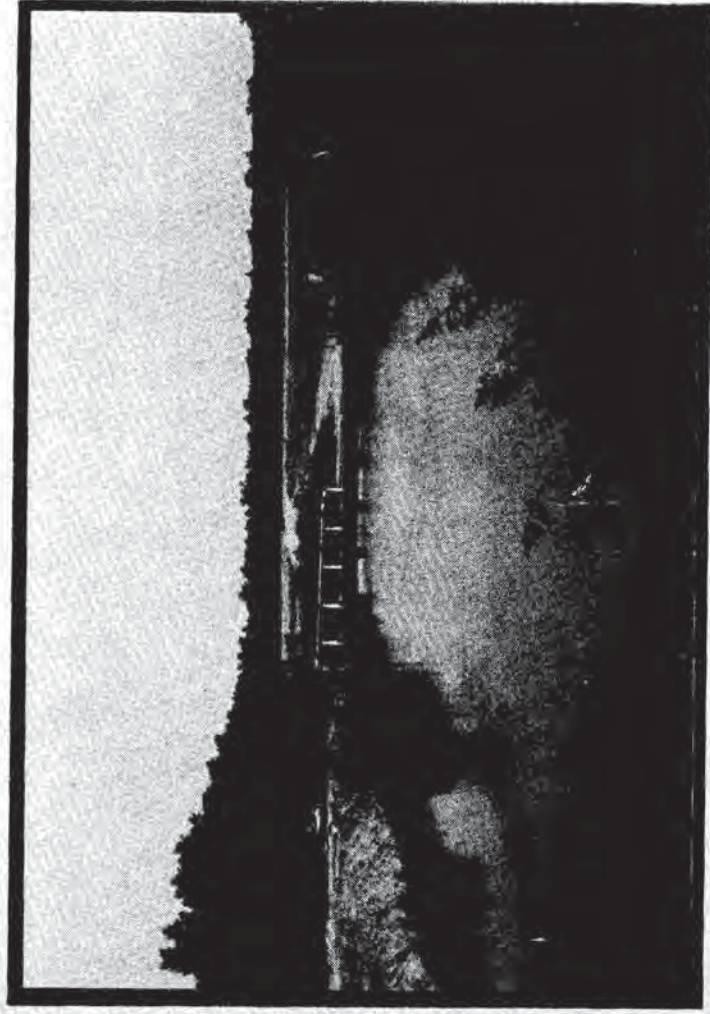




Photograph Number: 1
 Site Number: DG-35
 Common Name: Atwater Canal
 Camera Facing: Southeast

Photograph Number: 2
 Site Number: DG-35(n)
 Common Name: Atwater Canal
 Camera Facing: East

Photograph Number: 3
 Site Number: DG-35(s)
 Common Name: Atwater Canal
 Camera Facing: South

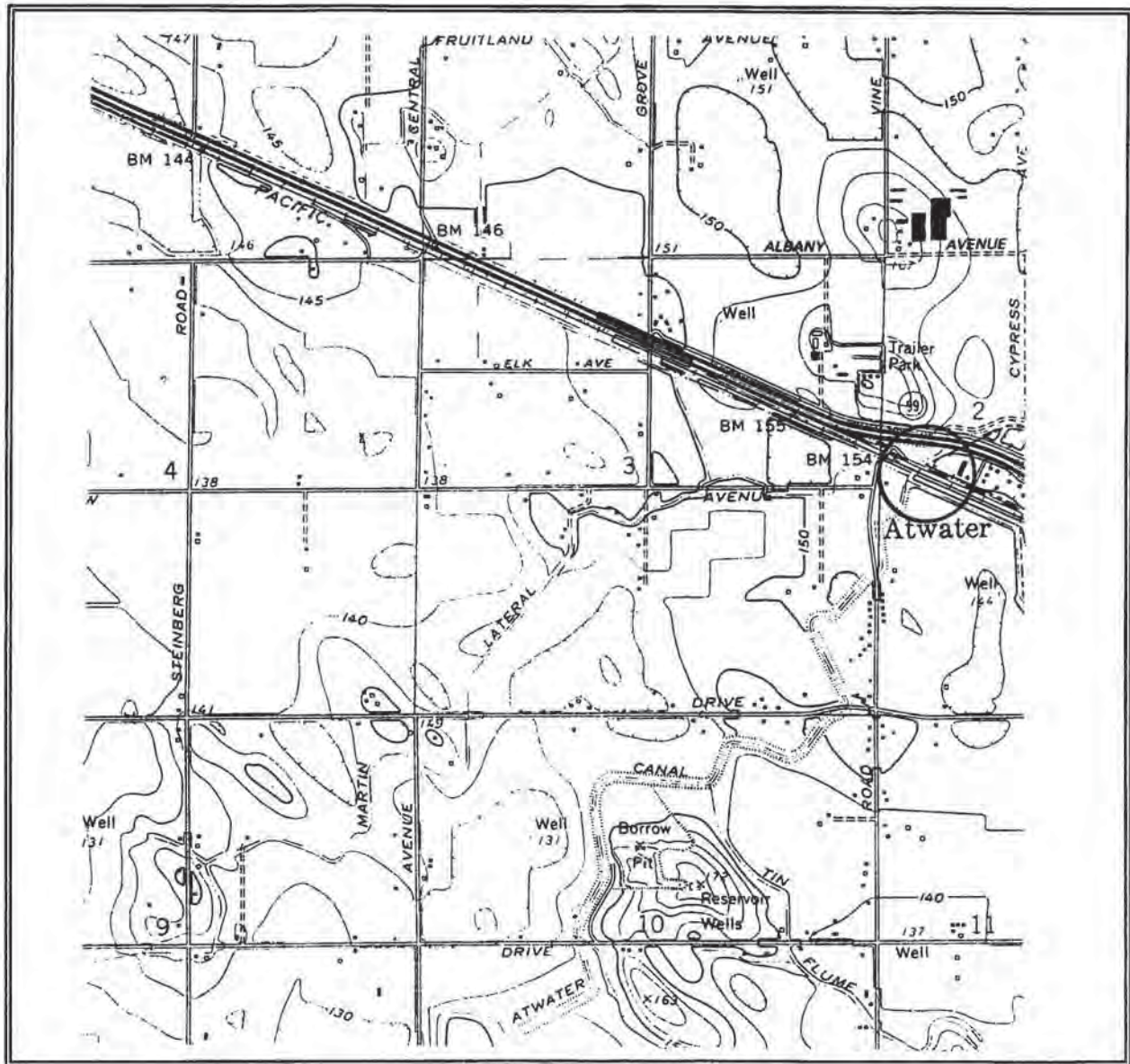


P-24-000092

3

2

P-24-000092



SITE NAME: Atwater Canal, Merced Irrigation District, Merced County

SITE NUMBER: DG-35

QUAD Sheet: "Arena Quadrangle," USGS: 1960, photorevised 1987

PIPELINE LOCATION: Milepost 174.8, Mainline

P-24-000092

**FEATURE DG-35, REROUTE A-114
ADDENDUM TO HISTORIC FEATURE EVALUATION FORM**

ALT #	A-114
ORIGINAL SITE #	DG-35
SEGMENT	Mainline
MILEPOSTS	174.8
QUAD NO., NAME	29, Arena (1960/1987)

COMMENTS:

The original alignment at DG-35 was located where the Atwater Canal was crossed by Highway 99 and the Southern Pacific Railroad tracks on the northwestern edge of Atwater, California. The proposed realignment will place the pipeline 15' west of the railroad right of way on private property. JRP recorded DG-35 at the original location east of the proposed realignment. Field crews also took photographs upstream and downstream from the site. Evaluation of site photographs indicates that the area immediately to the west of DG-35 is similar in condition and construction to DG-35 and the canal segment to the northeast on the east of Highway 99 and the railroad. The similarity in design, configuration and materials indicates that there is no need for further field work nor evaluation. (see Site Form DG-35 in main body of Class III Report)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P24 000092
HRI # DOE 24-01-0009-0000
Trinomial Proj Rev. FHWA 010329A
NRHP Status Code key 2
Other Listings Prop # 128678
Review Code _____ Reviewer _____ Date 5/11/01

10-MER-140 PM EA 0A5801 Map Ref. #3

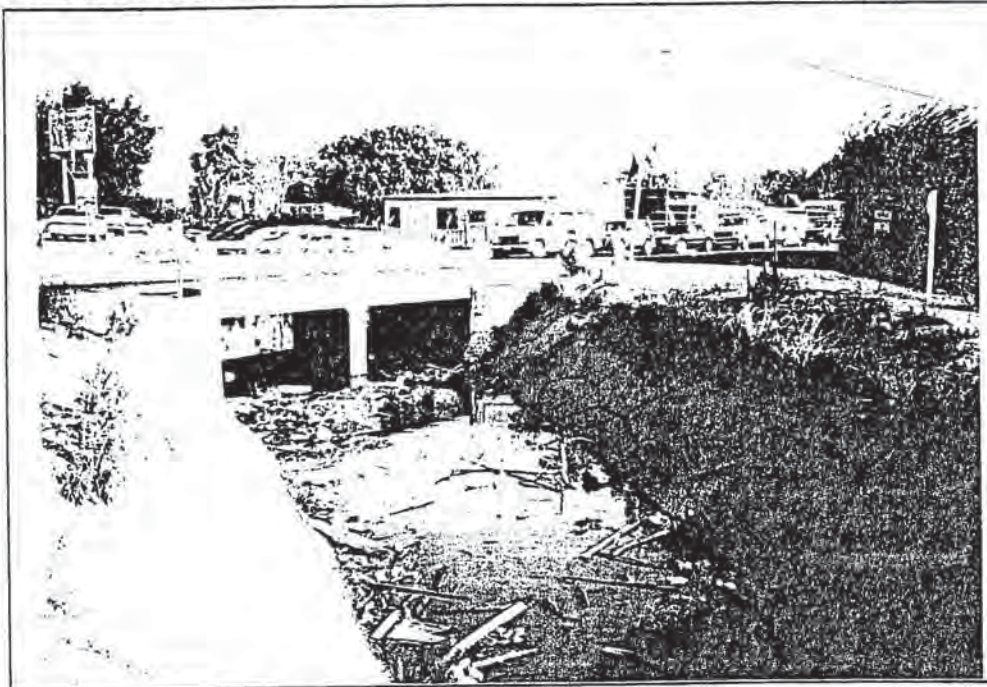
- P1. Resource Name(s) or Number: Atwater Canal
P2. Location: *a. County: Merced
*b. USGS 7.5' Quads: Atwater and Arena, T5S R14E; T5S R13E; T6S R13E; T7S R13E; T6S R12E; T7S R12E
c. Address: N/A
d. Assessor's Parcel Number: N/A

*P3a. Description: The Atwater Canal is a conduit owned and operated by the Merced Irrigation District, near the community of Atwater, Merced County. The Atwater Canal is concrete lined at its origin, where it draws water from the Livingston Canal north of Atwater. The Atwater Canal passes through the town of Atwater and irrigates land southwest of the town. The depth of the canal from the top of the bank to the bottom centerline of the canal varies throughout its length, as does the width of the canal, measured from outside toe-to-toe on top of the banks. Where Bert Crane Road passes over the Atwater Canal it is an unlined earthen ditch about 20 feet wide and 10 feet deep. The bridge where Business 99 (Atwater Boulevard) crosses over the Atwater Canal is date-stamped 1929. Several control elements along the canal are date-stamped 1945, which is a plausible date for the general improvements to the canal.

*P3b. Resource Attributes: N/A HP 70: canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5b Photo date: 12/17/00



*P6. Date Constructed/Age and Sources: 1879, per Outcalt (1925); McSwain (1978);

*P7. Owner and Address: Merced Irrigation District
720 W. 20th Street
Merced, Ca 95344-0288

*P8. Recorded by: Gene Heck
Caltrans District 6
3402 N. Blackstone, #201
Fresno, CA 93726-5306

*P9. Date Recorded: 12/18/00

*P10. Survey Type: Intensive

*P11. Report Citation:

Historic Architectural Survey Report and Historic Resource Evaluation Report for Rehabilitation, State Route 165 Merced County, 10-Mer-165, PM 26.9-30.0, EA 381500, by Eugene Heck, December, 2000

*Attachments: ☒ Building, Structure and Object Report; ☒ Photo Sheet

DPR 523A (1/95)

*Required information

BUILDING, STRUCTURE, AND OBJECT RECORD

10-Mer-140; PM 27.0/32.2 ; EA 10-0A5801

Map Reference Numbers: 3

*NRHP Status Code: 6Y

*Resource Identifier: Atwater Canal

B1. Historic Names: Colony Branch

B3. Original Use: Irrigation

B4. Present Use: Irrigation

*B5. Architectural Style: N/A

*B6. Construction History: The upper reaches of the main Atwater canal were probably completed by the Farmers Canal Company c. 1879.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

*B8. Related Features: Headgates; Bridges; Culverts; Check dams; Laterals; Concrete headwalls and concrete siphons; Corrugated Metals Pipes; Recording Stations.

B9a. Architect: N/A

B9b. Builder: Not known.

*B10. Significance: Theme N/A

Area N/A

Period of Significance N/A Property Type N/A

Applicable Criteria N/A

The Caltrans/JRP document *Water Conveyance Systems in California: An Historic Context and Evaluation Procedure*, provided the framework for evaluating the historical and architectural significance of the Atwater Canal. The property does not appear to be associated with important events significant in the history of the region, and therefore does not appear to meet Criterion A. The property is not associated with important aspects of the lives of significant persons in the area, and therefore does not meet Criterion B. The canal and related features have been altered over the years. The canal and related features do not embody the distinctive characteristics of a type, period or method of construction. They do not represent the work of a master. Consequently, they do not appear to be eligible under criterion C. In summary, the Atwater Canal does not appear to meet any of the criteria for listing in the NRHP. Furthermore, this resource has been 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. It appears that this property does not meet the significance criteria as outlined in these guidelines.

B11. Additional Resource Attributes: N/A

*B12. References: Carl Ewald Grunsky, *Irrigation Near Merced, California* (United States Geological Survey. Water-Supply Paper No. 19. Washington: Government Printing Office, 1899.) Keneth R. McSwain, *History of the Merced Irrigation District* (Merced, CA: Merced Irrigation District, 1978); John Outcalt, *History of Merced County, California* (Los Angeles, CA: Historic Record Company, 1925); 1915 and 1961 Arena USGS 7.5 quad; 1915 and 1961 Atwater USGS 7.5 quad; Merced Irrigation District, Records.

B13. Remarks: N/A

*B14. Evaluator: Gene Heck

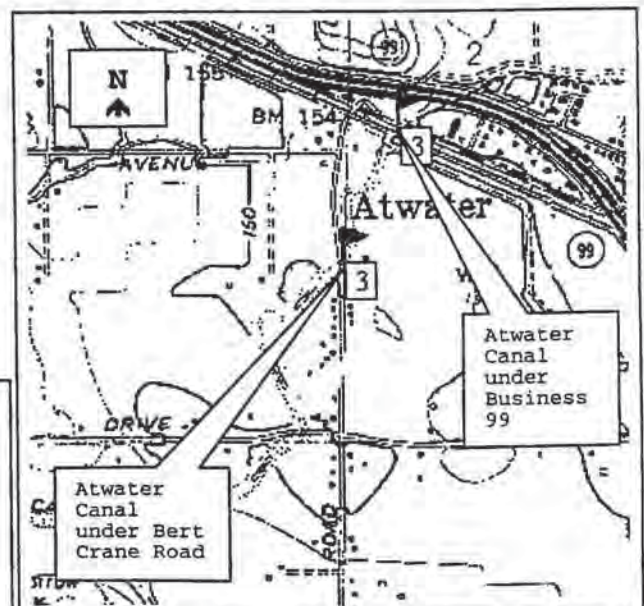
Caltrans District 6

3402 North Blackstone Ave, Suite 201

Fresno, CA 93726

*Date of Evaluation: December 18, 2000

(This space reserved for official comments.)



CONTINUATION SHEET

Primary #

HRI#

Trinomial

P-24-00092

Page 2 of 2

*Resource Name: Atwater Canal

*Recorded by: Gene Heck

*Date: 12/18/00

☒ Continuation

☐ Update

B6. Construction History (continued):

William G. Collier, a rancher and trained surveyor, was the first to see the potential for irrigating Merced County on a large scale. In 1870, he organized the Robla Canal Company with some other ranchers. They constructed six or seven miles of canal and dug a tunnel before selling out to local farmers who had incorporated as the Farmers Canal Company in 1873 (Outcalt 1925: 334-335). Farmers pushed the work forward by every available means as Collier had planned, using the channels of the streams their canal crossed for carrying water. By 1876 they had gone about eight miles, reaching Canal Creek and making water available for irrigation. The cost of excavating hard soil and digging a 1600-foot-long tunnel exhausted their limited capital and they were unable to extend the canal beyond Canal Creek (Grunsky 1899: 34).

It may be that the Farmers Canal Company built the Atwater Canal and the laterals that were eventually extended into the project area. "C.D. Martin...says that the Farmers Canal Company built a narrow canal about twenty feet wide and about seven miles long, down through the upper tunnel, which was ten feet wide, and they also built the Livingston Canal to about two miles north of Livingston and the Colony Branch to the vicinity of Atwater, to land northeast of Central Camp which was going to be colonized" (Outcalt 1925: 336). Kenneth McSwain, whose father worked for Mr. Martin, adds that the 'Colony Branch' was "probably the Atwater Canal" (McSwain 1978: 5).

The Atwater Canal started out as an earthen ditch, but over the years the canal and its related features were continuously modified. The Crocker-Huffman Land and Water Development Company made the canal part of their system and in 1921 sold it to the Merced Irrigation District. The district had a systematic plan to upgrade the old system by lining the laterals with concrete where necessary, replacing wooden structures with iron or concrete and improving pumps and check dams. Improvements were carried out during the Depression years, but came to a halt during World War II. In 1946 improvements to the physical works resumed and by 1950 most of the projects that had been delayed by the war were completed. The canal as it exists today is a modern trapezoidal concrete lined canal with modern control structures.

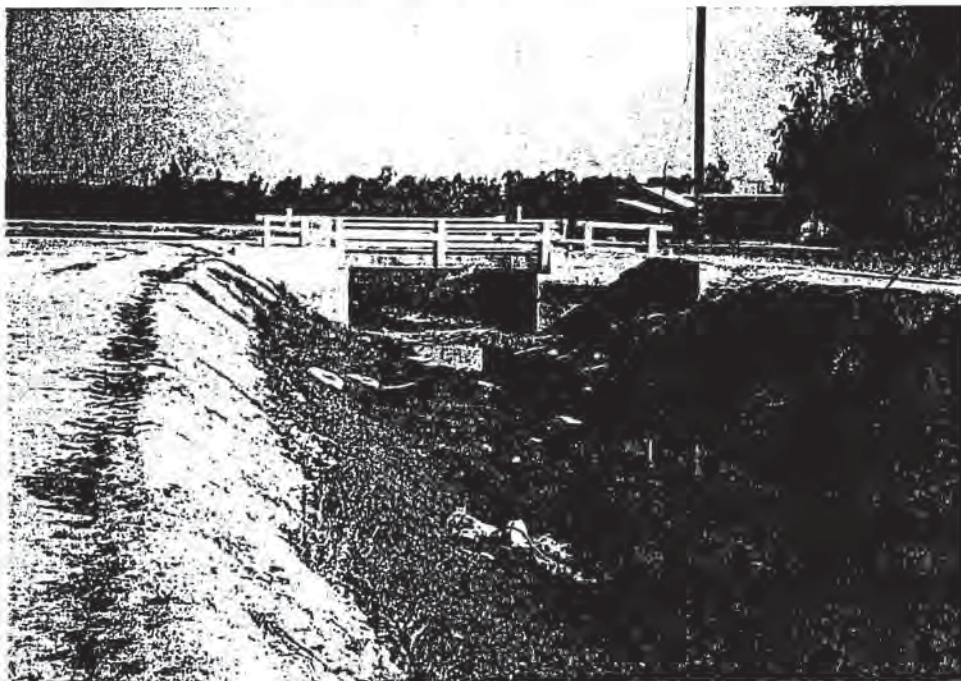
PHOTO SHEET

*Resource Atwater Canal

10-MER-140 EA: 10-OA5801

*Taken By: Gene Heck

*Date: 12/17/00



Atwater Canal below Bert Crane Road
(view East)



Atwater Canal near Business 99 (Atwater Boulevard)
(view North)

f-24-000092

TOPOI map printed on 12/21/00 from "California.tpo" and "Unbld.tpo"

120°39.000' W 120°38.000' W 120°37.000' W

37°22.000' N 37°21.000' N 37°20.000' N 37°19.000' N

Atwater

120°39.000' W 120°38.000' W 120°37.000' W

0 500 1000 FEET 0 500 1000 METERS

Printed from TOPOI ©2000 National Geographic Holdings (www.national Geographic.com)

SITE NAME: Buhach Lateral, Merced Irrigation District, Merced County
SITE NUMBER: DG-32
QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 171.4, Mainline

Description of Feature

Site DG-32 represents the point at which the APE for the proposed Mojave Pipelines Northward Expansion will cross the Buhach Lateral, a conduit operated by the Merced Irrigation District, near the community of Atwater, Merced County. The Buhach Lateral is a concrete lateral that draws water from the Livingston Canal north of Atwater. The Buhach Lateral passes through the community of Buhach, just south of Atwater. The Buhach Lateral is a modern trapezoidal concrete canal, measuring about 6' at the crest within the APE. The canal crossing is shown in **Photograph 1**.

The Buhach Lateral passes under Highway 99, the railroad tracks, and SP Avenue in three separate box culverts. A short distance west of SP Avenue (west of the APE), the canal divides into two branches, one called the Buhach Lateral, the other the west branch of the Buhach Lateral.

The area immediately surrounding the APE is dominated by the tracks and Highway 99 to the east and commercial agriculture and some suburban residential development west of the tracks.

TO provide a comparative context, JRP recorded the canal's physical attributes within the APE and at points north and south of it. Within the APE, the Buhach Lateral measures, as noted, measures 6' at the crest. Two comparative measurements were made for the canal. At one spot about 1/2 mile northeast of the APE, the canal is a 10' wide concrete trapezoid. At a second point, about 1/2 mile southwest, the canal is earthen, measuring about 17.' The comparative sites are shown in **Photographs 2-3**.

History of Feature

The Buhach Lateral appears to date to the 1940s in its current concrete-lined configuration, although the canal alignment may date to the early years of the Merced Irrigation District. For a more detailed discussion of the history of the Merced Irrigation District, see Section 2.2. The Merced Irrigation District was organized in late 1919. Like most California irrigation districts, it brought together various privately-built canals and reservoirs, expanding upon these to serve a growing rural population. Private water suppliers served about 40,000 acres in 1919; by 1929, the irrigation district had extended service to more than 180,000 acres. (Adams, 1929:191)

An exact date was not established for the Buhach Lateral. Neither is it possible to establish with precision the date at which the canal was lined in concrete. In 1929, less

than one percent of the total length of canals had been lined (Adams, 1929: 195). The work appears to be of relatively recent construction, probably dating at least to the 1930s. Other concrete work within the district dates to the 1940s, indicating a likely date range for this work as well.

Evaluation of Feature

Site DG-32, the Buhach Lateral, does not appear to be eligible for listing in the National Register of Historic Places. This canal is not associated with the pioneer settlement period of the Merced County or the Merced Irrigation District. In its current appearance and function, the canal is effectively a product of recent decades, probably dating to the 1930s or 1940s. The canal does not retain integrity of design, materials, workmanship, feeling or association to the settlement period of the county and does not appear to be significant in the more limited context of recent agricultural or engineering developments in the San Joaquin Valley. For these reasons, it does not appear to meet the National Register eligibility criteria.

P-24-000091

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 171.4, Mainline

LOCATION NO: DG-32
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Buhach Lateral
2. **Location of recordation:** At SP Street, roughly 20 yards northwest of the Buhach Overpass
3. **Other locations for recording this feature:** DG-32(n) and DG-32(s)
4. **Structures at or near this location:** The canal passes under Highway 99, the railroad tracks, and SP Avenue in three separate concrete box culverts. A short distance west of SP Avenue (west of the APE), the canal divides into two branches of the Buhach Lateral. The west branch parallels the tracks adjacent to the APE. The other branch proceeds south along Buhach Avenue.
5. **Setting at this location:** Scattered agricultural, commercial, and residential areas surround the APE on the southern outskirts of Merced. The immediate setting is dominated by Highway 99 and the railroad.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt canal.
7. **Attributes at this location (measurements in feet):**

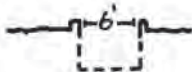
Top width: 6

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking north



P-24-000091

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: DG-32(n)
PHOTO DATE: June 3, 1993

1. **Name of Feature:** Buhach Lateral
2. **Location of recordation:** On the north side of East Juniper Avenue roughly 0.6 mile west of Buhach Road. The lateral at this recordation site emerges from underground pipelines through a concrete outlet structure, into a concrete lined channel.
3. **Other locations for recording this feature:** DG-32 and DG-32(s)
4. **Structures at or near this location:** East Juniper Avenue carries traffic over the Buhach Lateral underground pipeline. North of East Juniper Avenue the lateral emerges from a concrete outlet structure into a concrete lined channel.
5. **Setting at this location:** New residential construction dominates the surrounding area.
6. **Integrity considerations for this feature:** Concrete lining and underground pipes have replaced the canal's original materials.
7. **Attributes at this location (measurements in feet):**
 - Top width: 10' 6"
 - Bottom width: 4
 - Height or Depth: 2' 8"
 - Material: Concrete
8. **Sketch, in cross section:** Looking north



P-24-000091

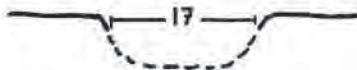
CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: DG-32(s)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Buhach Lateral
2. **Location of recordation:** Where the lateral intersects Elliott Avenue, about 1/2 mile east of Buhach Road.
3. **Other locations for recording this feature:** DG-32 and DG-32(n)
4. **Structures at or near this location:** A concrete bridge carries Elliott Avenue traffic over the canal.
5. **Setting at this location:** Orchards and pasture-land surround this recordation point.
6. **Integrity considerations for this feature:** The canal at this location retains integrity to its historic setting, and appears to retain integrity to its original material. However, maintenance using modern equipment and methods has altered the original geometry of the canal.
7. **Attributes at this location (measurements in feet):**
 - Top width:** 17
 - Bottom width:** Unable to observe due to high flows
 - Height or Depth:** Unable to observe due to high flows
 - Material:** Earthen
8. **Sketch, in cross section:** Looking north





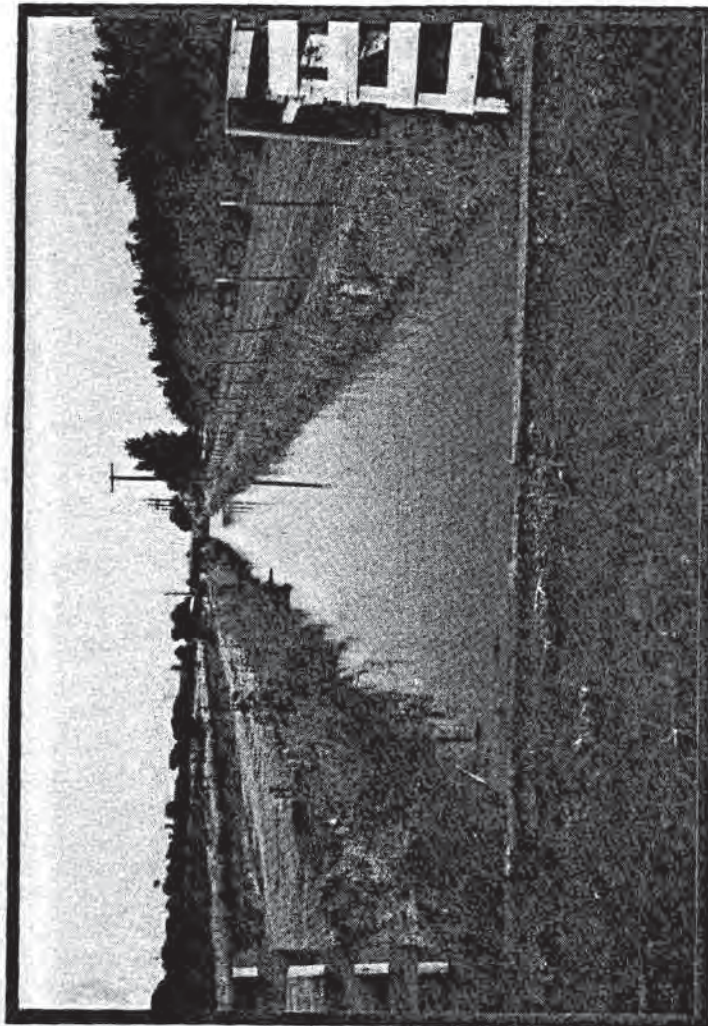
1

Photograph Number: 1
 Site Number: DG-32
 Common Name: Buhach Lateral
 Camera Facing: North

Photograph Number: 2
 Site Number: DG-32(n)
 Common Name: Buhach Lateral
 Camera Facing: Northwest

Photograph Number: 3
 Site Number: DG-32(s)
 Common Name: Buhach Lateral
 Camera Facing: North

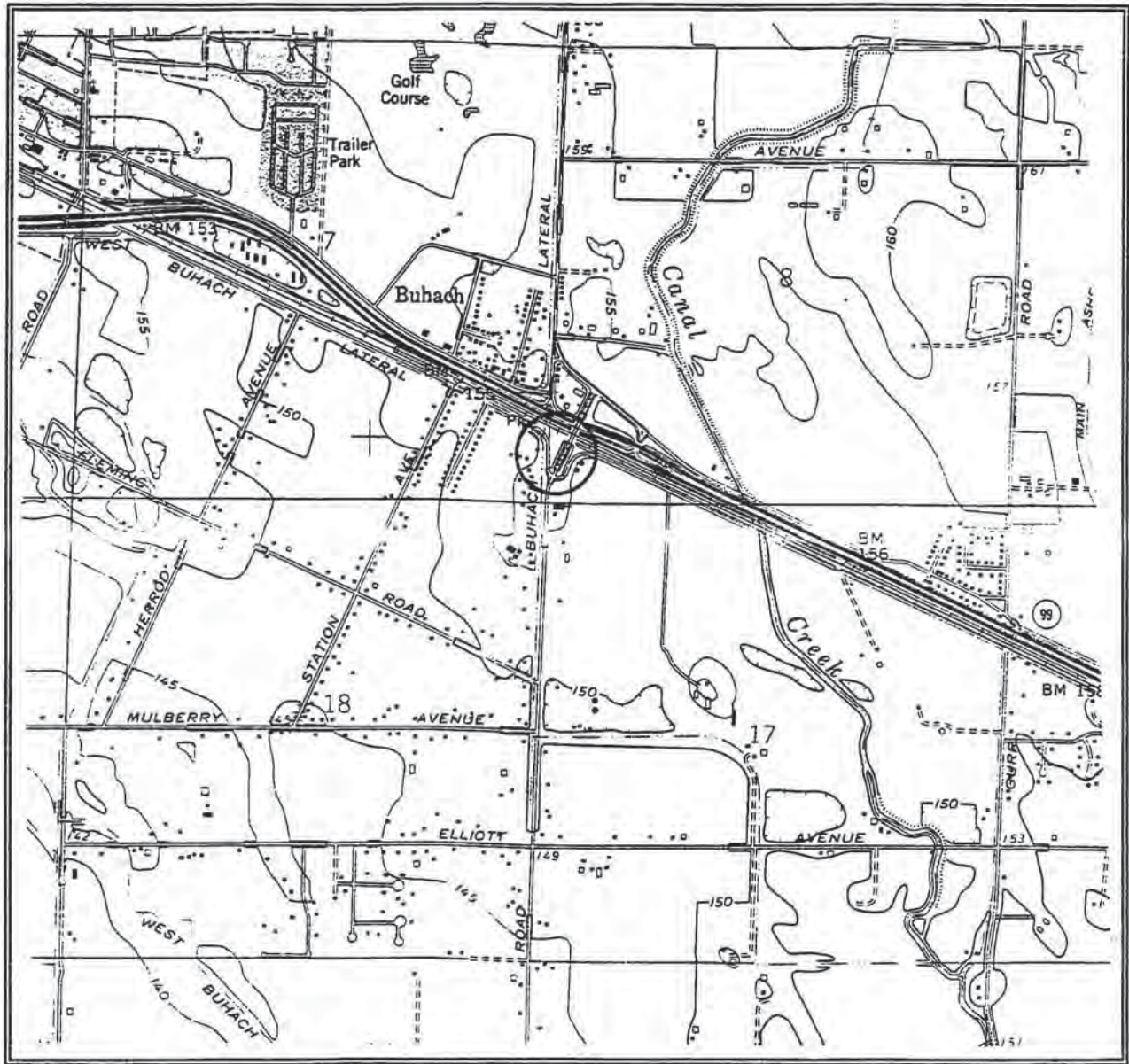
3



2



0-24-00009



SITE NAME: Buhach Lateral, Merced Irrigation District, Merced County

SITE NUMBER: DG-32

QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987

PIPELINE LOCATION: Milepost 171.4, Mainline

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-24-000091
HRI #
Trinomial

update

Page 1 of 1

Resource Name: Buhach Lateral

Atwater 75'

Recorded by: Andrew Pulcheon

Date: February 7, 2006 ☐ Continuation ☒ Update

2/06

This record updates the DPR form 523 record for P-24-000091, the Buhach Lateral, which was evaluated by Hatoff et al. (1995) and found not eligible for the National Register of Historic Places (National Register). LSA Associates, Inc. (LSA) conducted a historical evaluation of P-24-000091 to determine if it was eligible for the California Register of Historical Resources (California Register).

Because the California Register was consciously modeled on the National Register, their significance and integrity requirements are extremely similar (Office of Historic Preservation 1999:1). The recommended approach for assessing a resource's California Register eligibility is to first determine if the resource is eligible for listing in the National Register. If it is not eligible for the National Register, then the resource is assessed to determine if it is eligible for listing in the California Register as a result of the differences in eligibility requirements between the registers. There are three different scenarios under which a resource may be ineligible for listing in the National Register, but eligible for listing in the California Register (Office of Historic Preservation 1999:2-3):

- *Moved buildings, structures, or objects.* A relocated building that is otherwise eligible may still be considered eligible for the California Register if it (1) was moved to prevent its destruction; and (2) maintains its historic features and compatibility of setting, orientation, and general environment.
- *Reconstructed buildings.* Buildings under 50 years of age may be eligible if they embody traditional building methods and techniques that play an important role in a community's historically rooted beliefs, customs, and practices (e.g., a Native American roundhouse).
- *Historical resources achieving significance within the past fifty years.* Resources less than fifty years old may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance.

P-24-000091, the Buhach Lateral, does not meet any of the three special considerations listed above. The lateral has not been moved, the lateral is not a reconstructed building; and the lateral is over 50 years of age.

Because of a lack of integrity and significant historical associations, P-24-000091, the Buhach Lateral, is not eligible for listing in the National Register. The Buhach Lateral is also not eligible for the California Register because it does not meet the requirements of the special considerations for eligibility.

For additional details, see the report entitled *A Cultural Resources Study and Historical Evaluation for the Buhach Road/Ashby Road Intersection Improvements Project, Near Atwater, Merced County, California* (Pulcheon 2006).

References:

Hatoff, Brian, Barbara Voss, Sharon Waechter, and Steven Wee

1995 *Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project*. Woodward-Clyde Associates, Oakland, California.

California Office of Historic Preservation

1999 *California Register and National Register: A Comparison*. Technical Assistance Series 6. California Department of Parks and Recreation, Sacramento.

Page 25 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Buhach Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-BH-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 715,556mE; 4,132,990mN. Point located on Elliot Avenue on the section line between sections 17 and 20 T7S/R13E MDBM (See Location Map 5).

9 / 14

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 15 feet wide and four feet deep. It runs roughly north to south from its origination point in Section 6 T7S/R13E MDBM where it branches off from the MID's Livingston Canal. The channel is trapezoidal and lined with concrete. An access road runs on the east side of the canal. The canal passes under Elliot Road via a concrete culvert (Photographs 24, 45, 46).

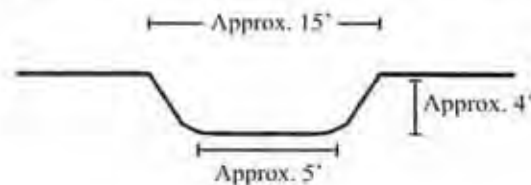
L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 5 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

AH 00

L4e. Sketch of Cross-Section (include scale) **Facing:** south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: The Buhach Lateral was lined with concrete after World War II, and, therefore, lacks integrity to its period of construction.



L8b. Description of Photo, Map, or Drawing:

Photograph 24. Buhach Lateral, camera facing south, 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 1/2/07

P-24-000091

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____

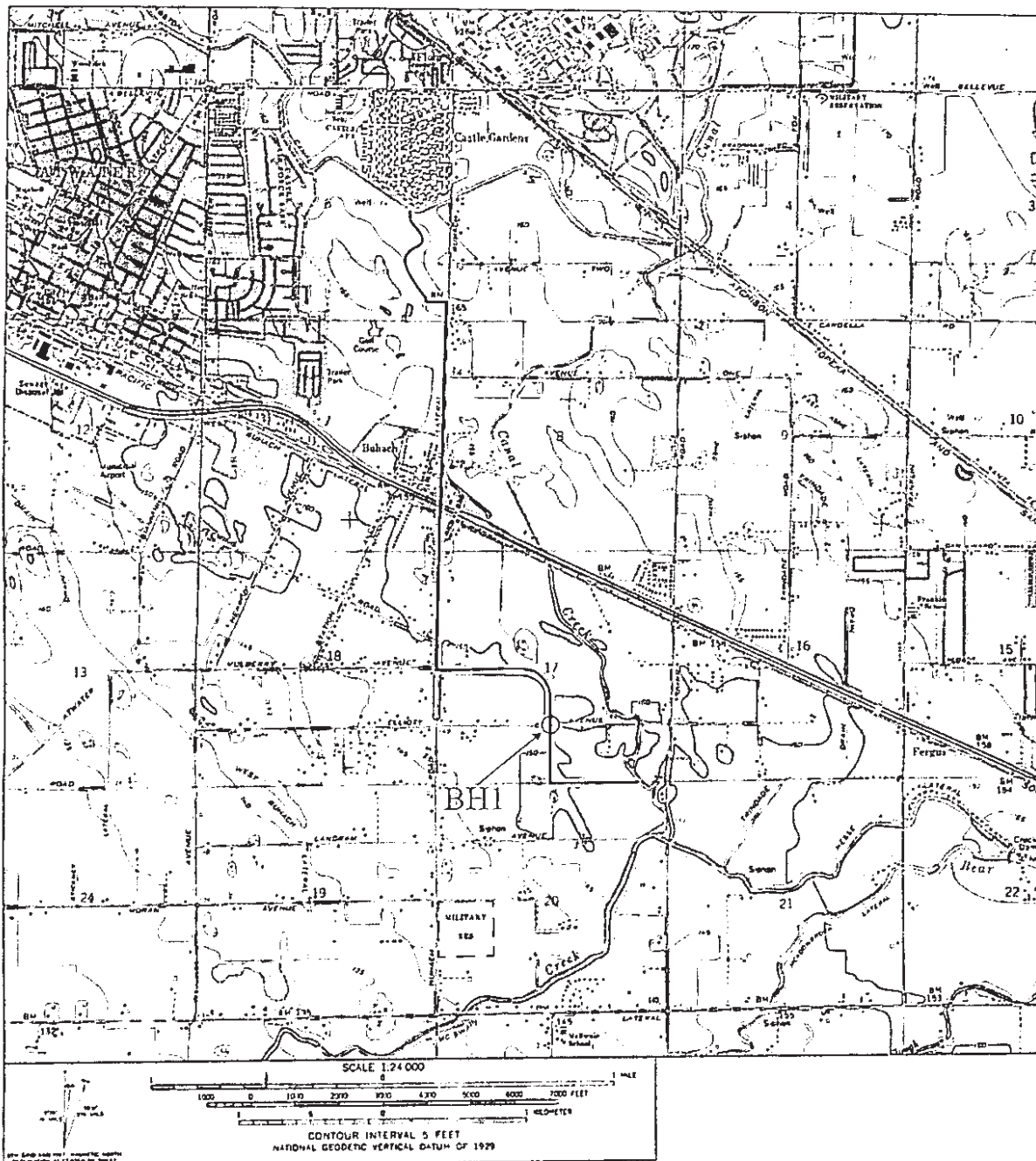
Page 73 of 75

*Resource Name or # MR1

*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)



Location Map 5. Map showing location of Buhach Lateral.

4/96

SITE NAME: Canal Creek, Merced Irrigation District, Merced County
SITE NUMBER: LG-20
QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 171.0, Mainline

Description of Feature

Site LG-20 represents the point at which the APE for the proposed Mojave Pipelines Northward Expansion will cross Canal Creek, a natural channel used in some instances as a conduit by the Merced Irrigation District, near the community of Atwater, Merced County. Upstream from the APE, Canal Creek is a natural stream that is used as part of the Merced Irrigation District distribution system, a not uncommon practice among San Joaquin Valley irrigation districts. Upstream from LG-20, the creek carries water, drawing from the Main Canal. The bulk of this water is diverted into the Livingston Lateral, however, leaving the creek as a runoff or drainage channel at Site LG-20. Downstream from this site, the natural channel delivers water to the Black Rascal Creek, which also occasionally serves as a conduit for irrigation water. The channel within the APE is shown in **Photograph 1**.

To provide a comparative context, JRP recorded the canal's physical attributes within the APE and at points north and south of it. Within the APE, the creek measures about 29' at the top of the embankment. One comparative record was made about 1/2 mile downstream, as shown in **Photograph 2**. The creek was about 38' wide at this point. A second measurement was made about 1/2 mile upstream, where the creek is 48' wide. It is shown in **Photograph 3**.

The area immediately surrounding the APE is dominated by the tracks and Highway 99 to the east and commercial agriculture west of the tracks.

History of Feature

The Canal Creek, as the name implies, is a natural creek used by the irrigation district as a canal. For a more detailed discussion of the history of the Merced Irrigation District, see Section 2.2.

There is a long tradition in the San Joaquin Valley of using natural channels for irrigation conduits. The region is laced with intermittent streams which were available for inexpensive, although inefficient, delivery of irrigation water. Fancher Creek in Fresno, for example, is one of the oldest main canals in the valley, being continuously used for that purpose since the late 1860s.

Canal Creek apparently serves a much more limited role in the system of the Merced Irrigation District. Upstream from the APE, the channel carries fresh irrigation water, derived from the main distribution system from Lake Yosemite. At and near the APE, the

creek reverts to its natural drainage function, including drainage of agricultural runoff. In a sense, the Canal Creek has always been a part of the irrigation system of the Merced Irrigation District, although that function has probably diminished over time as man-made canals replaced most of its delivery functions.

Evaluation of Feature

Site LG-20, the Canal Creek, does not appear to be eligible for listing in the National Register of Historic Places. In essence, the channel is a natural rather than a cultural resource, its basic alignment, geometry, and other attributes being natural rather than cultural in origin. The creek does function as part of the larger Merced Irrigation District system, although that function is of marginal importance within and near the APE. As a natural feature, the creek is not eligible under National Register Criterion C, as a distinguished example of a type, period, or method of construction. Neither does it appear to be eligible under National Register Criteria A or B; there are no known associations with important persons and the association with historic events is not apparent. The canal is not and never has been a major part of the Merced Irrigation District system does not appear to meet the National Register eligibility criteria in that respect.

P-24-000090

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 171.0, Mainline

LOCATION NO: LG-20
PHOTO DATE: June 3, 1993

1. **Name of Feature:** Canal Creek
2. **Location of recordation:** Where SP Avenue crosses the canal, about 1/2 mile east of Buhach Road and 1/2 mile west of Gurr Road.
3. **Other locations for recording this feature:** LG-20(n) and LG-20(s)
4. **Structures at or near this location:** A concrete bridge carries SP Avenue over the canal. A trestle carries the Southern Pacific railroad tracks over the canal. Highway 99, east of the APE, parallels the railroad tracks. The Highway 99 bridge over the canal was built in 1947.
5. **Setting at this location:** Commercial agriculture dominates the area to the south, with residences scattered throughout.
6. **Integrity considerations for this feature:** The feature is a natural channel.
7. **Attributes at this location (measurements in feet):**

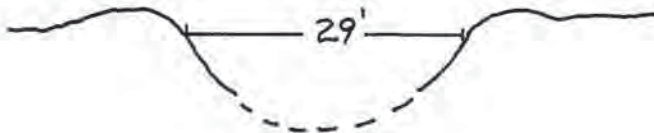
Top width: 39' at SP Avenue Bridge, the creek narrows to 29' at the railroad trestle.

