YOLO COUNTY
COMMUNITY SERVICES DEPARTMENT

Final Initial Study/
Mitigated Negative Declaration
File #PW2022-01

County Road 96 over Dry Slough
Bridge Replacement Project

SCH# 2022060272

County Work Order 4596
Federal Project Number BRLO-5922 (104)
October 2022

Table of Contents

Figures

Tables

Appendix

1. Introduction

The Yolo County Department of Community Services, Public Works Division (County), and the California Department of Transportation (Caltrans) Division of Local Assistance is proposing to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough with funding made available through the FHWA Highway Bridge Program and administered by Caltrans. The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6. The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition with spalling and exposed rebar.

The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes with two-foot shoulders. The new bridge is anticipated to be a single-span cast-in-place post-tensioned slab structure, approximately 60 feet long. The roadway and bridge profile will be raised slightly to clear the 100-year storm event.

1.1 Regulatory Framework

The Yolo County Department of Community Services has determined that the County Road 96 over Dry Slough Bridge Replacement Project meets the California Environmental Quality Act (CEQA) Guidelines Section 15378 definition of a project. CEQA Guidelines Section 15378 defines a project as the following:

> *"Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.*

In accordance with the CEQA (Public Resources Code Sections 21000-21177), this Initial Study has been prepared to identify potentially significant impacts upon the environment resulting from the construction, operation, and maintenance of the County Road 96 over Dry Slough Bridge Replacement Project (Project or proposed Project). In accordance with Section 15063 of the State CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the Yolo County Department of Community Services as Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public, of potential environmental impacts associated with the implementation of the Project.

2. Environmental Checklist Form

Project Title	County Road 96 over Dry Slough Bridge Replacement Project (Project)
Lead Agency Name and Address	Yolo County Department of Community Services 292 West Beamer Street Woodland, CA, 95695-2598
Contact Person and Phone Number	Mark T. Christison, P.E. Senior Civil Engineer 530-666-8842
Project Location	The Project is located on County Road 96, north of County Road 31, west of the City of Davis, in Yolo County, California.
Project Sponsor's Name and Address	Nicholas Burton, Director Public Works Division Yolo County Department of Community Services 292 W. Beamer St. Woodland, CA 95695
General Plan Designation	Agriculture (AG)
Zoning	County Road Right of Way Agricultural Intensive (A-N): 037-020-034, 037-030-002, 037-010-025, 037-010-035,037-010-028

Project Description Summary: The Yolo County Department of Community Services, Public Works Division (County), and the California Department of Transportation (Caltrans) Division of Local Assistance are proposing to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough with funding made available through the FHWA Highway Bridge Program and administered by Caltrans. The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6.

The Project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113. County Road (CR) 96 is a rural local roadway that extends between Russell Boulevard on the south and CR 27 on the north.

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition with spalling and exposed rebar.

The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes with two-foot shoulders. The new bridge is anticipated to be a single-span cast-in-place post-tensioned slab structure, approximately 60 feet long. The roadway and bridge profile will be raised slightly to clear the 100-year storm event.

Surrounding Land Uses and Setting: Land uses/types surrounding (within 5 miles) the Project area consist of Dry Slough, valley foothill riparian, undeveloped grazing land, orchards, agricultural facilities, other park uses, open space, Yolo County Airport and a few rural residences.

Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.):

- Caltrans — National Environmental Policy Act (NEPA) Categorical Exclusion
- U.S. Army Corps of Engineers — Section 404 Clean Water Act Nationwide Permit
- Central Valley Regional Water Quality Control Board — Section 401 Water Quality Certification
- California Department of Fish and Wildlife — Section 1602 Streambed Alteration Agreement
- Yolo Habitat Conservancy – Incidental Take Authorization

Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?:

All Tribes requesting notification in Yolo County were delivered a letter via email on June 18, 2021, giving formal notice and invitation by Yolo County to initiate AB 52 consultation on the proposed Project and to request participation of interested parties. As of the date of developing this document, no responses from Native American Tribes in response to the letters have been received.
The Yocha Dehe Wintun Nation representatives attended a field review meeting on February 20, 2020 to visit the Project site and to better understand the proposed Project activities. Yocha Dehe Wintun Nation requested to be included in property owner and utility owner discussions so they can provide cultural resources education.

2.1 **Project Description**

Location

The Project is located within unincorporated Yolo County, California on County Road (CR) 96 over Dry Slough, approximately 0.4 miles north of CR 31 (Figures 1 and 2). The Project is located within the US Geological Survey (USGS) "Merritt" Quadrangle; Sections 2 and 3, Township 08N, Range 01E.

History

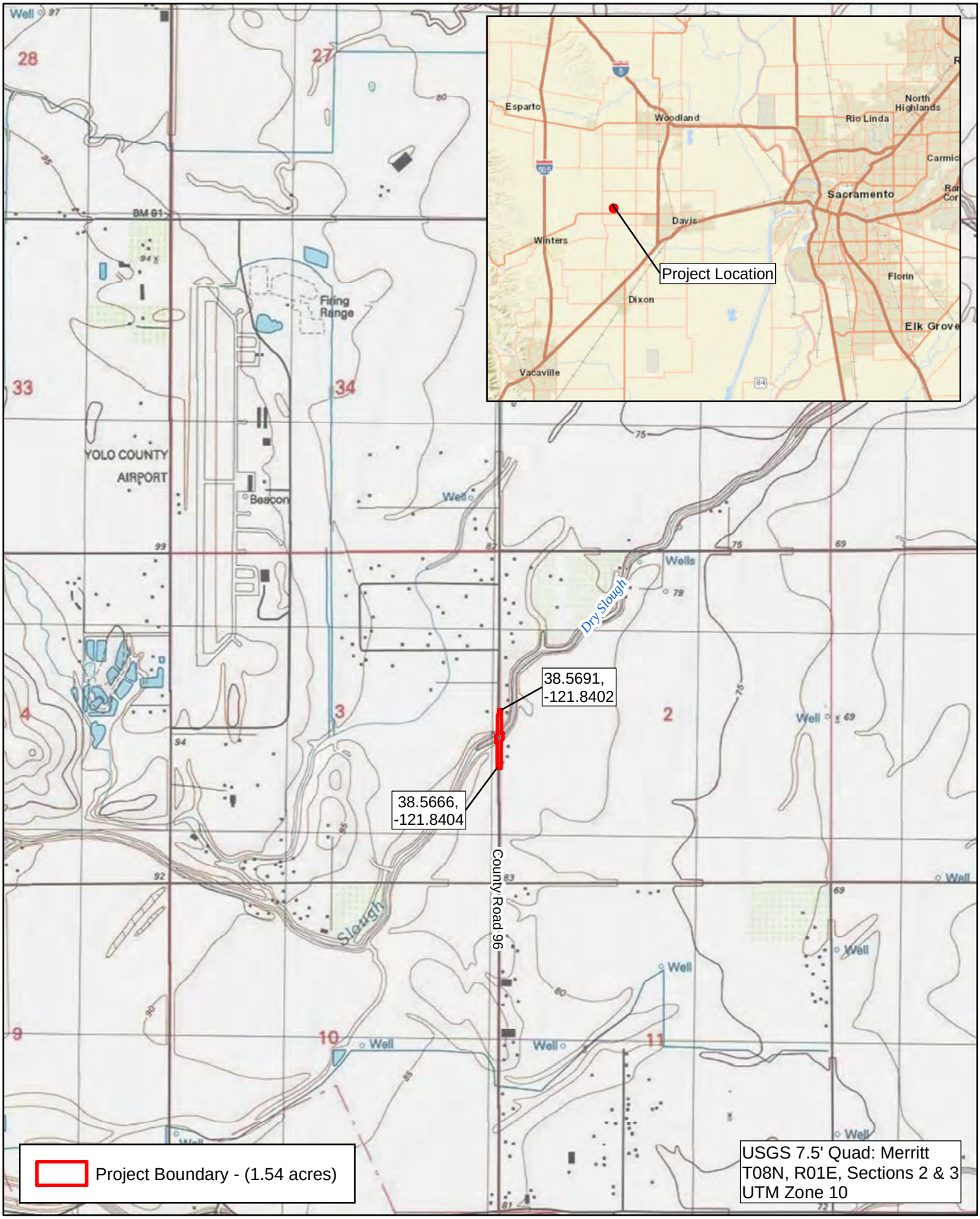
Yolo County (County) proposes to replace the existing bridge on CR 96 over Dry Slough with funding made available through the Federal Highway Administration (FHWA) Highway Bridge Program and administered by the California Department of Transportation (Caltrans). The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6.