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Earthen

8. **Sketch, in cross section:** Looking west



P-24-000090

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: LG-20(n)
PHOTO DATE: June 3, 1993

1. **Name of Feature:** Canal Creek
2. **Location of recordation:** 0.4 mile east of Buhach Road, where Avenue One crosses over canal.
3. **Other locations for recording this feature:** LG-20 and LG-20(s)
4. **Structures at or near this location:** A concrete bridge carries Avenue One over the canal at this location.
5. **Setting at this location:** The setting at this location is dominated by commercial agricultural and scattered suburban residential developments.
6. **Integrity considerations for this feature:** This feature is a natural channel.
7. **Attributes at this location (measurements in feet):**

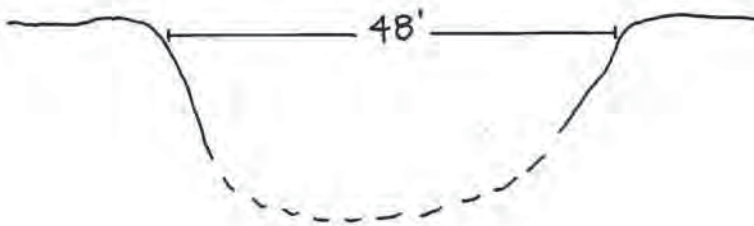
Top width: 48

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Earthen

8. **Sketch, in cross section:** Looking northeast



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000090

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: LG-20(s)
PHOTO DATE: June 3, 1993

1. **Name of Feature:** Canal Creek
2. **Location of recordation:** Where Elliott Avenue crosses over the canal, about 0.1 mile west of Gurr Road.
3. **Other locations for recording this feature:** LG-20 and LG-20(n)
4. **Structures at or near this location:** A concrete bridge carries Elliott Road over the canal. LG-19 drains into this canal about 10' from the south side of Elliott Road.
5. **Setting at this location:** This area is dominated by commercial agriculture.
6. **Integrity considerations for this feature:** This feature is a natural channel.
7. **Attributes at this location (measurements in feet):**

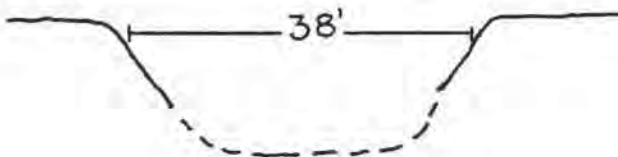
Top width: 38

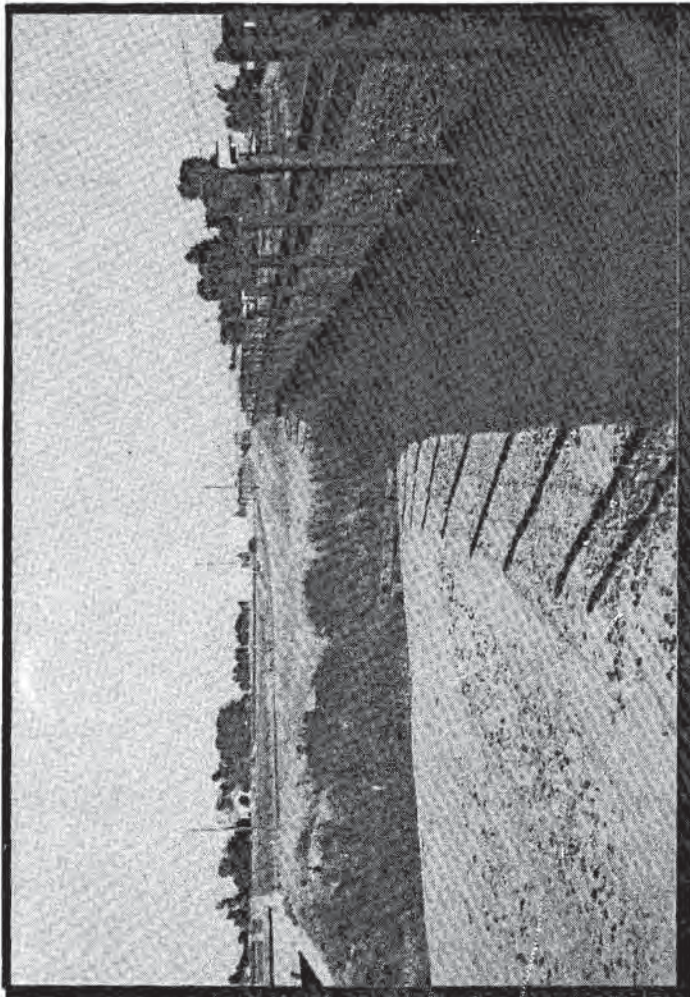
Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Earthen

8. **Sketch, in cross section:** Looking south





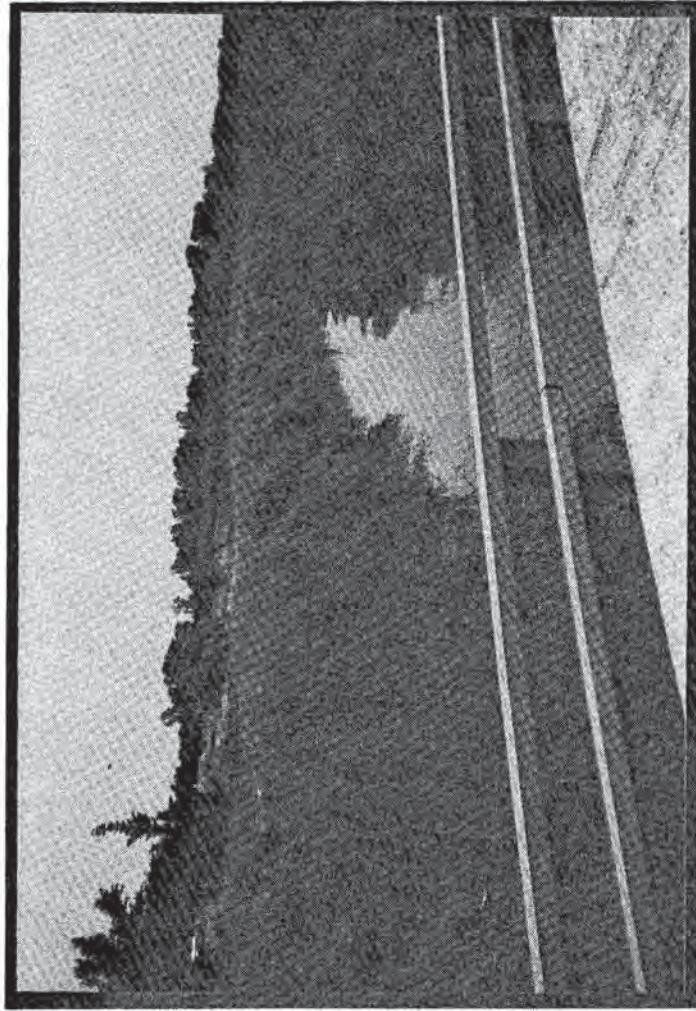
1

Photograph Number: 1
 Site Number: LG-20
 Common Name: Canal Creek
 Camera Facing: Northwest

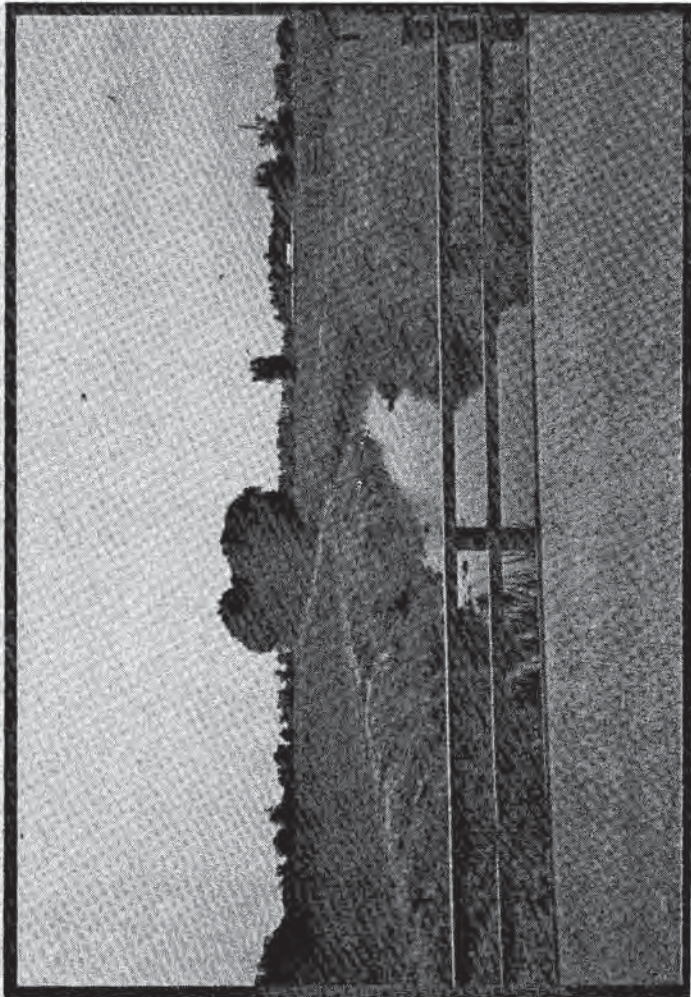
Photograph Number: 2
 Site Number: LG-20(s)
 Common Name: Canal Creek
 Camera Facing: South

Photograph Number: 3
 Site Number: LG-20(n)
 Common Name: Canal Creek
 Camera Facing: Northeast

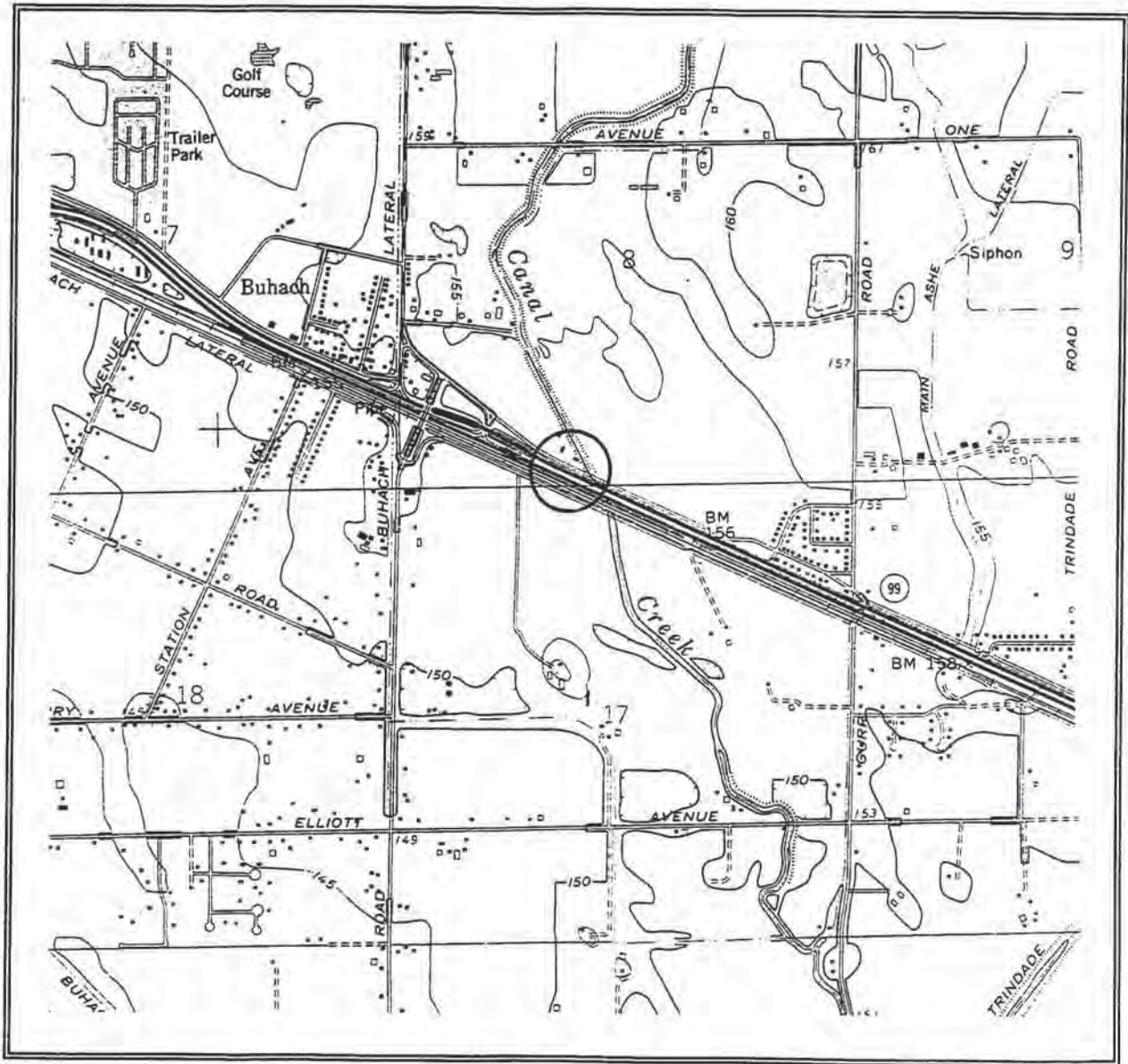
3



2



P-24-000090



SITE NAME: Canal Creek, Merced Irrigation District, Merced County

SITE NUMBER: LG-20

QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987

PIPELINE LOCATION: Milepost 171.0, Mainline

(New Seg.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-24-000090
HRI #
Trinomial
NRHP Status Code 6Z

☐ Continuation ☒ Update

Page 1 of 2

P1. Temporary Number/Resource Name: Canal Creek

P2. Location: a. County: Merced, CA

☐ Not for Publication

☒ Unrestricted

b. USGS 7.5' Quad: Atwater

Date 1960, photorev, 1987

T. 7S, R. 13E; N 1/2 of Section 8

M.D. B.M.

c. Address:

d. UTM: Zone 10
Point #1 715280 / mE 4135420 / mN
Point #2 715880 / mE 4135820 / mN
Point #3 716240 / mE 4134840 / mN

6/06

e. Other Locational Data: Point #1 of recorded segment is where canal crosses under West Avenue One. Point #2 denotes where the Hartley Lateral passes over Canal Creek by flume. Point #3 of recorded segment is where canal crosses section line between Sections 5 and 8 and exits the current project area.

P3a. Description: Canal Creek was previously recorded and documented in 1997 by Napton. This form further documents Canal Creek, which is a natural channel that the Merced Irrigation District uses as part of the district distribution system. At its northern terminus, Canal Creek draws water from the Main Canal. Just north of the current project area, a great deal of Canal Creek water is diverted into the Livingston Canal, so that within the project area, Canal Creek merely serves as a runoff or drainage channel. Canal Creek eventually empties into Black Rascal Creek, well south of the project area. Within the project area, Canal Creek varies between 45 and 52 feet wide. High water flows precluded depth or bottom width measurements. Embankments on each side of the canal, measuring approximately 6 feet high, serve as levees that allow an increase in water volume.

P3b. Resource Attributes: (List attributes and codes) IIP20 (Irrigation canal)

P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5. Photograph or Drawing: Canal (DSCN-0537), view to the north.

P6. Date Constructed/Age:

☐ Prehistoric
☒ Historic Unknown
☐ Both

P7. Owner and Address:

Merced Irrigation District
Merced, CA 95348

P8. Recorded by: W. Nettles
Applied EarthWorks, Inc.
5090 N. Fruit Ave. #101
Fresno, CA 93711

P9. Date Recorded: 1997
Updated: 1 March 2006

P10. Survey Type:

☒ Intensive
☐ Reconnaissance
☐ Other

Describe: Intensive
pedestrian survey

P11. Report Citation:

Nettles, Wendy M.

2006 Cultural Resources Survey for the Willow Creek Specific Plan/EIR, City of Atwater, Merced County, California. Applied EarthWorks, Inc., Fresno, California. Submitted to Quad Knopf, Roseville, California.



Attachments: ☐ NONE

☒ Location Map

☐ Site/Sketch Map

☐ Continuation Sheet

☐ Building, Structure,
and Object Record

☐ Archaeological Record

☐ District Record

☐ Linear Feature Record

☐ Photograph Record

☐ Milling Station Record

☐ Rock Art Record

☐ Artifact Record

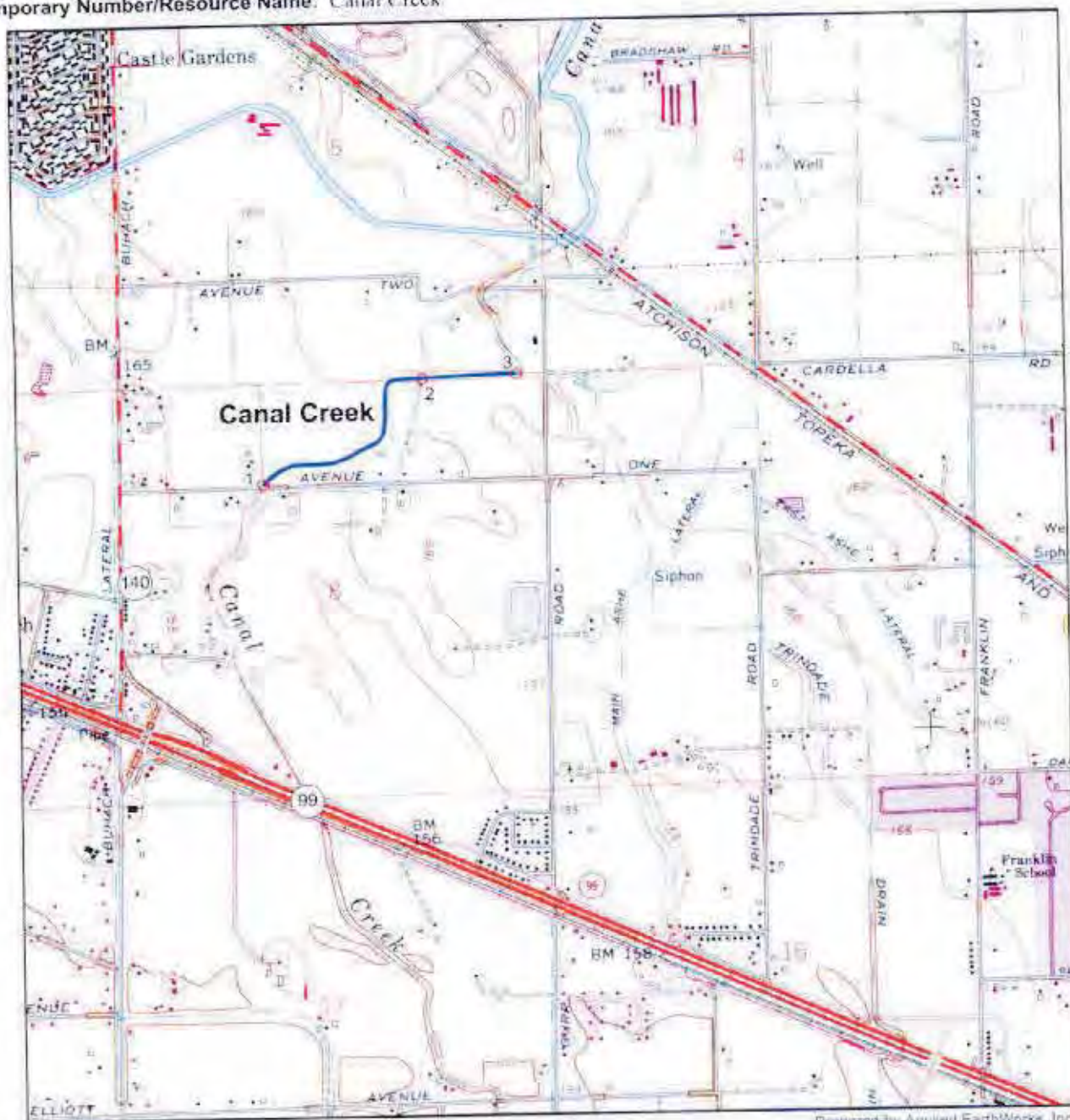
☐ Other (list):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # P-24-000090
HRI #/Trinomial

Page 2 of 2

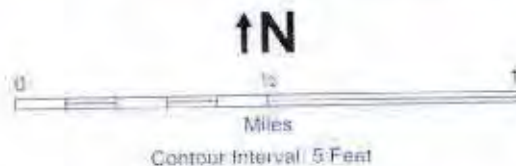
Temporary Number/Resource Name: Canal Creek



Confidential: Not for Public Distribution

Prepared by Applied EarthWorks, Inc.

U.S.G.S. 7.5 Minute
Topographic Quadrangle
Atwater, CA
T7S-R13E
1960, Photorevised 1987



CONTINUATION SHEET

*Updated by: S. Pappas

*Date: 5/2/08

☐ Continuation

☒ Update

Canal Creek was revisited in April 2008 by ECORP archaeologists Stephen Pappas and Kyle Johnson during the pedestrian survey for the Brookfield Castle Farms Project (ECORP 2008). Originally recorded by Napton in 1997, and updated by Nettles in 2006 (two different segments were recorded each time) ECORP updated another segment of the creek. Pappas and Johnson walked the portions of Canal Creek that fell within the Castle Farms property. The creek appeared in good condition with little damage except for natural erosion. The portions of Canal Creek that are within the Castle Farms property have not been altered or modified which would in most instances, prevent it from being considered a cultural resource. However, since modified portions of the canal have been recorded, this is an update to describe the conditions of the creek within the studied area.

References:

ECORP Consulting, Inc.

2008 Cultural Resources Survey, Brookfield Castle Farms, Merced County, California, ECORP Project # 2007-193.
Report on File at CCIC, CSU Stanislaus, CA.

Page 3 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-1

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,126mE; 4,137,517mN. Located at the Canal Creek bridge on Fox Road in the S1/2 of Section 33, T6S/R13E MDBM near the intersection of Fox Road and Bellevue Road (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

Canal Creek originates in Section 29 T5S/R14E MDBM where it branches off from the MID's Main Canal. This segment of the canal is U-shaped and approximately 62.5 feet wide at the top. It is unlined and vegetation grows along its gently sloping banks which show signs of erosion. On the both sides of the canal are access roads. The canal is crossed by the Fox Road bridge (Photographs 2, 29).

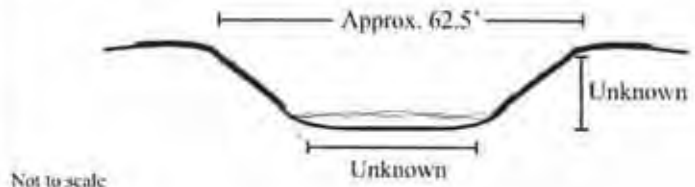
L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 62.5 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

AH CP

L4e. Sketch of Cross-Section (include scale) Facing: east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The terrain is flat agricultural land of pastures, orchards, and row crops. Immediately to the northwest of this point is the former Castle Air Force Base.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 2. Canal Creek from Fox Road Bridge, camera facing east. 12/12/06

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin

JRP Historical Consulting Services, LLC

1490 Drew Ave, Suite 110

Davis, CA 95618

L11. Date: 12/28/06



L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MRI-CC-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10, 716,115mE; 4,136,176mN. Located at the Avenue Two bridge over Canal Creek in the SE1/4 of Section 5 T7S/R13E MDBM (See Location Map 1).

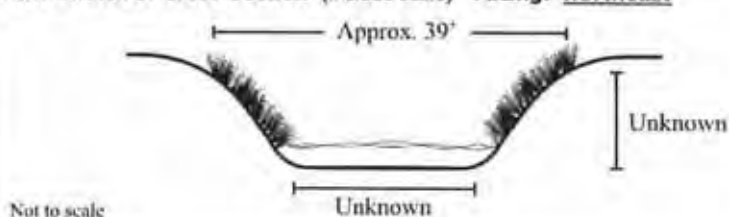
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 39 feet wide. Water in the canal prevented an accurate determination of depth. The unlined channel is U-shaped with bramble growing on its steep banks. The Avenue Two bridge crosses the canal (Photograph 3, 32).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 39 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** northeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The terrain is flat agricultural land used as pastures and for raising alfalfa.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 3. Canal Creek from
Avenue Two, camera facing northeast,
12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/2/06

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment Point Observation

Designation: MR1-CC-3

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map. UTM: 715,287mE; 4,135,411mN; located at the Avenue One bridge over Canal Creek in the NW ¼ of Section 8, T7S/R13E MDBM (See Location Map 1).

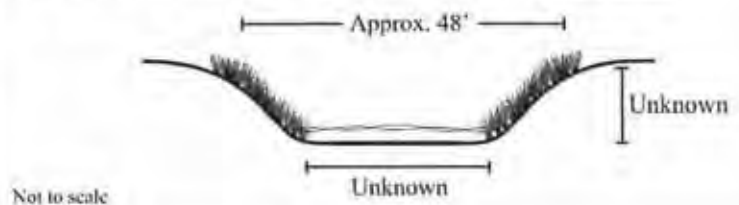
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 48 feet wide (Photographs 4). The unlined channel is U-shaped with bramble and grasses growing on its banks. The Avenue One bridge crosses the canal at this point (Photograph 4).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width:** approximately 48 feet
- b. **Bottom Width:** undetermined (carrying water)
- c. **Height or Depth:** undetermined (carrying water)
- d. **Length of Segment:** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: northeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

To the east of this canal segment the landscape is rural agricultural. To the west is residential development of recent construction.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 4. Canal Creek from Avenue One bridge, camera facing northeast. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



Page 6 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-4

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 715,490mE; 4,134,195mN; located at Ashby Avenue bridge over Canal Creek in S1/2 of Section 8, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

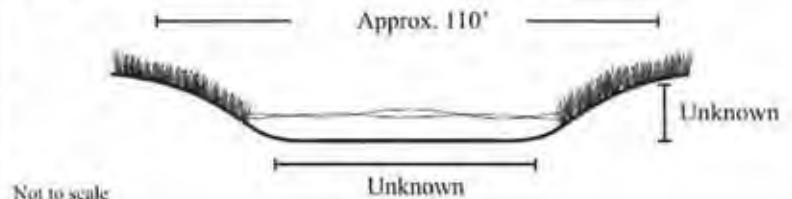
At this point the canal is approximately 110 feet wide. The unlined channel is U-shaped with bramble and grasses growing on its banks. There is an overgrown access road on the west side of the canal. The Ashby Avenue bridge and US 99 cross the canal at this point (Photographs 5).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 110 feet wide
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (Include scale) Facing: northwest



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural to the north of this point. To the south is the four-lane US 99.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 5. Canal Creek from Ashby Avenue bridge, camera facing northwest. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-5

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 715,516mE; 4,134,107mN; located Southern Pacific Avenue bridge over Canal Creek in N1/2 of Section 17, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

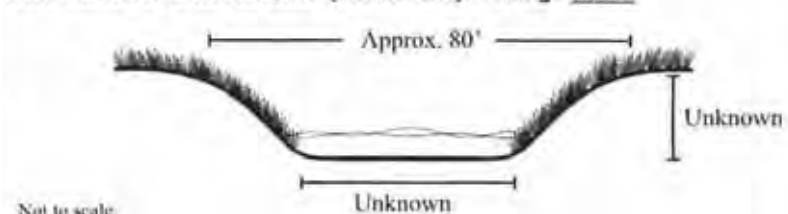
At this point the canal is approximately 80 feet wide. The unlined channel is U-shaped with bramble and grasses growing on its banks. There is an overgrown access road on the west side of the canal. A Union Pacific Railroad bridge and the SP Avenue bridge cross the canal at this point (Photograph 6).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 80 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural to the south of this point. To the north is the four-lane US 99.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing: Photograph 6. Canal Creek passing under US 99 and Union Pacific railroad tracks. Photo taken from Southern Pacific Avenue bridge, camera facing north. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06

Page 8 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-CC-6

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 716,169mE; 4,133,021mN; located at the Canal Creek on Elliot Avenue bridge in SW1/4 of Section 17, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

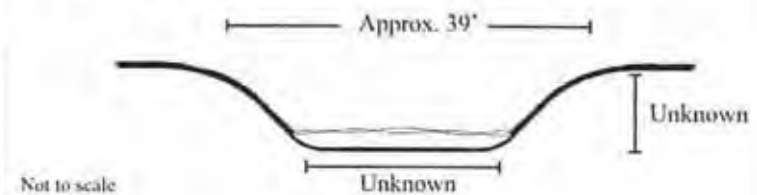
At this point the canal is approximately 39 feet wide. The unlined channel is U-shaped with bramble, grasses, and scattered trees growing on its shallow, gently sloping banks. Canal Creek has a natural appearance at this point. The Elliot Avenue bridge crosses the canal (Photograph 7).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 39 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with much of the nearby land devoted to pastures.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 7. Canal Creek from Elliot Avenue bridge, camera facing south.
12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # _____
HRI # _____
Trinomial _____

Page 9 of 75

*Resource Name or # MR1

P-24-000090

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment Point Observation

Designation: MR1-CC-7

*b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 716,373mE; 4,132,341mN; located at the Landram Avenue bridge over Canal Creek in NE1/4 of Section 20, T7S/R13E MDBM (See Location Map 1).

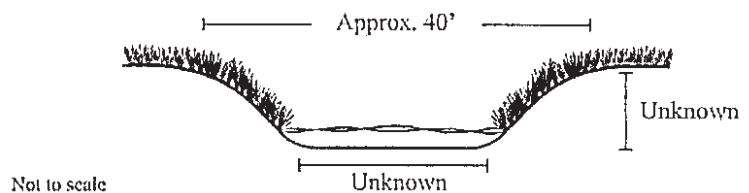
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 40 feet wide. The unlined channel is U-shaped with bramble, grasses, and scattered trees growing on its steep banks. An access road is on the west side of the canal. The Landram Avenue bridge crosses the canal (Photograph 8).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. Top Width approximately 40 feet
- b. Bottom Width undetermined (carrying water)
- c. Height or Depth undetermined (carrying water)
- d. Length of Segment approximately 200 feet

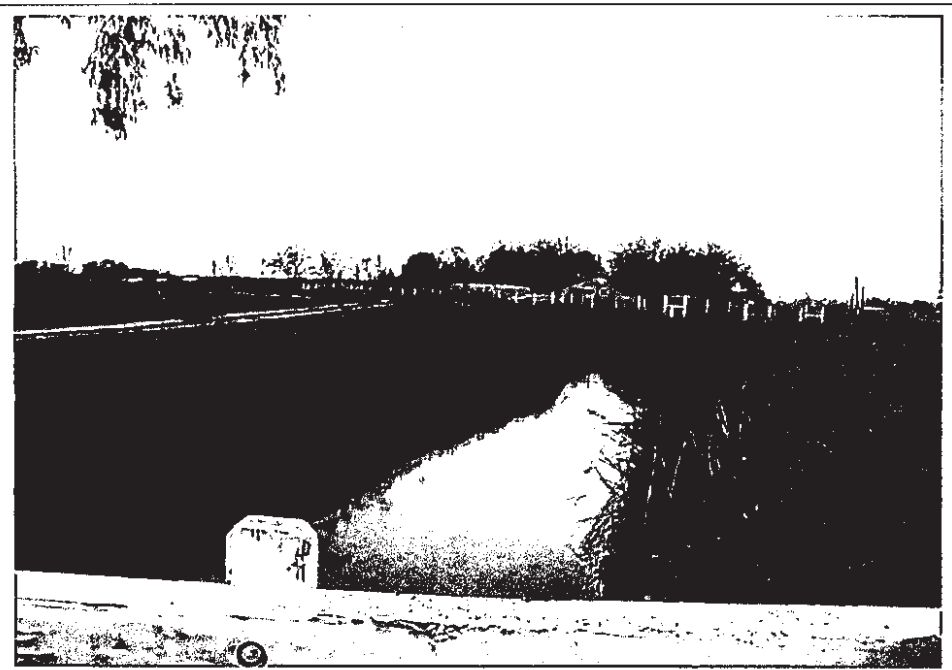
L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing: Photograph 8. Canal Creek from Landram Avenue bridge, camera facing north. 12/12/06.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment Point Observation

Designation: MRI-CC-8

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 100717665mE; 4139125mN; located at Ladino Road bridge over Canal Creek on the section line between Sections 28 and 33, T6S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

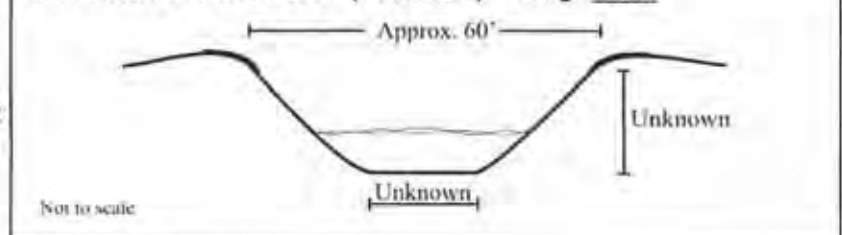
At this point the canal is approximately 60 feet wide. Overall, the channel at this point has a natural, riparian appearance. North of the bridge there is some riprap on the west bank, but this section is mostly covered with bramble, grasses, and scattered trees. A small residential area is also on this side of the bridge. South of the bridge the land appears to be used for grazing and the eroding banks are mostly bare with scattered patches of grass. Also south of the bridge is a metering station and a vertical pipe (Photograph 9).

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 60 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with a small concentration of approximately five houses on the north side of the Ladino Bridge east of the creek.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:

Photograph 9. Canal Creek at Ladino Road, view south. 1/22/07

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/22/07

L1. Historic and/or Common Name: Canal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** MR1-CC-9

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

UTM: Zone 10; 716,394mE; 4,136,363mN; At confluence with Livingston Canal; SW1/4 of Section 4, T7S/R13E MDBM (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

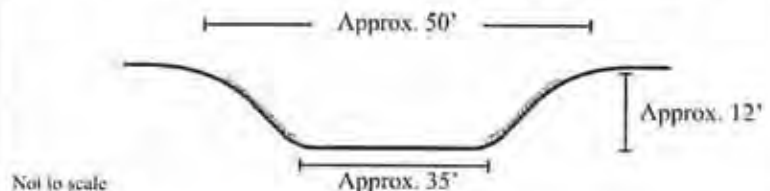
The section of Canal Creek contains the headgate for the Livingston Canal and also a headgate to control the flow of Canal Creek downstream from this point. The headgate has four metal gates set in a concrete structure. The entire structure is approximately thirty feet long and ten feet wide. On both the upstream and downstream faces are concrete wings. The top of the headgate functions as a bridge and there is a metal railing on both sides and a guardrail on the downstream side. Also present on top of the headgate is the gate operating equipment. The canal at this point is approximately 50 feet wide and 12 feet deep and is roughly U-shaped. It is unlined except for a small area the area between the two headgates lined with riprap. The steep banks are wide with little vegetation and show signs of erosion. Immediately upstream from the headgate the canal passes under the BNSF railroad and Santa Fe Drive. Two large drain pipes protrude from the south bank of Canal Creek at this point (Photograph 10, 49, 51).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 50 feet
- b. **Bottom Width** approximately 35 feet
- c. **Height or Depth** approximately 12 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (Include scale) **Facing:** southwest



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

This segment of canal is set in a relatively isolated area near the BNSF railroad. The land immediately adjacent is uncultivated and with some trees.



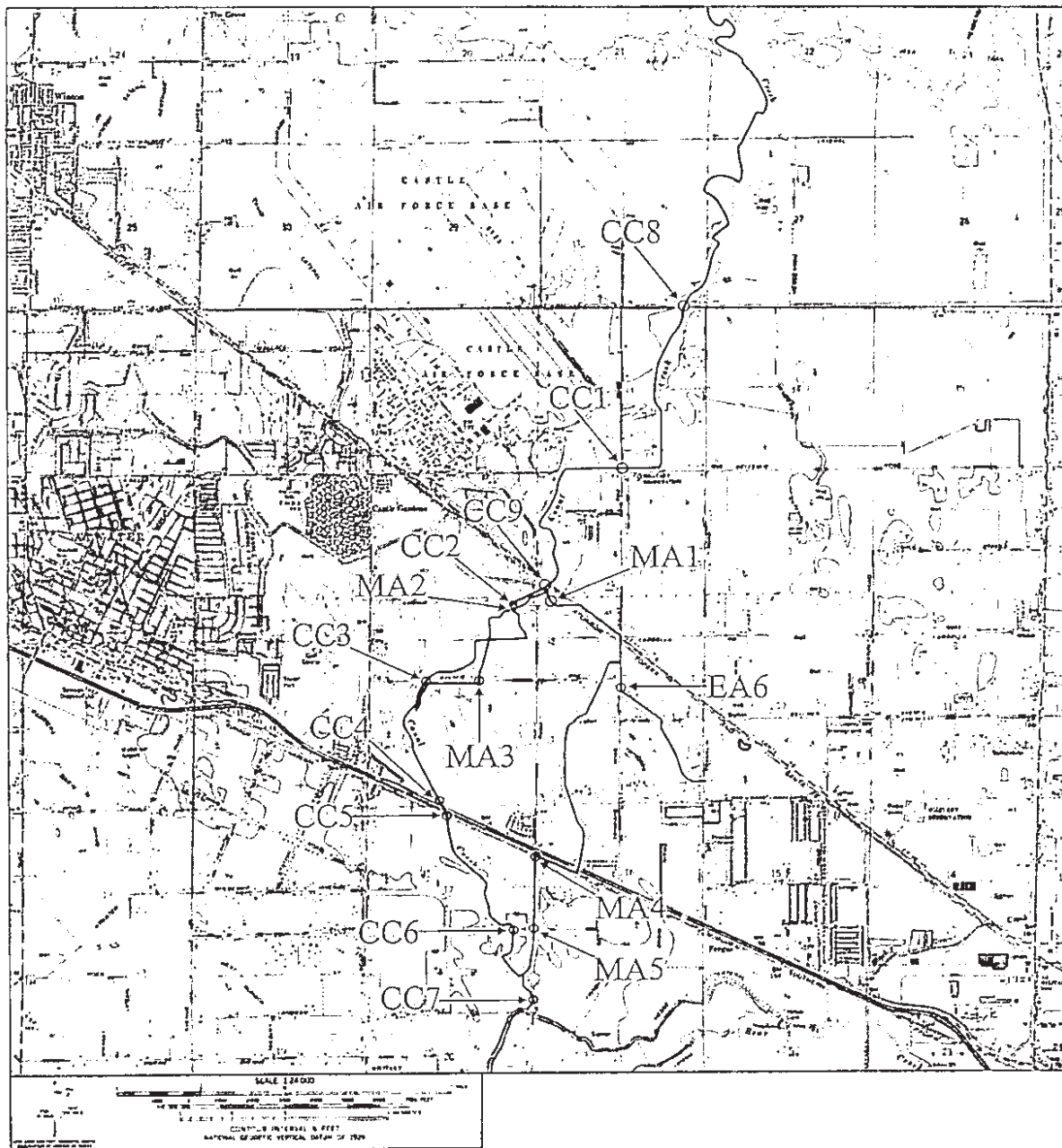
L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 10. Canal Creek with flow control headgate, camera facing southwest. 1/22/07.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/22/07



Location Map 1. Map showing portion of Canal Creek, Main Ashe Lateral, and East Ashe Lateral.

4/96

SITE NAME: Remnant of Ashe Lateral Inverted Siphon, Merced Irrigation District,
Merced County

SITE NUMBER: LG-18

QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987

PIPELINE LOCATION: Milepost 170.2, Mainline

Description of Feature

This feature is a remnant of an abandoned brick inverted siphon, designed to carry the Ashe Lateral under the Southern Pacific Railroad tracks. The Ashe Lateral is part of the Merced Irrigation District water delivery system and this siphon was designed to serve that system. It is now inoperable.

The Ashe Lateral inverted siphon was designed to carry the canal under the railroad tracks, operating essentially as a culvert with gentle grades at either side of the tracks. For a discussion of the operation of an inverted siphon railroad under-crossing, see the form for Site DG-25, an operable unit located in Fresno County. The unit became obsolete in the late 1940s, when Highway 99 was built immediately adjacent to the tracks. With this new construction, the length as well as the depth of the siphon had to be increased. It appears that the Merced Irrigation District used the highway construction as an opportunity to improve its entire system within the vicinity of LG-18, including a realignment of the Ashe Lateral. The lateral was placed in pipe under the highway and railroad tracks, with gates at either side. On the south side of the tracks, the gate controls are located in a concrete box just south of Site LG-18. The new control box and LG-18 are shown in **Photograph 1**.

The siphon remnant is a semi-circle, built of brick with concrete plaster. The visible remnant is about 1' thick, 13' wide, and a little over 2' in height. The actual height of the unit would be much greater, extending to the bottom of the siphon. It may be presumed that the siphon itself was damaged or perhaps demolished when the pipeline was installed.

Site LG-18 is located in a predominantly residential area of Merced County, nestled within a pocket of suburban development surrounded by commercial agricultural lands.

History of Feature

Site LG-18 is a remnant of an abandoned brick inverted siphon culvert, once operated by the Merced Irrigation District. For more detailed history of the district, see Section 2.2. In all likelihood, the structure was built during the late 19th or early 20th century. After about 1910, structures of this sort were commonly constructed of reinforced concrete, a material and construction method that was developed during the late 19th century but which became economically viable in California in the early decades of the 20th century (Etcheverry, 1916:345).

Recognizing this, the siphon was probably built by the Crocker-Huffman Land and Water Company, which purchased the Merced Canal and Irrigation Company works in 1888 and operated canals in the Merced area until being purchased by the Merced Irrigation District in 1919. The company focused primarily upon delivering water to lands east of the Southern Pacific Railroad; even today the Merced Irrigation District delivers far more water on the east than on the west side of the valley.

Although not documented through irrigation district records, it is quite likely that this siphon was replaced in the late 1940s when Highway 99 was constructed on its current alignment. The highway construction more than tripled the distance required for the under-crossing, forcing the irrigation district to install a deeper and longer conduit. The brick feature identified as LG-18, then, is an inoperable remnant of a turn-of-the-century engineering feature.

Evaluation of Feature

Site LG-18 does not appear to be eligible for listing in the National Register of Historic Places because it lacks integrity of design, materials, workmanship, feeling and association. Were it intact, the feature would be of some potential significance as a rare example of a once-common resource type: the masonry siphon used to carry an irrigation canal under the Southern Pacific Railroad tracks. As noted, Site DG-25 is an intact example of this resource type in Fresno County, recorded as part of this survey, and it appears to be significant. Site LG-18, however, does not retain sufficient integrity to warrant National Register listing. As an isolated wall, it does not convey the function or feeling of this property type and for that reason does not appear to be eligible.

P-24-000088

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 170.2, Mainline

LOCATION NO: LG-18
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Remnant of Ashe Lateral Inverted Siphon.
2. **Location of recordation:** On SP Avenue, adjacent to the Southern Pacific railroad tracks, roughly .25 mile east of Gurr Road.
3. **Other locations for recording this feature:** N/A
4. **Structures at or near this location:** Site LG-18 is an abandoned outlet for a brick inverted siphon culvert. Just south of this brick outlet is a concrete central box for irrigation pipes, which replaced the culvert as the lateral's conveyance under the railroad tracks and Highway 99.
5. **Setting at this location:** This area is dominated by urban residences, along with the railroad tracks and Highway 99.
6. **Integrity considerations for this feature:** Integrity has been lost for this feature.
7. **Attributes at this location (measurements in feet):**

Top width: 1

Bottom width: Longest width 13' 3"

Height or Depth: 2' 4" at its greatest height

Material: Concrete and brick

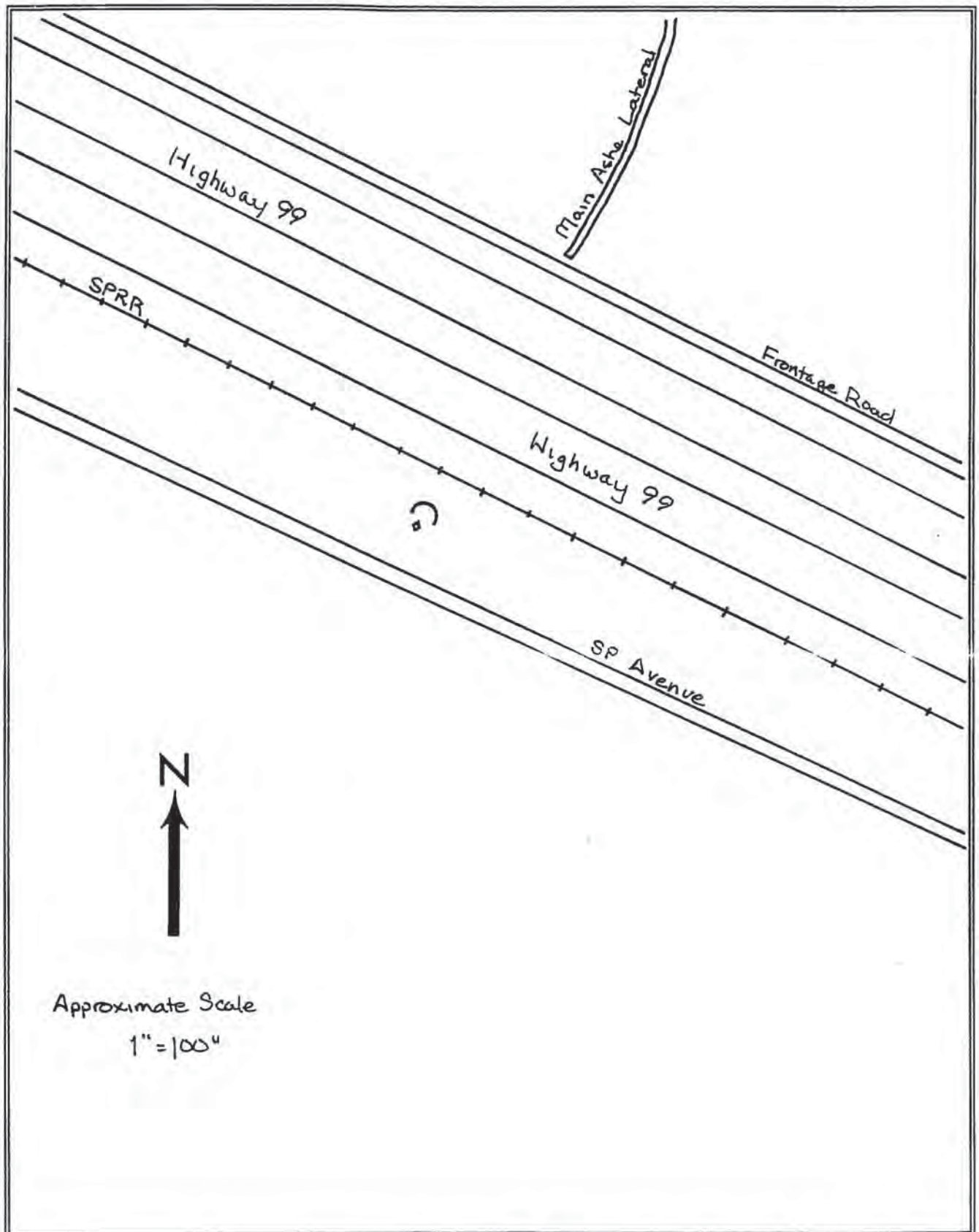
8. **Sketch, in cross section:** See site plan



1

Photograph Number: 1
Site Number: LG-18
Common Name: Remnant of Ashe Lateral Inverted Siphon
Camera Facing: North

P-24-000088



SITE SKETCH: Remnant of Ashe Lateral Inverted Siphon, Merced Irrigation District, Merced County

SITE NUMBER: LG-18

PIPELINE LOCATION: Milepost 170.2, Mainline

SITE NUMBER: LG-18

PIPELINE LOCATION: Milepost 170.2, Mainline

FEATURE LG-18, REROUTE A-113
ADDENDUM TO HISTORIC FEATURE EVALUATION FORM

ALT #	A-113
ORIGINAL SITE #	LG-18
SEGMENT	Mainline
MILEPOSTS	161.8
QUAD NO., NAME	28, Merced (1961/1987)

COMMENTS:

The original alignment at LG-18 ran on the west side of the Southern Pacific Railroad mainline tracks running southeast of Atwater and northeast of Merced, California, at the point where the old Main Ashe Lateral siphon passed beneath the Southern Pacific Railroad tracks. The proposed realignment shifts the proposed pipeline onto private property 15' west of the railroad right of way. JRP recorded LG-18 at the original location east of the proposed realignment. Evaluation of site records and photographs indicates that LG-18 is a single site that will not be further affected by the proposed alignment and thus needs no further field work nor evaluation. (see Site Form LG-18 in main body of Class III Report)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

update (new seg.)
Primary # P-24-000088
HRI #

Trinomial
NRHP Status Code 7R

Page 1 of 5

Other Listings
Review Code

Reviewer

Date

6/06

P1. Temporary Number/Resource Name: Main Ashe Lateral

P2. Location: a. County: Merced, CA

☐ Not for Publication

☒ Unrestricted

b. USGS 7.5' Quad: Atwater Date 1960, photorev. 1987 T 7S, R 13E; X 1/2 of Section 9; NE 1/4 of Section 16

c. Address:

M.D. B.M.

d. UTM: Zone 10
Point #1 717130 / mE 4135625 / mN Point #4 716630 / mE 4134810 / mN
Point #2 716980 / mE 4135460 / mN Point #5 716630 / mE 4134640 / mN
Point #3 716750 / mE 4135060 / mN Point #6 716785 / mE 4133700 / mN

e. Other Locational Data: Point #1 represents the location where the Main Ashe Lateral enters the current project area. Point #2 is a culvert that carries the lateral underneath Avenue One. Points #3, #4, and #5 are an inverted siphon, a culvert, and a gate, respectively. At Point #6, the lateral passes out of the current project area via the Main Ashe Spill and the Webber Drain.