The Project site is located within the southern region of Yolo County, east of the Yolo County Airport. County Road 96 is a rural local roadway that extends between Russell Boulevard to the south and CR 27 to the north. County Road 96 is paved and has a constructed width of approximately 20 feet. The bridge, with an Average Daily Traffic count of 216 vehicles, is bordered by agricultural and rural residential parcels. There is a residential structure approximately 100 feet northwest of the bridge and an agricultural building approximately 60 feet southeast of the bridge. The posted speed limit along CR 96 within the Project vicinity is 45 mph.

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span, reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition, with spalling and exposed rebar.

Project Purpose and Need

The purpose of the Project is to improve public safety while traveling on the CR 96 roadway as it crosses over Dry Slough. The need for the Project arises from the poor condition of the bridge (longitudinal and shear cracking, bridge railing in poor condition).



NORTH

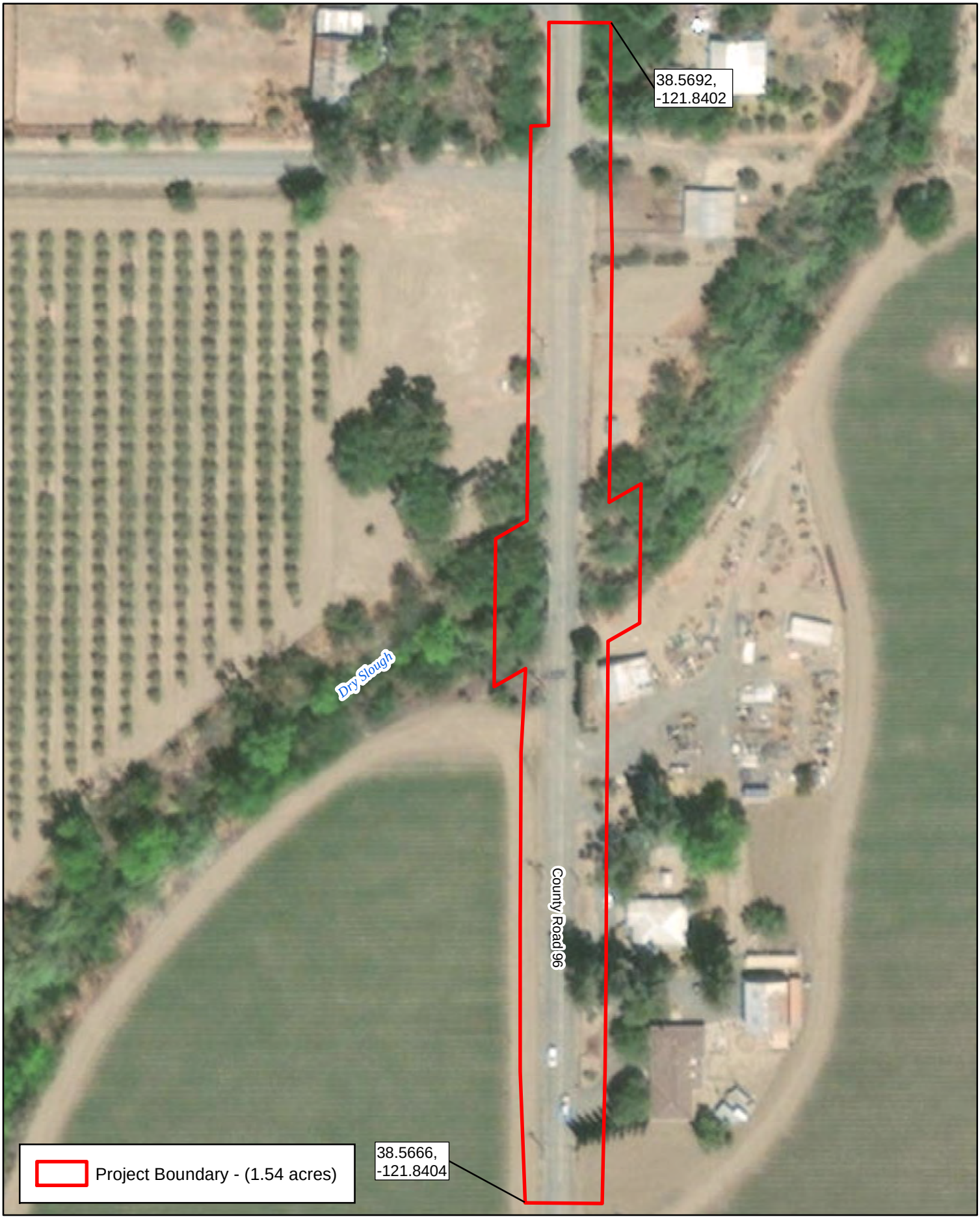
1:24,000
0 1,000 2,000 Feet

Data Sources: ESRI, Yolo County, USGS, Mark Thomas

County Road 96 Over Dry Slough
Project Location Map
Figure 1

gallaway ENTERPRISES

GE: #17-013A Map Date: 06/03/2022



NORTH

1:1,200
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Aerial Photograph
Figure 2

gallaway ENTERPRISES

GE: #17-013A Map Date: 06/03/2022

Project Description

The Project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113. County Road (CR) 96 is a rural local roadway that extends between Russell Boulevard on the south and CR 27 on the north. Within the Project vicinity, CR 96 is paved and has a constructed width of approximately 20 feet and a varying shoulder on the easterly side of the roadway. The bridge has an Average Daily Traffic count of 216 vehicles and is bordered by two large agricultural parcels (APN 037-010-028 [160 acre on the west], 037-010-035 [80 acre on the east]), and one small agricultural parcel used as a home site (APN 037-010-025 [< 1-acre parcel south of the bridge on the east]). There are five driveways on the east side and four driveways on the west side of CR 96. There is a residential structure near the northwest corner of the bridge and an agricultural building near the southeast corner. The posted speed limit along CR 96 within the Project vicinity is 45 mph.

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition with spalling and exposed rebar.

The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes with two-foot shoulders. The new bridge is anticipated to be a single-span cast-in-place post-tensioned slab structure approximately 60 feet long. The roadway and bridge profile will be raised slightly to clear the 100-year storm event to ensure no increases in water surface elevation in the vicinity of the bridge.

Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven steel pipe piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Tree and vegetation removal along the slough will be necessary for the Project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated to complete activities within the waterway.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated to construct the Project. Although the traveled way and shoulders will remain within the County's right of way, permanent acquisitions and temporary construction easements may be needed for the approach grading from three parcels (037-010-025, 037-010-028 and 037-010-035). Parcels 037-010-028 and 037-010-035 are Williamson Act lands and will have minor right-of-way acquisitions for both permanent and temporary impacts. Temporary construction easements will be needed to facilitate driveway conforms and utility relocations, and to allow construction access.

During construction, this section of CR 96 will be closed to through traffic and a detour route made available. Vehicular traffic will be able to utilize CRs 95, 31 and 29 as alternative routes. Construction is anticipated to begin in Spring 2023 and have a duration of approximately eight months.