P3a. Description: The Main Ashe Lateral canal is part of the drainage system of Canal Creek. The lateral begins at the point where Canal Creek crosses underneath the Atchison, Topeka, and Santa Fe Railroad tracks. The lateral proceeds southeasterly, paralleling the railroad until Fox Road, where it turns south. It is at that point that the lateral enters the current project area (Point #1). The Main Ashe Lateral is a concrete-lined canal that generally proceeds south-southeast through the current project area, exiting the area at the southern project boundary. (See continuation sheet).

P3b. Resource Attributes: (List attributes and codes) HP20 (Irrigation canal)

P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5. Photograph or Drawing: Main Ashe Lateral passing under Avenue One (DSCN-2124), view to the north at Point #2. (See continuation sheet.)

P6. Date Constructed/Age:

☐ Prehistoric
☒ Historic Circa 1900
☐ Both

P7. Owner and Address:

Merced Irrigation District
Merced, CA 95348

P8. Recorded by: W. Nettles
Applied EarthWorks, Inc.
5090 N. Fruit Ave. #101
Fresno, CA 93711

P9. Date Recorded:

1 March 2006

P10. Survey Type:

☒ Intensive
☐ Reconnaissance
☐ Other
Describe: Intensive
pedestrian survey

P11. Report Citation:

Nettles, Wendy M.

2006 Cultural Resources Survey for the Willow Creek Specific Plan/EIR, City of Atwater, Merced County, California. Applied EarthWorks, Inc., Fresno, California. Submitted to Quad Knopf, Roseville, California.



Attachments: ☐ NONE ☒ Location Map ☐ Site/Sketch Map ☐ Continuation Sheet
☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record
☐ Photograph Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Other (list):

Temporary Number/Resource Name: Main Ashe Lateral

- P3a. Description (continued):** The northern half of this canal has a typical profile of 18 feet 6 inches wide at the top, 5 feet wide at the bottom, and 4 feet 6 inches deep. The southern half of the lateral narrows (at Point #5) to a typical profile of 10 feet 9 inches wide at the top, 3 feet 6 inches wide at the bottom, and 3 feet 6 inches deep.

There are several features associated with the Main Ashe Lateral. At Point #2, the lateral passes underneath Avenue One in a double culvert reinforced by a concrete headwall with two parallel wingwalls. At Point #3 an inverted siphon carries the lateral underneath the Trindade Drain, a modified natural drainage feature. The siphon intake, in the north side of the drain, is composed of a double headwall with parallel wingwalls constructed of highly aggregated concrete. Two vertical intake pipes are nestled within the "U" created by the headwall and wingwalls. On the south side of the drain is a single headwall with parallel wingwalls that protect the embankment from the water that flows upward through the single vertical pipe. The water then continues through the canal to Point #4. At that point, the water again passes through a gate and culvert. The gate appears to make use of flash boards to raise or lower the level of the canal before it enters the culvert. The culvert, which carries water under an access road, is a single conduit and is reinforced with a headwall and 45-degree wingwalls. Point #5 is a headgate that appears to have fallen into disuse. The concrete portion of the gate structure was cast in two pieces. A groove present within each of the two pieces may have once held a large steel gate. These grooves are the result of setting the now nonexistent gate into the forms prior to pouring the concrete. A concrete walkway allows access over the canal at this gate. This gate also marks the point where the canal narrows, as described above. At the southern boundary of the current project area, the Main Ashe Lateral ends. The headwall at the terminus of the canal allows the water to be directed either southward through a gate to the Main Ashe Spill, or westward to the Weber Drain through a grate.

- P5. Photograph or Drawing (continued):** Main Ashe Lateral siphon (DSCN-2239), view to the southwest at Point #3.



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #/Trinomial

P-24-000088

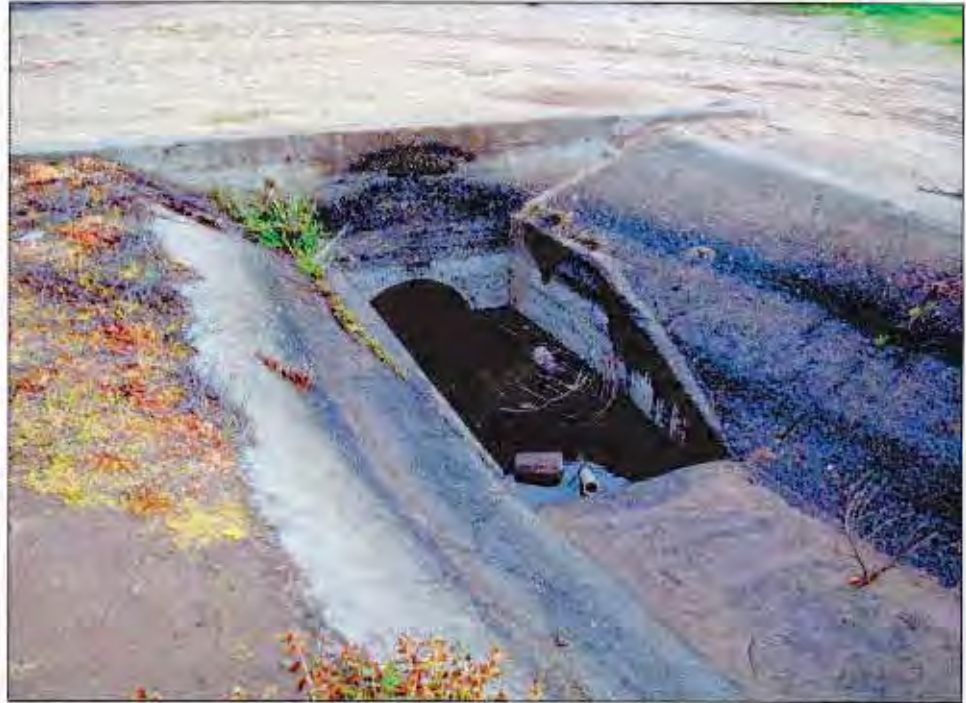
Page 3 of 5

☒ Continuation

☐ Update

Temporary Number/Resource Name: Main Ashe Lateral

- P5. Photograph or Drawing
(continued): Culvert on
Main Ashe Lateral
(DSCN-2257), view to the
north at Point #4.



- Main Ashe Lateral gate
and crosswalk (DSCN-
2234), view to the north at
Point #5.



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #/Trinomial

P24-000088

Page 4 of 5

☒ Continuation

☐ Update

Temporary Number/Resource Name: Main Ashe Lateral

- P5. Photograph or Drawing
(continued): Main Ashe
Lateral culvert gate at
Ashe Road (DSCN-2273),
view to the south at
Point #6.



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

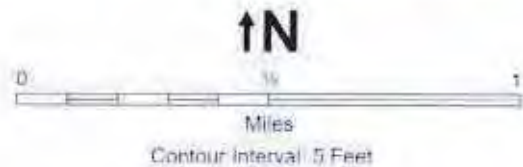
Primary # P-24-000088
HRI #/Trinomial CA-

Page 5 of 5

Temporary Number/Resource Name: Main Ashe Lateral



U.S.G.S. 7.5 Minute
Topographic Quadrangle
Atwater, CA
T7S-R13E
1960, Photorevised 1987



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-24-000088
HRI # _____
Trinomial _____

Page 12 of 75

*Resource Name or # MR1

L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-1

***b. Location of point or segment:** UTM Coordinates: Zone 10; 716,464mE; 4,136,219mN (See Location Map 1).

9/14

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the Main Ashe Lateral canal is approximately 20 feet wide and approximately four feet deep. It originates from Canal Creek in the SW1/4 of Section 4, T7S/R13E MDBM. It is trapezoidal and lined with concrete with metal control gates. Access roads are on both sides of the channel. The Avenue Two bridge crosses the canal at this point (Photograph 11).

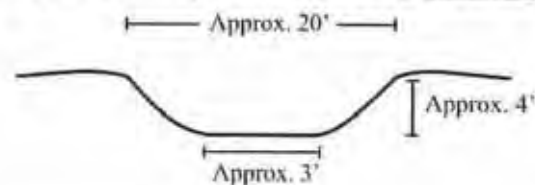
L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 20 feet
- b. **Bottom Width** approximately 3 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

AH 00

L4e. Sketch of Cross-Section (include scale) Facing: southeast



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:

Photograph 11. Main Ashe Lateral at Avenue Two, camera facing southeast. 12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 716,214mE; 4,136,174mN

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

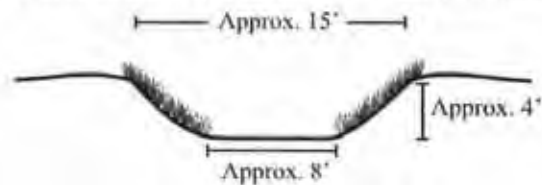
At this point the canal is approximately 15 feet wide and four feet deep. It is trapezoidal and unlined with bramble growing along the banks. There are several concrete and metal control gate structures along this segment. No water was flowing through the canal. A concrete culvert carries the canal under Avenue Two. This lateral crosses Canal Creek via a flume constructed of wood framing set in concrete piers supporting a corrugated metal channel (Photographs 12, 31, 32).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: southwest



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 12. Main Ashe Lateral at
Avenue Two, camera facing southwest.
12/12/06

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07



L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-3

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 715,779mE; 4,135,413mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

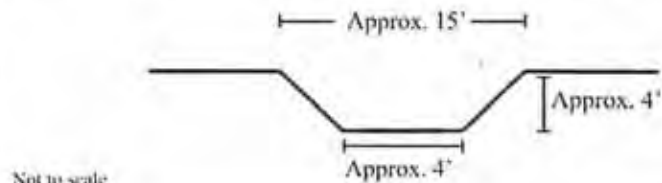
At this point the canal is approximately 15 feet wide and four feet deep. It is trapezoidal and lined with concrete. There are several concrete and metal slide control gates along this segment. It passes through farmland and a portion is adjacent to Avenue One (Photographs 13, 33).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet wide
- b. **Bottom Width** approximately 4 feet wide
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) **Facing:** east



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 13. Main Ashe Lateral near
Avenue One, camera facing east.
12/12/06.

L9. Remarks:

L10. Form prepared by:

Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

L1. Historic and/or Common Name: Main Ashe Lateral

P-24-000088

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-4

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 716,383mE; 4,133,743mN (See Location Map 1).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

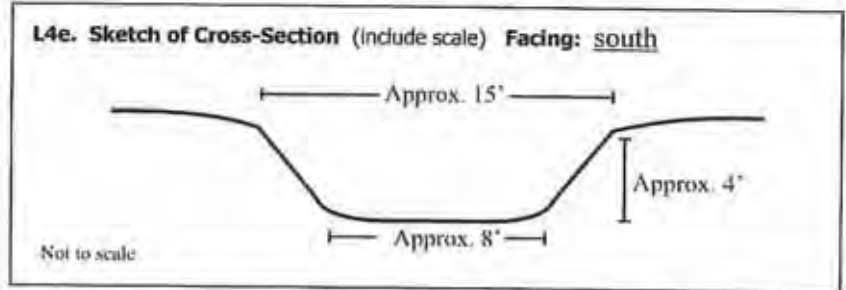
At this point the canal is approximately 15 feet wide and eight feet deep. It is U-shaped and unlined. There are concrete and metal control gates placed intermittently along this segment. The channel is heavily silted and the gently sloping banks show signs of erosion. The canal passes under SP Avenue via a concrete culvert. The Union Pacific railroad is carried over the canal via a bridge. Access roads are alone both sides of the canal to the south along Gurr Road. The canal did not carry water at the time of the survey (Photographs 14, 34, 35).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (Include scale) Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 14. Main Ashe Lateral at SP Avenue and Gurr Road, camera facing south. 12/12/06

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/07

Page 16 of 75

*Resource Name or # MR1

P-24-000088

L1. Historic and/or Common Name: Main Ashe Lateral

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-MA-5

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) Zone 10; 716,372mE; 4,133,022mN (See Location Map 1).

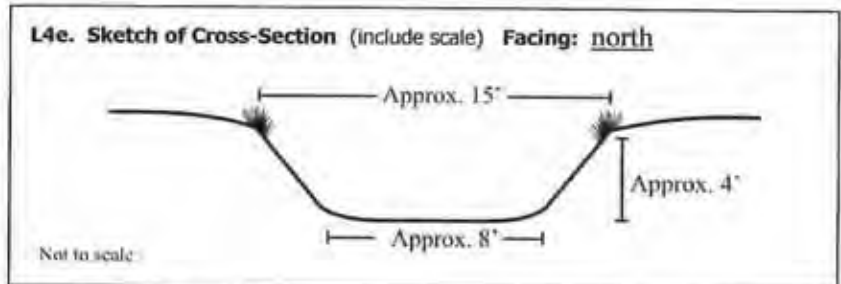
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 15 feet wide and four feet deep (Photograph 15). It is U-shaped and unlined with some vegetation growing along the rim. There are concrete and metal control gates placed intermittently along this segment. The channel is heavily silted and the gently sloping banks show signs of erosion. The canal passes under Elliot Avenue and parallels Gurr Road. The canal did not carry water at the time of the survey.

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. **Top Width** approximately 15 feet
- b. **Bottom Width** approximately 8 feet
- c. **Height or Depth** approximately 4 feet
- d. **Length of Segment** approximately 100 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10—"Significance"

L8b. Description of Photo, Map, or Drawing:
Photograph 15. Main Ashe Lateral, camera facing north. 12/12/06

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 1/2/06



P-24-000088

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____

Page 69 of 75

*Resource Name or # MR1

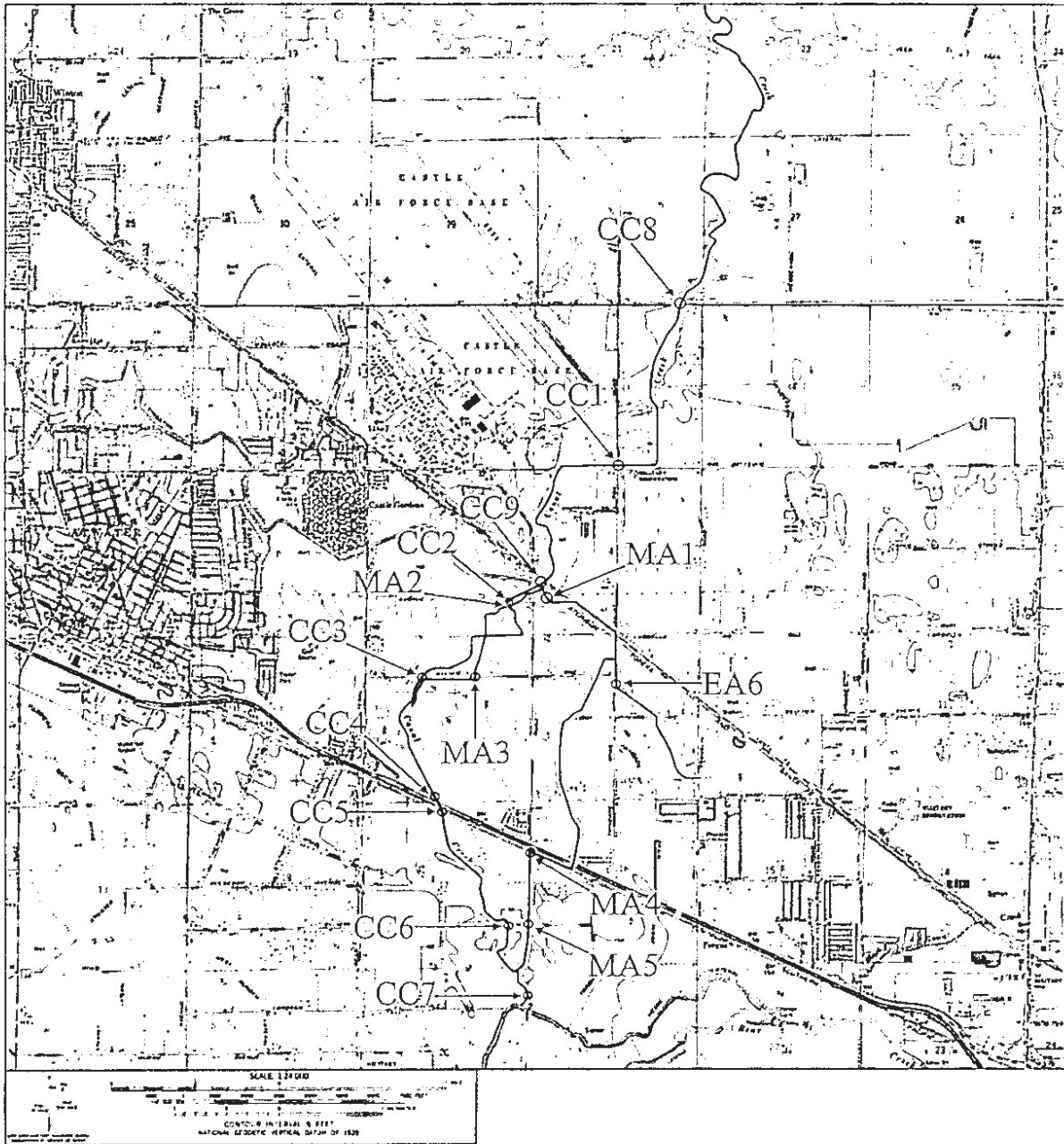
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Winton, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)



Location Map 1. Map showing portion of Canal Creek, Main Ashe Lateral, and East Ashe Lateral.

Prop. # 143829 + 179673

OHP PRN # FHWA050324D

P-24-002047

P-24-002047

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #

HRI #

Trinomial

NRHP Status Code

Other Listings

Review Code

Reviewer

Date

Caltrans ID, County/Route/Postmile/EA: 10-MER-59, PM 15.3/16.6

Map Ref. # 13

*P1. Resource Name or #: Black Rascal Creek and Canal

*P2. Location: *a. County: Merced

*c. Address: On State Route 59 about 650 feet north of West Olive Ave.- P.M. 16.22

City: Merced

*e. Assessor's Parcel Number: This property belongs to Merced Irrigation District

*P3a. Description:

Black Rascal Creek is part of the Modesto Irrigation District (MID) and is used as a drain for the system. At a point approximately 200 feet east of State Route 59 (S.R. 59) the creek branches with one larger stream channel turning south and west, and the other smaller channel turning west-southwest and then west after it passes under S.R. 59. This branch is identified as the "Black Rascal Canal," and the larger branch is called "Black Rascal Creek." These branches form an ox bow east of S.R. 59. East of the highway the banks of the creek are crowded with eucalyptus trees and brush, and in the stream channel there are dense clusters of tules or cat-tails. The tules are so thick in the Black Rascal Canal that it has the appearance of a slough, and the water disappears on the west side of the highway at this location amid the very dense vegetation. West of S.R. 59 the creek passes through farmland, and the vegetation is much less dense with only a few trees on the banks of the creek, but tules are still thick in spots. The creek/MID drain on the east side of the highway meanders northeast for about ¼ mile, then for the next mile-and-a-half it is very straight and channelized. Parkland development flanks both sides of this straightened stream channel, with lawn and a paved bike/walking trail on the south side and then on the north side of the creek. Near R Street to the east, the creek channel enters a city park, but the creek continues east of R St. also in a park setting. West of S.R. 59 Black Rascal Creek follows a straight route, although large clumps of tules make the stream channel appear to bend in the middle. A four-lane bridge crosses the creek at Santa Fe Drive about one-third of a mile west of S.R. 59. The stream channel varies in width on the east side of the highway from 25 to 40 feet, but west of the highway it is about 30 feet wide. There are no berms on the stream channel on both sides of S.R. 59.

*P3b. Resource Attributes: HP20

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5a. Photo

(See continuation sheet.)

P5b. Photo date:

September 12, 2002

*P6. Date Constructed/Sources:
1920s; Merced Irrigation District*P7. Owner and Address:
Merced Irrigation District
720 W. 20th Street
Merced, CA 95344*P8. Recorded by:
Frank Lortie, Caltrans
1120 N Street
Sacramento 94274*P9. Date Recorded:
September 23, 2002*P11. Report Citation:
Historic Resource Evaluation
Report (HRER) for the State
Route 59 Widening Project,
Post Miles 15.3-16.6, Merced

County (Caltrans 2005)

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other

P-24-002047

Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #

HRI#

P-24-002047

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 13

B1. Historic name: Black Rascal Creek and Canal

B4. Present use: Drain for Merced Irrigation District (MID) and storm drain facility City of Merced.

*B5. Architectural Style: Not applicable

*B6. Construction History: Acquired by MID in 1920s; east of SR 59 altered 1927-1937; west of SR 59 altered in 1960s or '70s

*B7. Moved? ☐ No ☐ Yes ☒ Unknown Date:

Original Location:

*B8. Related Features

B9a. Architect: Not applicable

b. Builder: MID

*B10. Significance: Theme N/A

Area N/A

Period of Significance N/A

Property Type N/A

Applicable Criteria N/A

In 1872 the Central Pacific Railroad (later re-named the Southern Pacific) arrived in Merced County, and two years earlier the first major irrigation company, the Robla Canal Company, started to divert water from the Merced River. In 1880 the Merced Canal and Irrigation Company (MC&IC) bought out the successor to the Robla company and expanded the system considerably. In addition, the new company organized colonies to promote emigration to the county and the purchase of 40 to 60 acre parcels for, it was supposed, family farms. Before irrigation, Merced County, like other counties in the San Joaquin Valley, depended upon raising beef and wheat, which required large tracts of farmland to be profitable. After irrigation, agriculture became more diversified, enabling a smaller family farm to grow tree fruit and nuts, raise row crops, plant vineyards, and start dairy farms (alfalfa is a primary feed for cows and does very well under irrigation). In 1888 the Crocker-Huffman Land and Water Company (CHL&WC) supplanted the MCIC, retaining the same owners, Charles Crocker (one of the "Big Four" of the Central Pacific) and Charles H. Huffman, who was a prosperous rancher and investor in Merced County and who, as an employee of the Central Pacific Railroad, surveyed the town-site of Merced for the railroad in 1870. Lake Yosemite was the main reservoir for the system, and all the main canals drew irrigation water from this lake. Up to 1900 almost all the land irrigated by the CHL&WC lay north-northeast and east of the City of Merced, but the company started to expand so that by 1919 it had built canals and laterals northwest, southwest and south of Merced. At this time the CHL&WC was irrigating nearly 50 thousand acres of farmland. However, around 1910 local ranchers started a campaign to create a farmer-owned irrigation system under the state's Wright Act. After years of public debate and controversy, county voters in 1919 approved the formation of Merced Irrigation District (MID). In 1922 the MID purchased the CHL&WC, and it set out to upgrade and expand the entire irrigation system. (See Continuation Sheet)

*B12. References: Lortie 1998: 4-6; JRP Consulting 2001: 18-22; maps- USGS, Atwater Quadrangle 1918, 1948, 1960; USGS Merced Quadrangle 1917, 1946, 1962; Merced Irrigation District 1927; MID Right of Way map 1922; Map of Crocker Colony 1921; Agricultural Adjustment Admin. 1937 (aerial photo); Cowel 1909; McSwain 1978: 9, 15, 19, 149, 173.

*B14. Evaluator: Frank Lortie Caltrans

*Date of Evaluation: 9/24/02

Site Plan

(See site plan attached.)

(This space reserved for official comments.)

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 13

B10. Significance (continued):

A keystone of this building program was the construction of the Exchequer Dam in 1926. Not only did this dam provide much more water for the MID, but it also included electrical power generators in the dam to produce electricity to be sold to a private power company, which enhanced MID's revenues. With the completion of the Exchequer Dam the MID expanded its improvements on the irrigation system, lining some canals with concrete and adding new laterals. With the onset of the Great Depression of the 1930s and the wartime priorities for defense production during World War II the MID system experienced some neglect and deferred maintenance. After the war the MID embarked upon an extensive construction program to improve and modernize the entire system. Since the end of the war the wooden dams, checks, diversion structures, and head gates of the early years were replaced by concrete and steel structures. In addition, most of the canals and laterals were widened and deepened, and many were lined with concrete.

The Crocker-Huffman Land and Water Company had acquired some control over Black Rascal Creek as early as 1892 to increase its supply of water. However, the creek does not seem to have been an integral part of the CHL&WC system, since it does not appear before 1903 on any of the company maps depicting the company's irrigation network. This is in contrast to Bear Creek, which is indicated clearly as an important stream channel for the CHL&WC. In the 1880s Charles Huffman owned all the land to the north and south of the creek, equaling about 640 acres of land. By 1903 the northern part of the CHL&WC land at the creek had been sold to a J.W. Mitchell, who owned several thousand acres in the county. The Bear Creek Colony had been organized by 1909 on the north side of Bear Creek just south of Black Rascal Creek, but it was not until about 1919 that the area around Black Rascal Creek was subdivided by the Louis M. Hickman Corporation. In 1921 the area just south of Black Rascal Creek was carved into 20-acre parcels, presumably for irrigated family farms. It is not clear when the creek was first converted into a drain for the MID system, but by the late 1920s it was being considered for use as a part of the county's storm drain system. In the late 1940s Black Rascal Creek functioned as an irrigation drain and a storm drain channel.

At this time the creek east of present S.R. 59 had a meandering route, but a plan was underway to cut a new straight canal on the south edge of the creek's stream channel. Sometime between 1946 and 1962 the new alignment for the canal was built and the meandering streambed was filled in. The straightened section of the creek ends about one-quarter mile east of S.R. 59, and resumes its curving course up to where it branches to two channels, forming an oxbow. The north branch is called the Black Rascal Canal and is only about 80 to 100 feet long. On the east side of S.R. 59 the stream channel is currently in a straight line from the highway to the bridge for Santa Fe Dr., about one-third of a mile in length. It seems that this part of the creek did not meander as much historically as the section of creek to the east of the highway. The west section curved significantly to the south about half the distance between the highway and Santa Fe Dr. Then it curved again as it passed under the Santa Fe railroad bridge, which is just west of the present Santa Fe Dr. bridge. Sometime between 1946 and 1962 both curves were eliminated and the stream channel was straightened.

Both sections of Black Rascal Creek have been substantially altered. Only about one-quarter of a mile of the creek east of S.R. 59 retains its meandering path, but this part of the stream looks like any other creek in the region. The fact that it serves as a drain for the MID (and as a storm water channel for the City of Merced) is not evident when one sees the creek today. It does not reflect the level of civil engineering usually associated with the construction of a large, complex irrigation system of the late 19th and early 20th century. The section of the creek west of S.R. 59 down to the Santa Fe Drive bridge has been straightened to become a stream channel to facilitate the drainage of the MID system. Therefore, due to a loss of integrity, both sections of Black Rascal Creek and Canal bisected by S.R. 59 are not eligible for the National Register. In addition, Black Rascal Creek and Canal were evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and were determined not to be historical resources for the purposes of CEQA.

Resource Name or #: 10-MER-59, PM 15.3/16.6 Map Reference # 13



East section at bridge #39-0037, looking west-northwest



East section, 100 feet east of S.R. 59, looking east-northeast

☒ Continuation ☐ Update

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 13



East section at "canal" segment at S.R. 59, looking west



East section. About one-third mile east of S.R. 59, channelized section of creek

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 13



West section, looking east from Santa Fe Drive bridge



West section looking east from mid point between S.R. 59 and Santa Fe Drive bridge

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 13



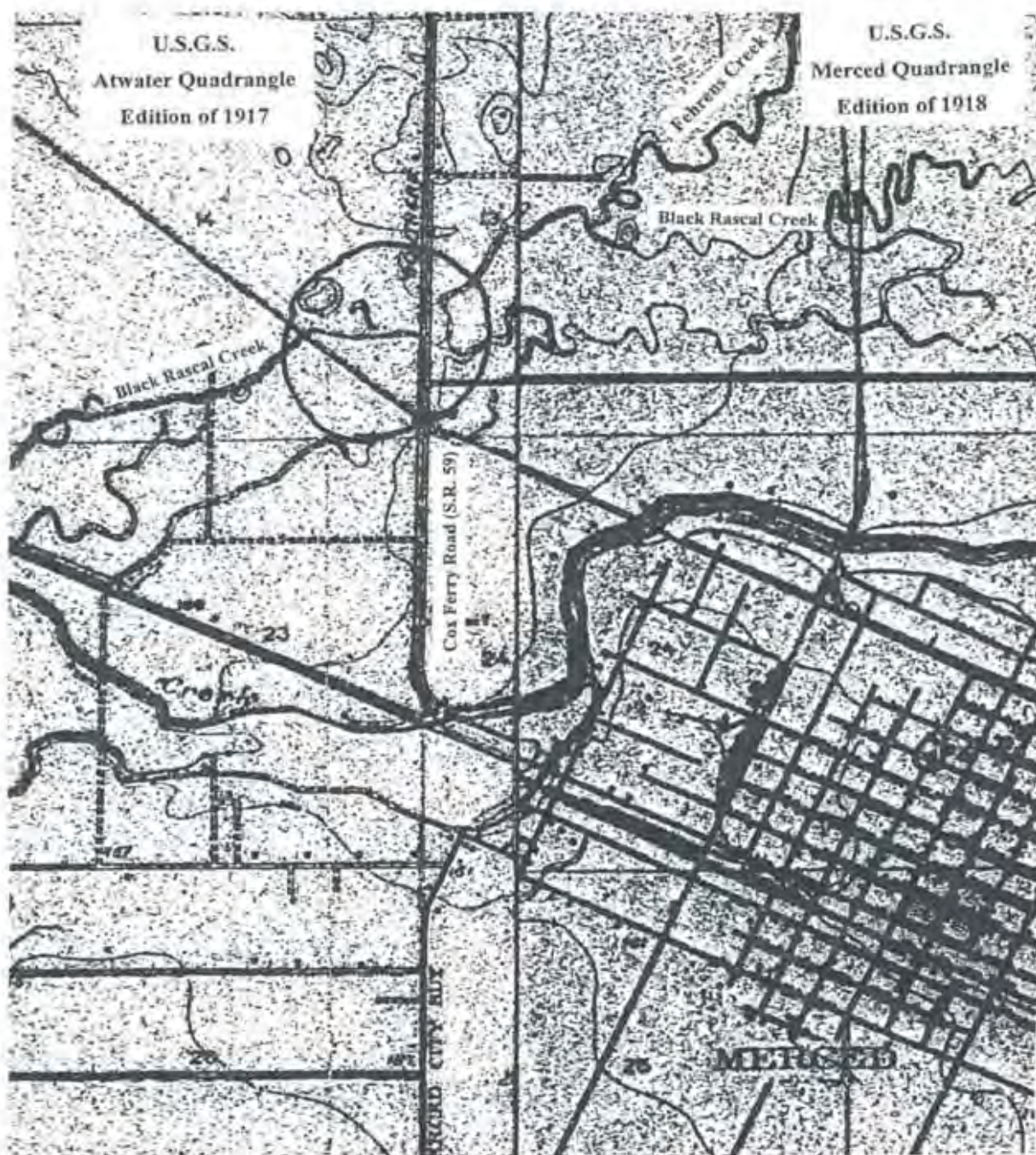
West section, looking south-southwest towards Santa Fe Drive bridge



West section, looking west-northwest from mid-point between S.R. 59 and Santa Fe Dr. bridge

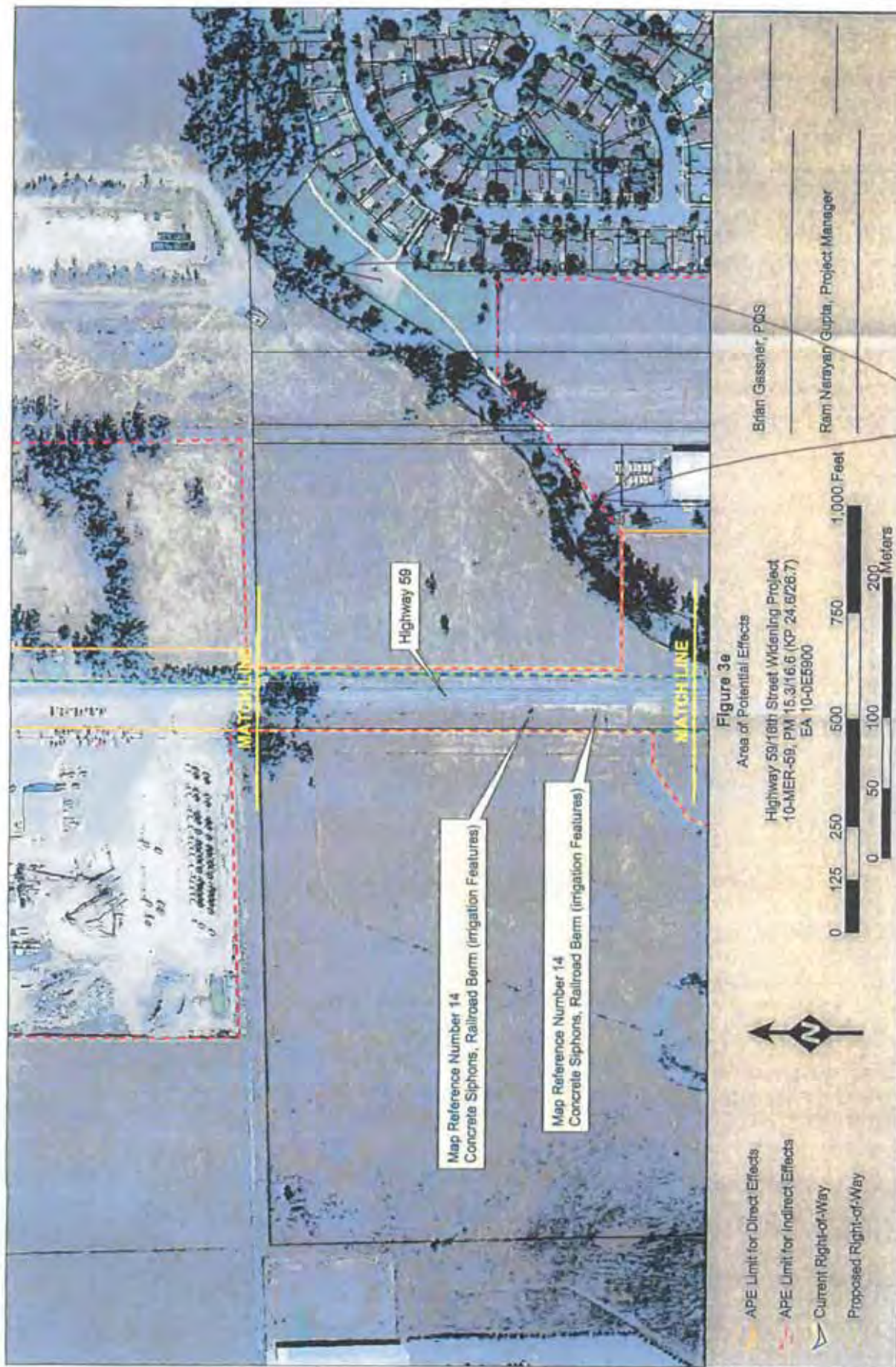
Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 13



HISTORIC MAP
Black Rascal Creek
10-MER-59

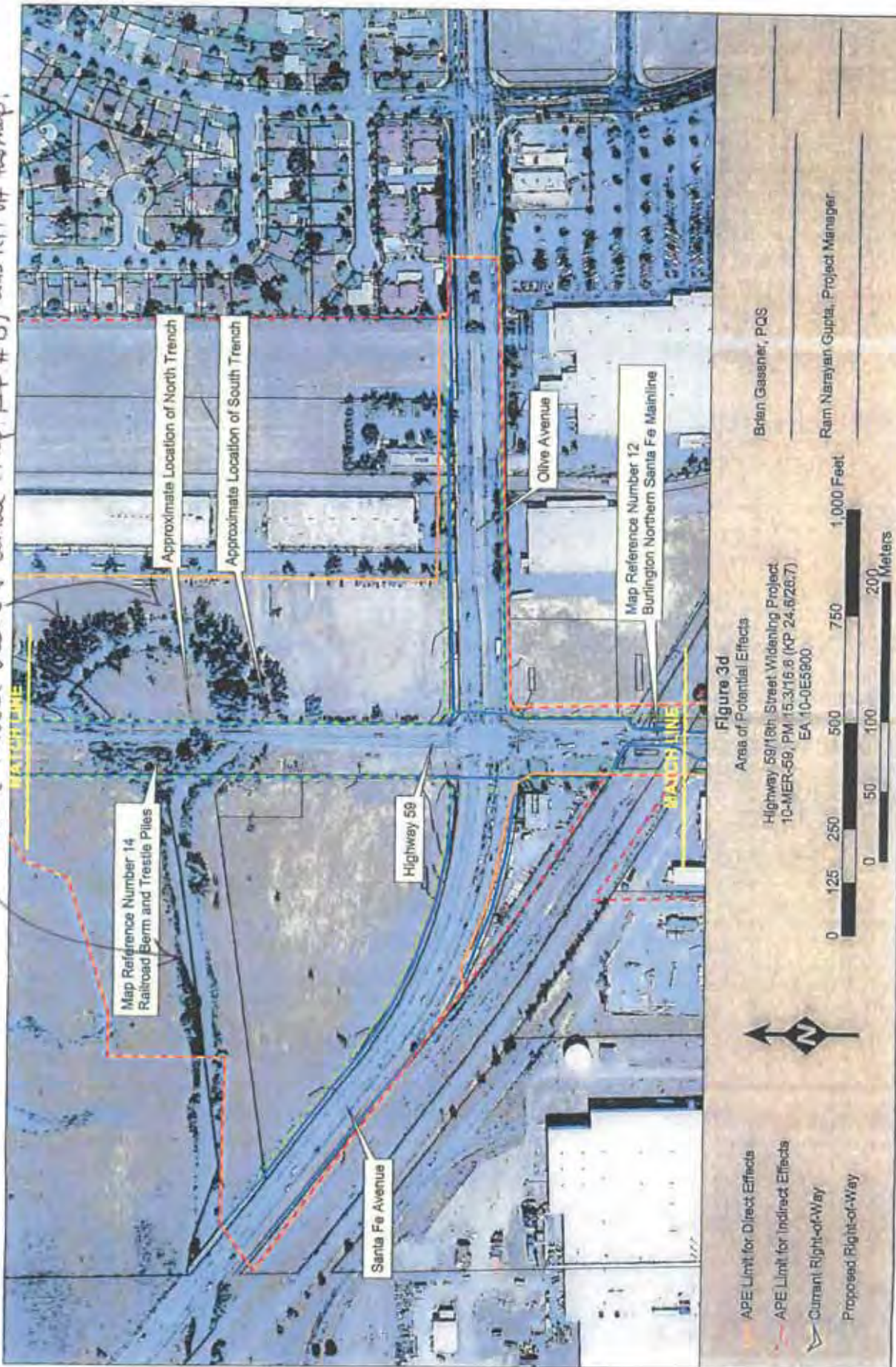
P-24-02047



Brian Gassner, PQS
Ram Narayan Gupta, Project Manager

Black Rascal
Creek +
Canal
(Map Ref. #13)
was left off the
rept maps

Black Rascal Creek + Canal (map Ref #13) was left off the map!



P24-002047
Map Ref #13
Black Rascal
Creek + Canal

P-24-002047
Black Rascal
Creek + Canal

portion of
resource at
project area

Atwater 7.5'

Map added
by RH/CCIC



P-24-002047

OFFICE OF HISTORIC PRESERVATION • • • Directory of Properties in the Historic Property Data File for Merced County

PROPERTY NUMBER	ALTERNATE #	STREET ADDRESS	NAME	CITY	OWN	CHOC	UNP-PROJ	PAGE #	PROJ-REFERENCE-NUMBER	STAT-DAT	NRE	CHC
175553	24-2105		BEAR CREEK BRIDGE #39-09-LAN	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175558			BEAR CREEK BRIDGE	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175559			HIGHWAY STATE ROUTE 48	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175560			BLACK BARCEL CREEK AND CANAL	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175561			IRIGATION SIGNIFICANT A 1918	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
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175563			FORMER RAILROAD BRIDGE	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
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175633			735 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175634			755 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175635			951 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175636			953 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175637			4703 VALDON AVENUE	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175638			536 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175639			620 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175640			623 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175641			735 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175642			755 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175643			951 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175644			953 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175645			4703 VALDON AVENUE	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175646			536 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175647			620 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175648			623 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175649			735 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175650			755 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175651			951 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175652			953 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175653			4703 VALDON AVENUE	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175654			536 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175655			620 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175656			623 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175657			735 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175658			755 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175659			951 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175660			953 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175661			4703 VALDON AVENUE	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175662			536 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175663			620 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175664			623 W 10TH ST	MERCED	2	1340	PROJ. REVM.	1	FINA050324D	04/20/08	BY	
175665												

9/14

L1. Historic and/or Common Name: Black Rascal Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

Designation: MR1-BR-1; MR1-BR-2

***b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) BR1: UTM: Zone 10; 716,381mE; 4,132,192mN. Located at the Black Rascal Creek bridge on Gurr Road in the NW1/4 of Section 21, T7S/R13E MDBM near the intersection of Gurr Road and Landram Avenue. BR2: UTM: Zone 10; 716,175mE; 4,132,213mN. Located at Landram Road approximately .25 miles west of the Black Rascal Creek bridge on Gurr Road NE1/4 of Section 20, T7S/R13E MDBM (See Location Map 3).

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the canal is approximately 60 feet wide. Water in the canal prevented and accurate determination of depth. The unlined channel is U-shaped and has grassy vegetation growing on its banks. The banks of the canal are higher than the surrounding land. Access roads run on both the north and south sides of the canal east of Gurr Road. Also on the south side near Gurr Road is the Hess Lateral canal (Photographs 19, 38).