Yolo HCP/NCCP Avoidance and Minimization Measures

The proposed Project is required to follow the terms and conditions of the Yolo County Habitat Conservation Plan & Natural Community Conservation Plan (Yolo HCP/NCCP) with the incorporation of Avoidance and Minimization Measures (AMMs) that are applicable to the proposed Project activities. The following AMMs were identified during the development of the Natural Environment Study prepared for the Project. See Appendix C: Natural Environment Study.

- **AMM1 - Establish Buffers**
- **AMM2 - Design Developments to Minimize Indirect Effects at Urban-Habitat Interfaces**
- **AMM3 - Confine and Delineate Work Area**
- **AMM4 - Cover Trenches and Holes during Construction and Maintenance**
- **AMM5 - Control Fugitive Dust**
- **AMM6 - Conduct Worker Training**
- **AMM8 - Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas**
- **AMM9 - Establish Buffers around Sensitive Natural Communities**
- **AMM10 - Avoid and Minimize Effects on Wetlands and Waters**
- **AMM14 - Minimize Take and Adverse Effects on Habitat of Western Pond Turtle**
- **AMM16 - Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-Tailed Kite**
- **AMM21 - Minimize Take and Adverse Effects on Habitat of Tricolored Blackbird**

The application of the aforementioned AMMs and integration within specific Mitigation Measures is described in detail in the Biological Resources section of this document.

3. Environmental Factors Potentially Affected

This Initial Study has determined that, in the absence of mitigation, the proposed Project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

___	Aesthetics	___	Land Use and Planning
___	Agricultural Resources	___	Mineral Resources
___	Air Quality	✓	Noise
✓	Biological Resources	___	Population and Housing
___	Cultural Resources	___	Public Services
✓	Tribal Cultural Resources	___	Recreation
___	Energy	___	Transportation/Traffic
___	Geology and Soils	___	Utilities and Service Systems
___	Greenhouse Gas Emissions	___	Wildfire
✓	Hazards and Hazardous Materials	✓	Mandatory Findings of Significance
✓	Hydrology and Water Quality	___	None Identified

4. Determination

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because the Project-specific mitigation measures described in Section III have been added to the Project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the Project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature: Stephanie Cormier Digitally signed by Stephanie Cormier DN: cn=Stephanie Cormier, email=stephanie.cormier@yolocounty.org, c=US Date: 2022.10.19 10:03:17 -07'00' **Date:** _____

Name and Title: Principal Planner

5. Evaluation of Environmental Impacts

- Responses to the following questions and related discussion indicate if the proposed Project will have or potentially have a significant adverse impact on the environment.

- A brief explanation is required for all answers except "No Impact" answers that are adequately supported by referenced information sources. A "No Impact' answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors or general standards.

- All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

- Once it has been determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there is at least one "Potentially Significant Impact" entry when the determination is made an EIR is required.

- Negative Declaration: "Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The initial study will describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 4, "Earlier Analysis," may be cross-referenced).

- Earlier analyses may be used where, pursuant to tiering, a program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)].

- Initial studies may incorporate references to information sources for potential impacts (e.g. the general plan or zoning ordinances, etc.). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list attached, and other sources used or individuals contacted are cited in the discussion.

- The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significant.

5.1 **Aesthetics**

Except as provided in Public Resources Code Section 21099 would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Environmental Setting

The following information is from the 2009 Countywide General Plan Environmental Impact Report (EIR, Yolo County 2009b). The General Plan EIR characterizes the unincorporated area of the County as having seven separate subareas of distinct natural resources, geographic, or developed qualities that describe the varying visual and scenic resources found within the County.

Yolo County is predominantly rural, having an agricultural character throughout most of the eastern portion of the County and a more topographically varied foothill/mountain character in the western portion of the County.

The Valley Floor subarea where the proposed Project is located generally includes those lands south of the Cache Creek subarea and north of the Putah Creek/Lake Berryessa subarea as well as lands east of the Dunnigan Hills subarea and west of the Sacramento River subarea. The Valley Floor subarea includes the City of Woodland and the City of Davis, as well as the towns of Esparto and Madison and the Monument Hills community. These lands are almost entirely agricultural in land use, outside of the incorporated areas and established unincorporated communities, and include vast stretches of alfalfa, rice, and tomato fields as well as other varieties of field crops and tree crops. The landscape within this subarea is predominantly flat, with expansive views of cultivated fields uninterrupted by natural or constructed landforms or significant development. Adding to the visual character of this subarea are intermittent farm implement storage and agricultural industrial buildings, including barns, processing facilities, and outdoor storage areas, which give the Valley Floor subarea a truly rural character.

Currently, Yolo County has no designated federal or State Scenic Highways however, State Route 128 is state listed as eligible for designation as a State Scenic Highway. There are no local scenic highways designated by Yolo County within the Project area (Yolo County 2009a).

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The landscapes and visual features of the County are of predominantly local importance and the County does not host significant numbers of viewers (Yolo County 2009a). The County's scenic areas, vistas, and views are predominantly accessible by the County's locally designated scenic highways. The Project is not located on or near a County designated scenic highway. Views from the Project location include the valley-foothill riparian vegetation associated with Dry Slough. Construction of the Project is anticipated to require the removal of native and non-native trees and vegetation associated with Dry Slough.

The proposed vegetation removal will result in a minor change to the views of the Project site. Upon completion of the Project, existing views will be maintained. The proposed improvements are consistent with the existing land use and aesthetic features of the area. The proposed bridge replacement will not result in a substantial adverse impact to any scenic vistas. Project impacts are less than significant.

b) ***Less Than Significant Impact.*** Currently Yolo County has no designated federal or State Scenic Highways however, State Route 128 is state listed as eligible for designation as a State Scenic Highway. See also discussion under item a) above.

c) ***Less Than Significant Impact.*** See discussion of a) and b) above.

d) ***No Impact.*** The Project does not include lighting or surfaces which would contribute to glare, therefore there is no impact.

Mitigation Measures: None required.

5.2 **Agricultural and Forestry Resources**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The Project is located in an agricultural area of County jurisdiction. A Farmlands Study Memo was developed for the proposed Project (Appendix A). There is 0.33 acres of farmland designated as Prime as defined by the Farmland Mapping and Monitoring Program (FMMP) within the Project site. The remainder of Project site is located within an area of Urban and Built-up Land as defined by the FMMP. The parcel to the west of CR 96 (APN 037-010-028) is primarily designated as Prime Farmland, with a portion designated as Urban and Built Up Land contained within the project site and is enrolled in the Williamson Act. Similarly, the parcel to the east of CR 96 (APN 037-010-035) is primarily designated as Prime Farmland and is also enrolled in the Williamson Act.

It is anticipated that no Williamson Act contracts will be terminated, although the aforementioned parcels (APNs 037-010-028 on the west side and 037-010-035 on the east side) of CR 96 may require minor contract revision due to temporary construction easements and minor loss of land resulting from right-of-way acquisitions, if necessary. It is anticipated that 0.06 acre of temporary construction easement and 0.15 acre of

permanent right of way acquisition on parcel 037-010-028 and 0.09 acre of temporary construction easement and 0.05 acre of permanent right of way acquisition on parcel 037-010-035 will be required. The remaining acreage on both parcels (APNs 037-010-028 and 037-010-035) under contract will remain in the Williamson Act

Government Code §51295 states that when a public improvement project acquires or modifies only a portion of a parcel of land subject to a Williamson Act contract, the contract is deemed null and void only as to that portion of the contracted farmland removed. The remaining land continues to be subject to the contract unless it is adversely affected with property acquired by eminent domain or in lieu of eminent domain. Section 15206(b)(3) of the California Environmental Quality Act Guidelines identifies the cancellation of 100 acres or more of an open space contract under the Williamson Act by a project as constituting a project of statewide, regional, or areawide significance. As stated above, it is anticipated that no Williamson Act contracts will be terminated, although parcels currently enrolled (APNs 037-010-028 and 037-010-035) will require minor revisions to their contracts due to the new right of way acquisitions resulting from fill slope intrusions onto adjoining properties.

The Project will not result in any impacts to agricultural improvements that might be needed for the cultivation of the affected parcels, such as wells or canals. Title 49 of the Code of Federal Regulation Part 24 Uniform Relocation Assistance and Real Property Acquisition Act (URA) for Federal and Federally-assisted Programs (section 24.102 Basic Acquisitions policies or section 24.103 Criteria for appraisals) would apply to the compensation for improvements and the need to pay for salvage value. These sections would apply to the compensation to landowners for any right of way acquisition due to Project activities. Accordingly, the landowners would be compensated to replace any affected improvements.

When farmland is affected on State-funded projects, Caltrans consults with the U.S. Department of Agriculture's Natural Resources Conservation Service. Caltrans uses the U.S. Department of Agriculture's Farmland Conversion Impact Rating Form NRCS-CPA-106 to determine impacts to farmland. The evaluation form is submitted to the U.S. Department of Agriculture's Natural Resources Conservation Service, which assigns a score for a site's relative value. The Natural Resources Conservation Service returns the evaluation form, and Caltrans completes a site assessment with the score assigned from the Natural Resources Conservation Service. A combined score in part V and part VI under 160 indicates no further consideration for protection. A total score of between 160 and 220 requires two alternative corridors to be evaluated. The proposed Project will permanently impact 0.33 acres of prime farmland. A Farmland Conversion Impact Rating Form was submitted to Caltrans to utilize and consult with the Natural Resource Conservation Service. Based on the amount of impacts to farmlands, the U.S. Department of Agriculture's Farmland Conversion Impact Rating was 185, above the 160 score threshold for minimal impacts. The Farmland Protection Policy Act (Title 7 Code of Federal Regulation 658.4(c)(3)), states that "sites receiving scores totaling 160 or more be given increasingly higher levels of consideration for protection," and therefore a review of alternatives was required to evaluate impacts to farmlands.

The alternatives analysis for farmland impacts included the review of two alternatives and a no-project alternative. The first alternative (Proposal/Alternative B) considered for this plan, but dropped from consideration, was to utilize standard drainage ditch slopes which resulted in a larger impact to farmlands and associated resources. Alternative A was developed to increase the slope of the drainages with the intended goal of reducing the total impact on the surrounding farmland. Implementing this alternative would not have a negative impact on the purpose of this project to improve public safety by widening and improving the

shoulders along County Road (CR) 98. Increasing the slope of the drainages reduces the impacts to FMMP farmland to 0.33 acres. The third alternative is a no project alternative. The no project alternative does not meet the operational and safety goals established in the County's General Plan or SACOG's Metropolitan Transportation Plan, to provide a corridor that meets the travel demand model and vehicle miles travelled (VMT) reduction and therefore does not meet the project purpose and is removed from consideration.

The Yolo County Agricultural Conservation and Mitigation Program (Yolo County Ordinance §8-2404) requires mitigation for conversion of agricultural lands to predominately non-agricultural use. Section 8-2404 (c)(2)(ii) of the ordinance allows for facilities and infrastructure that do not generate revenue to be exempt from farmland conversion mitigation requirements.

Yolo County does not have a specific threshold of significance to assess potentially significant impacts to farmland. However, the County has established different criteria for protecting farmland in different contexts. First, the County's Agricultural Conservation and Mitigation Program (Sec. 8-2.404 & 405) sets an impact threshold of 20 acres for projects to require the acquisition of a permanent conservation easement, rather than the payment of in-lieu fees. Second, the County's Agricultural Zoning Regulations (Sec. 8-2.302) sets forth minimum parcel size requirements for creating new parcels in the agricultural zones of 40 acres for irrigated parcels in permanent crops, 80 acres for irrigated parcels, and 160 acres for uncultivated and not irrigated. Similarly, the County does not allow new Williamson Act contracts that are less than 40 acres of irrigated farmland; 80 gross acres where the soils are capable of cultivation but are not irrigated; and 160 acres where the soils are not capable of cultivation. Finally, the County's Williamson Act Guidelines determine a project's compatibility with agriculture based on the principles of compatibility in Government Code section 51238.1:

> (1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves.
>
> (2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.
>
> (3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Accordingly, significance under CEQA can be evaluated through a three-step evaluation: 1) does the Project remove more than 20 acres of farmland, 2) does the Project reduce the farmland to less than 40 acres, or 3) are there aspects of the project that are incompatible with agriculture on the affected parcel(s) or neighboring farmland?

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The proposed Project will permanently impact 0.15 acres and temporarily impact 0.06 acres of land that falls under a Williamson Act contract. There are no known Farmland Conservation Easements that will be impacted by the proposed Project. These permanent impacts to farmland do not remove more than 20 acres of farmland, do not reduce the size of a parcel

to the 40 acres applicable to irrigated farmland, and will not significantly compromise the long-term productive agricultural capability of any parcel, displace any current or foreseeable farming operations, or remove adjacent agricultural or open space land. Due to the relatively minor amount of farmland conversion, this impact is considered to be less than significant.

b) ***Less Than Significant Impact.*** The affected parcels within the Project area are zoned by Yolo County as Agricultural Intensive (A-N) and are designated for Agriculture (AG) in the Yolo County General Plan. Roads are not separately zoned and are included in any zone without the need for a special designation. It is anticipated that 0.06 acre of temporary construction easement and 0.15 acre of permanent right of way acquisition on parcel 037-010-028 and 0.09 acre of temporary construction easement and 0.05 acre of permanent right of way acquisition on parcel 037-010-035 will be required. The removal of Williamson Act contracted land to accommodate the Project is authorized by the California Land Conservation Act, and therefore does not conflict with the Williamson Act (California Department of Conservation 2020).

c) ***No Impact.*** The proposed Project consists solely of a bridge replacement and does not include any rezoning activities.

d) ***Less Than Significant Impact.*** The proposed Project will not result in the loss of, or conversion of, forest land.

e) ***No Impact.*** The Project does not include other activities that could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Mitigation Measures: None required

5.3 **Air Quality**

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The Project area is located in the Sacramento Valley Air Basin (SVAB). The air quality of a region is determined by the air pollutant emissions (quantities and type of pollutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary pollutants are those emitted directly into the air, for example carbon monoxide (CO), and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere; for example, reactive organic gasses (ROG) and nitrogen oxides (NO_X) combine to form ground level ozone, or smog.

Congress established much of the basic structure of the Clean Air Act in 1970 and made major revisions in 1977 and 1990. The Federal Clean Air Act established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed “criteria” pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). Table 2 lists the SVAB attainment status for federal and state criteria pollutants.

Table 1. Attainment Status for SVAB in Yolo County

Pollutant	National Designation	State Designation
Ozone	Nonattainment (8 hr.)	Nonattainment-Transitional
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Nonattainment	Unclassified
CO	Unclassified/ Attainment	Attainment
NO_2	Unclassified/ Attainment	Attainment
SO_2	Unclassified/ Attainment	Attainment
Sulfates	NA	Attainment
Lead	Unclassified/ Attainment	Attainment
Hydrogen Sulfide	NA	Unclassified
Visibility Reducing Particles	NA	Unclassified

(Source: CARB 2021)

Yolo County is currently in nonattainment status for the 8-hour ozone and $PM_{2.5}$ NAAQS. The County is in nonattainment-transitional status for the ozone and nonattainment status for the PM_{10} CAAQS.