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

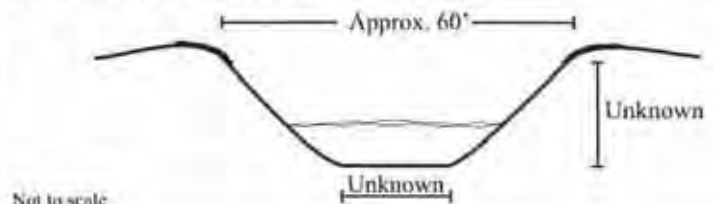
- a. **Top Width** approximately 60 feet
- b. **Bottom Width** undetermined (carrying water)
- c. **Height or Depth** undetermined (carrying water)
- d. **Length of Segment** approximately 200 feet

L5. Associated Resources:

AH 06

L4e. Sketch of Cross-Section

Facing: south



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10. "Significance"

L8b. Description of Photo, Map, or Drawing:

Photograph 19. Black Rascal Creek from Landrum Road, camera facing south. 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)

Steven J. Melvin
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110, LLC
Davis, CA 95618

L11. Date: 12/28/06



P-24-002047

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____

Page 71 of 75

*Resource Name or # MRI

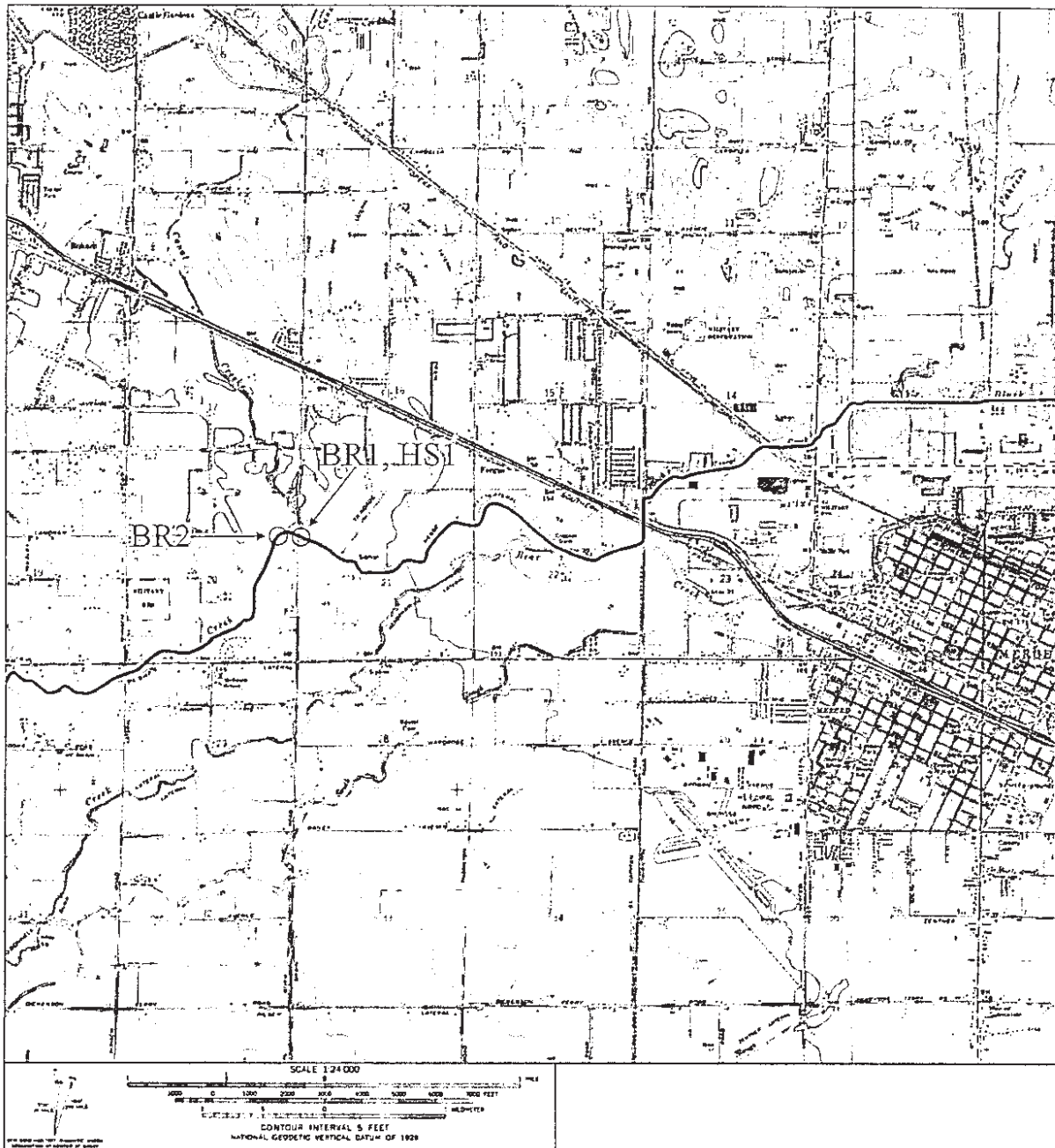
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Merced, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)



Location Map 3. Map Showing portion of Black Rascal Creek and Hess Lateral.

CALIFORNIA DEPARTMENT OF TRANSPORTATION
Railroad Inventory/Evaluation Record

Primary # P-24-000097
HRI #
Trinomial
NRHP
Status

11/96

Project: State Route 10-MER-152 and 10-MER-165

Map Reference (within APE): Identified as "Abandoned Railroad"

- L1. Historic and/or common name: Southern Pacific Railroad West Side Line
- L2. Location of recordation: Los Banos 7.5' USGS Quadrangle (1960; PR 1980)
 - a. UTM: Zone 10: 692580 m E/ 4103190 m N
 - b. Verbal description: Southern Pacific Railroad, West Side Line. The segment of the railroad affected by the subject project lies immediately west of SPRR Milepost 141.17 adjacent to the intersection of State Route 10-MER-152 (Pacheco Pass Boulevard) and State Route 10-MER-165 (Merced Springs Road).
- L3. Description of structures: Abandoned segment of SPRR extending within the subject project APE from Milepost 141.17 southeast for 360 feet (109 meters).
- L4. Setting: Urban, City of Los Banos, intersection State Route 152 and 165
- L5. Integrity considerations: Abandoned segment; lacks integrity of setting, design, materials, workmanship, feeling and association.
- L6. Attributes:
 - a. right-of-way width: 100 feet (30 meters)
 - b. top width, crown: 12 feet
 - c. length in APE: 360 feet (109 meters)
 - d. height or depth: 2 feet
 - e. ballast material: crushed granite (2" fragments)
- L7. Associated Features Observed: Rails, spikes, tie plates, and fasteners
- L8a. Photograph and Location Sketch (attached).



L8b. Date:
11/20/96
L8c. Camera
facing: S50E

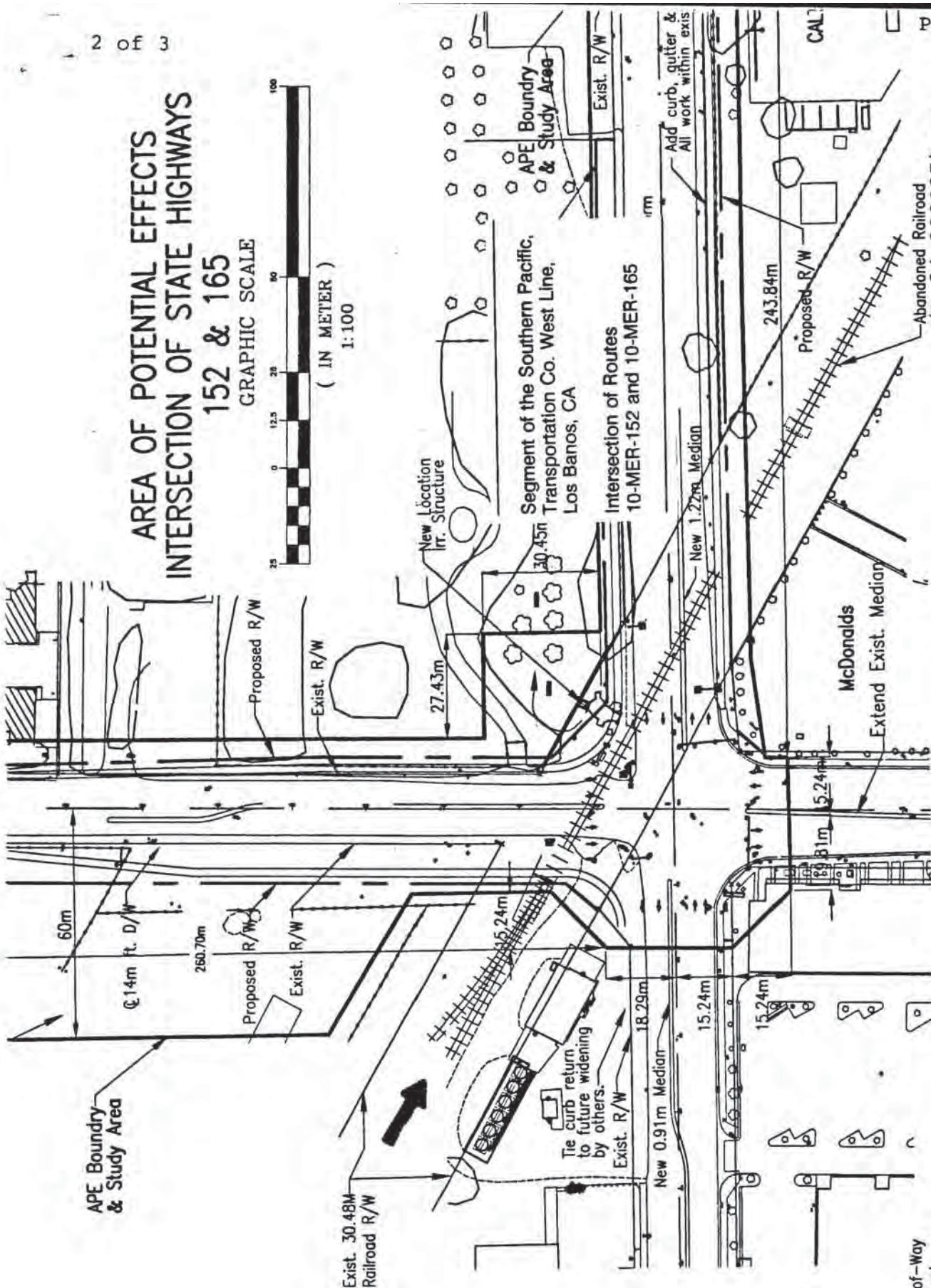
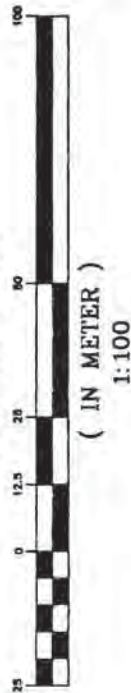
L9a.
Construction
date: 1890
x estimated
b. Builder:
Southern Pacific
Transportation Co.

L10. Prepared
by:
L. Kyle Napton
CSUS/IAR
Turlock, CA
95382

L11. Date:
11/20/96

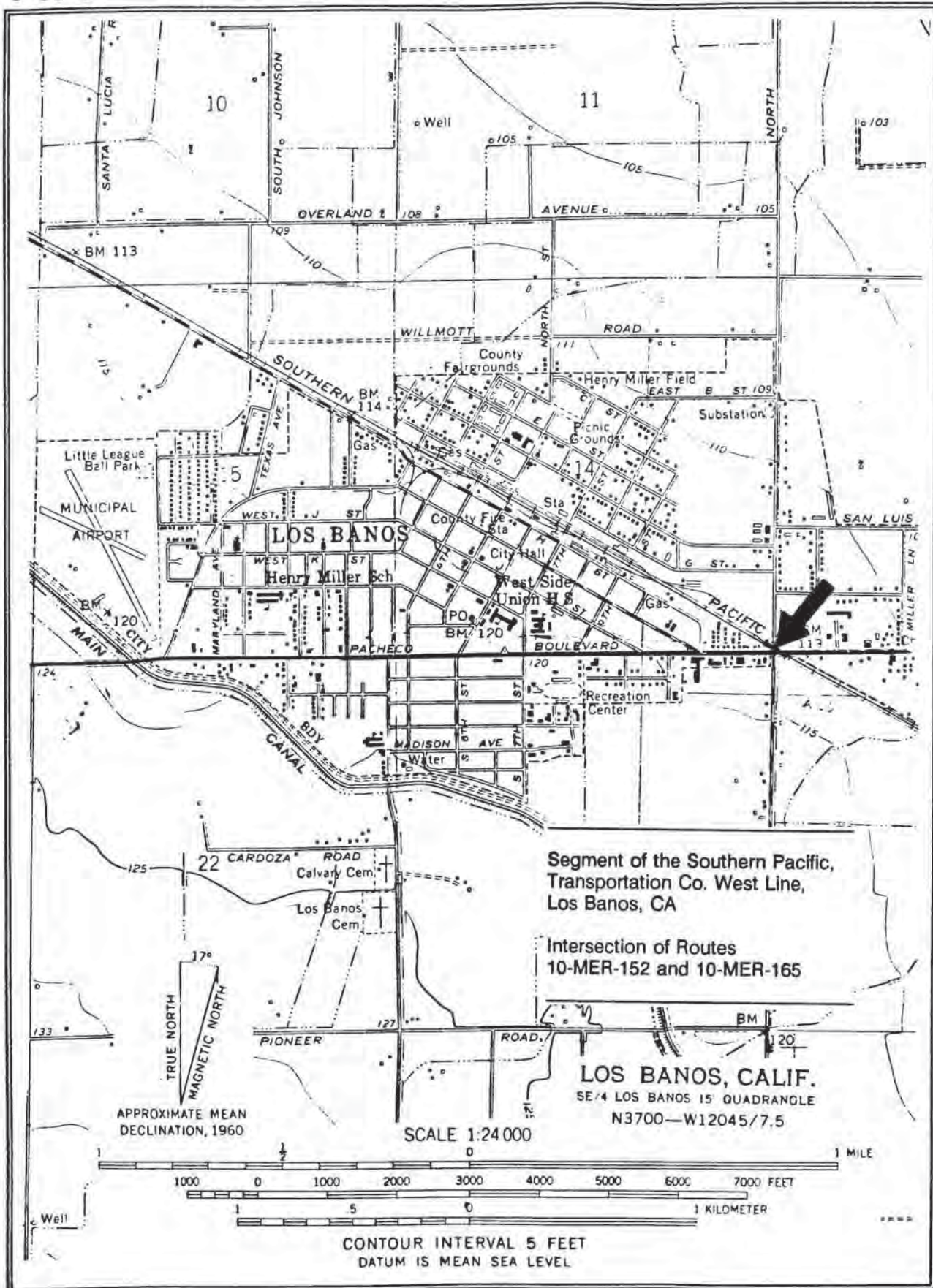
L12. Statement of Significance: This segment of the railroad does not appear eligible for listing in the National Register of Historic Places. The integrity of the railroad has at this point is completely compromised by abandonment, removal of a portion of the trackage and modification of the grade to accommodate vehicular traffic. See Primary Record for the Southern Pacific Railroad San Joaquin Mainline, P-24-000097, prepared by JRP Historical Consulting Services, 1995.

AREA OF POTENTIAL EFFECTS INTERSECTION OF STATE HIGHWAYS 152 & 165 GRAPHIC SCALE



P-24-000097, Segment of abandoned Southern Pacific Railroad (West Line).

Existing Railroad Right-of-Way Laying Within the Proposed Right-of-Way Will be Purchased.



P-24-000097

(11-22-0)

5/96

SITE NAME: Southern Pacific San Joaquin Valley Mainline

SITE NUMBERS: SPM-1 through SPM-35

QUAD SHEET: Various; see site forms

PIPELINE LOCATION: Various; see site forms

Turlock 7.5'

Description of Feature

The proposed Mojave pipeline alignment crosses the Southern Pacific Railroad's San Joaquin Valley lines at 35 places in Kern, Tulare, Fresno, Madera, Merced, Stanislaus, San Joaquin and Sacramento counties. The sites fall into eight categories (the total equals 36 because one site fit into two categories):

Mainline single track, no other features	8
Mainline double track, no other features	4
Mainline with road crossing at grade, with gates, warning equipment	9
Mainline with sidings or side tracks	7
Mainline single or double track with a street or highway over/undercrossing	2
Mainline junctions with branch line	1
Sidings and spurs off mainline	2
Mainline with trestle or bridge	3

6-11E ~ ~ ~

At all of the mainline sites (33 of 35) the tracks show evidence of heavy use (shiny rails) and recent maintenance (regular shaping of embankment, consistent ballasting, etc.) Rail dates indicate that of the 106 observed dates on the mainline, only 15 were before 1950; 91 date from 1950-1990. Of the three railroad bridges or trestles, one was a standard plate girder bridge over Highway 99, the second was a wooden trestle on wood pilings crossing a stream bed, and the third a wooden trestle on concrete abutments carrying the railroad over a Highway 99 underpass.

The 35 sites are located in a variety of settings: rural points in the San Joaquin Valley; rural/residential zones at the edges of valley towns; commercial/industrial sites at the edge of towns; or sites within valley towns. In several instances the railroad runs adjacent to new residential subdivisions created in what were rural agricultural areas.

Detailed information regarding the 35 sites, with photographs and site maps showing location is provided in the attached "Railroad Feature Inventory Forms."

History of Feature

Construction of the Southern Pacific line on the east side of the San Joaquin Valley began in December 1869 at Lathrop, the Western Pacific junction nine miles south of Stockton. The specific route was not dictated by the wishes of valley residents, but by engineering considerations, and grant requirements, local aid, and the desire for monopoly control.

The line was located about midway between the San Joaquin River and the Sierra Nevada foothills in the northern part of the valley and tapped the region with the highest population density and agricultural potential. In the arid southern portion of the San Joaquin Valley the railroad continued along the eastern side of the plains where streams flowing from the mountains made irrigation possible. Whereas engineering considerations such as favorable sites for bridging rivers were important, the potential for town promotion and townsite acquisition by the railroad to a large degree controlled route selection. The absence of urban centers southward from Lathrop and the small requirements for grading facilitated construction of an efficient, straight route through the valley. Crossing rivers and streams would be the main item of expense, but as Charles Crocker pointed out in most cases they could be crossed in culverts, instead of bridges (Smith 1976:116)

Employing a crew of about 200 Chinese laborers, the company pushed the San Joaquin Valley mainline south eleven miles to the Stanislaus River by May 1870. The first Central Pacific locomotive entered the new railroad town of Modesto, sixteen miles south of Lathrop, on May 5, 1870. The railroad had a profound effect on earlier local supply and service centers. People from the surrounding towns of Tuolumne City, Paradise, Empire, and Westport, for example, moved their businesses and many commercial buildings to the new town site of Modesto. Early settlements on the Kings, Kaweah, and Tule river fans were similarly drained of population by new railroad towns.

The Southern Pacific bridged the Tuolumne River just south of Modesto in June 1871 and continued its construction south founding the towns of Turlock and Merced before year's end. To meet the Southern Pacific's contractual obligations under the congressional land grant, the company settled on the solution of connecting their twenty miles of Southern Pacific lines south of Visalia to the San Joaquin Valley railroad before July 1, 1872. During early 1872 the Southern Pacific drove with extraordinary intensity southeast through Merced County to the new town of Fresno in May 1872 (Tinkham 1923: 94; Carothers 1934: 47-48, 52-54; Preston 1981: 128-129).

The Southern Pacific proceeded south to the proposed Goshen junction with the Southern Pacific's west side line that was planned to link the main valley line with San Francisco by way of Gilroy, Tres Pinos, and Huron. Goshen, located seven miles east of Visalia, dates from the completion of the railroad tracks to that point in June 1872. The town was laid out with more than ordinary care as it was made a division point with a roundhouse, machine shop, hotel, and depot (Carothers 1934: 56-57).

Visalia, one of the few pre-railroad towns in the valley and nearly 1,000 residents in 1870, was bypassed when its citizens voted not to pay the subsidies demanded by the Southern Pacific. The Big Four chose to continue their southern trajectory from Goshen to a point midway between the foothills and Tulare Lake where the railroad founded the town of Tulare City. Tracks were laid out over the semi-barren, dusty plains to Tipton and reached Delano Station, an important shipping point for wool and stock, in July 1873. In April 1874 construction resumed south of Delano to the Kern River. When the town of Bakersfield balked at providing a right of way and land grant to the railroad, the company constructed a bridge over the river on higher land upstream a short distance east of Bakersfield and laid out a new town called Sumner (East Bakersfield). The Southern

Pacific railroad was open for travel to Sumner in August 1874. Two years later the line had been completed through the foothills through Tehachapi Pass and the Mojave Desert, to Los Angeles (Preston 1981: 122-123).

The Southern Pacific contracted out much of its construction work in the San Joaquin Valley to the Contract and Finance Company, a construction company controlled by the Southern Pacific, and which had built other lines for the company elsewhere in the state. The Big Four set up the Western Development Company in 1874 to replace the Contract and Finance Company. It built the line from Sumner to San Fernando (Daggett 1966: 75-82, 131-133).

Railroad building on the flat, alluvial plains enabled the crews to make rapid progress, wrote another observer: "A few furrows are made on each side, the dirt thrown to the center and the grade is made. Then the ties are laid, and the rails, a few spikes driven, and the road is complete." (Small 1926: 164). Bridge builders constructed trestles across creeks and rivers ahead of the crews laying track. Track laying proceeded in a highly regimented manner with several miles laid each day.

Loading platforms and water stations were located at five to seven mile intervals along the tracks. Town sites were not platted at these crossroad locations (Preston 1981: 123, 125). When the construction crews reached an area the company selected as a future townsite, the engineers staked off a large tract for a railroad yard for warehouses, switching tracks, a depot, and the townsite. Many of the valley's larger cities were laid out as isolated railroad towns in the 1870s and 1880s by the Southern Pacific, which built, settled, and nurtured the infant cities until settlement was successful. Nearly all San Joaquin (and for that matter Central Valley) railroad towns share a common plan: a central depot with a surrounding uniform plat. Lots were laid out in a regular pattern on a rectangular grid aligned with the tracks rather than with the grid of the government survey. As railroad towns grew, surrounding landowners who subdivided their property did not always conform to the railroad plat. The legacy of this two-phase process of subdivision is a special hybrid street pattern characteristic of all Central Valley railroad towns (Smith 1976: passim).

The Central Pacific, its leased lines, and, later, the Southern Pacific were from the beginning under unified control. In March 1884 the Central Pacific and Southern Pacific combined into the Southern Pacific Company. During the next 15 years the Southern Pacific added a total of 2,630 miles of lines (Hofsommer 1986: 1-8).

In a brief time, the Big Four 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. Between 1870 and 1880 the population grew by 45 percent and the acreage of improved land increased by 71.6 percent. By the 1880s the Southern Pacific had established about 50 stations in the six San Joaquin Valley counties. Townsite locations were founded at 24 of these stations; of these eight became major towns. Also, by the end of the 1880s Southern Pacific held patents to more than a million acres of valley land. Much of the land went to large land developers, but the railroad made hundreds of thousands of acres available to small farmers and pioneer agricultural colonies (Smith 1976).

Since the time of its construction the San Joaquin mainline has served the San Joaquin Valley. At numerous points sidings, spurs and side tracks were added to tap local industries or commercial centers. For example, two sites, SPM-24 and SPM-25, are connected to the mainline by spurs originally built in 1898s (Kathy Bisphas, Heublein Wines, April 27, 1994)

In 1923 the Southern Pacific began a major program of rehabilitation and development that lasted through 1930 and cost \$387,000,000; it was one of the largest such programs in the company's history (Heath 1945: 25-30). During the Great Depression, Southern Pacific's revenue dropped and reduction of services followed; some branch lines were abandoned and torn up, unprofitable services curtailed, and old equipment scrapped.

In contrast, World War II brought record freight orders and greatly increased passenger traffic. Because most of the Southern Pacific's mainline in California is single track, increased traffic presented a serious problem. To speed wartime delivery schedules, the company installed a Centralized Traffic Control system on its California lines. Further major improvements in the tracks included: installation of 1,400 miles of new rail, mostly 113-pound and 132-pound replacement track for lighter, older rails; 268 sidings and siding extensions; strengthening track structures, such as bridges and trestles; construction of new roundhouse and shop facilities; and expansion of stations (Hofsommer 1986: 190-1207; Heath 1945:44-50).

After the war, Southern Pacific used its wartime gains to enhance its operating system. Perhaps the biggest improvement to the Southern Pacific railway route in California during the post-World War II period was its impressive 78.3 mile, \$22 million Palmdale cut-off completed in 1967, which included upgrading the main line through the San Joaquin Valley with new welded "ribbon rails" manufactured at the Tracy rail-welding plant. The ties, rails, and ballast were laid with newly developed, mechanized track-laying machines that placed the ties, aligned rails, drove spikes, and spread ballast with precision impossible to obtain in the previous century. These rails are still functioning on hundreds of miles of Southern Pacific track throughout the Central Valley (*Sacramento Bee*, May 14, 1967; Southern Pacific Bulletin, December 1967). This program accounts, to a large degree, for the modern condition of the San Joaquin mainline seen at the recordation points.

Evaluation of Feature

The Southern Pacific San Joaquin Valley mainline crossing sites evaluated as a part of this inventory do not appear to be eligible for listing in the National Register of Historic Places. While the line was built in the 1870s, and played an important role in the history of transportation in California and the western United States, and to the development of towns and agriculture in the San Joaquin Valley, the railroad related resources at the 35 sites recorded have insufficient integrity of materials, setting, design, workmanship, feeling and association to be eligible to the National Register.

The resources that would be significant and eligible for the National Register would be those that were related to the original construction of the Southern Pacific main line through the San Joaquin Valley during the period 1869-1876, or which exhibit important characteristics (construction techniques, engineering features, etc.) of that period. None of the crossing points surveyed, however, have resources from the period of significance.

Like most heavily used main railroad routes, this line has aspects that are more similar to a machine than a structure. As with all pieces of heavy equipment, over time parts become worn out or break and are then replaced. The technology of railroad construction has also undergone significant evolution in the past 100 years with respect to rail manufacturing. The iron rails laid in the 1870s were far different from the modern rails rolling out of steel plants today. In the case of the 35 mainline sites (SPM-1 through SPM-35), the major resource related to the period of significance (1869-1876) is the right of way itself; all other resources -- rails, tie plates, ties, ballasting, signals, warning arms, road crossings, etc. -- have been replaced and exhibit either dates or characteristics that place their installation well after the period of significance.

Rail dates at these locations provide an insight into the process of rebuilding the valley railroad in the 20th century. JRP field crews collected 106 rail dates at the 35 sites on the mainline. Of these, only 15 were from the period 1928-1949; none were earlier. Ten rail dates were from 1956, 40 from 1966-67 (consonant with the Southern Pacific's rebuilding program of that time), 28 were from 1969-70, and 14 were from the years 1971-1990. The sites that have the oldest elements, such as SPM-17, SPM-24, and SPM-25 still only dated to the late 1920s; and those have survived primarily because of lighter and less regular use off the mainline. Furthermore these sites, primarily sidings or short spurs, are not of the same historical significance as the mainline. Therefore none of the 35 Southern Pacific San Joaquin Valley Lines sites crossed by the Mojave Pipeline proposed main line or alternatives described above are eligible for listing in the National Register owing to an overall lack of integrity to the period of significance, primarily in setting, design, materials, workmanship, feeling and association.

RAILROAD FEATURE INVENTORY FORM

P-24-000097

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project

LOCATION NO: SPM-29

MILEPOST: 182

PHOTO DATE: April 19, 1994

QUAD NAME & NO.: Turlock (32)

1. Name of Line: Southern Pacific San Joaquin Mainline

2. Location of recordation: This site is located between Highway 99 on the west and Pinewood Road on the east, roughly 1/4 mile north of Collier Road in northern Merced County (Photograph 1).

3. Structures at or near this location: There are no structures at this site related to the welded single track. Highway 99 extends in a southeast-northwest direction, parallel to the west side of the tracks. Pinewood Road parallels the east side of the tracks. There are drainage ditches between the railroad's embankment and the adjacent roads, and a Pacific Bell substation lies adjacent to the east side of Pinewood Road.

4. Setting at this location: The area is surrounded by commercial orchards.

5. Integrity considerations for this feature: Southern Pacific replaced the rails in this area sometime after 1966. The rails are welded into a continuous track.

6. Attributes at this location (measurements in feet):

Width, berm-berm: 60

Top width (crown): 12

Height or Depth: 7

Ballast Material: Crushed granite

7. Observed dates:

Rails: APE: 1966

North: 1966

South: 1966

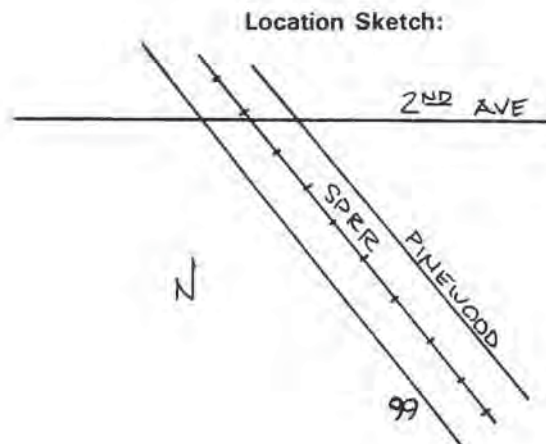
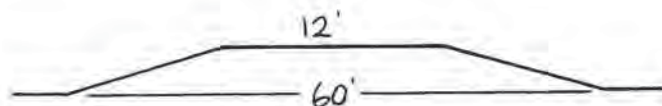
Tieplates: APE: 1949

North: 1949

South: 1966

Other:

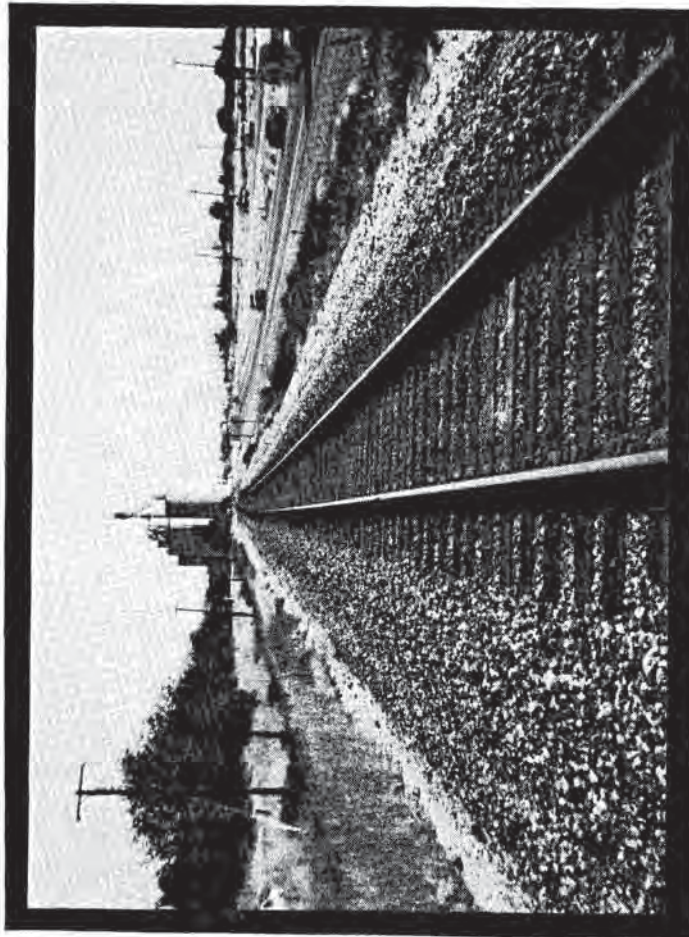
Sketch, in cross section: Looking northwest

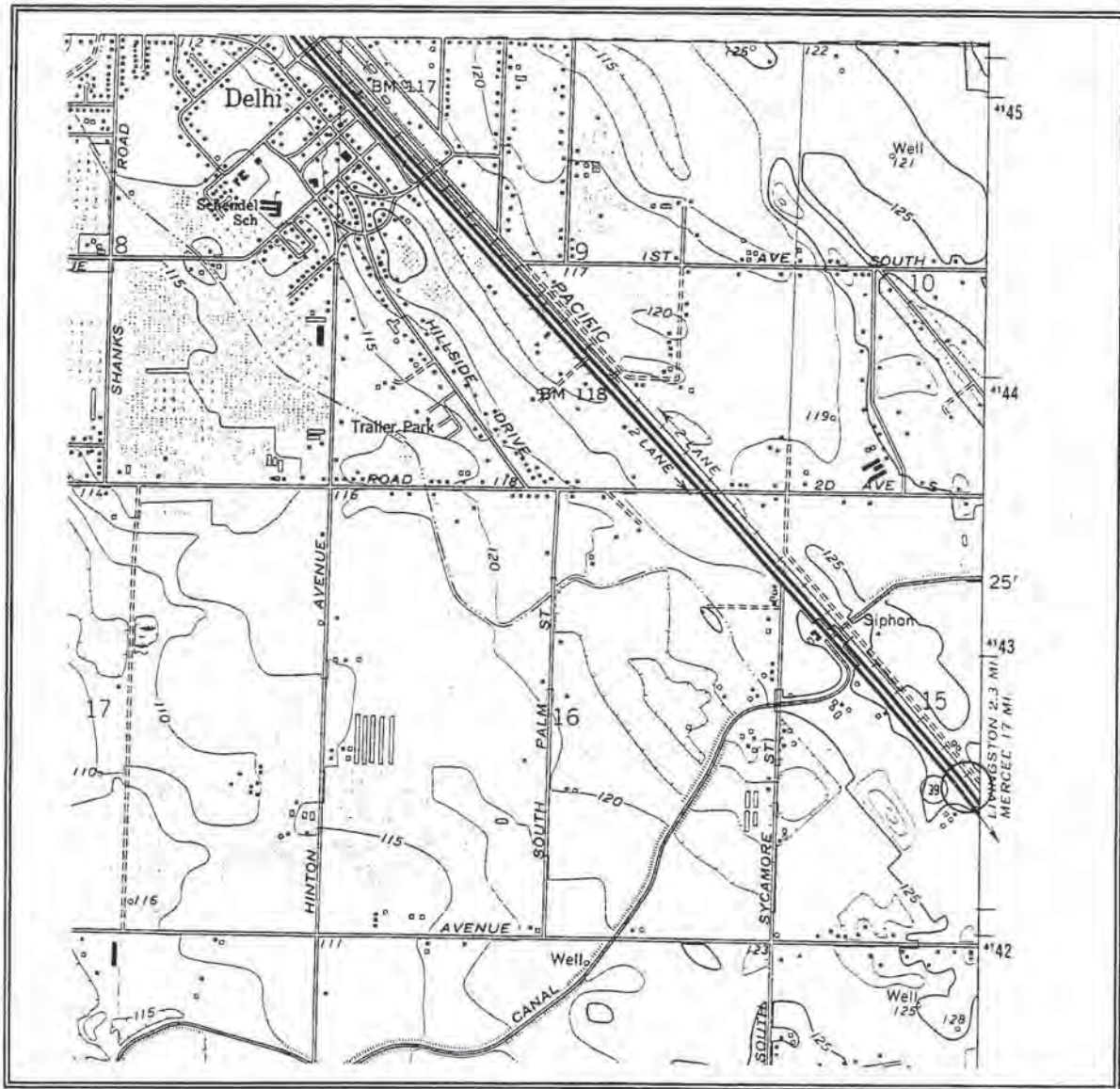


P-24-000097

Photograph Number: 1
Site Number: SPM-29
Common Name: Southern Pacific San Joaquin
Mainline

1





SITE NAME: Southern Pacific San Joaquin Mainline, Merced County

SITE NUMBER: SPM-29

QUAD SHEET: "Turlock Quadrangle," USGS: 1961, photorevised 1976

PIPELINE LOCATION: MP 182

P. 1/6
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

P. 24-000097
Primary #
HRI #
Triennial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

10-MER-99; KP 25.2/27.88, PM 15.8/17.3, EA 10-0K020

Map Ref. # 2

P1. Resource Number: # 2

(Former Southern Pacific East Taosman Valley main line)

*P2. Location:

*a. County: Merced

*b. USGS 7.5' Quad: Atwater, CA

c. Address:

d. Assessor's Parcel Number: 059-053-01, 059-053-02, 059-053-03

T75/R3E S-23

9/06

*P3a. Description: The Union Pacific railroad line consists of a single set of tracks set upon a 23-foot wide berm on a 60-foot right-of-way. The rails are made of welded steel in a continuous track. The berm consists of fill material with 2-inch rock atop. Standard wood ties support the continuous track. The segment of the railroad within the project area remains a single-track roadbed and appears to be located on its original alignment. Materials have inevitably been replaced, and workmanship has changed. The steel rails have been replaced numerous times and the roadbed redesigned and raised during the Twentieth Century, all using contemporary materials.

The landscape along the right-of-way is a mixture of farm fields with a single farmstead, new tract housing and new commercial buildings. Deteriorated roadside businesses, situated between Old Highway 99 (which parallels the Union Pacific tracks), and the freeway to the east, were built in the 1960s after the freeway was constructed.

*P3b. Resource Attributes: AH7

*P4. Resources Present: ● Railroad bed and tracks



P5b Photo Date: September 19, 2005
View of railroad line and West Merced
Overhead looking northwest.

*P6. Date Constructed/Age and Sources:
1871 to present

*P7. Owner and Address:
Union Pacific Railroad
1400 Douglas Street, Stop 1590
Omaha, Nebraska 68179-1690

*P8. Recorded by: Chris Brewer
Associate Environmental Planner/
Architectural Historian and
Wendy Kronman
Archeology Technician
Department of Transportation
2015 E. Shields, Suite 100
Fresno, CA 93726
(559) 243-8209

*P9. Date Recorded: September 2005

*P10. Survey Type: Intensive

P11. Report Citation: "Historic Resources Evaluation Report State Route 99, West Merced Overhead and Bear Creek Bridge Replacements, Merced County, CA KP: 25.42/27.88, PM: 15.8/17.3, EA: 10-0K020", by Chris Brewer, September 2005.

*Attachments: ● Building, Structure, and Object Record

P-14

P-24-000097

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Priority#

JR #

Title

Page 2 of X

[Union Pacific Railroad]



Union Pacific Railroad. View looking southwest towards Bear Creek.

BUILDING, STRUCTURE, AND OBJECT RECORD

10-MER-99; KP 25.2/27.88, PM 15.8/17.3, EA 10-0K020

Map Ref. #2 *NRHP Status Code: 62

*Resource Identifier: #2

B1. Historic Name: Central Pacific Railroad 1871-1884, Southern Pacific Railroad 1884-1996

B2. Common Name: Union Pacific Railroad 1996-present

B3. Original Use: railroad line B4. Present Use: railroad line

*B5. Architectural Style: railroad line

*B6. Construction History: Construction of the Central Pacific rail line commenced in December 1869 at Lathrop, and reached the Merced area at the end of 1871, entering the newly platted railroad town in January of 1872.

*B7. Moved? • No ☐ Yes ☐ Unknown ☐ Date: Original Location:

*B8. Related Features: None

B9a. Architect: n/a

B9b. Builder: Central Pacific Railroad

*B10. Significance: Theme N/A Area N/A

Period of Significance N/A

Property Type N/A

Applicable Criteria N/A

Among other cities in the San Joaquin Valley, Merced was founded as a result of the railroad. The railroad also created the opportunity for the area to become a major agricultural region, initially determining the settlement pattern of the San Joaquin Valley.

The Central Pacific Railroad constructed the San Joaquin Valley main line to gain vast quantities of commerce in the valley. The Central Pacific Railroad enlisted Charles H. Hoffman to survey the new town site of Merced, where they planned to develop a main shipping point. The presence of the railroad soon drew much of the population away from the few existing towns and settlements in the area (continued)

B11. Additional Resource Attributes: N/A

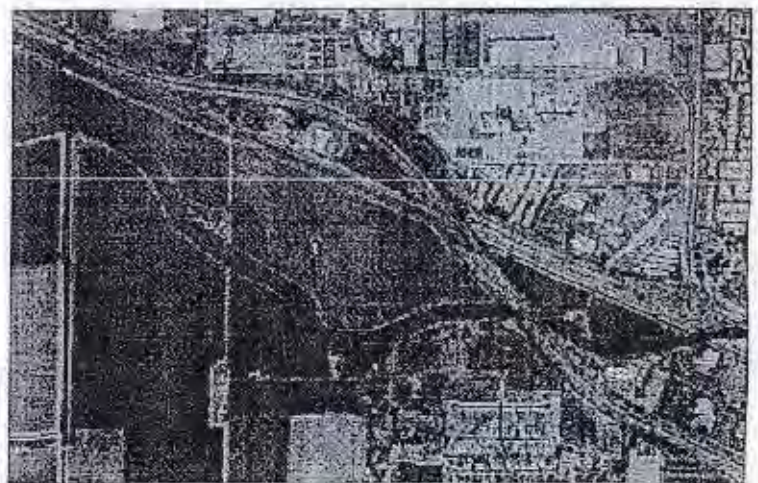
*B12. References: Laurie Welch, *Supplemental Historic Resource Evaluation Report for MER-99 Mission/Healy Interchange, 10-MER-99, P.M. 10.5/12.5, EA 10-363100*, Sacramento: Caltrans Environmental Branch, April 2000

B13. Remarks: N/A

*B14. Evaluator: Chris Brewer
Associate Environmental Planner/
Architectural Historian
Department of Transportation
2015 E. Shields, Suite 100
Fresno, CA 93726
(559) 243-8209

*Date of Evaluation: September, 2005

(This space reserved for official comments.)



Union Pacific railroad segment
North and west of Bear Creek
Crossed by West Merced Overhead



BUILDING, STRUCTURE, AND OBJECT RECORD

Page ~~2~~ of ~~2~~

Resource Name Union Pacific Railroad

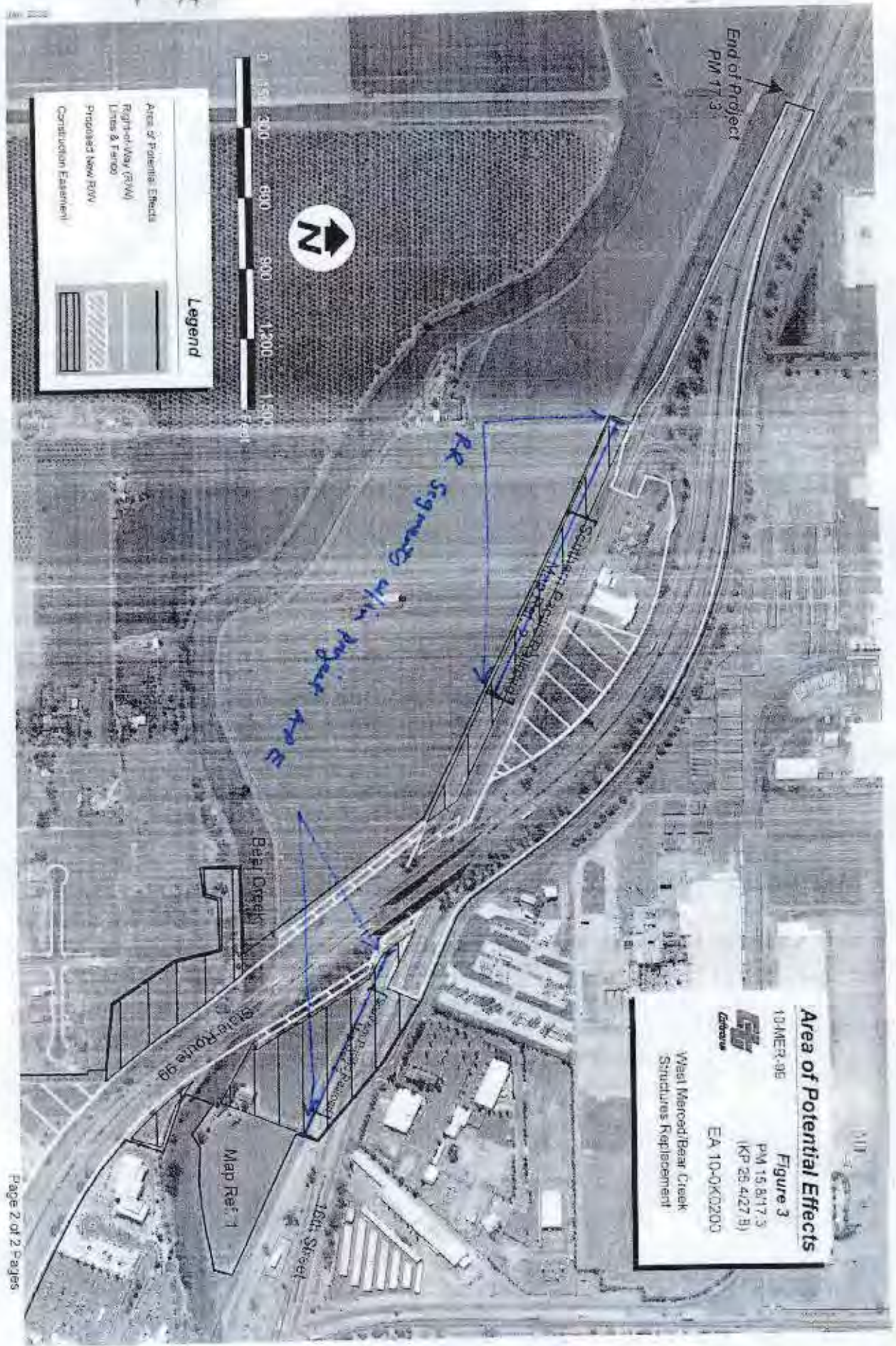
*B10. Continued

The availability of a reliable railroad connection for shipping grain allowed wheat crops to survive to the depression of the mid 1890s. It continued to serve as a transportation system for other agricultural products.

The railroad's setting has been significantly altered in the project area. The rail line is crossed by two 2-lane freeway bridges, the West Merced Overcrossing (39-0131L and 39-0131R). It is bordered by 16th Street (Old Highway 99) on the east, with a pocket of businesses across the street facing west dating from the mid-1960s.

The segment of the railroad within the project area remains a single-track roadbed and appears to be located on its original alignment. However all materials have inevitably been replaced, and workmanship has changed. The steel rails have been replaced numerous times and the roadbed redesigned and raised during the Twentieth Century, all using contemporary materials. This segment of railroad does not appear to possess the sense of feeling and association needed to convey its importance from the early period of significance. Therefore, the property within the project APE does not appear to be eligible for listing in the National Register of Historic Places, nor is it a historic resource for the purpose of CEQA.