The Yolo-Solano Air Quality Management District (YSAQMD) administers the state and federal Clean Air Acts in accordance with state and federal guidelines. The YSAQMD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations. The following YSAQMD rules may apply to the Project:

- **Rule 2.3 Visible Emissions:** The purpose of this rule is to limit the emissions of visible air contaminants to the atmosphere.
- **Rule 2.5 Nuisance:** Prohibits the discharge of air containments which cause injury, detriment, nuisance, or annoyance.
- **Rule 2.11 Particulate Matter:** The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard.
- **Rule 2.28 Cutback and Emulsified Asphalts:** The purpose of this Rule is to limit the emissions of organic compounds from the use of cutback and emulsified asphalts in paving materials, paving, and maintenance operations.
- **Rule 2.32 Stationary Internal Combustion Engines:** The purpose of this Rule is to limit the emission of oxides of nitrogen (NOx) and carbon monoxide (CO) from stationary internal combustion engines.
- **Rule 9.8 Asbestos – Serpentine Rock:** The purpose of this Rule is to limit asbestos emissions to the atmosphere from serpentine rock by prohibiting the use or sale of serpentine rock containing more than one percent (1%) asbestos for surfacing applications.

The YSAQMD sets threshold levels for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources in the *Handbook for Assessing and Mitigating Air Quality Impacts* (the Handbook, YSAQMD 2007). The Handbook identifies the following significance thresholds for use in evaluating criteria air pollutant emissions from project-related activities.

- Reactive Organic Gases (ROG) 10 tons per year (approx. 54.8 pounds per day)
- Oxides of Nitrogen (NOx) 10 tons per year (approx. 54.8 pounds per day)
- Particulate Matter (PM10) 80 pounds per day
- Carbon Monoxide (CO) Violation of State ambient air quality standard

The Project will not increase the capacity of CR 96. Since the Project does not increase the capacity of CR 96, the Project will not result in increased operational vehicular emissions. The air quality analysis below is focused on potential construction related impacts.

Construction emissions were estimated for the Project using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), Version 9.0.0 (Appendix B). The RCEM was developed to estimate emissions from linear projects types including road and bridge construction. The RCEM divides the Project into four 'Construction Periods':

- Grubbing/Land Clearing
- Grading/Excavation
- Drainage/Utilities/Sub-Grade
- Paving

Based on similar road projects, the assumptions presented in Table 2 regarding type of construction equipment and use duration were used in the RCEM. Other Project assumptions used in the RCEM include a total 8-month construction schedule starting in 2023, and equipment assumed to run eight hours per day Results of the RCEM based on the Project assumptions are in Table 3.

Table 2. Construction Equipment and Use Assumptions.

Construction Period	Equipment	
	Quantity (Assumed Running Hrs Per Day)	**Type**
Grubbing/ Land Clearing	1(8)	Crawler Tractors
	2(8)	Excavators
	2(8)	Signal board
Grading/Excavation	1(8)	Crawler Tractors
	1(8)	Excavators
	2(8)	Graders
	2(8)	Roller
	1(8)	Rubber Tired Loader
	2(8)	Scrapers
	2(8)	Signal board
	3(8)	Tractor/Loader
	1(8)	Drill Rig
Drainage/Utilities/Sub-Grade	1(8)	Air Compressor
	1(8)	Generator Set
	1(8)	Grader
	1(8)	Plate Compactor
	1(8)	Pump
	2(8)	Scrapers
	2(8)	Signal Board
	2(8)	Backhoe
Paving	1(8)	Paver
	1(8)	Paving Equipment
	2(8)	Roller
	2(8)	Signal Board
	2(8)	Tractor/Loader

Table 3. Estimated Construction Emissions with Mitigation Options

Project Phases	ROG lbs/day	NOx lbs/day	PM10 Total lbs/day	CO lbs/day
Grubbing/ Land Clearing	0.97	9.34	5.41	9.86
Grading/excavation	4.86	50.18	7.10	40.17
Drainage/utilities/sub-grade	3.52	34.37	6.48	33.04
Paving	1.14	10.92	0.57	14.99
Maximum lbs/day	4.86	50.18	7.10	40.17
Significance Threshold (tons/year)	*10*	*10*	--	--
Significance Threshold lbs/day	*54.8*	*54.8*	*80*	--
Significant?	**No**	**No**	**No**	***N/A***

Notes: Data entered to emissions model: Project Start Year: 2023; Project Length (months): 8; Total Project Area (acres): 1.56; Total Soil Imported/Exported (yd^3/day): 20. PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures. Total PM10 emissions are the sum of *exhaust* and *fugitive dust* emissions.

Potential Environmental Effects

a) ***No Impact.*** A project is inconsistent with the applicable air quality plan if it would result in population and/or employment growth that exceeds growth estimated in the applicable air quality plan. The proposed Project does not include development of new housing or employment centers and would not induce population or employment growth; therefore, the proposed Project would not conflict with or obstruct the implementation of any air quality plan.

b) ***Less Than Significant Impact.*** Yolo County is currently in nonattainment status for the 8-hour ozone and $PM_{2.5,}$ NAAQS as well as the ozone and PM_{10} CAAQS. Project construction would create short-term increases in ROG, NOx, and PM_{10} emissions from vehicle and equipment operation. The RCEM estimates are below the Yolo County CEQA significance threshold of 10 tons per year (54.8 lbs per day) each for ROG and NOx and 80 lbs/day PM_{10}. The Project would not generate additional traffic on CR 96, would not affect intersection operations, and would not result in a potential violation of the CO standard. This impact is considered less than significant.

c) ***Less Than Significant Impact.*** Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Sensitive land uses occur where sensitive individuals are most likely to spend time (e.g., schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities). Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution.

The Project is located west of the City of Davis. The site is in proximity to rural residential land uses and is located about 1.35 miles north of Fairfield Elementary School. Potential sensitive receptors in the Project area consist of rural residential land uses immediately north of the project site. Sensitive individuals who may be in the vicinity of the proposed Project have the potential to be exposed to PM_{10}, $PM_{2.5}$, CO, ROG, and NOx during construction. Adherence to the YSAQMD rules (Rules 2.3, 2.5, 2.11, 2.28, 2.32, and 9.8 as applicable) will limit potential air quality impacts on sensitive receptors. These impacts are considered less than significant.

d) ***Less Than Significant Impact.*** Construction activities would involve the use of construction equipment, which have distinctive odors. Odors from construction activities are considered less than significant because of the limited number of the public affected and the short-term nature of the emissions. The proposed Project would not result in increased production of odors causing compounds beyond the construction period.

Mitigation Measures: None required.

5.4 **Biological Resources**

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

Potential impacts to biological and wetlands resources were evaluated in the following Project documents:

- **Natural Environment Study (NES):** The NES is a standard Caltrans report format for documenting and evaluating the potential Project impacts to biological resources (Gallaway Enterprises 2020a) (See Appendix C).
- **Draft Delineation of Waters of the United States**: This report evaluates and delineates wetland and other waters of the U.S. in the Project area (Gallaway Enterprises 2020b) (See Appendix D).

The documents conclude the following regarding biological resources:

- Modeled habitat for wildlife species covered under the Yolo HCP/NCCP includes western pond turtle (*Emys marmorata*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*).

- There is suitable habitat within the BSA for Swainson's hawk, white-tailed kite, western pond turtle, tricolored blackbird, northern harrier, pallid bat (*Antrozous pallidus*), and migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC).
- The Project area does not provide suitable habitat for special-status plant species.
- The Project will result in impacts to jurisdictional Waters of the United States (WOTUS) under §404 of the Clean Water Act (CWA).
- Permits and authorizations required for the Project include a §404 CWA Nationwide Permit from the U.S. Army Corps of Engineers (Corps), a §401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), a National Pollutant Discharge Elimination System (NPDES) Permit from the RWQCB, and a Fish and Game Code §1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The Project will seek coverage under the Yolo HCP/NCCP.

Yolo Habitat Conservation Plan/Natural Communities Conservation Plan (Yolo HCP/NCCP)

The Yolo HCP/NCCP is a comprehensive, county-wide plan to provide for the conservation of 12 sensitive species and the natural communities and agricultural land on which they depend, as well as a streamlined permitting process to address the effects of a range of future anticipated activities on these 12 species. The Yolo HCP/NCCP refers to the range of future anticipated activities as *covered activities* and the 12 sensitive species covered by this HCP/NCCP as *covered species*.

The Yolo HCP/NCCP Section 4.3, Avoidance and Minimization Measures (AMMs), describes conditions that project proponents must adopt to receive coverage under the Plans. These measures specify how project proponents will avoid and minimize take of covered species during implementation of covered activities and are referred to herein as AMMs. Section 4.3.1, General Project Design, describes AMMs that apply to the design of all development projects. Section 4.3.2, General Construction and Operations and Maintenance, describes AMMs that apply to all construction and operations, and maintenance activities. Section 4.3.3, Sensitive Natural Communities, describes AMMs that are specific to rare or sensitive natural communities, such as the fresh emergent wetland natural community and other natural communities associated with aquatic features, and therefore warrant specific avoidance and minimization measures. Section 4.3.4, Covered Species, describes AMMs that are specific to each covered species.

Physical Conditions

The Project area is located within the Sacramento Valley, west of Davis in unincorporated Yolo County, California. The Project area is composed primarily of existing asphalt roadway, an existing bridge over Dry Slough, and gravel road shoulders. Land within the Project area that occurs outside of the gravel road shoulders is primarily composed of agricultural land and rural residences with associated planted trees and landscape plants. Soils within the Project area consist of silty clay loam. The average annual precipitation for the area is 17.55 inches and the average temperature is 60.4° F (Western Regional Climate Center 2021). The Project area occurs at an elevation of approximately 86 feet above sea level and is sloped between 0 and 2 percent.

There is one drainage (Dry Slough) present within the Project area (See Appendix D: Draft Delineation of Waters of the U.S. Map). There are no wetland features present within the Project site.

Biological Conditions

Land cover types delineated by the Yolo HCP/NCCP within the Project area are Lacustrine and Riverine, Valley Foothill Riparian: Freemont Cottonwood-Valley Oak-Willow, Semi-agricultural/Incidental to Agriculture, Cultivated Lands: Grain and Hay Crops, Developed: Urban or Built Up, and Barren: Anthropogenic.

Per the Project NES, the Project has the potential to affect four (4) HCP/NCCP covered species:

- Western pond turtle (*Emys marmorata*), California Species of Special Concern
- Swainson's hawk (*Buteo swainsoni*), California listed as threatened
- White-tailed kite (*Elanus leucurus*), California Fully Protected species
- Tricolored blackbird (*Agelaius tricolor*), California listed as threatened

The Project also has the potential to affect nesting migratory birds and raptors protected by the MBTA and CFGC, as well as northern harrier and pallid bat, both California Species of Special Concern.

A comprehensive list of species that are known to occur in the region and were evaluated for their potential to occur in the Project area is included in the NES (Appendix C). Field surveys conducted by Conservancy-approved qualified biologists identified the presence of habitat that could support the wildlife listed above.

Yolo HCP/NCCP Designated Land Cover Types within the Project Area

Lacustrine and Riverine

The Lacustrine and Riverine SNC is defined by the Yolo HCP/NCCP as the open water portions of lakes, rivers, and streams. Within the Project area, there is one (1) drainage (Dry Slough) that qualifies as Riverine habitat. The drainage present within the Project area contains mud substrate and exhibits evidence of perennial flows. High-flowing water, likely as a result of the transport of agricultural water, was observed within Dry Slough during the May field visit

Cultivated Lands: Grain and Hay Crops

The Cultivated Lands: Grain and Hay Crops land cover type consists of irrigated and dryland grain and hay crops; predominantly wheat, barley, rye, and oat hay. Grain and hay crops do not conform to normal habitat stages and are regulated by the crop cycle in California. Rodents, birds, and some mammals have adapted to field crops and are controlled by fencing, trapping, and poisoning (Mayer and Laudenslayer 1988).

Valley Foothill Riparian: Fremont Cottonwood-Valley Oak-Willow

The Valley Foothill Riparian: Fremont Cottonwood-Valley Oak-Willow land cover type is designated as a SNC by the Yolo HCP/NCCP and consists of deciduous trees along streams and rivers, dominated by cottonwoods, willows, and oaks, and areas dominated by herbaceous or shrubby riparian vegetation if less than 1 acre in size. Valley foothill riparian habitats provide food, water, migration, and dispersal corridors for fish species, and escape, nesting, and thermal cover for an abundance of other wildlife species. Within the BSA, the Fremont Cottonwood-Valley Oak-Willow land cover type occurs along the banks of Dry Slough.

Semi-agricultural/Incidental to Agriculture

Semi agricultural areas include livestock feedlots, farmsteads, and miscellaneous semi agricultural features such as small roads, ditches, and unplanted areas of cropped fields (e.g., field edges).

Developed: Urban

The Developed: Urban land cover type consists of areas dominated by pavement and building structures, including barren lands graded for development. This environment can present a mosaic of vegetation,

including primarily ornamental landscaping, but can also incorporate native tree species. Generalist and invasive species often occupy urban habitat such as common raven (*Corvus corax*), house sparrow (*Passer domesticus*), and Brewer's blackbirds (*Euphagus cyanocephalus*) as well as small to medium mammals (e.g., raccoon, opossum, striped skunk) (Mayer and Laudenslayer 1988).

Barren: Anthropogenic

Barren lands are areas that are devoid of vegetation. Barren, rock outcrop, levee (tops and riprapped areas), and gravel/sand bars land cover types fall within this general definition. As opposed to the urban land cover type, which is dominated by structures and pavement, barren lands include areas that have been cleared of vegetation and are not closely associated with a human structure.

Impacts to Yolo HCP/NCCP land cover types that occur within the Project area have been quantified below.

Table 4. Impacts to Land Cover Types

Impacts to Land Cover Types		
Land Cover Types	**Permanent Impacts Acres**	**Fee Buffer Acres**
Barren: Anthropogenic	0.001	0.023
Cultivated Land - Grain and Hay Crops	0.000	0.004
Developed: Urban or Built Up	0.728	0.220
Lacustrine and Riverine - Open Water	0.023	0.034
Semi agriculture /Incidental to Agricultural	0.089	0.166
Valley Foothill Riparian: Freemont Cottonwood-Valley Oak-Willow	0.044	0.034
Totals =	**0.885**	**0.482**

Yolo HCP/NCCP Avoidance and Minimization Measures

The Project will implement the following required Yolo HCP/NCCP AMMs into the Project design and the mitigation measures (MM) presented in this document:

- **AMM1: Establish Buffers:** Addressed in MM BIO-6 (Wetlands and Waters)
- **AMM2: Design Developments to Minimize Indirect Effects at Urban-Habitat Interfaces**
- **AMM3: Confine and Delineate Work Area:** Addressed in MM BIO-6 (Wetlands and Waters), and MM BIO-6 (Establish Buffers around Sensitive Natural Communities),
- **AMM4: Cover Trenches and Holes during Construction and Maintenance:** Addressed in MM BIO-1 (Western Pond Turtle).
- **AMM5: Control Fugitive Dust:** This Yolo HCP/NCCP AMM is addressed through adhering to YSAQMD Rules in section 5.3 above.