P. 5/6



P-24-000097 6/4/1

At 1000 ft
in pond. ME



File # 101-33
part NE-04741

HISTORIC REPORT
(49 C.F.R. 1105.8)
SOUTHERN PACIFIC TRANSPORTATION COMPANY
-- ABANDONMENT EXEMPTION --
IN MERCED AND FRESNO COUNTIES, CALIFORNIA
ICC Docket No. AB-12 (Sub-No. 168X)
OCTOBER 26, 1993

* Los Banos,
Delta Ranch,
Dos Palos
P. 24-
000097

The Historic Report should contain the information required by §1105.7(e)(1) of the Environmental Report. The following is excerpted from the Environmental Report prepared for the proposed abandonment:

§1105.7(e)(1) Proposed Action and Alternatives. Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also, describe any reasonable alternatives to the proposed action. Include a readable, detailed map and drawings clearly delineating the project.

Southern Pacific Transportation Company (hereafter "SPT") proposes to abandon and sell and/or remove the 18.73 mile portion of its West Side Line between railroad milepost 141.17, near rail station Los Banos, located in Merced County, and railroad milepost 159.90, near rail station Oxalis, located in Fresno County, California (hereafter "The Line"). Where appropriate and upon receipt of abandonment authority, the track and associated structures will be removed and the right-of-way offered for sale.

The proposed abandonment will not change rail freight operations or maintenance procedures on The Line as this former secondary main line trackage is no longer used for the operation of through trains or for serving local customers.

SPT has no reasonable alternative to abandonment of The Line. There is little potential for adequate future traffic that would make resumed operations profitable. The Line is no longer necessary for the operation of through trains and local traffic has

her converted to truck transportation or has ceased to move entirely.

The portion of the West Side Line north of milepost 141.17 continues in operation as the California Northern Railroad Company and the portion south of milepost 159.90 continues to be served by SPT. Neither adjacent portion will be affected by the proposed abandonment as no trains operate between these adjacent portions and The Line.

A map of the proposed abandonment is attached hereto as Exhibit 1.

HISTORIC REPORT

1. A U.S.G.S topographic map (or an alternate map drawn to scale and sufficiently detailed to show buildings and other structures in the vicinity of the proposed action) showing the location of the proposed action, and the locations and approximate dimensions of railroad structures that are 50 years old or older and are part of the proposed action;

Four U.S.G.S. topographic maps, which show the route of The Line proposed for abandonment, are attached as Exhibit 2 to the copy of the Historic Report being supplied to the California Office of Historic Preservation. The Line to be abandoned is highlighted on these maps. (not red'd)

Structures on The Line that are fifty years old, or older, are listed on the following page. The locations of these bridge structures are labeled on the topographic maps and identified by the appropriate milepost location.

<u>YEAR BUILT¹</u>	<u>MILEPOST</u>	<u>BRIDGE TYPE</u>	<u>LENGTH (feet)</u>
1921	147.50	Ballast deck - wood	20
1929	155.78	Ballast deck - wood	15
1931	156.38	Ballast deck - wood	15
1921	158.46	Ballast deck - wood	10
1921	158.73	Ballast deck - wood	10
1921	159.02	Ballast deck - wood	10
1921	159.33	Ballast deck - wood	10

2. A written description of the right of way (including approximate widths, to the extent known), and the topography and urban and/or rural characteristics of the surrounding area;

Beginning just west of Mercy Springs Road at milepost 141.17 in the City of Los Banos (population 10,341)², The Line runs southeast through a rural area of adjacent agricultural land and mud flats to the unincorporated town of South Dos Palos (pop. 850).³ From South Dos Palos, The Line continues through agricultural areas and ends near Oxalis (no population data) just southeast of the dirt road railroad crossing which is a southerly continuation of Hudson Avenue.

The surrounding topography is virtually flat and featureless.

3. Good quality photographs (actual photographic prints, not photocopies) of railroad structures on the property that are 50 years old or older and of the immediately surrounding area;

Bridges on The Line that are fifty years old or older were

¹ The year shown is the year the bridge support structure was built.

² Population data from the 1991 Rand McNally Commercial Atlas & Marketing Guide.

³ The railroad station name at South Dos Palos is merely Dos Palos. The Line does not pass through the incorporated City of Dos Palos (pop. 3,123) which is centered two miles to the northeast.

photographed.⁴ Original photographs are attached hereto as Exhibit 3 in the copy of the report sent to the California Office of Historic Preservation.

SPT believes that the bridges along The Line are common in design and construction and are types commonly found on railroads throughout North America.

4. The date(s) of construction of the structure(s), and the date(s) and extent of any major alterations, to the extent such information is known;

Various engineering documents exist as to maintenance and repair procedures performed on the structures listed in Section 1 of this report. These engineering documents are general in nature and SPT believes that none is of any historic significance.

5. A brief narrative history of carrier operations in the area, and an explanation of what, if any, changes are contemplated as a result of the proposed action;

The West Side Line was once a secondary main line connecting Fresno with Tracy and was used by through trains and to serve local customers. After through train operations were consolidated on the primary main line through Merced, the West Side Line was relegated to local traffic only. Local traffic has declined over the years to the point where the segment herein designated as The Line has had no local customers for over two years.

No changes in SPT's overall train operations or maintenance

⁴ The bridge at milepost 147.50 was not photographed. Its overall appearance is similar to the bridge at milepost 155.78.

procedures are expected as no local customers have been served on The Line in over two years.

6. A brief summary of documents in the carrier's possession, such as engineering drawings, that might be useful in documenting a structure that is found to be historic;

There are no available individual drawings for the bridges listed in Section 1 of this report. However, Common Standard Drawings show the required SPT standards used for the construction of various types of bridges.

The structures on The Line are common in design and construction and are types commonly found on railroads throughout North America.

7. An opinion (based on readily available information in the railroad's possession) as to whether the site and/or structures meet the criteria for listing on the National Register of Historic Places (36 CFR 60.4), and whether there is a likelihood of archeological resources or any other previously unknown historic properties in the project area, and the basis for these opinions (including any consultations with the State Historic Preservation Office, local historical societies or universities);

The structures listed in Section 1 of this report are common in design and construction. SPT believes that none of these structures has any historical significance as to their design or construction. They are common structures found on railroads throughout North America.

SPT is not aware of any archeological resources or railroad-owned historic properties in the project area.

8. A description (based on readily available information in the railroad's possession) of any known prior subsurface ground disturbance or fill, environmental conditions (naturally occurring or manmade) that might affect the archeological recovery of resources (such as swampy conditions or the presence of toxic waste), and the surrounding terrain.

There are no existing records as to the nature of any known subsurface ground disturbance or fill, or environmental condition, that might affect the archeological recovery of any potential resources.

9. Within 30 days of receipt of the historic report, the State Historic Preservation Officer may request the following additional information regarding specified nonrailroad owned properties or groups of properties immediately adjacent to the railroad right-of-way: photographs of specified properties that can be readily seen from the railroad right-of-way (or other public rights-of-way adjacent to the property) and a written description of any previously discovered archeological sites, identifying the location and type of the site (i.e., prehistoric or native American).

SPT does not foresee the likelihood that any additional information will need to be supplied in association with the proposed line abandonment. But, if any is requested, SPT will promptly supply the necessary available information.

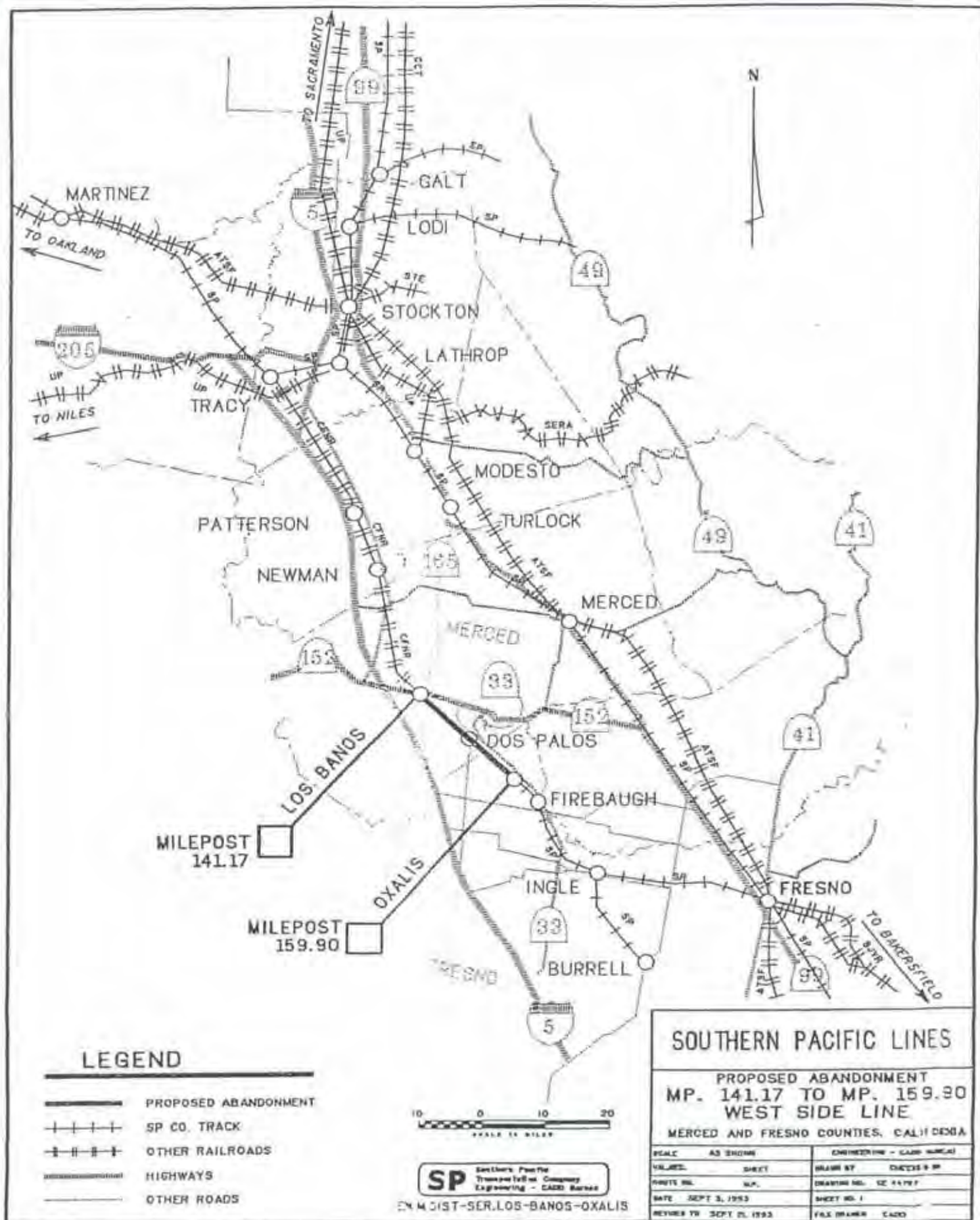


EXHIBIT 3

HISTORIC REPORT
PHOTOGRAPHS OF STRUCTURES - WEST SIDE LINE

<u>PLATE NUMBER</u>	<u>MILEPOST</u>	<u>STRUCTURE</u>	<u>VIEW DIRECTION</u>
1	155.78	Bridge	Southwest
2	156.38	Bridge	Southwest
3	158.46	Bridge	Southwest
4	158.73	Bridge	Southwest
5	159.02	Bridge	Southwest
6	159.33	Bridge	Northeast
7	159.33	Bridge	Southeast

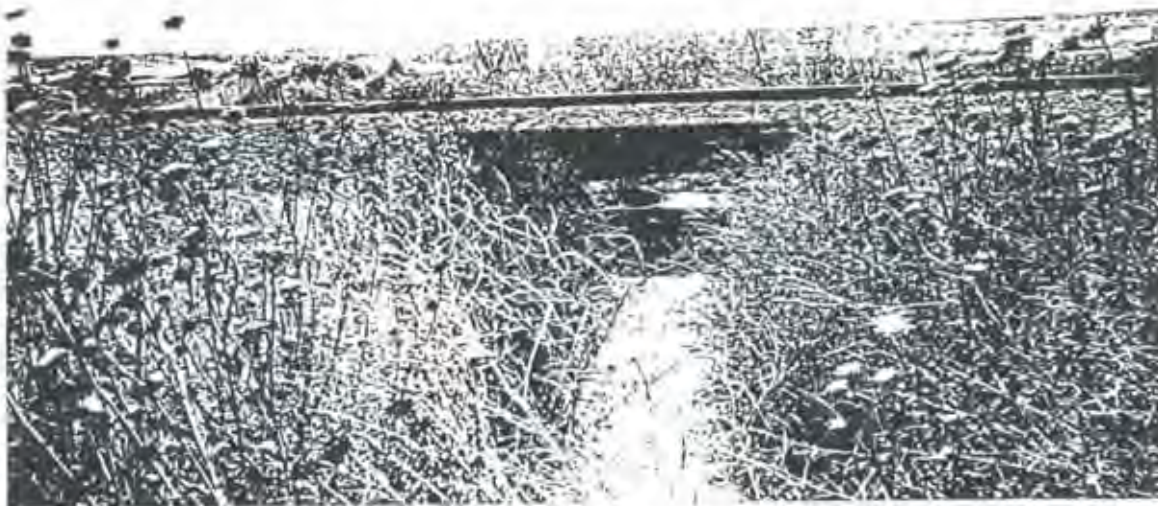


PLATE 3

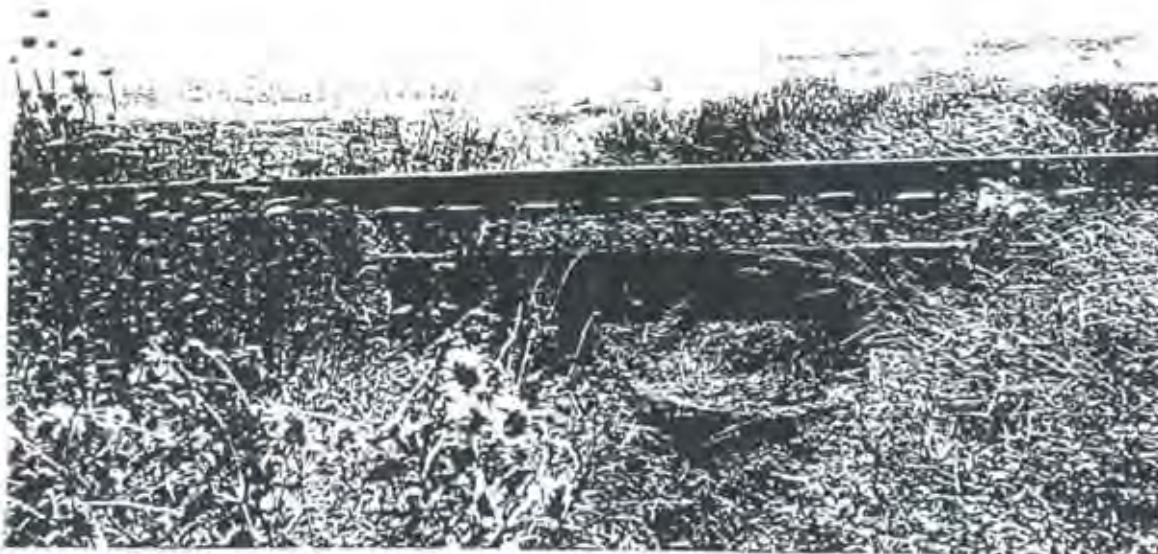


PLATE 4

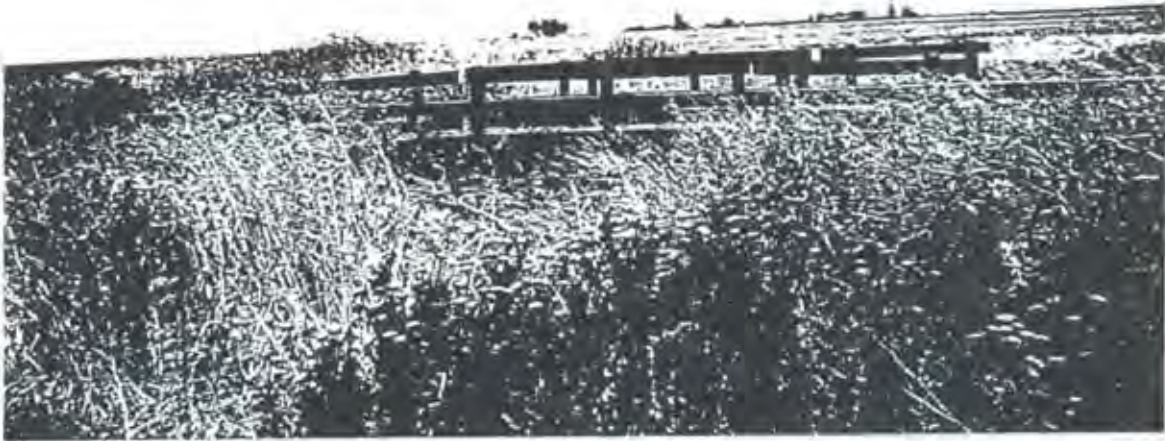


PLATE B

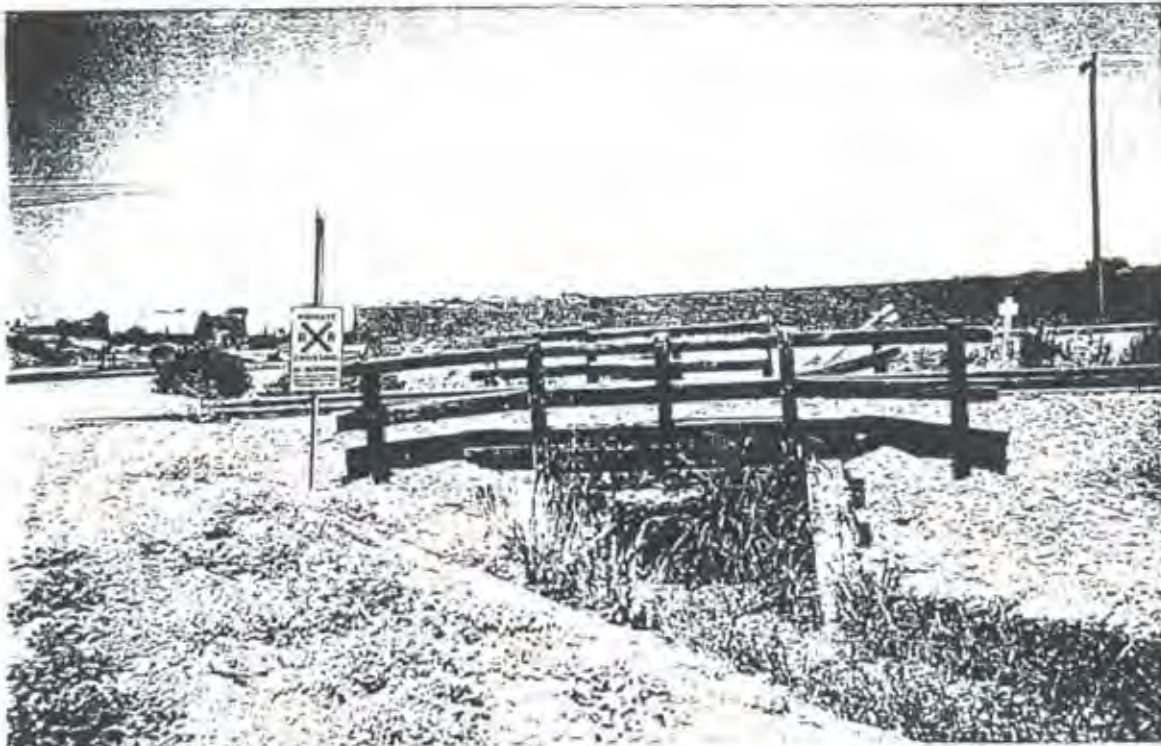


PLATE C

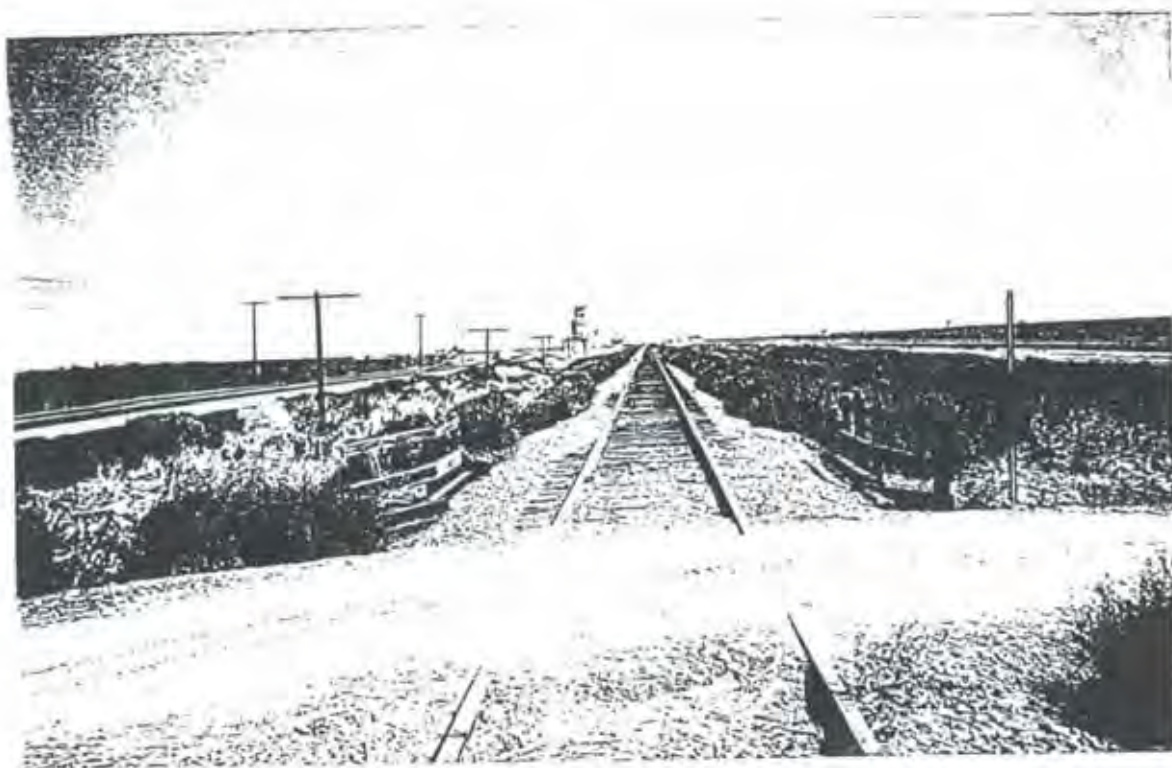


PLATE 7

ENVIRONMENTAL REPORT
(49 C.F.R. 1105.7)
SOUTHERN PACIFIC TRANSPORTATION COMPANY
-- ABANDONMENT EXEMPTION --
IN MERCED AND FRESNO COUNTIES, CALIFORNIA
ICC Docket No. AB-12 (Sub-No. 168X)
OCTOBER 26, 1993

(1) Proposed Action and Alternatives. Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also describe any reasonable alternatives to the proposed action. Include a readable, detailed map and drawings clearly delineating the project.

Southern Pacific Transportation Company (hereafter "SPT") proposes to abandon and sell and/or remove the 18.73 mile portion of its West Side Line between railroad milepost 141.17, near rail station Los Banos, located in Merced County, and railroad milepost 159.90, near rail station Oxalis, located in Fresno County, California (hereafter "The Line"). Where appropriate and upon receipt of abandonment authority, the track and associated structures will be removed and the right-of-way offered for sale.

The proposed abandonment will not change rail freight operations or maintenance procedures on The Line as this former secondary main line trackage is no longer used for the operation of through trains or for serving local customers.

SPT has no reasonable alternative to abandonment of The Line. There is little potential for adequate future traffic that would make resumed operations profitable. The Line is no longer necessary for the operation of through trains and local traffic has either converted to truck transportation or has ceased to move entirely.

The portion of the West Side Line north of milepost 141.17 continues in operation as the California Northern Railroad Company and the portion south of milepost 159.90 continues to be served by SPT. Neither adjacent portion will be affected by the proposed abandonment as no trains operate between these adjacent portions and The Line.

A map of the proposed abandonment is attached hereto as Exhibit 1.

(2) Transportation System. Describe the effects of the proposed action on regional or local transportation systems and patterns. Estimate the amount of traffic (passenger or freight) that will be diverted to other transportation systems or modes as a result of the proposed action.

No local traffic has moved on The Line in over two years. Therefore, SPT does not expect the proposed abandonment to have any affect on local or regional transportation systems or patterns. Traffic that once used The Line has transferred to other transportation modes or routes, or has ceased to move entirely. Similarly, no traffic will be diverted to other transportation systems or modes as a result of the proposed abandonment.

(3) Land Use. (i) Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies. (ii) Based on consultation with the U.S. Soil Conservation Service, state the effect of the proposed action on any prime agricultural land. (iii) If the action affects land or water uses within a designated coastal zone, include the coastal zone information required by § 1105.9. (iv) If the proposed action is an abandonment, state whether or not the right-of-way is suitable for alternative public use under 49 U.S.C. 10906 and

explain why.

(i) SPT has contacted the Merced County Planning Department, the Fresno County Public Works Office, and the City of Los Banos Community Development Director, as shown by the letters attached hereto as Exhibit 2. A response from the Fresno County Public Works and Development Services Department, and SPT's reply, are attached hereto as exhibits 2A and 2B. A copy of this Report will be mailed to each of the agencies for their information and comment.

(ii) Since no agricultural shipments have originated or terminated on The Line in over two years, and possible removal of trackage and associated structures would have minimal affect on adjacent land, SPT is confident that the proposed abandonment will not have a detrimental effect on any prime agricultural land. SPT contacted the U.S. Soil Conservation Service as shown by the letter attached hereto as Exhibit 3. A copy of this report is being supplied to the U.S. Soil Conservation Service for its information and comment.

(iii) The Line is not located in a designated coastal zone.

(iv) The Line is located in a predominately rural agricultural area and does not pass through, or terminate near, any major population centers. Therefore, there is little or no potential for the rail corridor to be used as a transit corridor, and little likelihood that it would hold value as a new-construction highway corridor. Most of The Line is closely paralleled by highway 33 and Santa Fe Grade Road which could be enhanced by roadway widening.

(4) Energy. (i) Describe the effect of the proposed action on transportation of energy resources. (ii) Describe the effect of the proposed action on recyclable commodities. (iii) State whether the proposed action will result in an increase or decrease in overall energy efficiency and explain why. (iv) If the proposed action will cause diversions from rail to motor carriage of more than: (A) 1,000 rail carloads a year; or (B) An average of 50 rail carloads per mile per year for any part of the affected line, quantify the resulting net change in energy consumption and show the data and methodology used to arrive at the figure given.

(i) The proposed abandonment will have no effect on the transportation of energy resources.

(ii) The proposed abandonment will have no effect on the transportation of recyclable commodities.

(iii) The proposed abandonment will have no effect on overall energy efficiency as no local or through train traffic currently uses The Line. Traffic that once used The Line has long since transferred to other transportation modes or routes, or has ceased to move entirely.

(iv) The proposed abandonment will not cause the diversion of any rail traffic to motor carriage as no local rail traffic has been handled on The Line in over two years.

(5) Air. (i) If the proposed action will result in either: (A) An increase in rail traffic of at least 100 percent (measured in gross ton miles annually) or an increase of at least eight trains a day on any segment of rail line affected by the proposal, or (B) An increase in rail yard activity of at least 100 percent (measured by carload activity), or (C) An average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on any affected road segment, quantify the anticipated effect on air emissions. For a proposal under 49 U.S.C. 10901 (or 10505) to construct a new line or reinstitute service over a previously abandoned line, only the eight train a day provision in subsection (5)(i)(A) will apply. (ii) If the proposed action affects a class I or nonattainment area under the Clean Air Act, and will result in either: (A) An increase in rail traffic of at least 50 percent (measured in gross ton miles annually) or an increase of at least three trains a day on any

segment of rail line, (B) An increase in rail yard activity of at least 20 percent (measured by carload activity), or (C) An average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on a given road segment, then state whether any expected increased emissions are within the parameters established by the State Implementation Plan. However, for a rail construction under 49 U.S.C. 10901 (or 49 U.S.C. 10505), or a case involving the reinstitution of service over a previously abandoned line, only the three train a day threshold in this item shall apply. (iii) If transportation of ozone depleting materials (such as nitrogen oxide and freon) is contemplated, identify: the materials and quantity; the frequency of service; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and spills; contingency plans to deal with accidental spills; and the likelihood of an accidental release of ozone depleting materials in the event of a collision or derailment.

(i) The proposed abandonment will not result in meeting or exceeding these thresholds.

(ii) The proposed abandonment will not result in meeting or exceeding these thresholds.

(iii) The proposed abandonment will not affect the transportation of ozone depleting materials.

(6) Noise. If any of the thresholds identified in item (5)(i) of this section are surpassed, state whether the proposed action will cause: (i) An incremental increase in noise levels of three decibels Ldn or more; or (ii) An increase to a noise level of 65 decibels Ldn or greater. If so, identify sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the project area, and quantify the noise increase for these receptors if the thresholds are surpassed.

(i) The proposed abandonment will not result in meeting or exceeding the thresholds listed in item (5)(i).

(ii) The proposed abandonment will not result in meeting or exceeding the thresholds listed in item (5)(i).

(7) Safety. (i) Describe any effects of the proposed action on public health and safety (including vehicle delay time at railroad grade crossings). (ii) If hazardous materials are expected to be transported, identify: the materials and quantity; the frequency of service; whether chemicals are being transported that, if mixed, could react to form more hazardous compounds; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and hazardous spills; the contingency plans to deal with accidental spills; and the likelihood of an accidental release of hazardous materials. (iii) If there are any known hazardous waste sites or sites where there have been known hazardous materials spills on the right-of-way, identify the location of those sites and the types of hazardous materials involved.

(i) SPT believes that there will be little or no impact on public health or safety associated with the proposed abandonment as no rail traffic currently operates on The Line. However, the eventual removal of some public and private rail crossings will have a positive effect on vehicular traffic that will no longer have to deal with the crossings.

(ii) The proposed abandonment will have no effect on the transportation of hazardous materials.

(iii) SPT is unaware of any locations within the rail corridor of The Line where hazardous spills have occurred or hazardous waste sites exist.

(8) Biological Resources. (i) Based on consultation with the U.S. Fish and Wildlife Service, state whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects. (ii) State whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

(i) SPT is confident that there are no endangered or threatened species, or critical habitats, that would be adversely affected by the proposed abandonment. SPT contacted the U.S. Fish

and Wildlife Service as shown by the letter attached hereto as Exhibit 4. Copies of this report have been supplied to the U.S. Fish and Wildlife Service regional and field offices for their information and comment.

(ii) SPT is confident that there are no wildlife sanctuaries or refuges, or National or State parks, that would be adversely affected by the proposed abandonment. A copy of this report has been supplied to the U.S. Department of Interior (National Park Service) for its information and comment.

(9) Water. (i) Based on consultation with State water quality officials, state whether the proposed action is consistent with applicable Federal, State or local water quality standards. Describe any inconsistencies. (ii) Based on consultation with the U.S. Army Corps of Engineers, state whether permits under section 404 of the Clean Water Act (33 U.S.C. 1344) are required for the proposed action and whether any designated wetlands or 100-year flood plains will be affected. Describe the effects. (iii) State whether permits under section 402 of the Clean Water Act (33 U.S.C. 1342) are required for the proposed action. (Applicants should contact the U.S. Environmental Protection Agency or the state environmental protection or equivalent agency if they are unsure whether such permits are required.)

(i) SPT is confident that the proposed abandonment will not be inconsistent with applicable water quality standards. SPT contacted the California State Environmental Protection Agency as shown by the letter attached hereto as Exhibit 5. A copy of this report has been supplied to the U.S. Environmental Protection Agency and the California State Environmental Protection Agency for their information and comment.

(ii) SPT is confident that the proposed abandonment will not require the issuance of any permits under section 404 of the Clean

Water Act. SPT contacted the U.S. Army Corps of Engineers as shown by the letter attached hereto as Exhibit 6. A copy of this report has been supplied to the U.S. Army Corps of Engineers for its information and comment.

(iii) SPT is confident that the proposed abandonment will not require the issuance of any permits under section 402 of the Clean Water Act. A copy of this report has been supplied to the U.S. Environmental Protection Agency its information and comment.

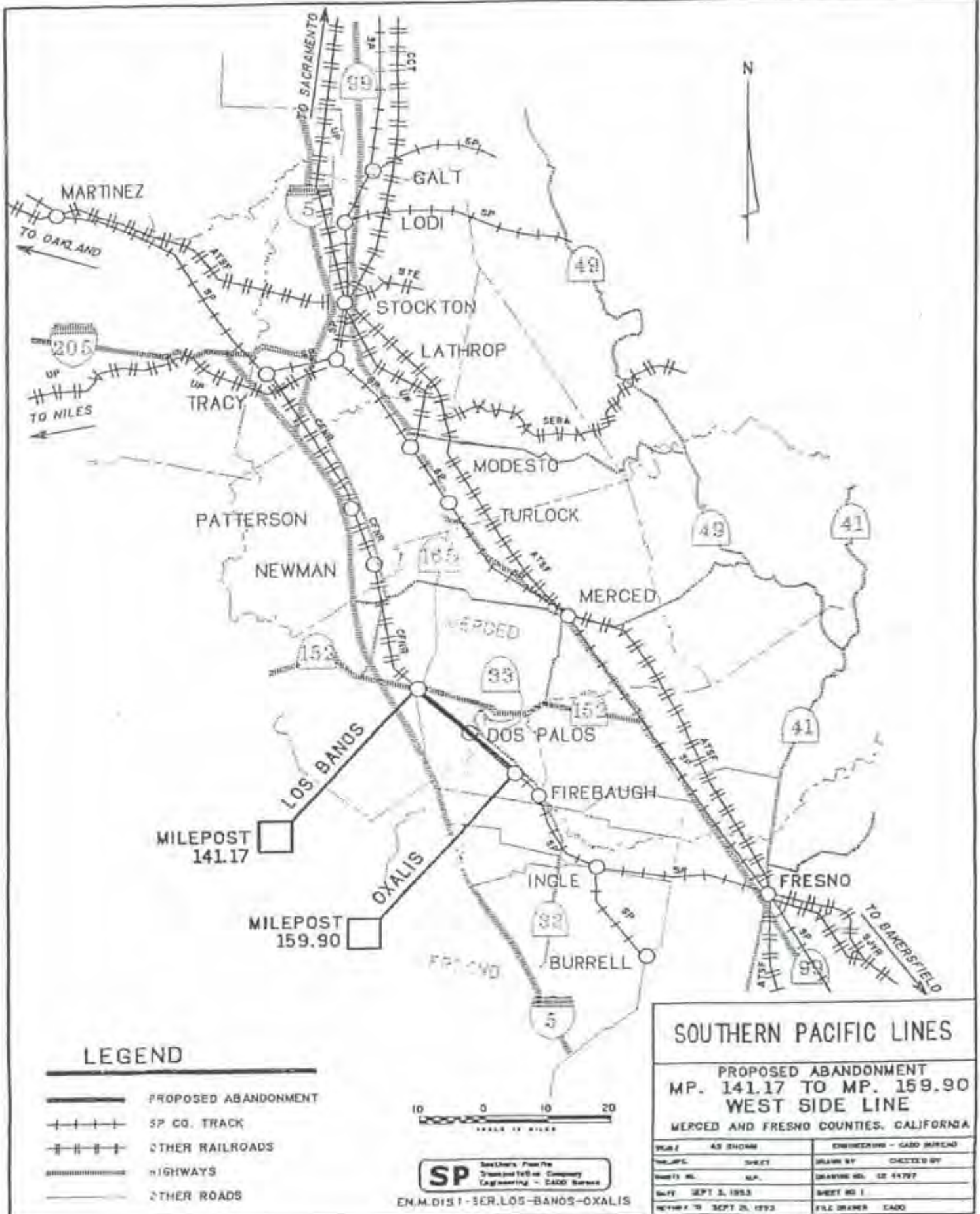
(10) Proposed Mitigation. Describe any actions that are proposed to mitigate adverse environmental impacts, indicating why the proposed mitigation is appropriate.

SPT does not expect any adverse environmental impact from the proposed abandonment, nor have the recipients of this report advised of the need for mitigation.

(11) Additional Information for Rail Constructions. The following additional information should be included for rail construction proposals (including connecting track construction): (i) Describe the proposed route(s) by State, county, and subdivision, including a plan view, at a scale not to exceed 1:24,000 (7 1/2 minutes U.S.G.S. quadrangle map), clearly showing the relationship to the existing transportation network (including the location of all highway and road crossings) and the right-of-way according to ownership and land use requirements. (ii) Describe any alternative routes considered, and a no-build alternative (or why this would not be applicable), and explain why they were not selected. (iii) Describe the construction plans, including the effect on the human environment, labor force requirements, the location of borrow pits, if any, and earthwork estimated. (iv) Describe in detail the rail operations to be conducted upon the line, including estimates of freight (carloads and tonnage) to be transported, the anticipated daily and annual number of train movements, number of cars per train, types of cars, motive power requirements, proposed speeds, labor force, and proposed maintenance-of-way practices. (v) Describe the effects, including indirect or down-line impacts, of the new or diverted traffic over the line if the thresholds governing energy, noise and

air impacts in §§ 1105.7(e)(4), (5), or (6) are met. (vi) Describe the effects, including impacts on essential public services (e.g., fire, police, ambulance, neighborhood schools), public roads, and adjoining properties, in communities to be traversed by the line. (vii) Discuss societal impacts, including expected change in employment during and after construction.

The proposed action is an abandonment, not a rail line construction. Therefore, no further response is warranted.





Southern Pacific Lines

Southern Pacific Building • One Market Plaza • San Francisco, California 94105

October 8, 1993

File: West Side

Mr. Robert Smith
Planning Director
Merced County
2222 M Street
Merced, CA 95340

Re: Docket No. AB-12 (Sub-No. 168X) - Southern Pacific
Transportation Company - Verified Notice of Exempt
Abandonment on 18.73 Miles of trackage in Merced and
Fresno Counties, California.

Dear Mr. Smith:

Southern Pacific Transportation Company ("SPT") plans to file a Verified Notice of Exempt Abandonment before the Interstate Commerce Commission ("ICC"), on or about October 25, 1993, to abandon 18.73 miles of the West Side Line from railroad milepost 141.17, at or near the Los Banos rail station located in Merced County, to railroad milepost 159.90, at or near the Oxalis rail station located in Fresno County, California. A map of the trackage involved is attached hereto.

49 C.F.R. 1105.7 (e)(3)(i) states that "Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies." We would appreciate your review of the proposed action as required by this section. Your response will be included in the Environmental Report prepared for this action and a copy of the Report will be mailed to you.

If you have any questions, please feel free to call me in San Francisco at (415) 541-2714.

Sincerely,

A handwritten signature in dark ink, appearing to read "Paul D. Turney", written over a horizontal line.

Paul D. Turney
Senior Manager
Plant Rationalization

Attachment: map



Southern Pacific Lines

Southern Pacific Building • One Market Plaza • San Francisco, California 94105

October 8, 1993

File: West Side

Mr. Jeff Tweedie
Senior Analyst
Fresno County Public Works Office
2220 Tulare Street - 6th Floor
Fresno, CA 93721

Re: Docket No. AB-12 (Sub-No. 168X) - Southern Pacific
Transportation Company - Verified Notice of Exempt
Abandonment on 18.73 Miles of trackage in Merced and
Fresno Counties, California.

Dear Mr. Tweedie:

Southern Pacific Transportation Company ("SPT") plans to file a Verified Notice of Exempt Abandonment before the Interstate Commerce Commission ("ICC"), on or about October 25, 1993, to abandon 18.73 miles of the West Side Line from railroad milepost 141.17, at or near the Los Banos rail station located in Merced County, to railroad milepost 159.90, at or near the Oxalis rail station located in Fresno County, California. A map of the trackage involved is attached hereto.

49 C.F.R. 1105.7 (e)(3)(i) states that "Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies." We would appreciate your review of the proposed action as required by this section. Your response will be included in the Environmental Report prepared for this action and a copy of the Report will be mailed to you.

If you have any questions, please feel free to call me in San Francisco at (415) 541-2714.

Sincerely,

A handwritten signature in dark ink, appearing to read "Paul D. Turney", with a stylized flourish at the end.

Paul D. Turney
Senior Manager
Plant Rationalization

Attachment: map



Southern Pacific Lines

Southern Pacific Building • One Market Plaza • San Francisco, California 94105

October 8, 1993

File: West Side

Mr. Richard Hendricksen
Community Development Director
City of Los Banos
P.O. Box 31
Los Banos, CA 93635

Re: Docket No. AB-12 (Sub-No. 168X) - Southern Pacific
Transportation Company - Verified Notice of Exempt
Abandonment on 18.73 Miles of trackage in Merced and
Fresno Counties, California.

Dear Mr. Hendricksen:

Southern Pacific Transportation Company ("SPT") plans to file a Verified Notice of Exempt Abandonment before the Interstate Commerce Commission ("ICC"), on or about October 25, 1993, to abandon 18.73 miles of the West Side Line from railroad milepost 141.17, at or near the Los Banos rail station located in Merced County, to railroad milepost 159.90, at or near the Oxalis rail station located in Fresno County, California. A map of the trackage involved is attached hereto.

49 C.F.R. 1105.7 (e)(3)(i) states that "Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies." We would appreciate your review of the proposed action as required by this section. Your response will be included in the Environmental Report prepared for this action and a copy of the Report will be mailed to you.

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Paul D. Turney,
Senior Manager
Plant Rationalization

Attachment: map

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-24-
HRI # _____
Trinomial _____

002046

Page 18 of 75 (part of larger record involving other canals; see full record P-24-001909)

*Resource Name or # MR1

L1. Historic and/or Common Name: Bear Creek

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation

*b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) UTM: Zone 10; 717,127mE; 4,131,062mN. Located at the Bear Creek bridge on highway 140 on the section line between sections 21 and 28 T7S/R13E MDBM (See Location Map 2).

Quad. Atwater + Merced

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
At this point the Bear Creek canal is approximately 60 feet wide. Water in the canal prevented an accurate depth measurement. The unlined channel is U-shaped and has vegetation growing on its steep banks. Both sides of the channel are built up forming levees on the banks. It is crossed by the SR 140 bridge. An access road runs on the east side of the canal. (Photographs 17).

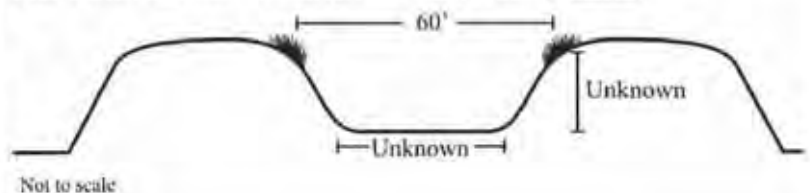
L4. Dimensions: (in feet for historic features and meters for prehistoric features)

- a. Top Width approximately 60 feet
- b. Bottom Width undetermined (carrying water)
- c. Height or Depth undetermined (carrying water)
- d. Length of Segment approximately 200 feet

L5. Associated Resources:

AH C6

L4e. Sketch of Cross-Section (include scale) Facing: north



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting is rural agricultural with scattered farmsteads.

L7. Integrity Considerations: See Section B10. "Significance"



L8b. Description of Photo, Map, or Drawing:
Photograph 17. Bear Creek passing under
SR 140, camera facing north. 12/12/06.

L9. Remarks:

L10. Form prepared by: (Name, affiliation, address)
Steven J. Melvin
JRP Historical Consulting Services, LLC
1490 Drew Ave, Suite 110
Davis, CA 95618

L11. Date: 12/28/06

P-24-002046

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____

Page 70 of 75

*Resource Name or # MR1

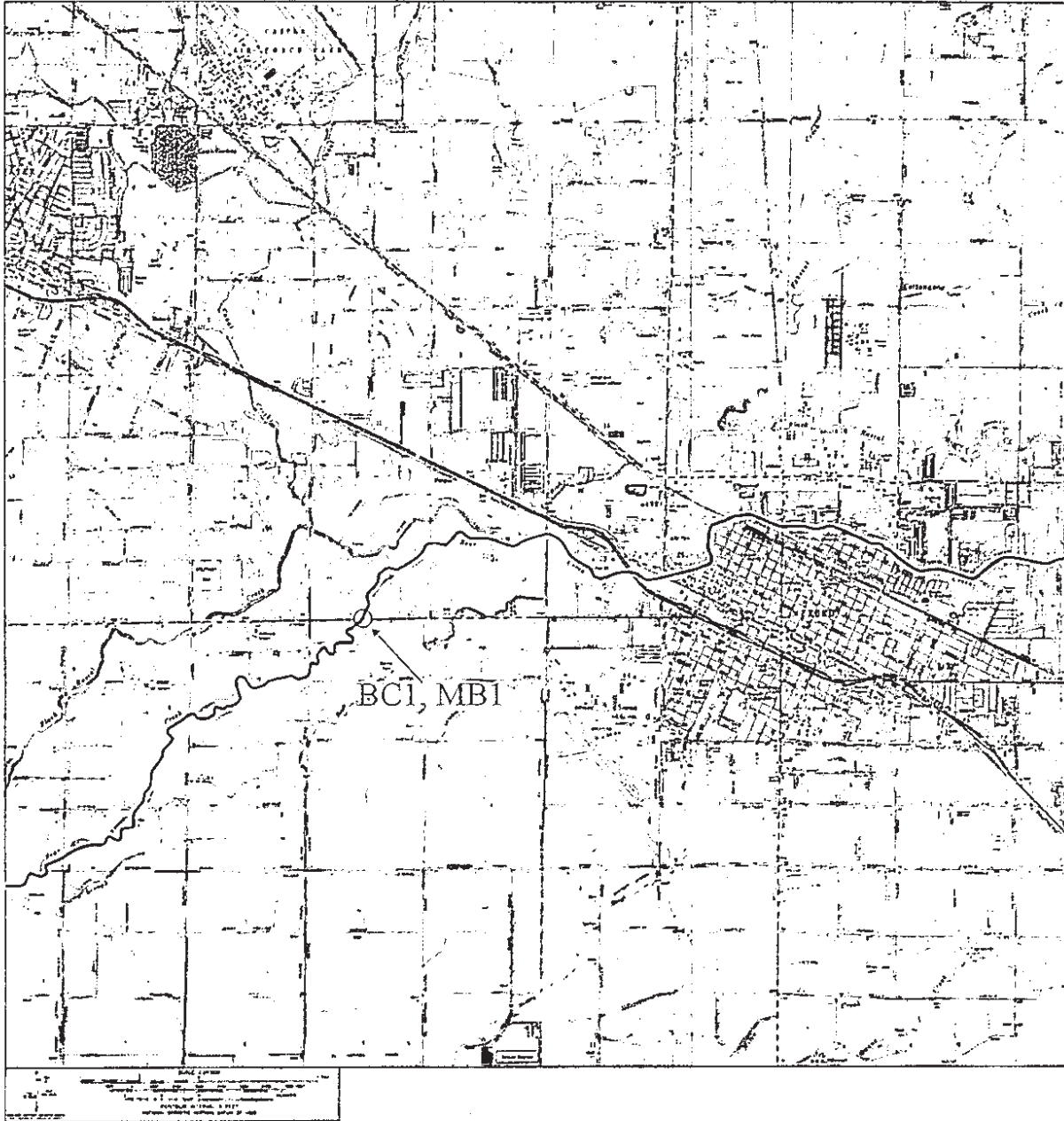
*Recorded by: M.Bunse/S.J. Melvin *Date 12/12/06; 1/22/07 ☒ Continuation ☐ Update

Map Name: Atwater, California, 7.5' USGS Quadrangle

*Date of Map: 1960 (1987)

Map Name: Merced, California, 7.5' USGS Quadrangle

*Date of Map: 1961 (1987)



Location Map 2. Map showing portion of Bear Creek and Meadowbrook Lateral

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-24-XXXXXX 000095
HRI #: _____
Trinomial _____
NRHP Status Code: 6
Other Listings _____
Review Code _____ Reviewer _____ Date _____

*Resource Name or #: T.I.D. Lateral No. 6

Map Reference No.: 4

10/98

P1. Other Identifier: N/A

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4

*P2. Location: *a. County Merced

b. Address N/A

City Delhi Zip 95315

*c. UTM: USGS Quad: N/A TURLOCK 75 d. UTM: N/A

*e. Other Locational Data: Along Highway 99 near Swanson & Flower Roads in Delhi

*P3a. Description

The resource is owned by the Turlock Irrigation District (TID). It is a concrete lined canal with an approximately 45° angle on the side slopes and approximately 30 feet wide at the top. The total canal is approximately 67,208 feet long, of which approximately 5,961 feet are within the APE for this project. The ditch runs in a northeast-southwest direction, paralleling the Highway 99 in this vicinity after crossing beneath the highway in three concrete box culverts. These box culverts are stamped with the date "1971" at the northern end of the lateral in the project APE where the concrete lined ditch turns into underground pipe. Three 6' diameter corrugated metal pipes under the railroad right-of-way (east of Highway 99) are connected to the box culverts that carry canal water beneath the highway.

(See continuation sheet.)

*P3b. Resource Attributes: HP20 -- Canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District

P5. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: 01/25/95

*P6. Date Constructed/Age: c. 1903

☐ Prehistoric ☒ Historic
☐ Both

*P7. Owner and Address: Turlock Irrigation District
333 E. Canal Dr.
Turlock, CA

*P8. Recorded by: Gloria Scott
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916)653-1029

*P9. Date Recorded: 01/25/95

*P10. Type of Survey: ☒ Intensive
☐ Reconnaissance ☐ Other
Describe: HASR

See ME-2870

*P11. Report Citation: HASR for 10-Mer-99, R32.3/R33.8, R34.8/R36.4, Delhi Stage II Project

*Attachments: ☐ NONE ☐ Map Sheet ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Linear Resource Record ☐ Archaeological Record ☐ District Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Map Reference No.: 4

*NRHP Status Code: 6

*Resource Identifier: T.I.D. Canal Lateral No. 6

B1. Historic Name: N/A

B2. Common Name: N/A

B3. Original Use: Canal

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4

B4. Present Use: Canal

*B5. Architectural Style: N/A

*B6. Construction History:

Lateral No. 6 is a concrete-lined canal constructed in 1903. The total canal length is approximately 67,208 feet long. The canal section between Bradbury Road and Lettau Avenue has an 80' wide of canal-of-way and is approximately 5,961 feet long. Three six-foot diameter corrugated metal pipes under the railroad right-of-way are connected to three 5' - 6' x 8' concrete box culverts under State Highway 99.

(See continuation sheet).

*B7. Moved? ☒ No ☐ Yes ☐ Unknown

Date: N/A Original Location:

*B8. Related Features: Box culverts, side gates, underground pipes and canal drop structure

B9a. Architect: N/A

B9b. Builder: Unknown

*B10. Significance: Theme: N/A

Area: N/A

Period of Significance: N/A

Property Type: Canal Applicable Criteria: N/A

Lateral No. 6 was constructed in 1903 to bring irrigation water to the nascent settlement at Delhi. It was part of the Turlock Irrigation District's efforts to extend its irrigation system into the newly settled portions at the southern boundary of its district. Since its construction, the TID has expanded its network of ditches and canals, and has continually maintained and upgraded the canal, with new cement linings, etc.

(See continuation sheet).

B11. Additional Resource Attributes: N/A

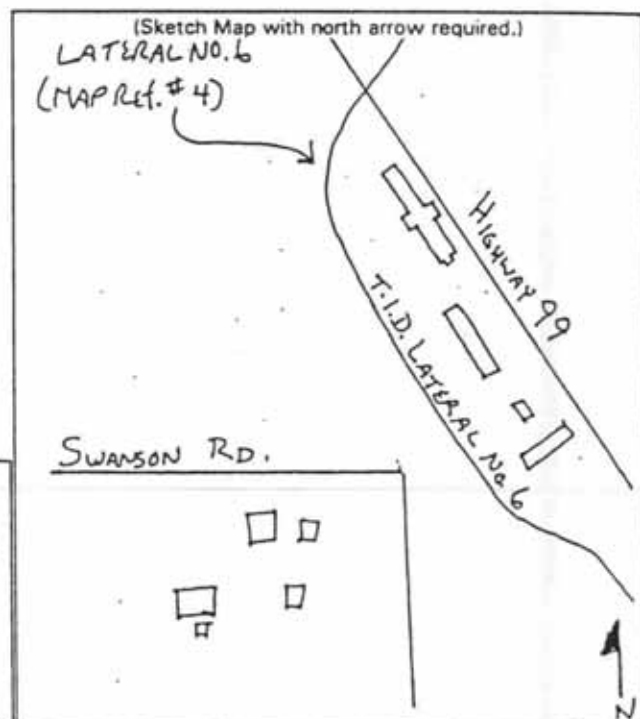
B12. References: 1969 APE map for Delhi Freeway Project (10-Mer-99); written correspondence from Turlock Irrigation District, 6/16/95; Merced County Assessor's records and parcel maps, subdivision maps, official record books; Cabezut-Ortiz, Delores J. Merced County: *The Golden Harvest*; Clark, George W. *History of Merced County*; Hohenthal, Helen Alma, & others. John Edwards Caswell, Ed. *Streams in a Thirsty Land: A History of the Turlock Region*.

B13. Remarks: N/A

B14. Evaluator: Gloria Scott
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916)653-1029

Date of Evaluation: 1/25/95

(This space reserved for official comments.)



Map Reference No.: 4

☒ Continuation ☐ Update

*Resource Identifier: T.I.D. Canal Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4

*P3a. Description Continued:

There is a three-cell concrete canal drop farther south marked "L6-D2." A concrete walkway by the gate carries the following stamp, "T.I.D. 358." Two concrete and iron side gates (Gates #9 and #10) are also located along the lateral and provide irrigation water to the orchards just west of the APE.

*B6. Construction History (continued):

T.I.D. Pump No. 146A - was constructed in December 1963. Improvement District No. 52 (I.D. 52), Delhi State Land Settlement, Booster No. 230 - T.I.D. had no historical data on this facility. T.I.D. believes the pump was constructed in the early 1950s to replace I.D. 52 Pump 41 located in the same vicinity. I.D. 53 Pumphline No. 73 - T.I.D. has no historical data on this pumphline. The canal was re-lined with concrete within the past twenty years, which altered the canal's appearance.

*B10. Significance (continued)

While Lateral No. 6 may be associated with the development of irrigation systems and the expansion of agriculture in the northern part of Merced County, the canal has been altered over the years, diminishing integrity of its materials, design, workmanship, feeling and association; it does not possess significance in its construction; has no known associations with prominent persons; and does not appear eligible for inclusion in the National Register of Historic Places. Additionally, it does not appear eligible for inclusion in the California Register of Historical Resources under the Interim Guidelines for the Consideration of Historic Properties Under the California Register adopted by Caltrans in March, 1993.

This resource is currently at the Office of Historic Preservation for review by the State Historic Preservation Officer (SHPO) under Section 106 of the National Historic Preservation Act as part of Mojave Pipeline Company's Northward Expansion Project. The consulting firm that evaluated the historic cultural resources for that project, JRP Associates, also concluded that the Lateral is not eligible for the National Register, due to loss of integrity. SHPO comments on its eligibility are due August 30, 1995.

Map Reference No.: 4

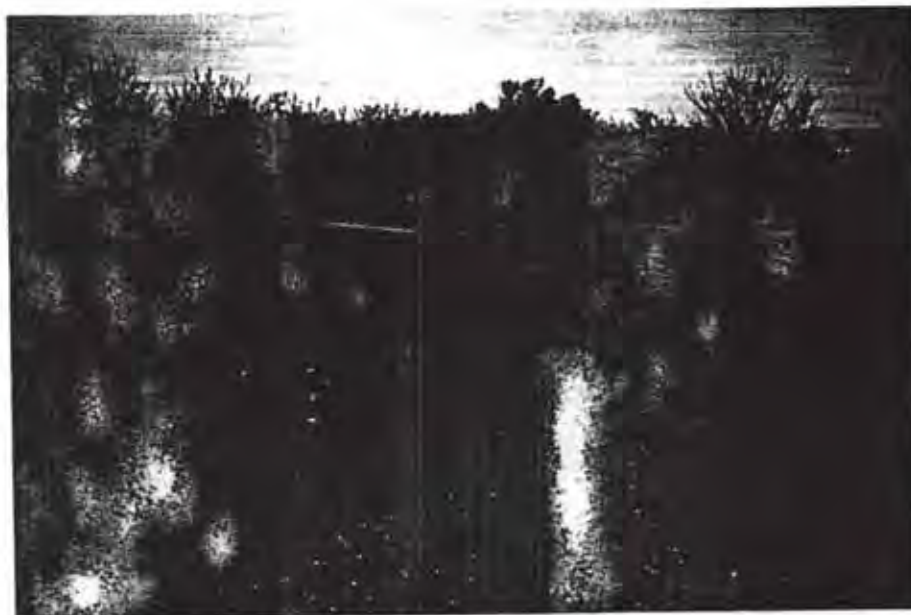
☒ Continuation ☐ Update

Resource Identifier: T.I.D. Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4



Lateral No. 6, view looking southeast.



Culvert, view looking northwest.

Map Reference No.: 4

☒ Continuation ☐ Update

Resource Identifier: T.I.D. Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4



Three-cell canal drop marked "L6-D2," view looking southwest.



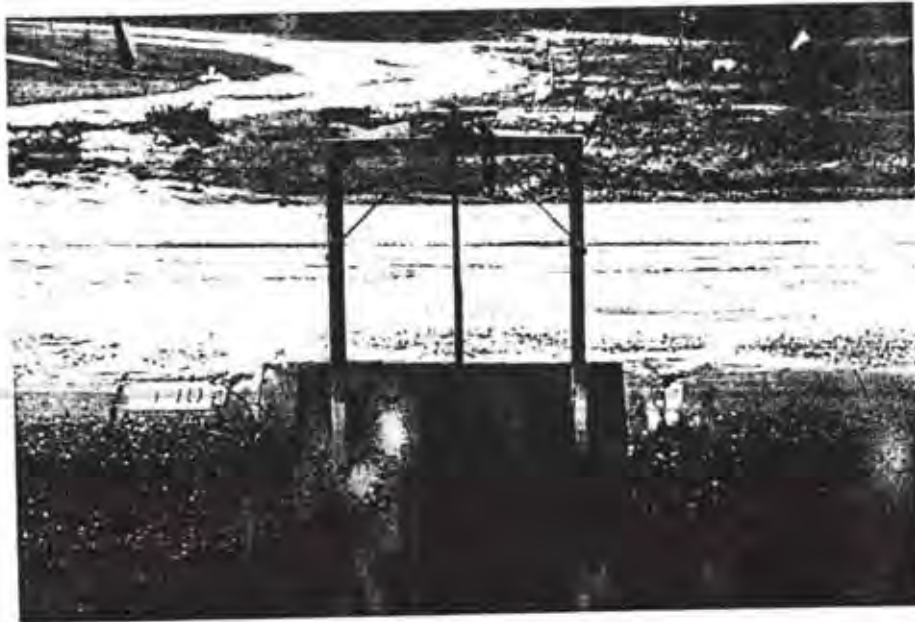
Three-cell canal drop marked "L6-D2," view looking north.

Map Reference No.: 4

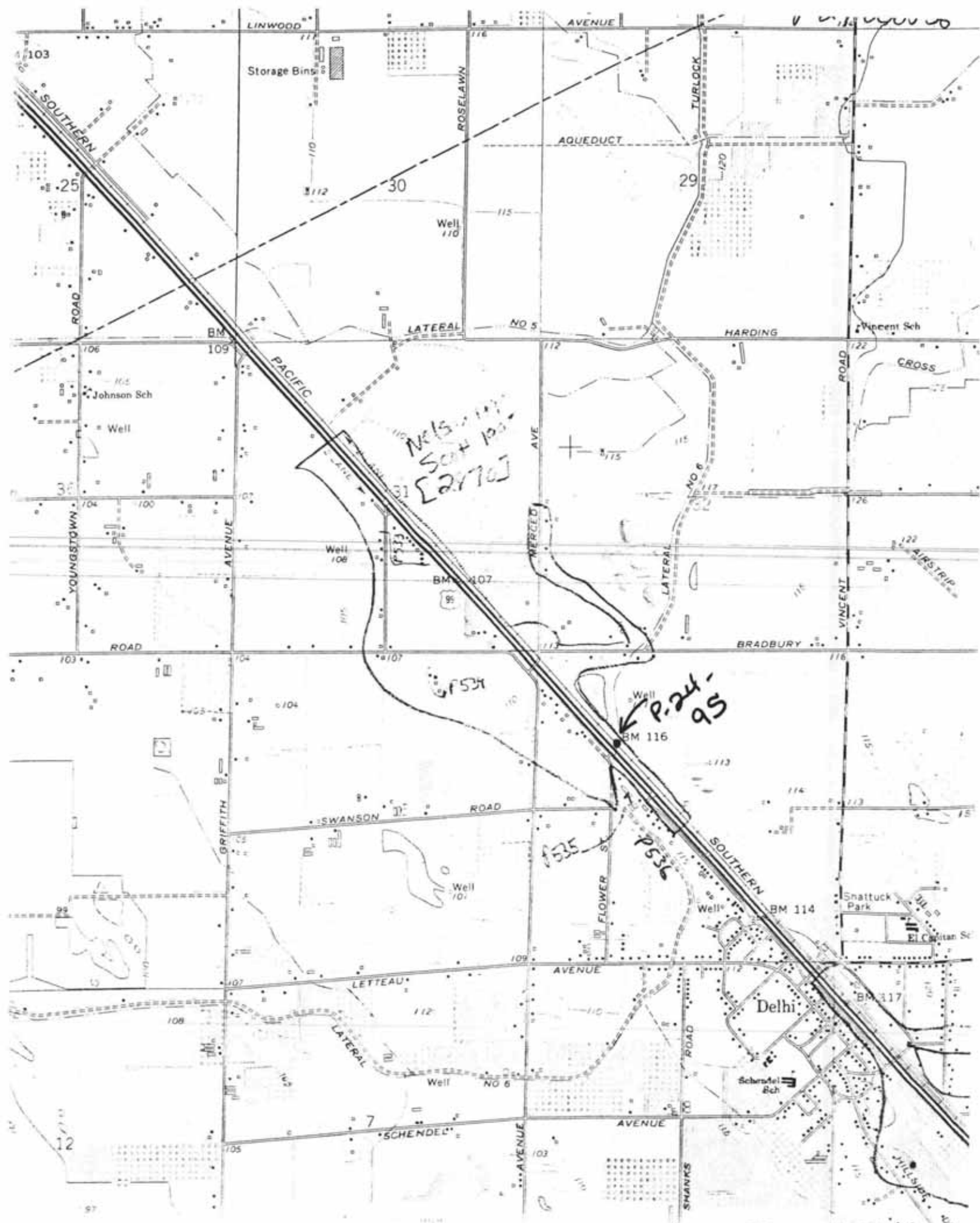
☒ Continuation ☐ Update

Resource Identifier: T.I.D. Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4

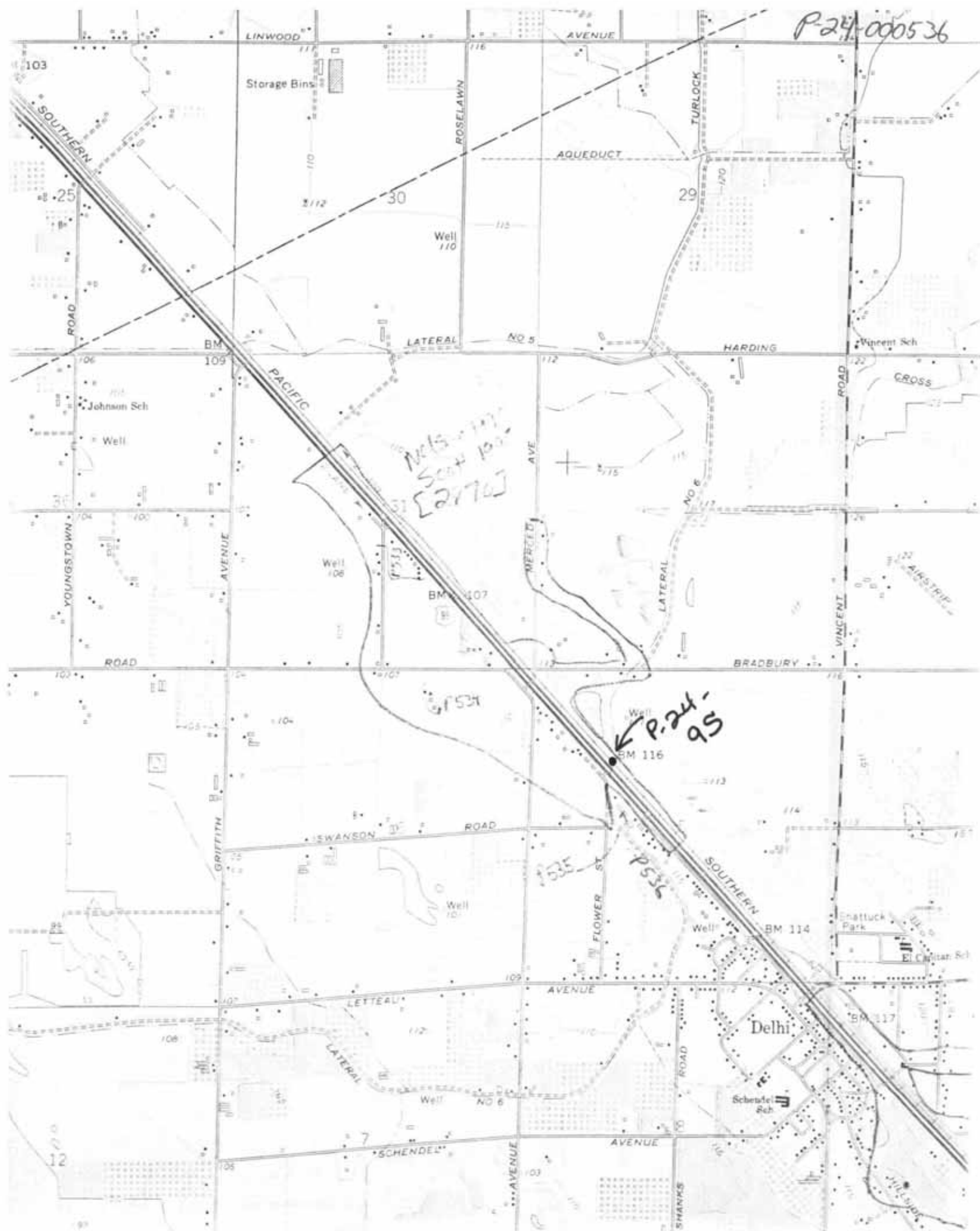


Side gate No. 10, view looking west.



1961 TURLOCK 7.5'

P-24-000536



1961 TURLOCK 7.5'

SITE NAME: Lateral 6, Turlock Irrigation District, Merced County
SITE NUMBER: KT-3
QUAD SHEET: "Turlock Quadrangle," USGS: 1961, photorevised 1976
PIPELINE LOCATION: Milepost 185.9, Mainline

4/96

Description of Feature

Site KT-3 is located at the point where Turlock Irrigation District's Lateral 6 crosses the proposed Mojave Pipeline project APE, approximately one mile northwest of the outskirts of Delhi. The site is directly across the railroad tracks from the point where the northern end of Flower Street meets the lateral and the railroad. Access can be gained from Bradbury Road. This site, with its comparison points KT-3(n) and KT-3(s), is located in an agricultural area of Merced County. JRP recorded the two comparison sites to better place KT-3 in context and consider the lateral's integrity.

Lateral 6 flows south from the Turlock Main Canal and passes through an area of open fields and orchards to a junction with the SPRR and Freeway 99. It passes under the railroad and freeway, emerging on the western side at the top of Flower Street. Lateral 6 then generally follows a southeast course for a short distance before making a curving turn to the west across agricultural land. The lateral is concrete lined, and is approximately 30 feet wide throughout the area. At site KT-3 it passes under the SPRR and freeway in a siphon (**Photograph 1**). To the northeast and southeast of KT-3 are open agricultural fields, while to the southwest are orchards. KT-3(n) is located on Harding Road .6 miles west of its junction with Vincent Road, where the lateral is crossed by a concrete county bridge. There is also a lateral flow regulator with footway on the north side of the road bridge, and screw-gates built into the concrete lining of the canal provide access to the distribution lateral for adjacent farms (**Photograph 2**). KT-3(s) is located on Merced Avenue .4 mile south of its junction with Lettau Avenue, where Merced Avenue passes over the canal on a small bridge. There are outlet gates on the east side of the bridge (**Photograph 3**). To the southeast of KT-3(s) is a new area of residential subdivision under construction at the present time.

History of Feature

Lateral 6 is one of Turlock Irrigation District's original distribution laterals. TID is one of the first Wright Act districts (along with Modesto Irrigation District). For a brief history of the district see Section 2.2 above. The district began building its system in 1893, when it constructed a diversion facility at La Grange on the Tuolumne River. Over the next years the district constructed its main canal and began work on its laterals. Internal dissension in the district caused main canal construction progress to move forward slowly. By April 1894, TID had underway planning and preliminary work on the district canal and irrigation system. Besides the main headworks at the dam and canals, flumes and tunnels to reach Hickman, where the main canal then terminated, laterals would have to be dug in what the district engineer described as "ground easily scraped." The main canal would run almost due south from Hickman for 18 miles, nearly to the Merced River, with laterals serving separate areas. Lateral 6 was one of these. The main canal decreased in capacity after serving each lateral. (Modesto Daily Evening News, April 7, 1894.) Later

that summer TID's directors accepted a bid from Doe, Hunt & Co. of San Francisco to complete the TID canal system, who began work in June 1894. However, by August, 1894 work stopped because the district had no money to pay their contractors. (Stanislaus County Weekly News May 11, 1894; June 8, 1894; June 29, 1894; July 23, 1894)

For the next few years the district struggled to build its system, and by the end of 1898 TID had finished its main canal sufficiently far to send of water 23 miles from La Grange to Hickman. (Modesto Daily Evening News November 12, 1898; Stanislaus County Weekly News November 18, 1898). TID began irrigation in the spring of 1900, and by 1904 had almost all of its main canals and laterals in place. (Stanislaus County Weekly News, March 16, 1900; Glauser, July 12, 1993). By 1905 TID's main canal "was about 25 miles long, the Turlock canal dividing into two main branches about 35 miles long and each system having seven laterals aggregating over 100 miles in length." (Elias, 1924: 63)

During the 1920s and 1930s the district undertook a program of canal and lateral lining. Asphalt proved impractical, and eventually the district turned to concrete lining. In later years the canals and laterals have also been gunited. In July 1993 the district described changes to their laterals:

Since the date of first construction of the canals the District has conducted routine maintenance and significant upgrades of its water delivery systems. Although the canals were originally constructed near the turn of the century they have been improved over the years with the addition of modern structures and surface lining to improve flow capacity, improve hydraulic control, and improve customer service. Alignments have been changed, cross sections have been increased, drop structures have been installed and improved, and the location of the original turnouts has been changed. The only remnant of the original canal is probably the name of the canal ... (Glauser, July 12, 1993)

Field inspection of the site, along with KT-3(s) and KT-3(n) indicates that the lateral was recently lined. At KT-3 the canal lining was stamped "83." As can be seen in the enclosed photographs, when canals were lined their geometry often changed, with sides becoming much steeper. Lining was also accompanied by replacement of control structures. Comparison of modern and historic maps indicates that Lateral 6 appears to be in its original location.

Evaluation of Feature

Lateral 6 is part of the original irrigation system of one of California's first Wright Act irrigation districts. It has played a significant role in the agricultural development of the area it serves, and is sufficiently old to be considered for the National Register on the basis of its age and local importance under Criterion A. Its period of significance, therefore, dates to the time of its original construction, ca. 1898-1904. At that time the lateral was dirt lined and ran through an area of farms and orchards. Since that time, however, the lateral has lost integrity of construction, workmanship, materials, and feeling owing to the district's lining projects and the installation of modern control structures,

P-24-0000 93-

bridges and culverts after the period of significance. Furthermore, lined irrigation laterals are common features in the San Joaquin Valley, so Lateral 6 is not a unique example of a segment of an early irrigation district system and thus does not meet Criterion C. It is not eligible for the National Register.

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P.24-000095

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 185.9

LOCATION NO: KT-3
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Lateral No. 6

2. **Location of recordation:** One quarter mile south of Bradbury Road, east of the Southern Pacific railroad tracks and Highway 99

3. **Other locations for recording this feature:** KT-3(n) and KT-3(s)

4. **Structures at or near this location:** Adjacent structures at this site consist largely of railroad related facilities, including power boxes and chain-link fencing. Lateral No. 6 passes beneath the railroad and freeway in a siphon.

5. **Setting at this location:** KT-3 is located in an area of open agricultural fields and orchards. The lateral is flanked by two dirt access roads. To the west and northwest Highway 99 are orchards. The land between the railroad tracks and the freeway is open. To the north and northeast, on the north side of the lateral, are open fields and scattered farmsteads. To the southeast lies another large expanse of open farm land, with a few scattered farmsteads in the distance.

6. **Integrity considerations for this feature:** The lateral was lined with concrete at this location in 1983.

7. **Attributes at this location (measurements in feet):**

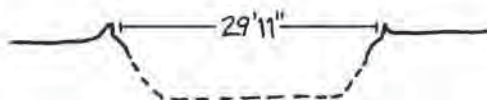
Top width: 29' 11"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete 2" thick, installed in 1983.

8. **Sketch, in cross section:** Looking east



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000095

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: KT-3(n)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Lateral No. 6
2. **Location of recordation:** Site KT-3(n) is located on the north side of Harding Road, 0.6 mile west of its junction with Vincent Road, where Harding crosses over the canal.
3. **Other locations for recording this feature:** KT-3 and KT-3(s)
4. **Structures at or near this location:** A county bridge carries Harding Road traffic over the lateral at this site. Dirt access roads abut the lateral. Control structures include screw outlet gates, and a flow check structure with footway.
5. **Setting at this location:** To the north side of Harding Road and east of the lateral is a newly planted orchard. South of Harding Road and east of the lateral is a open agricultural field. Beyond this field to the southeast are scattered homes and orchards. To the southwest and northwest are commercial orchards.
6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt construction.
7. **Attributes at this location (measurements in feet):**

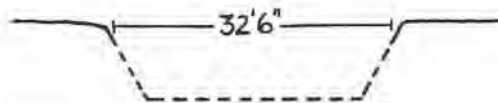
Top width: 32' 6"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete 2-3" thick

8. **Sketch, in cross section:** Looking north



CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

P-24-000095

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: KT-3(s)
PHOTO DATE: June 2, 1993

1. **Name of Feature:** Lateral No. 6

2. **Location of recordation:** Site KT-3(s) is located where Merced Avenue crosses Lateral 6, 0.4 mile south of Letteau Avenue's junction with Merced Avenue.

3. **Other locations for recording this feature:** KT-3 and KT-3(n)

4. **Structures at or near this location:** A county bridge carries Merced Avenue traffic over the lateral. There is an outlet gate, and dirt access roads abut the lateral.

5. **Setting at this location:** Like KT-3 and KT-3(n), KT-3(s) is located in an area typified by open agricultural fields, orchards, and scattered residences. Unlike the other two sites, however, northeast of the lateral is a subdivision ("Eagle Ranch"), with a concrete block wall separating it from the dirt access road adjacent to the lateral. Farther to the northeast a new subdivision is under construction. To the southeast is a dirt access road, a concrete block wall, and streets laid for a planned subdivision. To the northwest of Merced Avenue is a farm house with outbuildings. Beyond this is a mobile home with orchards. Southwest of Merced Avenue is a horse pasture. One quarter mile to the southeast are orchards and a few scattered farms.

6. **Integrity considerations for this feature:** Concrete lining has replaced the original dirt construction.

7. **Attributes at this location (measurements in feet):**

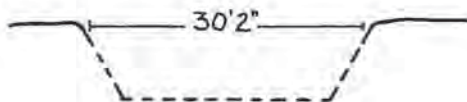
Top width: 30' 2"

Bottom width: Unable to observe due to high flows

Height or Depth: Unable to observe due to high flows

Material: Concrete

8. **Sketch, in cross section:** Looking west





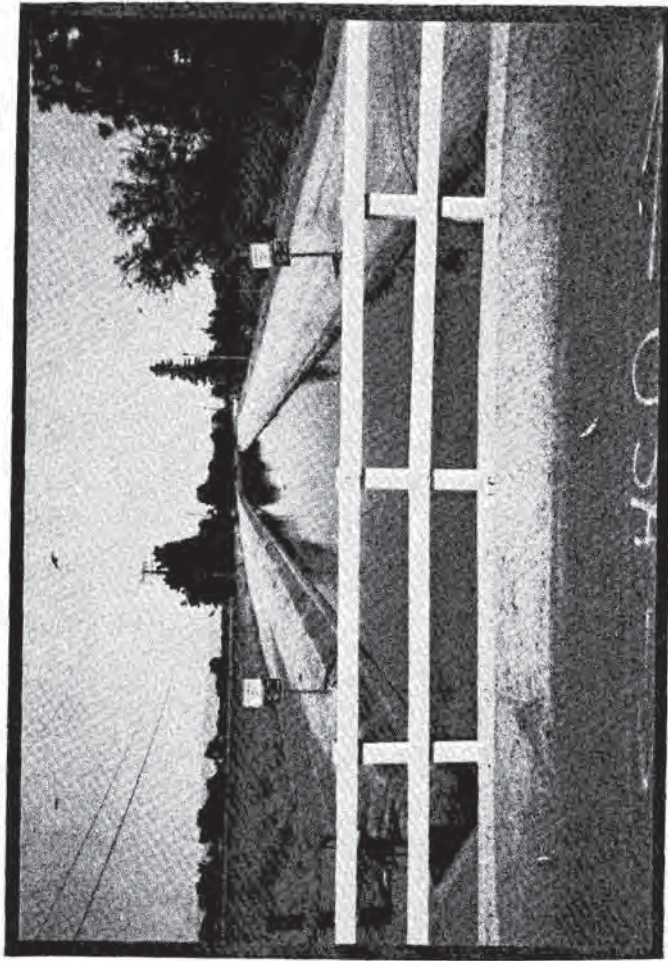
1

Photograph Number: 1
 Site Number: KT-3
 Common Name: Lateral 6
 Camera Facing: East

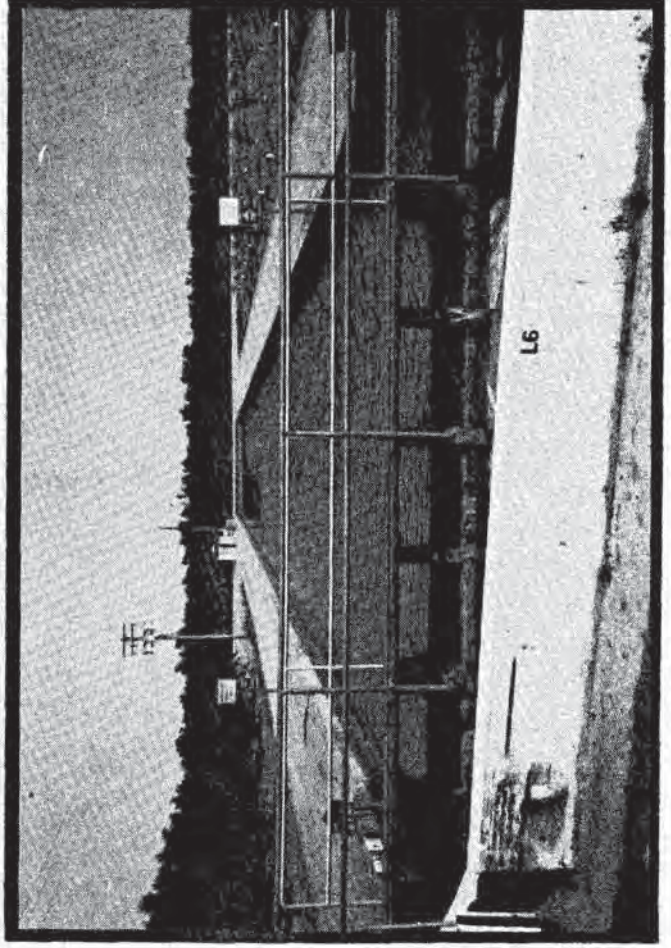
Photograph Number: 2
 Site Number: KT-3(n)
 Common Name: Lateral 6
 Camera Facing: North

Photograph Number: 3
 Site Number: KT-3(s)
 Common Name: Lateral 6
 Camera Facing: West

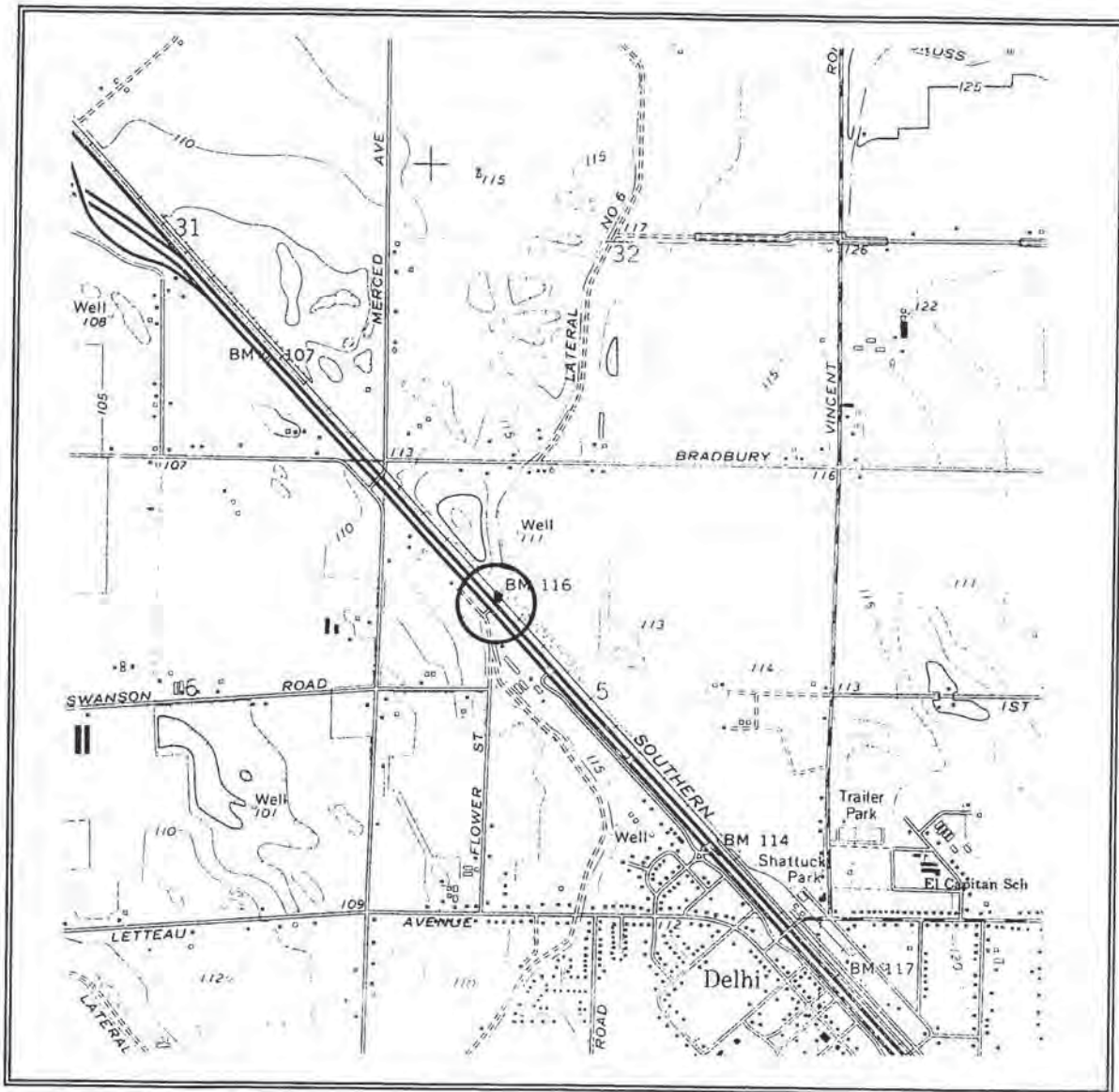
3



P-34-00005



2



SITE NAME: Lateral 6, Turlock Irrigation District, Merced County

SITE NUMBER: KT-3

QUAD SHEET: "Turlock Quadrangle," USGS: 1961, photorevised 1976

PIPELINE LOCATION: Milepost 185.9, Mainline

P-24-000075

**FEATURE KT-3, REROUTE A-117
ADDENDUM TO HISTORIC FEATURE EVALUATION FORM**

ALT #	A-117
ORIGINAL SITE #	KT-3
SEGMENT	Mainline
MILEPOSTS	185.9
QUAD NO., NAME	32, Turlock (1961/1976)

COMMENTS:

The original alignment at KT-3 ran east of the Southern Pacific Railroad tracks and Highway 99, just north of Delhi, California. The proposed realignment will be located on private property 15' east of the railroad right of way. JRP recorded KT-3 at the original location east of the proposed realignment. Field crews also took photographs upstream and downstream from the site. Evaluation of site records and photographs indicates that the area immediately to the east of KT-3 is similar in condition and construction to original KT-3 and thus needs no further field work nor evaluation. (see Site Form KT-3 in main body of Class III Report)

see also P-24-000095

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-24-000536
HRI #: _____
Trinomial _____
NRHP Status Code: 6
Other Listings _____
Review Code _____ Reviewer _____ Date _____

*Resource Name or #: T.I.D. Lateral No. 6

Map Reference No.: 4

10/98

P1. Other Identifier: N/A

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4

*P2. Location: *a. County Merced

b. Address N/A

City Delhi Zip 95315

*c. UTM: USGS Quad: N/A TURLOCK 7.5 d. UTM: N/A

*e. Other Locational Data: Along Highway 99 near Swanson & Flower Roads in Delhi

*P3a. Description

The resource is owned by the Turlock Irrigation District (TID). It is a concrete lined canal with an approximately 45° angle on the side slopes and approximately 30 feet wide at the top. The total canal is approximately 67,208 feet long, of which approximately 5,961 feet are within the APE for this project. The ditch runs in a northeast-southwest direction, paralleling the Highway 99 in this vicinity after crossing beneath the highway in three concrete box culverts. These box culverts are stamped with the date "1971" at the northern end of the lateral in the project APE where the concrete lined ditch turns into underground pipe. Three 6' diameter corrugated metal pipes under the railroad right-of-way (east of Highway 99) are connected to the box culverts that carry canal water beneath the highway.

(See continuation sheet.)

*P3b. Resource Attributes: HP20 -- Canal

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District

*P5. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo:
01/25/95

*P6. Date Constructed/Age:
c. 1903

☐ Prehistoric ☒ Historic
☐ Both

*P7. Owner and Address:
Turlock Irrigation District
333 E. Canal Dr.
Turlock, CA

*P8. Recorded by:
Gloria Scott
Caltrans Environmental
Program
PO Box 942874
Sacramento, CA 94274-0001
(916)653-1029

*P9. Date Recorded: 01/25/95

*P10. Type of Survey: ☒ Intensive
☐ Reconnaissance ☐ Other
Describe: HASR

*P11. Report Citation: HASR for 10-Mer-99, R32.3/R33.8, R34.8/R36.4, Delhi Stage II Project

*Attachments: ☐ NONE ☐ Map Sheet ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Linear Resource Record ☐ Archaeological Record ☐ District Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Map Reference No.: 4

*NRHP Status Code: 6

*Resource Identifier: T.I.D. Canal Lateral No. 6

B1. Historic Name: N/A

B2. Common Name: N/A

B3. Original Use: Canal

*B5. Architectural Style: N/A

*B6. Construction History:

Lateral No. 6 is a concrete-lined canal constructed in 1903. The total canal length is approximately 67,208 feet long. The canal section between Bradbury Road and Lettau Avenue has an 80' wide of canal-of-way and is approximately 5,961 feet long. Three six-foot diameter corrugated metal pipes under the railroad right-of-way are connected to three 5' - 6' x 8' concrete box culverts under State Highway 99.

(See continuation sheet).

*B7. Moved? ☒ No ☐ Yes ☐ Unknown

Date: N/A Original Location:

*B8. Related Features: Box culverts, side gates, underground pipes and canal drop structure

B9a. Architect: N/A

B9b. Builder: Unknown

*B10. Significance: Theme: N/A

Area: N/A

Period of Significance: N/A

Property Type: Canal Applicable Criteria: N/A

Lateral No. 6 was constructed in 1903 to bring irrigation water to the nascent settlement at Delhi. It was part of the Turlock Irrigation District's efforts to extend its irrigation system into the newly settled portions at the southern boundary of its district. Since its construction, the TID has expanded its network of ditches and canals, and has continually maintained and upgraded the canal, with new cement linings, etc.

(See continuation sheet).

B11. Additional Resource Attributes: N/A

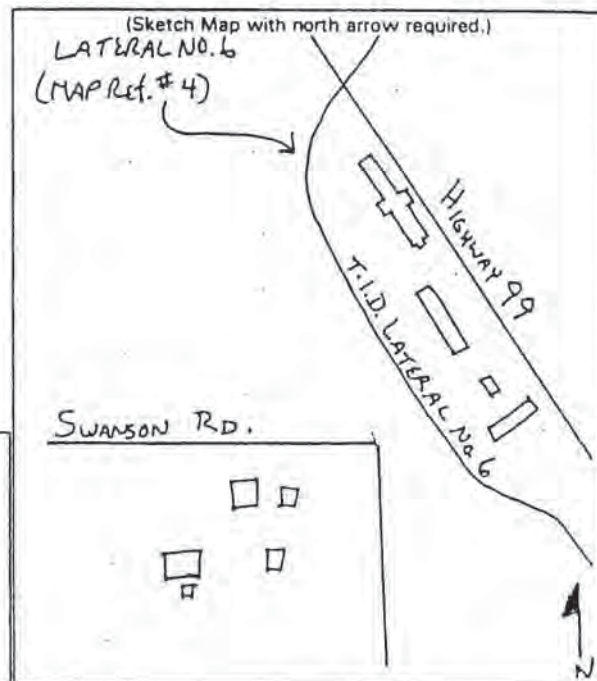
B12. References: 1969 APE map for Delhi Freeway Project (10-Mer-99); written correspondence from Turlock Irrigation District, 6/16/95; Merced County Assessor's records and parcel maps, subdivision maps, official record books; Cabezut-Ortiz, Delores J. Merced County: *The Golden Harvest*; Clark, George W. *History of Merced County*; Hohenthal, Helen Alma, & others. John Edwards Caswell, Ed. *Streams in a Thirsty Land: A History of the Turlock Region*.

B13. Remarks: N/A

B14. Evaluator: Gloria Scott
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916)653-1029

Date of Evaluation: 1/25/95

(This space reserved for official comments.)