- **AMM6: Conduct Worker Training:** Addressed in MM BIO-8 (Worker Environmental Training Program).
- **AMM7: Control Nighttime Lighting of Project Construction Sites:** Addressed in MM BIO-9 (Control Nighttime Lighting).
- **AMM8: Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas:** Addressed in MM BIO-6 (Wetlands and Waters), and MM BIO-7 (Establish Buffers around Sensitive Natural Communities).
- **AMM9: Establish Buffers around Sensitive Natural Communities:** Addressed in MM BIO-6 (Wetlands and Waters), and MM BIO-7 (Establish Buffers around Sensitive Natural Communities).
- **AMM10: Avoid and Minimize Effects on Wetlands and Waters:** Addressed in MM BIO-6 (Wetlands and Waters), and MM BIO-7 (Establish Buffers around Sensitive Natural Communities).
- **AMM14: Minimize Take and Adverse Effects on Habitat of Western Pond Turtle:** Addressed in MM BIO-1 (Western Pond Turtle).
- **AMM16: Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-Tailed Kite:** Addressed in MM BIO-2 (Swainson's Hawk and White-Tailed Kite).
- **AMM21: Minimize Take and Adverse Effects on Habitat of Tricolored Blackbird:** Addressed in MM BIO-3 (Tricolored Blackbird).

Potential Environmental Effects

a) ***Less Than Significant with Mitigation Incorporated***

Special-Status Wildlife Species:

Western pond turtle (*Emys marmorata*): The western pond turtle is a Species of Special Concern (SSC) in California and is a covered species under the Yolo HCP/NCCP. There is suitable habitat for western pond turtle present within the Lacustrine and Riverine habitat types within the Project area.

Implementation of MM BIO-1 (Western Pond Turtle), which incorporates Yolo HCP/NCCP AMMs 4 and 14 (Cover Trenches and Holes during Construction and Maintenance; Minimize Take and Adverse Effects on Habitat of Western Pond Turtle), will reduce potential impacts to western pond turtle by minimizing potential entrapment to less than significant. Implementation of MM BIO-5 (Wetlands and Waters), and MM BIO-6 (Sensitive Natural Communities), and MM BIO-7 (Worker Environmental Training Program) will also reduce potential impacts to western pond turtle by avoiding environmentally sensitive areas and sensitive natural communities, and requiring that all construction personnel be properly trained in avoidance measures. Thus, impacts would be reduced to a less than significant level.

Nesting Migratory Birds and Raptors: The Project area provides potential nesting sites for birds listed under the federal MBTA, the State Migratory Bird Policy Act (MBPA) of 2019, and regulated by the Yolo HCP/NCCP and the CFGC. Depending on the species, birds may nest in trees, shrubs, in or on the ground, and on artificial structures such as buildings, culverts, headwalls, poles, and signs.

The planning level surveys determined that potentially suitable habitat for Yolo HCP/NCCP-covered bird species including Swainson's hawk, white-tailed kite, and tricolored blackbird occurs within or adjacent to the Project area. The removal of trees in the Project site has the potential to impact nesting sites.

Implementation of MM BIO-2 (Swainson's Hawk and White-Tailed Kite) and MM BIO-3 (Tricolored Blackbird) will reduce potential impacts to Swainson's hawk, white-tailed kite, and tricolored blackbird by requiring preconstruction surveys to identify active nests and/or presence of species. Impacts will be reduced to a less than significant level.

MM BIO-4, addressed below in more detail, provides for preconstruction surveys for other birds protected by the MBTA or California Fish and Game Code. Implementation of MM BIO-4 will reduce potential impacts to nesting migratory birds and raptors by restricting project activities and vegetation removal, thereby reducing impacts to a less than significant level.

Implementation of MM BIO-5 (Wetlands and Waters), and MM BIO-6 (Sensitive Natural Communities), and MM BIO-7 (Worker Environmental Training Program) will also reduce potential impacts to Swainson's hawk, white-tailed kite, tricolored blackbird, and nesting migratory birds and raptors by avoiding environmentally sensitive areas and sensitive natural communities, and requiring that all construction personnel be properly trained in avoidance measures. Thus, impacts would be reduced to a less than significant level.

Pallid bat (*Antrozous pallidus*): Pallid bats are designated as a CDFW SSC. Pallid bats roost alone, in small groups (2 to 20 bats), or gregariously (100s of individuals). Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings. Roosts generally have unobstructed entrances/exits, and are high above the ground, warm, and inaccessible to terrestrial predators.

There is bachelor day-roosting habitat within tree crevices and peeling bark within the BSA, as well as in plugged drainage holes in the existing bridge over Dry Slough. During the May 29, 2020 field visit, Gallaway Enterprises' biologist found evidence of bats roosting in the existing Dry Slough bridge. The species of bats were not identified. There is one (1) CNDDB occurrence within 5 miles of the BSA (#312). This occurrence was recorded in 1964 in the City of Davis. The majority of bats are not recorded on the CNDDB due to low detectability and widespread abundance.

MM BIO-5 (Bat Avoidance and Minimization), addressed below, provides conditions on the timing of mature tree and bridge removal activities and measures such as preconstruction surveys prior to the start of construction to avoid and minimize impacts, thereby reducing impacts to a less than significant level.

b) ***Less Than Significant with Mitigation Incorporated.*** The Project area contains Sensitive Natural Communities designated by the Yolo HCP/NCCP: Lacustrine and Riverine and Valley Foothill Riparian. Drainages within the Project area are potential waters of the United States (WOTUS) and State. Impacts to Wetlands and Waters are discussed under Item c) below.

Valley Foothill Riparian: A narrow band of valley foothill riparian vegetation occurs along the steep banks of Dry Slough within the Project site. Project implementation will result in 0.044 acre of permanent impact to Valley Foothill Riparian SNC in the Project area resulting from installation of the bridge structure. Several trees will be removed as part of the proposed Project. Healthy trees will be retained and avoided to the extent practicable while maintaining safe design considerations for the proposed facilities. To ensure impacts to tree resources are maintained as a less than significant level, implementation of MM BIO-9 (Tree Removal Documentation and Replacement) is required.

Yolo HCP/NCCP AMM9 (Establish Buffers around Sensitive Natural Communities, Valley Foothill Riparian) states that a 100 ft. buffer will be provided from the canopy dripline of Valley Foothill Riparian habitat. AMM9 then goes on to state that '*Transportation or utility crossings may encroach into this sensitive natural community provided effects are minimized and all other applicable AMMs are followed.*' This bridge replacement Project cannot completely avoid impacts to Valley Foothill Riparian in the Project area. The Project will implement all applicable Yolo HCP/NCCP AMMs as listed above and below.

Lacustrine and Riverine: The Project site contains a portion of Dry Slough which is categorized as Riverine SNC. Dry Slough has been altered for agricultural use and surrounding urbanization of the area; however, it is considered open water land cover type within the Lacustrine and Riverine SNC when water is present. The proposed Project will be limited to the replacement of the existing bridge and conforming approach roadwork within the Project area. Approximately 0.023 acres of Lacustrine and Riverine SNC will be permanently impacted by Project activities.

Implementation of MM BIO-6 (Wetlands and Waters) and MM BIO-7 (Sensitive Natural Communities) will reduce potential impacts to SNCs through avoidance and minimization of impacts, payment of Yolo HCP/NCCP fees, acquiring applicable permits and fulfilling compensatory mitigation requirements to less than significant levels. Implementation of MM BIO-8 (Worker Environmental Training Program) will also reduce potential impacts to Sensitive Natural Communities by requiring that all construction personnel be properly trained in avoidance measures. Thus, impacts would be reduced to a less than significant level.

c) ***Less Than Significant with Mitigation Incorporated.*** The Project area contains 0.08 acres of potential waters of the U.S. and State and the Project proposes to directly impact 0.023 acres of potentially jurisdictional waters as a result of the Project.