Map Reference No.: 4

☒ Continuation ☐ Update

*Resource Identifier: T.I.D. Canal Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4

***P3a. Description Continued:**

There is a three-cell concrete canal drop farther south marked "L6-D2." A concrete walkway by the gate carries the following stamp, "T.I.D. 358." Two concrete and iron side gates (Gates #9 and #10) are also located along the lateral and provide irrigation water to the orchards just west of the APE.

***B6. Construction History (continued):**

T.I.D. Pump No. 146A - was constructed in December 1963. Improvement District No. 52 (I.D. 52), Delhi State Land Settlement, Booster No. 230 - T.I.D. had no historical data on this facility. T.I.D. believes the pump was constructed in the early 1950s to replace I.D. 52 Pump 41 located in the same vicinity. I.D. 53 Pumphline No. 73 - T.I.D. has no historical data on this pumphline. The canal was re-lined with concrete within the past twenty years, which altered the canal's appearance.

***B10. Significance (continued)**

While Lateral No. 6 may be associated with the development of irrigation systems and the expansion of agriculture in the northern part of Merced County, the canal has been altered over the years, diminishing integrity of its materials, design, workmanship, feeling and association; it does not possess significance in its construction; has no known associations with prominent persons; and does not appear eligible for inclusion in the National Register of Historic Places. Additionally, it does not appear eligible for inclusion in the California Register of Historical Resources under the Interim Guidelines for the Consideration of Historic Properties Under the California Register adopted by Caltrans in March, 1993.

This resource is currently at the Office of Historic Preservation for review by the State Historic Preservation Officer (SHPO) under Section 106 of the National Historic Preservation Act as part of Mojave Pipeline Company's Northward Expansion Project. The consulting firm that evaluated the historic cultural resources for that project, JRP Associates, also concluded that the Lateral is not eligible for the National Register, due to loss of integrity. SHPO comments on its eligibility are due August 30, 1995.

Map Reference No.: 4

☒ Continuation ☐ Update

Resource Identifier: T.I.D. Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4



Lateral No. 6, view looking southeast.



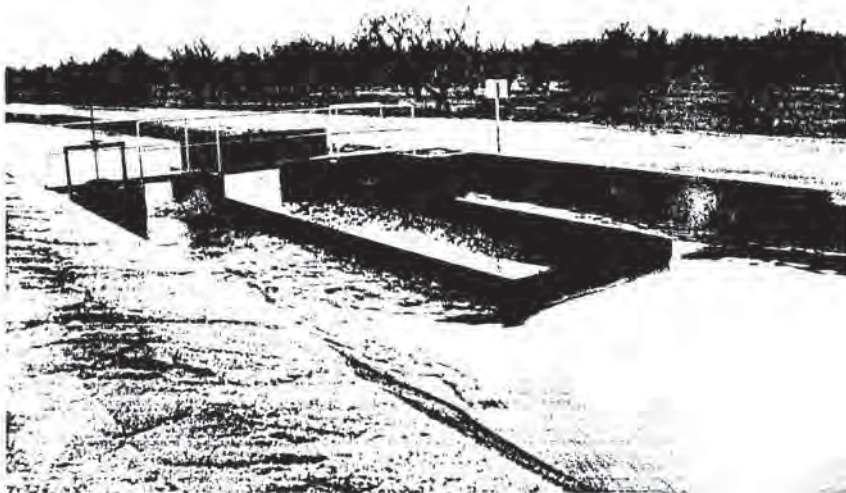
Culvert, view looking northwest.

Map Reference No.: 4

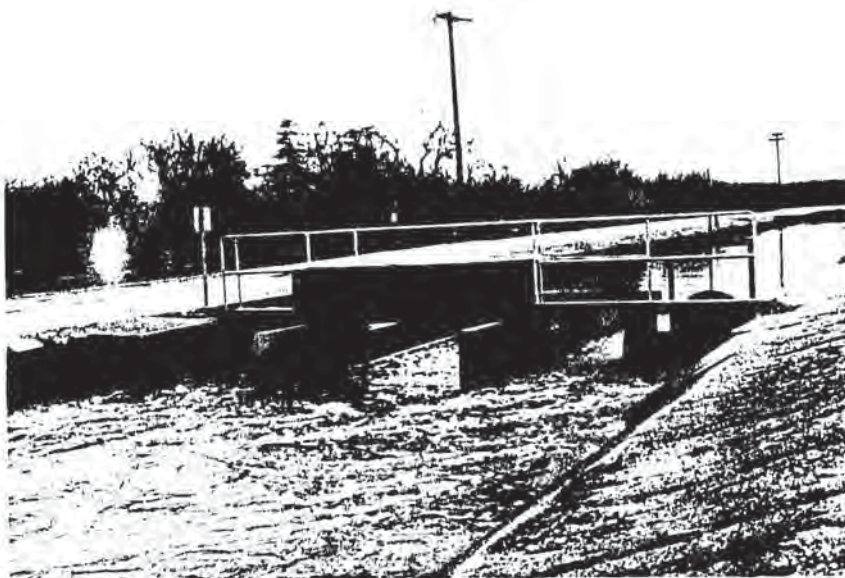
■ Continuation □ Update

Resource Identifier: T.I.D. Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4



Three-cell canal drop marked "L6-D2," view looking southwest.



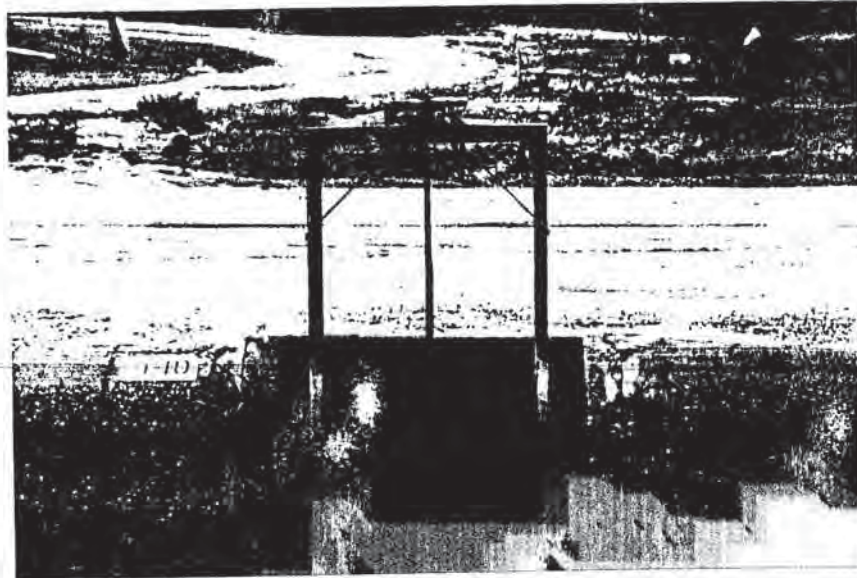
Three-cell canal drop marked "L6-D2," view looking north.

Map Reference No.: 4

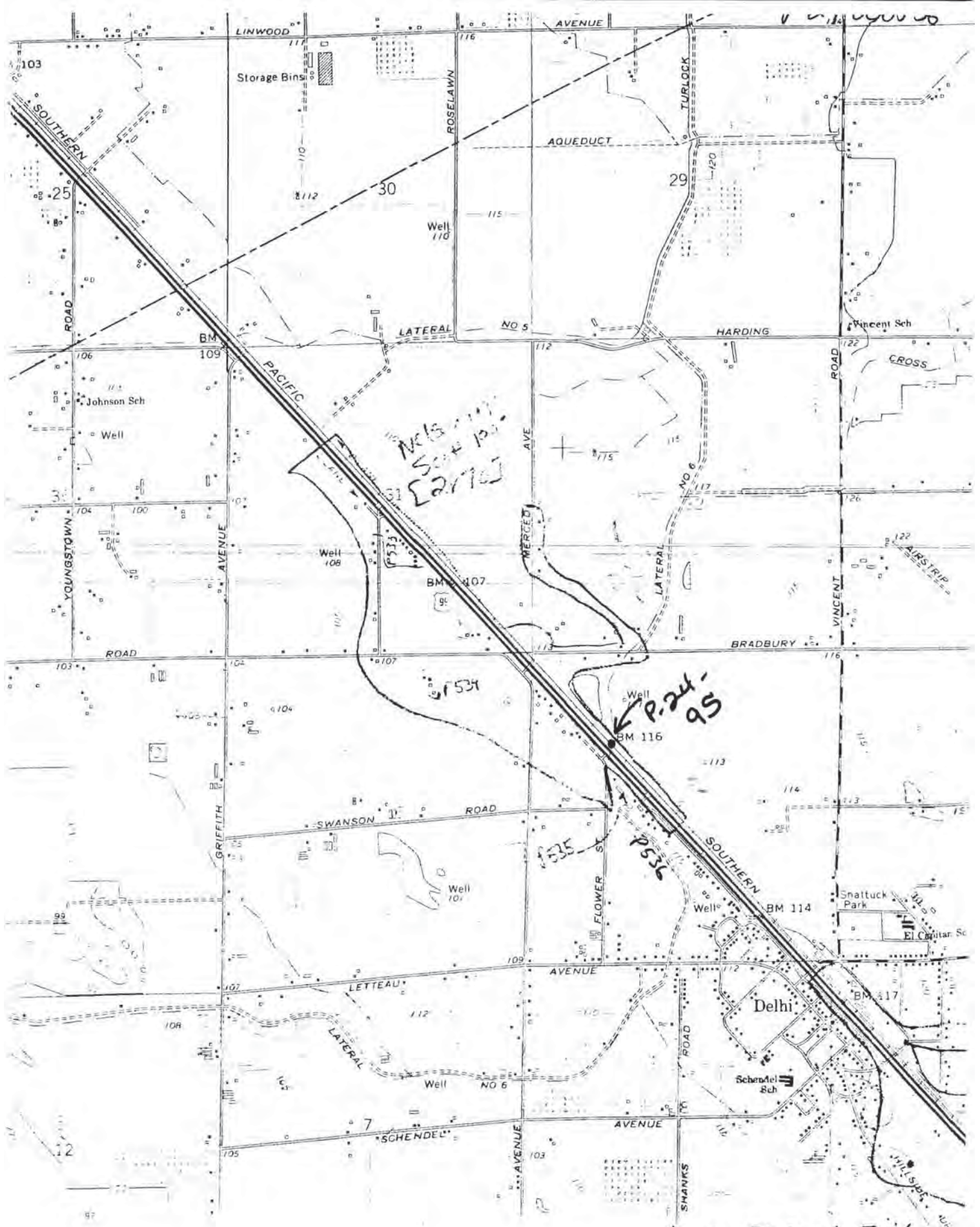
☒ Continuation ☐ Update

Resource Identifier: T.I.D. Lateral No. 6

County/Route/Postmile: 10-Mer-99, R32.3/R33.8, R34.8/R36.4



Side gate No. 10, view looking west.



1961 TURLOCK 7.5'

1961 TURLOCK 7.5'

SITE NAME: Unnamed Canal, Merced Irrigation District, Merced County
Site NUMBER: LG-19
QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 170.3, Mainline

Description of Feature

Site LG-19 represents the point at which the APE for the proposed Mojave Pipelines Northward Expansion will cross an unnamed small canal, operated by the Merced Irrigation District, near the community of Atwater, Merced County. The unnamed canal is a small lateral that appears to draw its water in pipe from the Main Ashe Lateral. The Main Ashe Lateral is also discussed in Site LG-18.

This small earthen canal appears to be an extension of the Main Ashe Lateral, a small conduit which flows under the railroad tracks about 1000' southeast of this site (the Main Ashe crossing is Site LG-18). The Main Ashe Lateral goes into a pipe section at the railroad crossing and is diverted both north and south. This earthen canal, which has no visible water source, is presumed to draw its supply from the Main Ashe pipe. The earthen canal emerges at the west side of the Southern Pacific Railroad tracks, passing under the tracks in a concrete culvert. The railroad crossing is shown in **Photograph 1**.

To provide a comparative context, JRP recorded the canal's physical attributes within the APE and at a point downstream. Within the APE, the canal is variable in width, being about 31' wide on the west side of the railroad tracks, 42' on the east side of the tracks, and 19' wide at SP Avenue. A comparison measurement was made about 1/2 mile south of the APE. At this point, the canal is an earthen conduit about 21' in width. This comparison point is shown in **Photograph 2**.

History of Feature

This unnamed canal is operated as part of the Merced Irrigation District; for a more detailed discussion of the history of the Merced Irrigation District, see Section 2.2. The Merced Irrigation District was organized in late 1919. Like most California irrigation districts, it brought together various privately-built canals and reservoirs, expanding upon these to serve a growing rural population. Private water suppliers served about 40,000 acres in 1919; by 1929, the irrigation district had extended service to more than 180,000 acres (Adams, 1929:191).

The history of this particular canal is difficult to establish because its operation and probably its function was disrupted in the 1940s through construction of Highway 99. As noted earlier, this canal appears to derive its water from Ashe Lateral, a much older canal which once crossed under the Southern Pacific railroad tracks about 1000' to the southeast. Ashe Lateral previously crossed under the tracks in a brick inverted siphon, an antiquated construction method predating the popularity of reinforced concrete. [The

only other brick siphon identified as part of this survey was built in 1900.] At some point, probably when Highway 99 was constructed, the Ashe Lateral was put in pipe and controlled by screw gates on both sides of the freeway. This small channel appears to derive its water in pipe from Ashe Lateral and emerges to the surface only on the south side of the railroad tracks. As such, the channel's alignment through the APE is probably a product of the same generation of work, most likely in the late 1940s, when construction of Highway 99 necessitated some realignment of all canals in the area.

Evaluation of Feature

Site LG-19 does not appear to be eligible for listing in the National Register of Historic Places. This canal, at least the portion within the APE, is a product of the post-World War II era, having been constructed or reconstructed in connection with the building of Highway 99. As a small earthen canal fed by a modern pipe, the canal does not appear to represent an important example of hydraulic or agricultural engineering. It has no known associations with persons or events important to our history. For these reasons, the canal does not appear to be significant or eligible for listing in the National Register.

P-24-600089

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: 170.3, Mainline

LOCATION NO: LG-19
PHOTO DATE: June 3, 1993

1. **Name of Feature:** Unnamed Canal
2. **Location of recordation:** Where SP Avenue crosses over the canal, just west of Gurr Road.
3. **Other locations for recording this feature:** LG-19(s) and LG-19(n)
4. **Structures at or near this location:** A railroad trestle carries the Southern Pacific tracks over the canal, and a concrete culvert conveys the canal under SP Avenue.
5. **Setting at this location:** The canal emerges about 8' south of SP Avenue and parallels Gurr Road to the south. Land use in this area is dominated by agriculture, with scattered residences.
6. **Integrity considerations for this feature:** Construction of Highway 99 has disturbed the canal's original design.
7. **Attributes at this location (measurements in feet):**
 - Top width:** 31
 - Bottom width:** Unable to observe due to high flows
 - Height or Depth:** Unable to observe due to high flows
 - Material:** Earthen
8. **Sketch, in cross section:** Looking west

P-24-600089

CANAL FEATURE INVENTORY FORM

Developed by JRP Historical Consulting Services

PROJECT: Mojave Natural Gas Pipeline, Northern Extension Project
MILEPOST: N/A

LOCATION NO: LG-19(s)
PHOTO DATE: June 3, 1993

1. **Name of Feature:** Unnamed Canal
2. **Location of recordation:** Where Elliott Avenue crosses over the canal, just west of Gurr Road.
3. **Other locations for recording this feature:** LG-19 and LG-19(n)
4. **Structures at or near this location:** Barbed wire fences surround the canal because it runs within private property.
5. **Setting at this location:** The canal parallels Gurr Road about 20' to the west. The area is dominated by irrigated pasture lands.
6. **Integrity considerations for this feature:** Maintenance using modern equipment and methods has altered the original geometry of the canal.
7. **Attributes at this location (measurements in feet):**

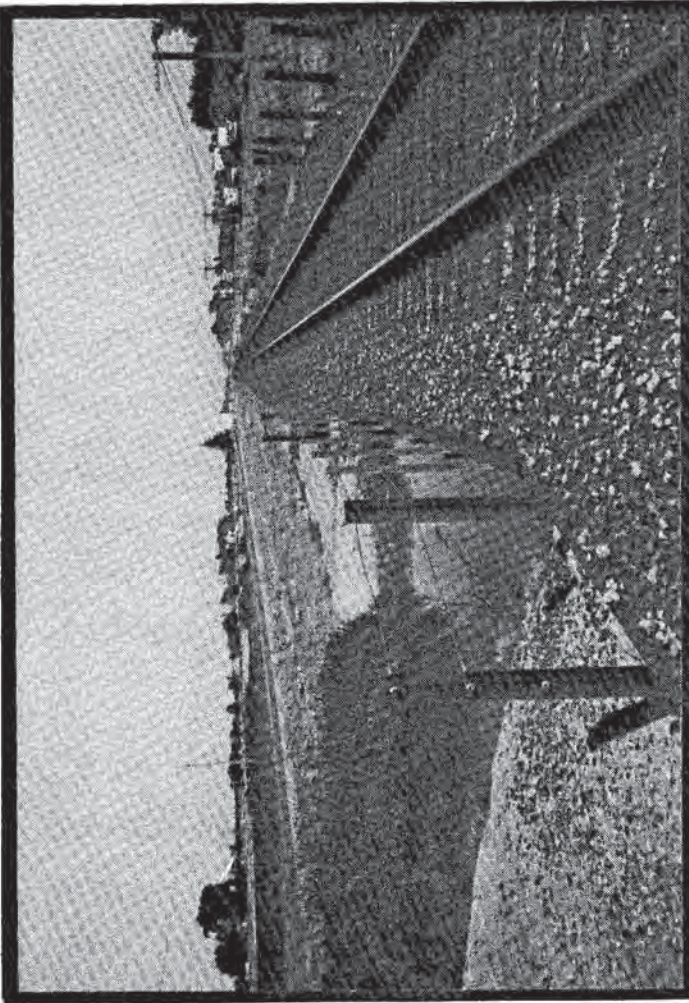
Top width: 21' 6"

Bottom width: Unable to observe due to high flows

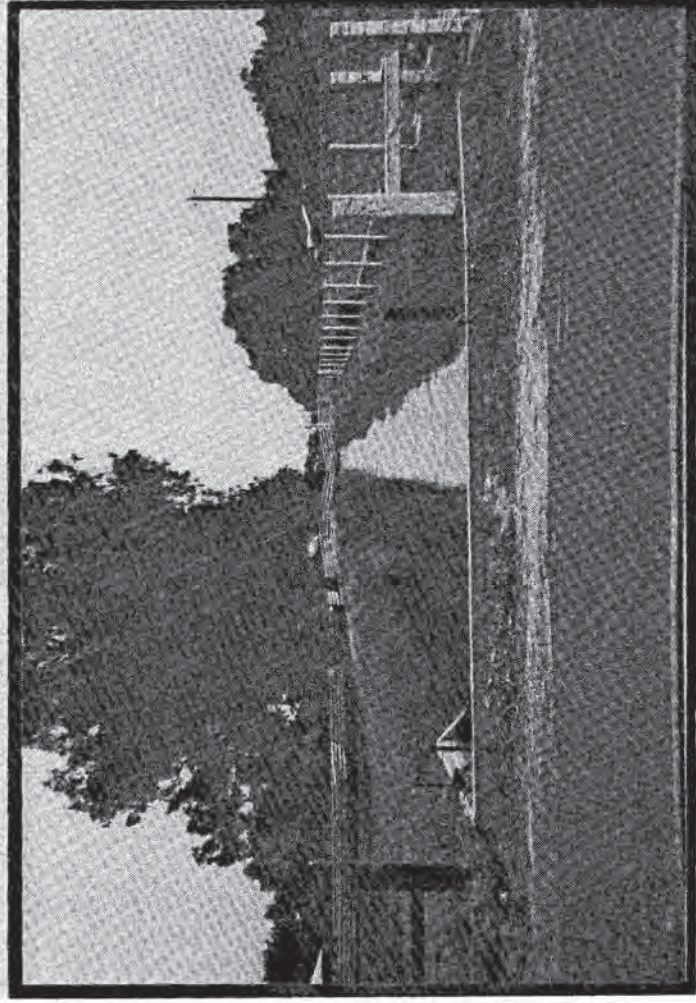
Height or Depth: Unable to observe due to high flows

Material: Earthen

8. **Sketch, in cross section:** Looking north

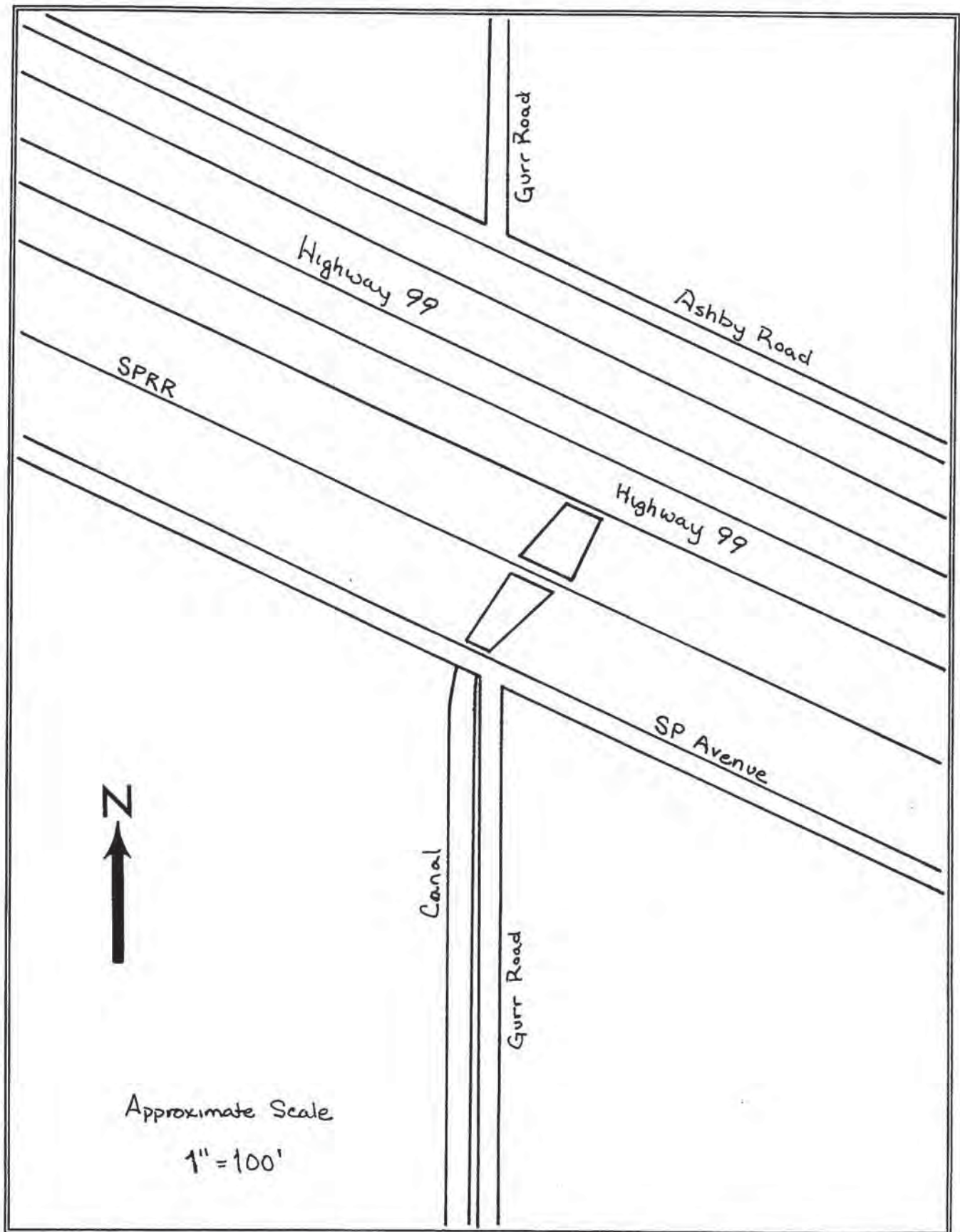


Photograph Number: 1
 Site Number: LG-19
 Common Name: Unnamed Canal, Merced Irrigation District
 Camera Facing: Northwest



Photograph Number: 2
 Site Number: LG-19(s)
 Common Name: Unnamed Canal, Merced Irrigation District
 Camera Facing: North

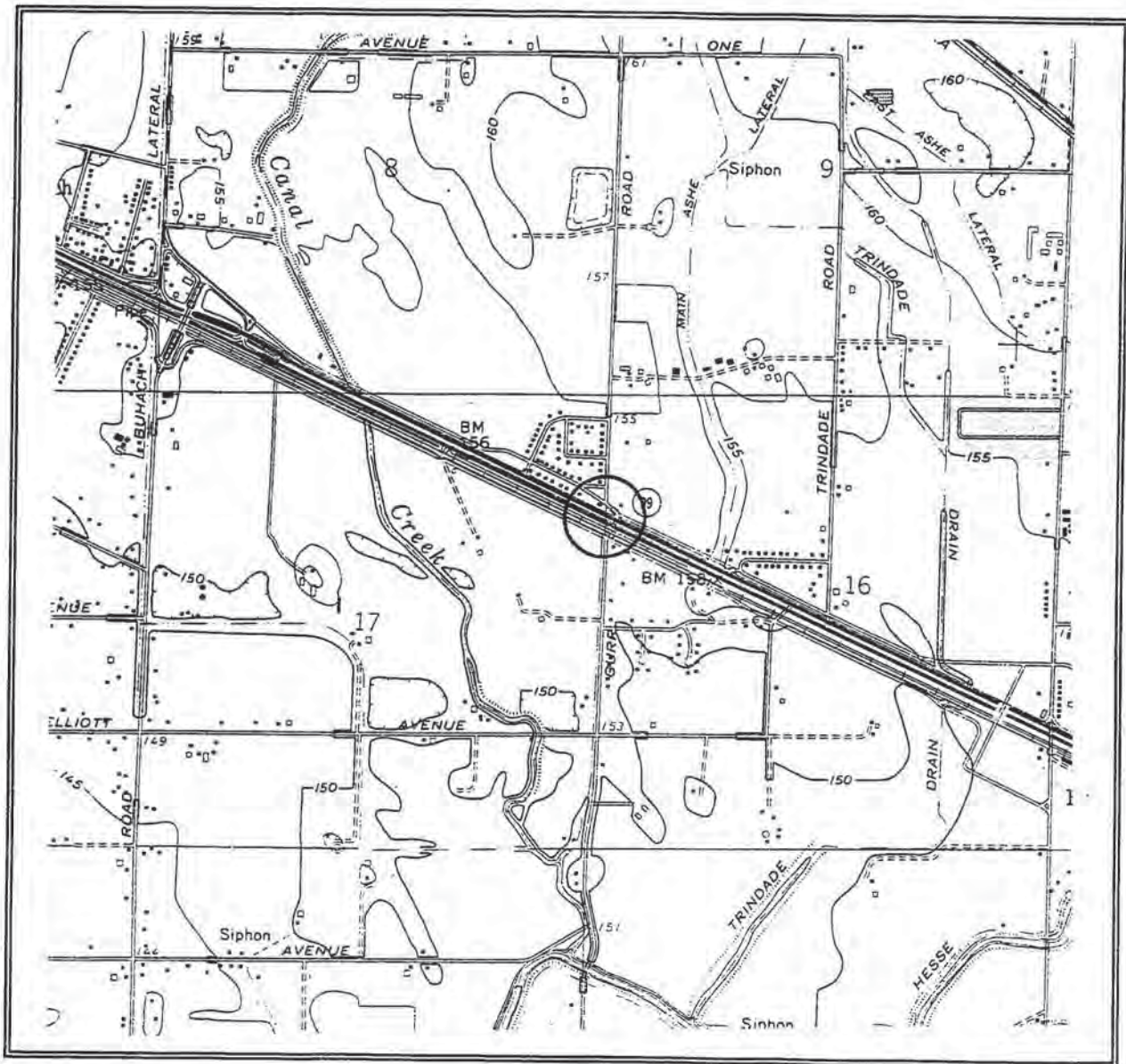
P-24-000089



SITE SKETCH: Unnamed Canal, Merced Irrigation District, Merced County

SITE NUMBER: LG-19

PIPELINE LOCATION: Milepost 170.3, Mainline



SITE NAME: Unnamed Canal, Merced Irrigation District, Merced County
Site NUMBER: LG-19
QUAD SHEET: "Atwater Quadrangle," USGS: 1960, photorevised 1987
PIPELINE LOCATION: Milepost 170.3, Mainline

HPDF Prop # 179594 & 163816 & 179672 (3 entries HPDF) *re-coded / 5/20/02*

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION		Primary # <u>P-24-002106</u>
PRIMARY RECORD		HRI # _____
OHP PRN FHWA050324D		Trinomial _____
Other Listings _____		NRHP Status Code _____
Review Code _____	Reviewer _____	Date _____

Caltrans ID, County/Route/Postmile/EA: 10-MER-59, PM 15.3/16.6 Map Ref. # 2

*P1. Resource Name or #: Highway, State Route 59

*P2. Location: *a. County: Merced

*c. Address: Northeast of downtown Merced

City: Merced

*e. Assessor's Parcel Number: This property is owned by Caltrans.

*P3a. Description:

This is a two-lane, undivided conventional highway. It is paved with asphalt concrete and has paved shoulders and gravel shoulders with widths varying from two to four feet. It extends north in a straight line through the project area from 16th Street in Merced, across Bear Creek, then over Black Rascal Creek and Canal, and proceeds northward, paralleling the alignment of the old Oakdale Branch of the Southern Pacific Railroad for about two miles, and across Bellevue Rd. It continues on a direct line for another 3.5 miles; then it follows the natural contours of the land to some degree, crossing the Merced River and turning east-northeast at Turlock Rd., and finally terminating at the town of Snelling, the former county seat from the 1857 to 1872, when the seat was moved to the new town of Merced, located next to the Central Pacific (later Southern Pacific) Railroad tracks. The highway travels through mostly rural open space and farmland.

*P3b. Resource Attributes: HP37

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5a. Photo

(See continuation sheet.)

P5b. Photo date:

September 25, 2002

*P6. Date Constructed/Sources:

State highway created in 1933.

Caltrans records

*P7. Owner and Address:

Caltrans

1120 N Street

Sacramento, CA 95814

*P8. Recorded by:

Frank Lortie, Caltrans

1120 N Street

Sacramento 95814

*P9. Date Recorded:

September 25, 2002

*P11. Report Citation:

Historic Resource Evaluation

Report (HRER) for the State

Route 59 Widening Project,

Post Miles 15.3-16.6, Merced

County (Caltrans 2005)

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record

☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record

☐ Artifact Record ☐ Photograph Record ☐ Other

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 2

B1. Historic name: Not applicable

B4. Present use: Highway

*B5. Architectural Style: Not applicable

*B6. Construction History: State highway acquired 1933, first improvements made up to 1937

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

*B8. Related Features

B9a. Architect: Not applicable

b. Builder: California Division of Highways

*B10. Significance: Theme N/A

Area N/A

Period of Significance N/A

Property Type N/A

Applicable Criteria N/A

One of the main county roads running north-south was the old Snelling Road. It was named after the second county seat of Snelling, which received the honor in 1857. When the county seat was moved thirty-five miles to the south to Merced, a new town located next to the Central Pacific Railroad tracks, the road between the two towns was maintained as a county road. The Snelling Road mostly followed the contours of the terrain southward until it got to a point two miles northwest of Yosemite Lake, where it was straightened out, then turned to the southwest, and finally followed the section lines due south until it reached "downtown" Merced. It was (and still is) located about two miles east of present S.R. 59. A county road on the same alignment as today's S.R. 59 first appears on historic maps in 1888, and by 1903 it is an established local road. Similar to Snelling Road it also followed the section lines from about two miles north of Bellevue Road down to 16th Street in Merced. It was called Cox Ferry Road by 1909 (the road crossed the Merced River presumably where Cox Ferry was located), and it merged with the old Snelling Road just north of the river. When Cox Ferry Road was acquired by the State Division of Highways in 1933 it was classified as an unimproved road, but by 1936 it had been upgraded to an improved primary highway, which means it was paved with a permanent surface. The three concrete bridges in the project area (#39-0066, 39-0067, and 39-0068) were all built by Merced County between 1916 and 1927. S.R. 59 at present appears to be another conventional two-lane highway with an asphalt concrete surface. It seems to have been widened along most of its route in recent years. Nothing in the sources consulted in the research conducted for this report indicates that S.R. 59 has any associations with persons or events significant in Merced County history, nor does the route represent any significant achievement in highway engineering. Therefore, S.R. 59 is not eligible for the National Register. In addition, the route was evaluated in accordance with Section 15064.5(a)(2)-(3) in the CEQA Guidelines, and it was determined not to be a historical resource for the purposes of CEQA.

B11. Additional Resource Attributes:

*B12. References: Kyle 1990: 198,202-203; State of Calif. Nov. 1933; State of Calif. 1936; *Calif. Hwys. & Pub. Works* Dec. 1933; Cowel 1909, 1919; Martin 1888; Caltrans Structures Maintenance Archives (Bridge Books).

*B14. Evaluator: Frank Lortie Caltrans

*Date of Evaluation: September 24, 2002

(See site plan attached.)

(This space reserved for official comments.)

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 2



Looking south-southwest, just south of Santa Fe RR tracks



Looking north from Santa Fe tracks

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 2



Looking south, 150 feet north of Black Rascal Creek



Looking north, 150 north from Black Rascal Creek

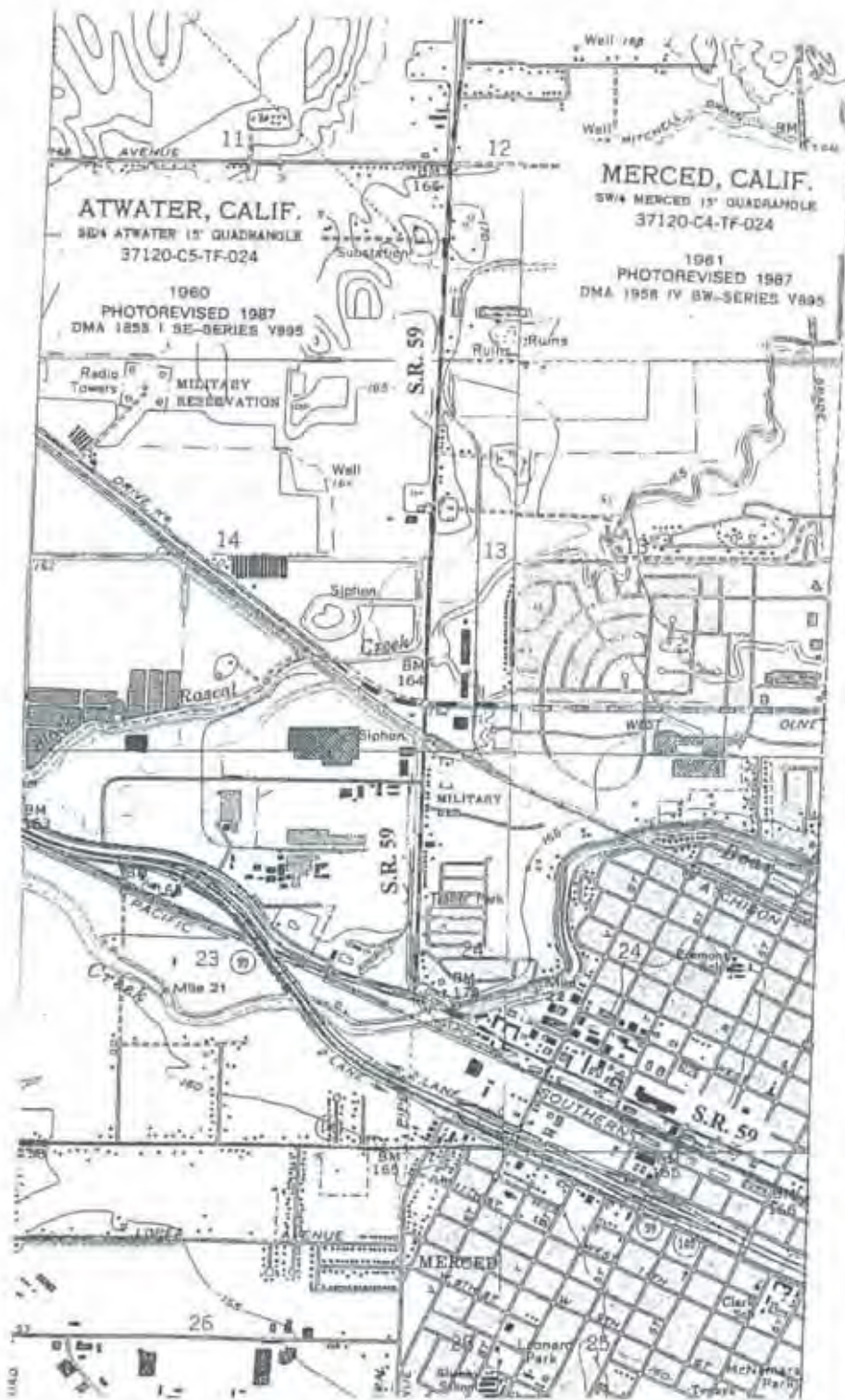
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-24-002106
HRI# _____
Trinomial _____

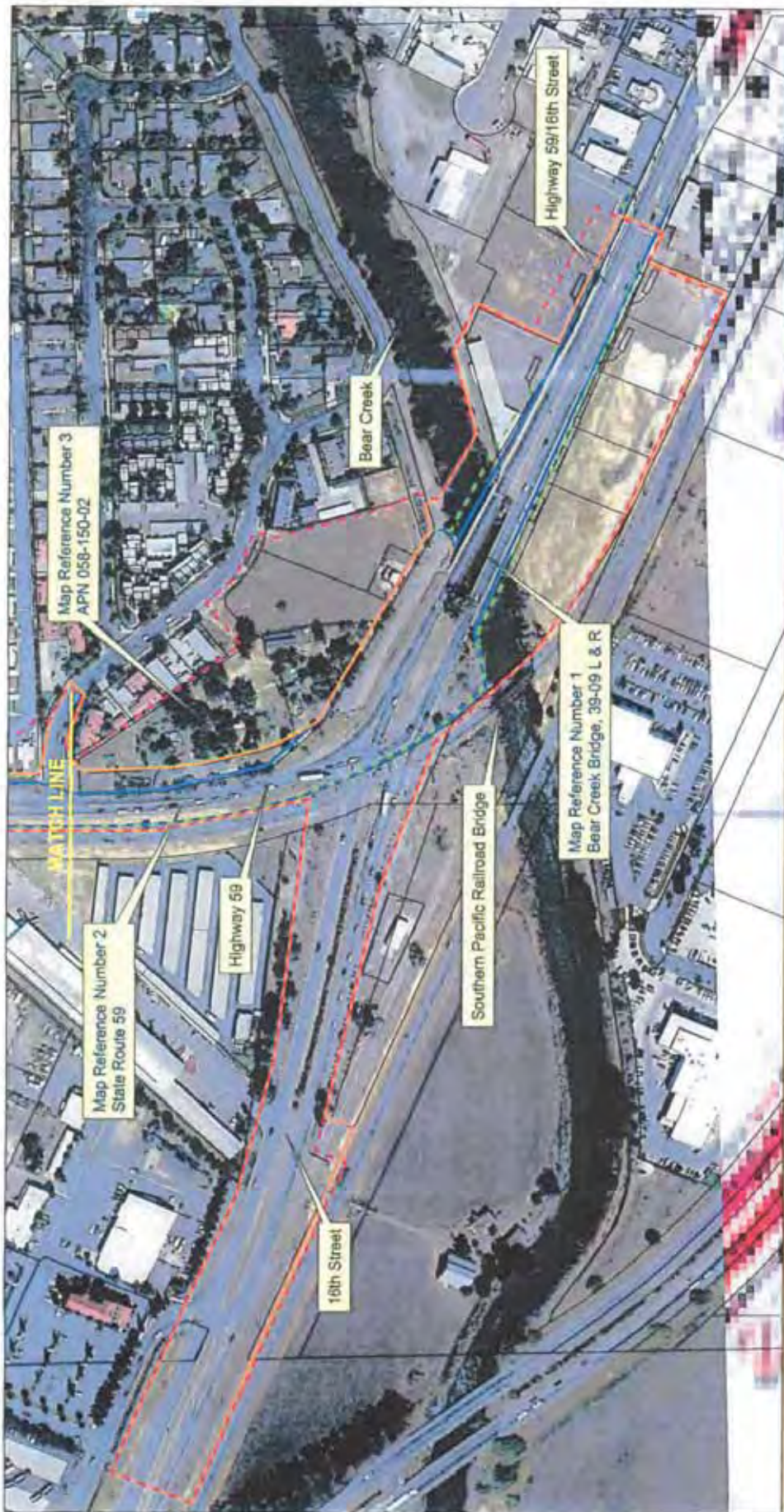
☒ Continuation ☐ Update

Resource Name or #: 10-MER-59, PM 15.3/16.6

Map Reference # 2



SITE PLAN
State Route 59
10-MER-59



P-24-002106

Map Ref.
#2 / 51259

From report
ME-08024



Figure 3b

Area of Potential Effects

Highway 59/16th Street Widening Project
10-MER-59, PM 15.3/16.6 (RP 24.6/26.7)
EA 10-0E5900

- APE Limit for Direct Effects
- APE Limit for Indirect Effects
- Current Right-of-Way
- Proposed Right-of-Way



Brian Gassner, PQS

Ram Narayan Gupta, Project Manager



Figure 3c

Area of Potential Effects

Highway 59/18th Street Widening Project
10-MER-59, PM 15.3/16.6 (KP 24.6/26.7)
EA 10-0E5900

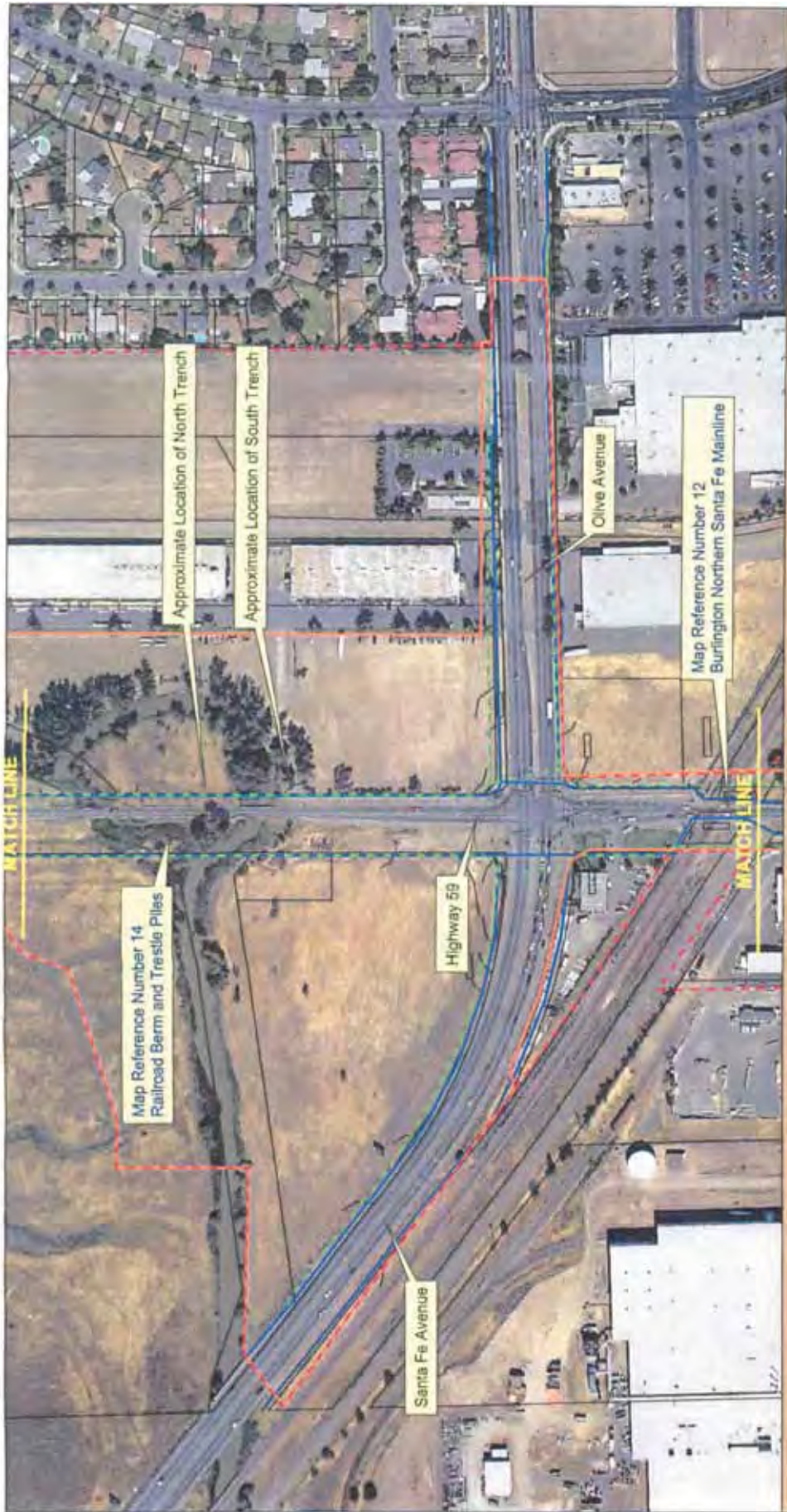
- APE Limit for Direct Effects
- APE Limit for Indirect Effects
- Current Right-of-Way
- Proposed Right-of-Way



Brian Gassner, PQS

Ram Narsyan Gupta, Project Manager

P-24-002106



P-24-002106

P-24-0021uxp



Figure 3e

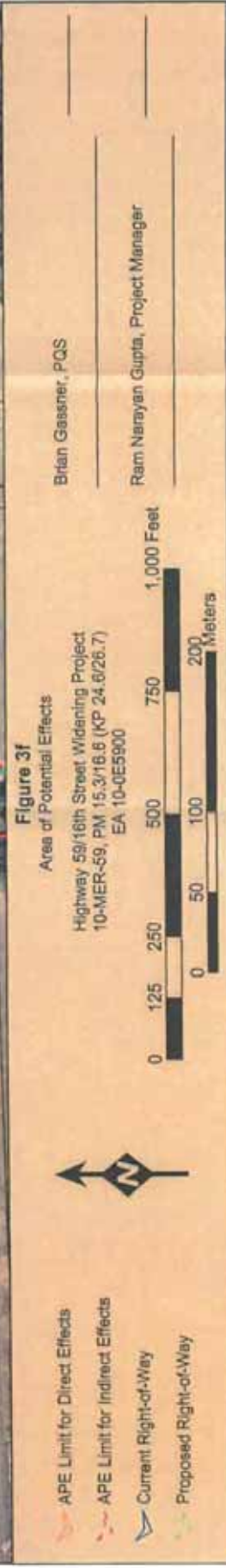
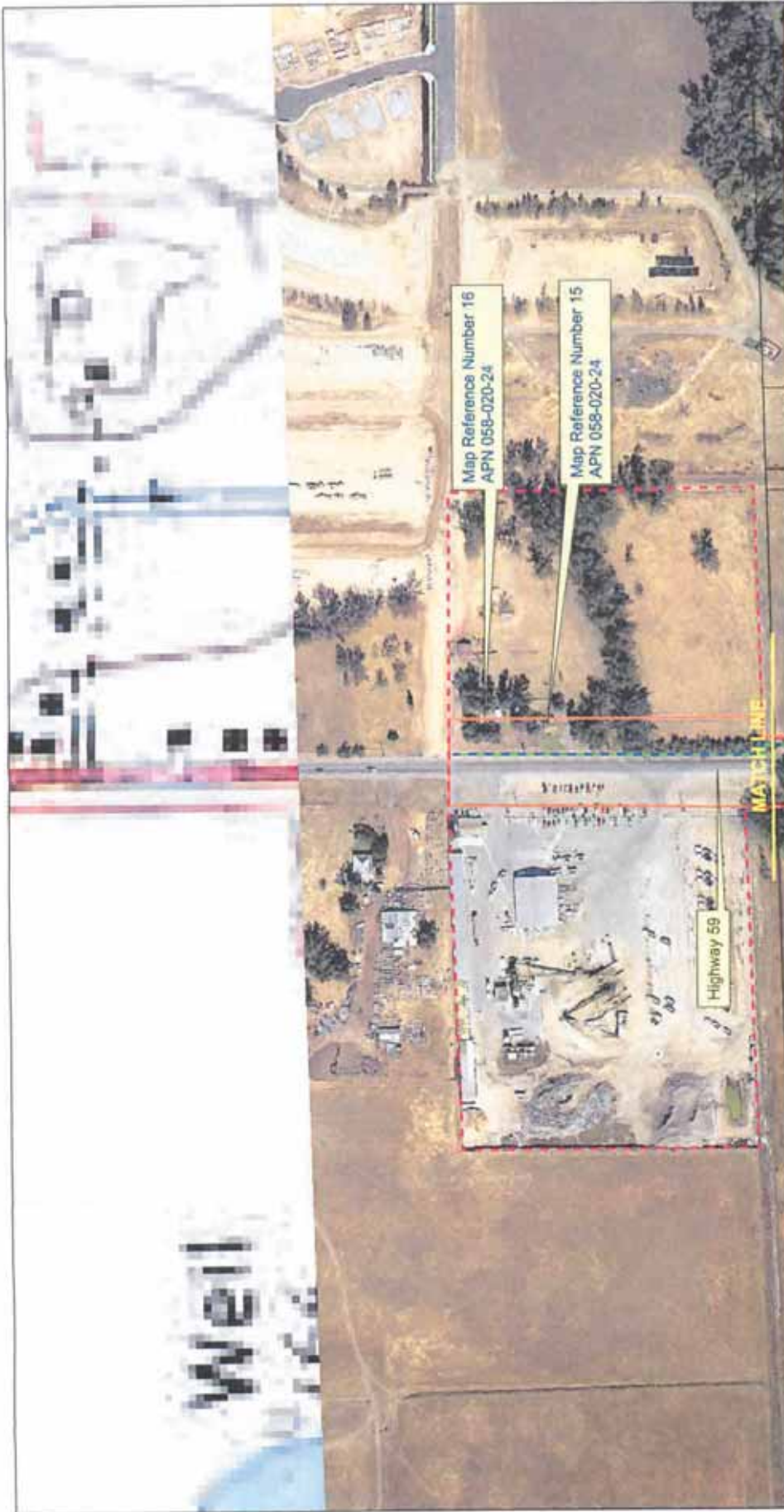
Area of Potential Effects

Highway 59/16th Street Widening Project
10-MER-59, PM 15.3/16.6 (KP 24.6/26.7)
EA 10-0E5900

- APE Limit for Direct Effects
- APE Limit for Indirect Effects
- Current Right-of-Way
- Proposed Right-of-Way



Brian Gassner, PQS
Ram Narayan Gupta, Project Manager



P-24-002106

Map Ref. #2/SR 59 = P-24-002106



Map added by RH/CCIC

[illegible]

Attachment F-3
Previously Prepared Bridge Documentation



Structure Maintenance & Investigations



Historical Significance - Local Agency Bridges

District 10

Merced County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
39C0343	SPILLWAY DITCH	3.4 MI N/W OF SR 165	5. Bridge not eligible for NRHP	1977
39C0345	DELTA-MENDOTA CANAL CPM 083.88	0.2 MI W OF SR 165	4. Historical Significance not determined	1950
39C0347	EASTSIDE BYPASS	0.1 MI E HARMON RD	5. Bridge not eligible for NRHP	1968
39C0348	SAND SLOUGH	1.7 MI W HARMON RD	5. Bridge not eligible for NRHP	1950
39C0349	SAN JOAQUIN RIVER	AT WASHINGTON RD	5. Bridge not eligible for NRHP	1955
39C0350	BEAR CREEK	0.4 MI S OF E. OLIVE AVE	5. Bridge not eligible for NRHP	1972
39C0352	DELTA-MENDOTA CANAL CPM 083.07	0.6 MI S ALMOND DRIVE	4. Historical Significance not determined	1950
39C0353	OUTSIDE CANAL	WEST OF SR 33	5. Bridge not eligible for NRHP	1965
39C0354	MERCED RIVER	KELLEY ROAD	5. Bridge not eligible for NRHP	1981
39C0355	SULTANA DRIVE OH	0.12 MI WEST OF SR 99	5. Bridge not eligible for NRHP	2008
39C0356	HAMMATT AVENUE OVERHEAD	0.2 MI SOUTH OF SR 99	5. Bridge not eligible for NRHP	1997
39C0357	CCID MAIN CANAL	JUST S OF SR 152	5. Bridge not eligible for NRHP	1963
39C0358	LOS BANOS CREEK	1.2 MI N GUN CLUB ROAD	4. Historical Significance not determined	1974
39C0359	BEAR CREEK	0.6 MI E QUINLEY AVENUE	5. Bridge not eligible for NRHP	1993
39C0360	MARIPOSA CREEK	1.5 MI N SANDYMUSH ROAD	5. Bridge not eligible for NRHP	1993
39C0361	CCID MAIN CANAL	50' E OF SR140 & SR33	5. Bridge not eligible for NRHP	1996
39C0362	BLACK RASCAL CREEK	1.1 KM N OF ROUTE 140	5. Bridge not eligible for NRHP	1996
39C0363	LIVINGSTON UP	0.2 MI NORTH OF SR 99	4. Historical Significance not determined	1938
39C0364	MERCED RIVER	0.9 MI NW OF SHAFFER RD	5. Bridge not eligible for NRHP	2003
39C0366	ARROYO CANAL	1.0 MI S OF SR 152	5. Bridge not eligible for NRHP	1998
39C0367	HAMMATT LATERAL	0.6 MI W CRESY ROAD	5. Bridge not eligible for NRHP	2005
39C0368	LIVINGSTON CANAL	VINE AVENUE	5. Bridge not eligible for NRHP	2007
39C0369	DUCK SLOUGH	0.1 MI S MCHENRY RD.	5. Bridge not eligible for NRHP	2007
39C0370	COLONY MAIN CANAL (DOS PALOS CANAL)	0.55 MI N SHAIN AVE	5. Bridge not eligible for NRHP	1966
39C0371	COLONY MAIN CANAL (DOS PALOS CANAL)	0.05 MI S/O VALERIA AVE	5. Bridge not eligible for NRHP	1940
39C0372	DEADMANS CREEK	1.6 MI SE OF LE GRAND RD	5. Bridge not eligible for NRHP	1987
39C0373	DEADMAN CREEK	1.8 MI SE OF LE GRAND RD	5. Bridge not eligible for NRHP	2015
39C0374	DUCK SLOUGH	2.3 MI SE OF E MISSION RD	5. Bridge not eligible for NRHP	1914
39C0375	DUCK SLOUGH	0.1 MI NW OF MARIPOSA WY	5. Bridge not eligible for NRHP	2015
39C0376	DUCK SLOUGH OVERFLOW	1.9 MI SE OF E MISSION RD	5. Bridge not eligible for NRHP	1914
39C0377	DUCK SLOUGH OVERFLOW	0.5 MI NW OF MARIPOSA WY	5. Bridge not eligible for NRHP	2015
39C0378	MARIPOSA CREEK	2.4 MI SE OF E MISSION RD	5. Bridge not eligible for NRHP	1938
39C0379	MARIPOSA CREEK	0.1 MI SE OF MARIPOSA RD	5. Bridge not eligible for NRHP	2015
39C0381	ASHBY ROAD UC	0.5 MI N OF HWY99	5. Bridge not eligible for NRHP	2017
39C0382	CANAL CREEK	0.5 MI E OF BUHACH RD	5. Bridge not eligible for NRHP	2017
39C0385	CANAL CREEK	0.1 MI WEST OF GURR ROAD	5. Bridge not eligible for NRHP	2011
39C0386	OWENS CREEK	1.0 MI S OF EAST.MISSION	5. Bridge not eligible for NRHP	2007
39C0387	OWENS CREEK	0.7 MI SE OF HEALY RD	5. Bridge not eligible for NRHP	1914
39C0388	MILES CREEK	0.7 MI S OF EAST.MISSION	5. Bridge not eligible for NRHP	2007
39C0389	MILES CREEK	0.45 MI SE/O HEALY RD	5. Bridge not eligible for NRHP	1938
39C0390	MILES CREEK OVERFLOW # 1	0.5 MI S OF EAST.MISSION	5. Bridge not eligible for NRHP	2007
39C0391	MILES CREEK OVERFLOW # 2	0.1 MI S OF EAST.MISSION	5. Bridge not eligible for NRHP	2007
39C0392	MILES CREEK OVERFLOW # 2	0.1 MI NW/O HEALY RD	5. Bridge not eligible for NRHP	1938



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 10

Stanislaus County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
38 0007	CERES MAIN CANAL	10-STA-099-R10.03	5. Bridge not eligible for NRHP	1941	1965
38 0007K	CERES MAIN CANAL	10-STA-099-R10.03	5. Bridge not eligible for NRHP	1912	1927
38 0007S	CERES MAIN CANAL	10-STA-099-R10.03	5. Bridge not eligible for NRHP	1965	
38 0009	WILDCAT CREEK	10-STA-120-R15.04	5. Bridge not eligible for NRHP	1948	
38 0011	RIVERBANK OH	10-STA-108-R32.34	5. Bridge not eligible for NRHP	1972	
38 0012	M.I.D. MAIN CANAL	10-STA-108-30.50	5. Bridge not eligible for NRHP	1915	1994
38 0013	M.I.D. CANAL	10-STA-108-29.86	5. Bridge not eligible for NRHP	1915	1962
38 0017	ROCKAWAY CREEK	10-STA-004-6.31	5. Bridge not eligible for NRHP	1920	1974
38 0019	DEL PUERTO CREEK	10-STA-033-16.54	5. Bridge not eligible for NRHP	1969	
38 0020	SALADO CREEK	10-STA-033-13.94	5. Bridge not eligible for NRHP	1915	1969
38 0021	ORESTIMBA CREEK	10-STA-033-5.57	5. Bridge not eligible for NRHP	1954	
38 0022	CCID MAIN CANAL	10-STA-033-6.09	5. Bridge not eligible for NRHP	1955	
38 0023	STANISLAUS RIVER SR 120	10-STA-120-4.26	5. Bridge not eligible for NRHP	1931	1971
38 0026	FAR ROCKAWAY CREEK	10-STA-004-6.68	5. Bridge not eligible for NRHP	1920	1974
38 0039	DUCK CREEK	10-STA-004-0.88	5. Bridge not eligible for NRHP	1920	1974
38 0040	ROCK CREEK	10-STA-004-R1.68	5. Bridge not eligible for NRHP	1977	
38 0041	HOODS CREEK	10-STA-004-7.28	5. Bridge not eligible for NRHP	1930	1974
38 0042	M.I.D. CANAL LATERAL 4	10-STA-108-23.57-MOD	5. Bridge not eligible for NRHP	1960	
38 0045	SAN JOAQUIN RIVER (SR 132)	10-STA-132-R2.43	5. Bridge not eligible for NRHP	1971	
38 0047	M.I.D. CANAL LATERAL 4	10-STA-132-12.18	5. Bridge not eligible for NRHP	1919	1951
38 0053L	LANDER AVENUE SEPARATION	10-STA-099-R1.63-TUR	5. Bridge not eligible for NRHP	1973	
38 0053R	LANDER AVENUE SEPARATION	10-STA-099-R1.63-TUR	5. Bridge not eligible for NRHP	1973	
38 0057	WATERFORD CANAL	10-STA-132-25.20	5. Bridge not eligible for NRHP	1916	1993
38 0062	SNAKE RAVINE	10-STA-132-46.82	2. Bridge is eligible for NRHP	1918	
38 0063	QUARTZ LEDGE CREEK	10-STA-132-49.62	5. Bridge not eligible for NRHP	1918	
38 0064	HOSPITAL CREEK	10-STA-033-24.83	5. Bridge not eligible for NRHP	1920	1969
38 0065	BLITZ CREEK	10-STA-120-12.22	5. Bridge not eligible for NRHP	1915	1950
38 0068	WESTLEY WASTEWAY	10-STA-033-18.92	4. Historical Significance not determined	1948	
38 0072	SECOND STREET ON RAMP UC	10-STA-099-R11.55-CER	5. Bridge not eligible for NRHP	1965	
38 0073	NORTH STREET UC	10-STA-099-R11.62-CER	5. Bridge not eligible for NRHP	1965	
38 0074	PINE STREET OH	10-STA-099-R11.30-CER	5. Bridge not eligible for NRHP	1965	
38 0076L	SOUTH MODESTO OH	10-STA-099-R14.03	5. Bridge not eligible for NRHP	1963	
38 0076R	SOUTH MODESTO OH	10-STA-099-R14.03	5. Bridge not eligible for NRHP	1963	
38 0077	CROWS LANDING ROAD OC	10-STA-099-R14.47-TUR	5. Bridge not eligible for NRHP	1963	
38 0078L	TUOLUMNE RIVER	10-STA-099-R14.93-MOD	5. Bridge not eligible for NRHP	1963	
38 0078R	TUOLUMNE RIVER	10-STA-099-R14.93	5. Bridge not eligible for NRHP	1963	
38 0079	LINWOOD AVENUE OC	10-STA-099-R2.29-TUR	5. Bridge not eligible for NRHP	1973	
38 0081	HATCH ROAD OC	10-STA-099-R13.26-CER	5. Bridge not eligible for NRHP	1962	
38 0081Y	HATCH ROAD OC	10-STA-099-R13.28	5. Bridge not eligible for NRHP	1962	1996
38 0082L	SOUTH MODESTO UC	10-STA-099-R13.90	5. Bridge not eligible for NRHP	1963	
38 0082R	SOUTH MODESTO UC	10-STA-099-R13.90	5. Bridge not eligible for NRHP	1963	
38 0083	WEST MODESTO OH	10-STA-099-R17.93-MOD	5. Bridge not eligible for NRHP	1963	1976



Structure Maintenance & Investigations



Historical Significance - Local Agency Bridges

District 10

Stanislaus County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
38C0062	M.I.D. LATERAL #4	S/O KANSAS	5. Bridge not eligible for NRHP	1914
38C0064	BRIGGSMORE ROAD OH	SPRR & 9TH STREET	5. Bridge not eligible for NRHP	1976
38C0065	BECKWORTH ROAD OH	JUST W/O STATE RTE 99	5. Bridge not eligible for NRHP	1976
38C0068	M.I.D. LATERAL #6	0.4 MI S/O BROADWAY	5. Bridge not eligible for NRHP	1938
38C0069	M.I.D. LATERAL #6	0.4 MI S/O BROADWAY	5. Bridge not eligible for NRHP	1912
38C0072	HIGH LINE CANAL	1.85 MI NW OF KEYES RD	5. Bridge not eligible for NRHP	1966
38C0073	DRY CREEK	0.8 MI S CLARIBEL ROAD	2. Bridge is eligible for NRHP	1925
38C0076	M.I.D. MAIN CANAL	0.9 MI NW SR 132	5. Bridge not eligible for NRHP	1920
38C0078	CLARIBEL LATERAL	0.5 MI N/O CLARIBEL RD	5. Bridge not eligible for NRHP	1920
38C0079	SSJID CANAL	0.1 MI NW CLEVELAND AVE	5. Bridge not eligible for NRHP	1920
38C0080	LONE TREE CREEK	0.68 MI S/E LONE TREE RD	5. Bridge not eligible for NRHP	1934
38C0083	T.I.D. UPPER LATERAL #3	0.7 MI NW OF ZEERING RD	5. Bridge not eligible for NRHP	1924
38C0087	M.I.D. MAIN CANAL	0.4 MI S/O CLARIBEL ROAD	5. Bridge not eligible for NRHP	1925
38C0088	T.I.D. CERES MAIN CANAL	0.15 MI E/O MITCHELL RD	5. Bridge not eligible for NRHP	1982
38C0090	T.I.D. MAIN CANAL	0.8 MI W HICKMAN RD	5. Bridge not eligible for NRHP	1923
38C0091	T.I.D. MAIN CANAL	1.2 MI N WHITMORE AVE	5. Bridge not eligible for NRHP	1924
38C0092	T.I.D. CERES MAIN CANAL	S/O HATCH RD	5. Bridge not eligible for NRHP	1925
38C0094	CALIFORNIA AQUEDUCT	0.43 MI E OF I-5	5. Bridge not eligible for NRHP	1964
38C0095	DELTA-MENDOTA CANAL CPM 046.84	2.0 MILES EAST OF I-5	4. Historical Significance not determined	1948
38C0096	CCID MAIN CANAL	0.5 MI E SR33, @ARMSTRONG	5. Bridge not eligible for NRHP	1953
38C0098	T.I.D. LOWER LATERAL #4	0.5 MI N/O W. MAIN STREET	5. Bridge not eligible for NRHP	1925
38C0101	DELTA-MENDOTA CANAL CPM 029.19	0.55 MI W/O MCCracken	4. Historical Significance not determined	1946
38C0104	SALADO CREEK	1.7 MI E/O I-5, W/O AE AV	5. Bridge not eligible for NRHP	1920
38C0105	T.I.D. MAIN CANAL	1.1 MI W/O SANTA FE AVE	5. Bridge not eligible for NRHP	1919
38C0106	T.I.D. MAIN CANAL	0.5 MI E/O SANTA FE AVE	5. Bridge not eligible for NRHP	1920
38C0107	M.I.D. LATERAL #5	0.4 MI S OF CALIF AVENUE	5. Bridge not eligible for NRHP	1920
38C0108	M.I.D. LATERAL #6	0.3 MI N MURPHY/BACON RD	5. Bridge not eligible for NRHP	1922
38C0109	M.I.D. MAIN CANAL	0.5 MI S OF LADD ROAD	5. Bridge not eligible for NRHP	1925
38C0110	M.I.D. MAIN CANAL	0.3 MI S OF LADD ROAD	5. Bridge not eligible for NRHP	1935
38C0111	GASBURG CREEK	0.3 MI E NEW LAGRANGE RD	5. Bridge not eligible for NRHP	1916
38C0114	M.I.D. MAIN CANAL	0.1 MI W/O TERMINAL AVE	5. Bridge not eligible for NRHP	1958
38C0116	M.I.D. LATERAL #5	0.9 MI NW SHILOH RD	5. Bridge not eligible for NRHP	1925
38C0117	CALIFORNIA AQUEDUCT	0.7 MI E OF I-5	5. Bridge not eligible for NRHP	1965
38C0118	DELTA-MENDOTA CANAL CPM 032.61	1.5 Miles East of I-5	4. Historical Significance not determined	1947
38C0123	T.I.D. LATERAL #2	AT REDWOOD ROAD	5. Bridge not eligible for NRHP	1923
38C0124	T.I.D. LATERAL #1	S PT. REYES - PETALM	5. Bridge not eligible for NRHP	1921
38C0125	CERES MAIN SPILLWAY	W/O FAITH HOME ROAD	5. Bridge not eligible for NRHP	1916
38C0127	M.I.D. LATERAL #3	0.2 MI W/O OAKDALE RD	5. Bridge not eligible for NRHP	1969
38C0128	MORTON STREET UC	0.8 MI NE OF YOSEMITE BL	5. Bridge not eligible for NRHP	1950
38C0130	M.I.D. LATERAL #4	0.1 MI N OF MORRIS AVE	5. Bridge not eligible for NRHP	1936
38C0131	M.I.D. LATERAL #4	DIAG @ INTERST OF MORRIS	5. Bridge not eligible for NRHP	1974
38C0132	M.I.D. LATERAL #4	0.15 M N/O NEEDHAM	5. Bridge not eligible for NRHP	1937
38C0133	M.I.D. LATERAL #4	0.5 MI N/O LUCERNE AVENUE	5. Bridge not eligible for NRHP	1967



Structure Maintenance & Investigations



Historical Significance - Local Agency Bridges

District 10

Stanislaus County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
38C0134	M.I.D. LATERAL #4	0.1 MI WEST OF COFFEE RD	5. Bridge not eligible for NRHP	1977
38C0136	M.I.D. LATERAL #3	AT BRIGGSMORE AVE	5. Bridge not eligible for NRHP	1977
38C0137	M.I.D. LATERAL #5	0.4 MI E CARPENTER RD	5. Bridge not eligible for NRHP	1927
38C0139	I STREET ARCH ENTRANCE	NEAR 9TH ST	5. Bridge not eligible for NRHP	1912
38C0141	GOLDEN STATE BLVD OH	0.1 MI N MERCED CO LINE	5. Bridge not eligible for NRHP	1938
38C0144	DAWSON LAKE	0.8 MI S STATE ROUTE 132	5. Bridge not eligible for NRHP	1975
38C0145	TUOLUMNE RIVER	0.25 MI N STATE ROUTE 132	5. Bridge not eligible for NRHP	1979
38C0146	M.I.D. MAIN CANAL	0.8 MI N/O SR 132	5. Bridge not eligible for NRHP	1977
38C0147	M.I.D. MAIN CANAL	0.4 MI N PARKER ROAD	5. Bridge not eligible for NRHP	1928
38C0148	T.I.D. CERES MAIN CANAL	50' S/O HATCH ROAD	5. Bridge not eligible for NRHP	1989
38C0149	T.I.D. CERES MAIN CANAL	S/O HATCH RD	5. Bridge not eligible for NRHP	1991
38C0150	T.I.D. CERES MAIN CANAL	JUST S/O HATCH RD	5. Bridge not eligible for NRHP	1924
38C0152	T.I.D. CERES MAIN CANAL	JUST S/O HATCH ROAD	5. Bridge not eligible for NRHP	1990
38C0154	SOUTH SAN JOAQUIN MAIN CANAL	0.3 MI E OF VICTORY	5. Bridge not eligible for NRHP	1964
38C0155	T.I.D. CERES MAIN CANAL	1.0 MI N WHITMORE RD	5. Bridge not eligible for NRHP	1945
38C0156	T.I.D. MAIN CANAL	0.5 MI E OF HICKMAN	5. Bridge not eligible for NRHP	1920
38C0157	T.I.D. MAIN CANAL	AT DALLAS RD	5. Bridge not eligible for NRHP	1920
38C0158	T.I.D. MAIN CANAL	0.2 MI N/O LAKE RD	5. Bridge not eligible for NRHP	1935
38C0159	T.I.D. MAIN CANAL	0.5 MI N OF LAKE ROAD	5. Bridge not eligible for NRHP	1935
38C0161	T.I.D. MAIN CANAL	0.1 MI S/O MONTE VISTA AV	5. Bridge not eligible for NRHP	1939
38C0162	HOODS CREEK	0.5 MI S OF SR 4	5. Bridge not eligible for NRHP	1993
38C0164	M.I.D. MAIN CANAL	0.05 MI S OF SR 108	5. Bridge not eligible for NRHP	1952
38C0165	M.I.D. MAIN CANAL	0.1 N/O THIEMAN AV	5. Bridge not eligible for NRHP	1924
38C0166	M.I.D. MAIN CANAL	S/O ST. FRANCIS AVE	5. Bridge not eligible for NRHP	1923
38C0167	NEWMAN WASTEWAY	0.2 MI S/O HALLOWELL RD	5. Bridge not eligible for NRHP	1953
38C0168	ORESTIMBA CREEK	.45 MI S CROWS LANDING RD	2. Bridge is eligible for NRHP	1910
38C0169	SOUTH SAN JOAQUIN MAIN CANAL	0.4 MI NE OF SONORA RD	5. Bridge not eligible for NRHP	1960
38C0170	GALLUP CREEK	2.8 MI NW LA GRANGE RD	5. Bridge not eligible for NRHP	1965
38C0171	T.I.D. MAIN CANAL	5.1 MI E ROBERTS FERRY RD	5. Bridge not eligible for NRHP	1920
38C0174	DEL PUERTO CREEK	18.8 MI W/O RTE 5	5. Bridge not eligible for NRHP	1960
38C0175	WASHINGTON CANYON CREEK	9.6 MI W OF I-5	5. Bridge not eligible for NRHP	1960
38C0176	M.I.D. MAIN CANAL	0.9 MI E OF CLAUS ROAD	5. Bridge not eligible for NRHP	1955
38C0177	M.I.D. LATERAL #3	0.1 MI N PARKER RD	5. Bridge not eligible for NRHP	1952
38C0178	M.I.D. MAIN CANAL	0.6 MI W/O ALBERS RD	5. Bridge not eligible for NRHP	1951
38C0179	M.I.D. LATERAL #3	JUST N OF PARKER RD	5. Bridge not eligible for NRHP	1951
38C0180	CCID MAIN CANAL	0.42 MI E EASTIN RD	5. Bridge not eligible for NRHP	1928
38C0181	CCID MAIN CANAL	W/O DRAPER RD	5. Bridge not eligible for NRHP	1926
38C0182	NEWMAN WASTEWAY	0.7 MI S/O SHIELLS RD	5. Bridge not eligible for NRHP	1930
38C0183	CCID MAIN CANAL	0.3 MI W STATE RTE 33	5. Bridge not eligible for NRHP	1926
38C0184	PATTERSON ID MAIN CANAL	0.2 MI S LAS PALMAS	5. Bridge not eligible for NRHP	1925
38C0185	PATTERSON ID MAIN CANAL	0.6 MI S/O LAS PALMAS AVE	5. Bridge not eligible for NRHP	1920
38C0186	T.I.D. LATERAL #5	JCT AT HARDING AVE	5. Bridge not eligible for NRHP	1929
38C0187	WESTLEY WASTEWAY	0.7 MI S HOWARD RD	5. Bridge not eligible for NRHP	1930



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 10

Merced County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
39 0055	OUTSIDE CANAL	10-MER-140-2.30	5. Bridge not eligible for NRHP	1968	
39 0057L	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0057R	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0061	DEADMANS CREEK	10-MER-059-7.90	5. Bridge not eligible for NRHP	1989	
39 0063	MARIPOSA CREEK	10-MER-059-10.38	5. Bridge not eligible for NRHP	1925	1955
39 0065	OWENS CREEK	10-MER-059-11.37	5. Bridge not eligible for NRHP	1925	1988
39 0067	S FORK BLACK RASCAL CREEK	10-MER-059-16.22	5. Bridge not eligible for NRHP	1927	
39 0068	BLACK RASCAL CANAL	10-MER-059-16.27	5. Bridge not eligible for NRHP	1916	
39 0069	EDENDALE CREEK	10-MER-059-24.09	5. Bridge not eligible for NRHP	1989	
39 0070	CANAL CREEK	10-MER-059-26.05	5. Bridge not eligible for NRHP	1986	
39 0073	BUHACH ROAD OVERCROSSING	10-MER-099-20.52	5. Bridge not eligible for NRHP	1957	
39 0081	MARIPOSA CREEK	10-MER-099-9.35	5. Bridge not eligible for NRHP	1938	1987
39 0084	FRANKLIN ROAD OC	10-MER-099-18.51	5. Bridge not eligible for NRHP	1962	
39 0086	DANA SLOUGH	10-MER-059-28.18	5. Bridge not eligible for NRHP	1986	
39 0087	SOUTH BRANCH INGALSBE SLOUGH	10-MER-059-31.25	5. Bridge not eligible for NRHP	1926	1988
39 0090	LOS BANOS CREEK (WEST BRANCH MUD SLOUGH)	10-MER-140-10.31	5. Bridge not eligible for NRHP	1947	
39 0091	NORTH BRANCH MUD SLOUGH	10-MER-140-11.32	4. Historical Significance not determined	1992	
39 0092	SAN JOAQUIN RIVER (SR140)	10-MER-140-11.79	5. Bridge not eligible for NRHP	1950	1993
39 0093	EAST SIDE CANAL	10-MER-140-18.52	5. Bridge not eligible for NRHP	1955	1993
39 0094	BLACK RASCAL CREEK	10-MER-140-31.60	5. Bridge not eligible for NRHP	1994	
39 0095	BEAR CREEK	10-MER-140-32.95	5. Bridge not eligible for NRHP	2001	
39 0097	EL CAPITAN CANAL	10-MER-140-34.51	5. Bridge not eligible for NRHP	1920	2001
39 0104	MILES CREEK	10-MER-059-11.89	5. Bridge not eligible for NRHP	1955	
39 0107	MUD SLOUGH OVERFLOW	10-MER-140-10.64	5. Bridge not eligible for NRHP	1969	
39 0108L	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1926	1993
39 0108R	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1940	1993
39 0109	ESCALADIAN CANAL	10-MER-059-25.45	5. Bridge not eligible for NRHP	1989	
39 0112	QUINTO BYPASS	10-MER-033-23.35	5. Bridge not eligible for NRHP	1920	1973
39 0113	PARNELL BYPASS	10-MER-033-21.47	5. Bridge not eligible for NRHP	1920	1955
39 0116L	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0116R	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0119	BEAR RANCH CREEK	10-MER-140-38.69-MER	5. Bridge not eligible for NRHP	1964	1972
39 0121	DELTA-MENDOTA CANAL CPM 071.31	10-MER-033-R15.11	4. Historical Significance not determined	1950	
39 0122L	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	5. Bridge not eligible for NRHP	1955	1985
39 0122R	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	4. Historical Significance not determined	1950	1987
39 0123	VOLTA WASTEWAY	10-MER-033-R16.31	5. Bridge not eligible for NRHP	1952	
39 0124	NEWMAN WASTEWAY	10-MER-033-29.60	5. Bridge not eligible for NRHP	1952	
39 0126L	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0126R	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0127	APPLEGATE ROAD OC	10-MER-099-22.76-ATW	5. Bridge not eligible for NRHP	1957	
39 0128L	WEST ATWATER OH	10-MER-099-23.47-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0128R	WEST ATWATER OH	10-MER-099-23.46-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0129R	BUHACH UNDERCROSSING	10-MER-099-20.38	5. Bridge not eligible for NRHP	1957	



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 10

Merced County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
39 0055	OUTSIDE CANAL	10-MER-140-2.30	5. Bridge not eligible for NRHP	1968	
39 0057L	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0057R	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0061	DEADMANS CREEK	10-MER-059-7.90	5. Bridge not eligible for NRHP	1989	
39 0063	MARIPOSA CREEK	10-MER-059-10.38	5. Bridge not eligible for NRHP	1925	1955
39 0065	OWENS CREEK	10-MER-059-11.37	5. Bridge not eligible for NRHP	1925	1988
39 0067	S FORK BLACK RASCAL CREEK	10-MER-059-16.22	5. Bridge not eligible for NRHP	1927	
39 0068	BLACK RASCAL CANAL	10-MER-059-16.27	5. Bridge not eligible for NRHP	1916	
39 0069	EDENDALE CREEK	10-MER-059-24.09	5. Bridge not eligible for NRHP	1989	
39 0070	CANAL CREEK	10-MER-059-26.05	5. Bridge not eligible for NRHP	1986	
39 0073	BUHACH ROAD OVERCROSSING	10-MER-099-20.52	5. Bridge not eligible for NRHP	1957	
39 0081	MARIPOSA CREEK	10-MER-099-9.35	5. Bridge not eligible for NRHP	1938	1987
39 0084	FRANKLIN ROAD OC	10-MER-099-18.51	5. Bridge not eligible for NRHP	1962	
39 0086	DANA SLOUGH	10-MER-059-28.18	5. Bridge not eligible for NRHP	1986	
39 0087	SOUTH BRANCH INGALSBE SLOUGH	10-MER-059-31.25	5. Bridge not eligible for NRHP	1926	1988
39 0090	LOS BANOS CREEK (WEST BRANCH MUD SLOUGH)	10-MER-140-10.31	5. Bridge not eligible for NRHP	1947	
39 0091	NORTH BRANCH MUD SLOUGH	10-MER-140-11.32	4. Historical Significance not determined	1992	
39 0092	SAN JOAQUIN RIVER (SR140)	10-MER-140-11.79	5. Bridge not eligible for NRHP	1950	1993
39 0093	EAST SIDE CANAL	10-MER-140-18.52	5. Bridge not eligible for NRHP	1955	1993
39 0094	BLACK RASCAL CREEK	10-MER-140-31.60	5. Bridge not eligible for NRHP	1994	
39 0095	BEAR CREEK	10-MER-140-32.95	5. Bridge not eligible for NRHP	2001	
39 0097	EL CAPITAN CANAL	10-MER-140-34.51	5. Bridge not eligible for NRHP	1920	2001
39 0104	MILES CREEK	10-MER-059-11.89	5. Bridge not eligible for NRHP	1955	
39 0107	MUD SLOUGH OVERFLOW	10-MER-140-10.64	5. Bridge not eligible for NRHP	1969	
39 0108L	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1926	1993
39 0108R	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1940	1993
39 0109	ESCALADIAN CANAL	10-MER-059-25.45	5. Bridge not eligible for NRHP	1989	
39 0112	QUINTO BYPASS	10-MER-033-23.35	5. Bridge not eligible for NRHP	1920	1973
39 0113	PARNELL BYPASS	10-MER-033-21.47	5. Bridge not eligible for NRHP	1920	1955
39 0116L	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0116R	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0119	BEAR RANCH CREEK	10-MER-140-38.69-MER	5. Bridge not eligible for NRHP	1964	1972
39 0121	DELTA-MENDOTA CANAL CPM 071.31	10-MER-033-R15.11	4. Historical Significance not determined	1950	
39 0122L	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	5. Bridge not eligible for NRHP	1955	1985
39 0122R	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	4. Historical Significance not determined	1950	1987
39 0123	VOLTA WASTEWAY	10-MER-033-R16.31	5. Bridge not eligible for NRHP	1952	
39 0124	NEWMAN WASTEWAY	10-MER-033-29.60	5. Bridge not eligible for NRHP	1952	
39 0126L	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0126R	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0127	APPLEGATE ROAD OC	10-MER-099-22.76-ATW	5. Bridge not eligible for NRHP	1957	
39 0128L	WEST ATWATER OH	10-MER-099-23.47-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0128R	WEST ATWATER OH	10-MER-099-23.46-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0129R	BUHACH UNDERCROSSING	10-MER-099-20.38	5. Bridge not eligible for NRHP	1957	



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 10

Merced County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
39 0055	OUTSIDE CANAL	10-MER-140-2.30	5. Bridge not eligible for NRHP	1968	
39 0057L	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0057R	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0061	DEADMANS CREEK	10-MER-059-7.90	5. Bridge not eligible for NRHP	1989	
39 0063	MARIPOSA CREEK	10-MER-059-10.38	5. Bridge not eligible for NRHP	1925	1955
39 0065	OWENS CREEK	10-MER-059-11.37	5. Bridge not eligible for NRHP	1925	1988
39 0067	S FORK BLACK RASCAL CREEK	10-MER-059-16.22	5. Bridge not eligible for NRHP	1927	
39 0068	BLACK RASCAL CANAL	10-MER-059-16.27	5. Bridge not eligible for NRHP	1916	
39 0069	EDENDALE CREEK	10-MER-059-24.09	5. Bridge not eligible for NRHP	1989	
39 0070	CANAL CREEK	10-MER-059-26.05	5. Bridge not eligible for NRHP	1986	
39 0073	BUHACH ROAD OVERCROSSING	10-MER-099-20.52	5. Bridge not eligible for NRHP	1957	
39 0081	MARIPOSA CREEK	10-MER-099-9.35	5. Bridge not eligible for NRHP	1938	1987
39 0084	FRANKLIN ROAD OC	10-MER-099-18.51	5. Bridge not eligible for NRHP	1962	
39 0086	DANA SLOUGH	10-MER-059-28.18	5. Bridge not eligible for NRHP	1986	
39 0087	SOUTH BRANCH INGALSBE SLOUGH	10-MER-059-31.25	5. Bridge not eligible for NRHP	1926	1988
39 0090	LOS BANOS CREEK (WEST BRANCH MUD SLOUGH)	10-MER-140-10.31	5. Bridge not eligible for NRHP	1947	
39 0091	NORTH BRANCH MUD SLOUGH	10-MER-140-11.32	4. Historical Significance not determined	1992	
39 0092	SAN JOAQUIN RIVER (SR140)	10-MER-140-11.79	5. Bridge not eligible for NRHP	1950	1993
39 0093	EAST SIDE CANAL	10-MER-140-18.52	5. Bridge not eligible for NRHP	1955	1993
39 0094	BLACK RASCAL CREEK	10-MER-140-31.60	5. Bridge not eligible for NRHP	1994	
39 0095	BEAR CREEK	10-MER-140-32.95	5. Bridge not eligible for NRHP	2001	
39 0097	EL CAPITAN CANAL	10-MER-140-34.51	5. Bridge not eligible for NRHP	1920	2001
39 0104	MILES CREEK	10-MER-059-11.89	5. Bridge not eligible for NRHP	1955	
39 0107	MUD SLOUGH OVERFLOW	10-MER-140-10.64	5. Bridge not eligible for NRHP	1969	
39 0108L	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1926	1993
39 0108R	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1940	1993
39 0109	ESCALADIAN CANAL	10-MER-059-25.45	5. Bridge not eligible for NRHP	1989	
39 0112	QUINTO BYPASS	10-MER-033-23.35	5. Bridge not eligible for NRHP	1920	1973
39 0113	PARNELL BYPASS	10-MER-033-21.47	5. Bridge not eligible for NRHP	1920	1955
39 0116L	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0116R	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0119	BEAR RANCH CREEK	10-MER-140-38.69-MER	5. Bridge not eligible for NRHP	1964	1972
39 0121	DELTA-MENDOTA CANAL CPM 071.31	10-MER-033-R15.11	4. Historical Significance not determined	1950	
39 0122L	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	5. Bridge not eligible for NRHP	1955	1985
39 0122R	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	4. Historical Significance not determined	1950	1987
39 0123	VOLTA WASTEWAY	10-MER-033-R16.31	5. Bridge not eligible for NRHP	1952	
39 0124	NEWMAN WASTEWAY	10-MER-033-29.60	5. Bridge not eligible for NRHP	1952	
39 0126L	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0126R	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0127	APPLEGATE ROAD OC	10-MER-099-22.76-ATW	5. Bridge not eligible for NRHP	1957	
39 0128L	WEST ATWATER OH	10-MER-099-23.47-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0128R	WEST ATWATER OH	10-MER-099-23.46-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0129R	BUHACH UNDERCROSSING	10-MER-099-20.38	5. Bridge not eligible for NRHP	1957	



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 10

Merced County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
39 0055	OUTSIDE CANAL	10-MER-140-2.30	5. Bridge not eligible for NRHP	1968	
39 0057L	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0057R	MILES CREEK OVERFLOW NO. 1	10-MER-099-10.98	5. Bridge not eligible for NRHP	2008	
39 0061	DEADMANS CREEK	10-MER-059-7.90	5. Bridge not eligible for NRHP	1989	
39 0063	MARIPOSA CREEK	10-MER-059-10.38	5. Bridge not eligible for NRHP	1925	1955
39 0065	OWENS CREEK	10-MER-059-11.37	5. Bridge not eligible for NRHP	1925	1988
39 0067	S FORK BLACK RASCAL CREEK	10-MER-059-16.22	5. Bridge not eligible for NRHP	1927	
39 0068	BLACK RASCAL CANAL	10-MER-059-16.27	5. Bridge not eligible for NRHP	1916	
39 0069	EDENDALE CREEK	10-MER-059-24.09	5. Bridge not eligible for NRHP	1989	
39 0070	CANAL CREEK	10-MER-059-26.05	5. Bridge not eligible for NRHP	1986	
39 0073	BUHACH ROAD OVERCROSSING	10-MER-099-20.52	5. Bridge not eligible for NRHP	1957	
39 0081	MARIPOSA CREEK	10-MER-099-9.35	5. Bridge not eligible for NRHP	1938	1987
39 0084	FRANKLIN ROAD OC	10-MER-099-18.51	5. Bridge not eligible for NRHP	1962	
39 0086	DANA SLOUGH	10-MER-059-28.18	5. Bridge not eligible for NRHP	1986	
39 0087	SOUTH BRANCH INGALSBIE SLOUGH	10-MER-059-31.25	5. Bridge not eligible for NRHP	1926	1988
39 0090	LOS BANOS CREEK (WEST BRANCH MUD SLOUGH)	10-MER-140-10.31	5. Bridge not eligible for NRHP	1947	
39 0091	NORTH BRANCH MUD SLOUGH	10-MER-140-11.32	4. Historical Significance not determined	1992	
39 0092	SAN JOAQUIN RIVER (SR140)	10-MER-140-11.79	5. Bridge not eligible for NRHP	1950	1993
39 0093	EAST SIDE CANAL	10-MER-140-18.52	5. Bridge not eligible for NRHP	1955	1993
39 0094	BLACK RASCAL CREEK	10-MER-140-31.60	5. Bridge not eligible for NRHP	1994	
39 0095	BEAR CREEK	10-MER-140-32.95	5. Bridge not eligible for NRHP	2001	
39 0097	EL CAPITAN CANAL	10-MER-140-34.51	5. Bridge not eligible for NRHP	1920	2001
39 0104	MILES CREEK	10-MER-059-11.89	5. Bridge not eligible for NRHP	1955	
39 0107	MUD SLOUGH OVERFLOW	10-MER-140-10.64	5. Bridge not eligible for NRHP	1969	
39 0108L	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1926	1993
39 0108R	SOUTH DUTCHMAN CREEK	10-MER-099-1.65	5. Bridge not eligible for NRHP	1940	1993
39 0109	ESCALADIAN CANAL	10-MER-059-25.45	5. Bridge not eligible for NRHP	1989	
39 0112	QUINTO BYPASS	10-MER-033-23.35	5. Bridge not eligible for NRHP	1920	1973
39 0113	PARNELL BYPASS	10-MER-033-21.47	5. Bridge not eligible for NRHP	1920	1955
39 0116L	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0116R	ASHE DRAIN	10-MER-099-18.59	5. Bridge not eligible for NRHP	1947	1974
39 0119	BEAR RANCH CREEK	10-MER-140-38.69-MER	5. Bridge not eligible for NRHP	1964	1972
39 0121	DELTA-MENDOTA CANAL CPM 071.31	10-MER-033-R15.11	4. Historical Significance not determined	1950	
39 0122L	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	5. Bridge not eligible for NRHP	1955	1985
39 0122R	DELTA-MENDOTA CANAL CPM 075.84	10-MER-152-15.09	4. Historical Significance not determined	1950	1987
39 0123	VOLTA WASTEWAY	10-MER-033-R16.31	5. Bridge not eligible for NRHP	1952	
39 0124	NEWMAN WASTEWAY	10-MER-033-29.60	5. Bridge not eligible for NRHP	1952	
39 0126L	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0126R	EAST ATWATER OH	10-MER-099-21.61	5. Bridge not eligible for NRHP	1957	1988
39 0127	APPLEGATE ROAD OC	10-MER-099-22.76-ATW	5. Bridge not eligible for NRHP	1957	
39 0128L	WEST ATWATER OH	10-MER-099-23.47-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0128R	WEST ATWATER OH	10-MER-099-23.46-ATW	5. Bridge not eligible for NRHP	1957	1988
39 0129R	BUHACH UNDERCROSSING	10-MER-099-20.38	5. Bridge not eligible for NRHP	1957	