Construction has the potential to temporarily impact water quality and fill state and federally protected waters. During construction, water quality will be protected by implementation of Best Management Practices. Implementation of MM BIO-6 (Wetlands and Waters) will reduce potential impacts to State and federally protected waters and wetlands through avoidance and minimization of impacts, payment of Yolo HCP/NCCP fees, acquiring applicable permits and fulfilling compensatory mitigation requirements to less than significant level. Implementation of MM BIO-7 (Sensitive Natural Communities) and MM BIO-8 (Worker Environmental Training Program) will also reduce potential impacts to State and federally protected waters by requiring that all construction personnel be properly trained in avoidance measures. Thus, impacts would be reduced to a less than significant level.

d) ***Less Than Significant with Mitigation Incorporated.*** Construction of the Project could temporarily disrupt movement of native wildlife species that occur in or adjacent to the Project area. In the event that lighting is required for either nighttime work or security reasons, lighting may be detrimental to

native species. Both short- and long-term light exposure could affect wildlife. Short-term exposure to bright lights could temporarily reduce visual capacity in some species, making them vulnerable to predation. Longer-term night lighting could disorient wildlife, alter foraging and reproductive behaviors, increase predation risk, and inhibit movement to and from breeding areas by stimulating light-seeking behavior During Project construction, wildlife will be able to move around the Project area or move through it at night. Additionally, once construction is complete the Project area will be restored and wildlife will continue to be able to move around the Project area, similar to existing conditions. Therefore, the Project would not interfere substantially with the movement of native fish and wildlife, resulting in a less than significant impact. Although construction disturbance may temporarily hinder wildlife movements within the Project area, the impact is less than significant due to its short-term nature and its alignment on the existing roadway. Due to the potential use of nighttime lighting, there may be interference with wildlife species visual capacity, foraging and reproductive behaviors resulting in a potential impact. With the implementation of MM BIO-10 Control Nighttime Lighting which implements Yolo HCP/NCCP AMM7 (Control Nighttime Lighting of Project Construction Sites) potential impacts from nighttime lighting on species and adjacent habitats will be minimize. impacts would be reduced to a less than significant level.

e) ***Less Than Significant with Mitigation Incorporated.*** The 2030 Countywide General Plan contains Conservation policies that protect biological resources, including Policy CO-2.3, which encourages the preservation and enhancement of biological communities such as heritage valley oaks, remnant valley oak groves and roadside tree rows. A heritage tree preservation ordinance has not yet been adopted by the County. Several trees in the Project corridor that are planned for removal as part of the proposed Project are not of composition to be considered a remnant valley oak grove. Some of the trees that are planned for removal are in a roadside tree row configuration, but do not embody the size or linear continuity characteristic of high value roadside tree rows found in other parts of the County. Seventeen (17) trees are proposed for removal, including sixteen (16) Italian Cyprus and one (1) cedar. The 17 trees proposed for removal are located at the southeast corner of the bridge. To document the number of trees removed and to ensure that impacts to tree resources are minimized and mitigated, MM BIO-9 Tree Removal Documentation and Replacement is required. There will be no conflicts with local policies or ordinances that regulate or protect biological resources in the Project area; therefore, the Project would not conflict with any local policies or ordinances protecting biological resources. The Project does not conflict with any local policies or ordinances protecting biological resources. See also discussion below regarding the Yolo HCP/NCCP. With the implementation of MM BIO-9 Tree Removal Documentation and Replacement, the County will ensure that all trees proposed for removal will be documented, a plan for replacement will be developed and implemented and trees retained will receive adequate avoidance and minimization measures during construction activities. Thus, impacts would be reduced to a less than significant level.

f) ***No Impact.*** The Yolo HCP/NCCP addresses public and private activities and the protection of 12 covered species and the land on which these species depend within Yolo County. The Yolo HCP/NCCP ensures compliance with the federal Endangered Species Act (ESA), Natural Communities Conservation Planning Act (NCCPA), and CESA for covered activities that may affect the covered species. Pursuant to Section 10(a)(1)(B) of ESA and Section 2835 of the NCCPA chapter of the California Fish and Game Code (Fish & Game Code), the Yolo HCP/NCCP provides Permittees

(i.e., Yolo County, the four incorporated cities, and the Conservancy) with incidental take permits for the 12 covered species.

The Project is a rural infrastructure project and is a "covered activity" under the HCP/NCCP. The Project will be implemented in compliance with permit requirements and conditions as well as avoidance and minimization measures that are listed in the HCP/NCCP. As applicable, the Project will pay mitigation fees for the acreage of land-cover types that are impacted by the Project and implement project-specific AMMs. The Project-specific Yolo HCP/NCCP AMMs that apply to the Project are AMMs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 16, and 21, which are described above and noted with the associated mitigation measures as applicable. Through adherence to the terms of the HCP/NCCP, which include payment of mitigation fees and implementation of the listed AMMs, there will be no conflict with the HCP/NCCP and no impact as it relates to this topic.

Mitigation Measures:

MM BIO-1 – Western Pond Turtle

Implements Yolo HCP/NCCP AMMs 4 and 14: Cover Trenches and Holes during Construction and Maintenance; Minimize Take and Adverse Effects on Habitat of Western Pond Turtle

The following measures will reduce potential impacts to western pond turtles:

- A pre-construction survey for western pond turtle shall be conducted by a qualified biologist. If a western pond turtle nest is identified during the survey, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist. The County will inform CDFW if the nest cannot be avoided and such an activity must occur.
- If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground-disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.
- To prevent injury and mortality of western pond turtle, workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.

MM BIO-2 – Swainson's Hawk and White-Tailed Kite

Implements Yolo HCP/NCCP AMM16: Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-Tailed Kite

The following avoidance and minimization measures will be implemented to minimize the potential for adverse impacts on Swainson's hawk and white-tailed kite to the maximum extent possible:

- The Project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 1 and August 30, with the final survey conducted no more than 3 days prior to the beginning of the construction activity. The results of the survey(s) will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If Project-related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the Project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

MM BIO-3 – Tricolored Blackbird

Implements Yolo HCP/NCCP AMM21: Minimize Take and Adverse Effects on Habitat of Tricolored Blackbird

The following avoidance and minimization measures will be implemented to minimize the potential for adverse impacts on tricolored blackbird to the maximum extent possible:

- The qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008).
- If active colony is present or has been present within the last 5 years, implement a species protection buffer within 1,300 feet of the colony site(s) from March 1 to July 30, unless a shorter distance is approved, based on site-specific conditions, by the Conservancy and CDFW.

MM BIO-4 – Special-Status Bird Species, Migratory Birds, and Raptors

The following measures will be implemented to further reduce the potential for impacts on special-status and migratory birds and raptors that may nest in or near the Project area, including northern harrier:

- Project activities and vegetation removal within the Project area shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities and vegetation removal cannot be initiated outside of the bird nesting season than the following will occur:
    - A qualified biologist will conduct a pre-construction survey within 3 days prior to the initiation of Project activities.

- If an active avian nest (i.e., with egg[s] or young) is observed within 250 feet of the Project area during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored once per week and a report submitted to the lead agency weekly.

MM BIO-5 – Bat Avoidance and Minimization The following measures will be implemented to further reduce the potential for impacts on bats that may roost in the Project area.

- Mature trees and the existing bridge structure should be removed and/or fallen between September 16 – March 15 outside of the bat maternity season. Trees and existing bridge structure should be removed at dusk to minimize impacts to roosting bats.
- If tree and existing bridge structure removal cannot be performed outside of the maternity season:
  - A bat exclusion plan, approved by CDFW, may be drafted and implemented in order to exclude the species from the habitat, or;
  - A qualified biologist shall conduct a preconstruction survey of suitable roosting habitat within 7 days prior to construction activities.
    - If bats are found, consult with CDFW.
    - If no bats are found tree and existing bridge structure removal can proceed.
- If bridge removal cannot be performed outside of the maternity season, a bat exclusion plan shall be developed and implemented to prevent bat species from roosting within the existing bridge. The exclusion plan shall be submitted to CDFW for review prior to implementation.

MM BIO-6 – Wetlands and Waters

Implements Yolo HCP/NCCP AMMs 1, 2, 3, 8, 9, and 10: Establish Buffers around Sensitive Natural Communities; Confine and Delineate Work Area to Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas; Avoid and Minimize Effects on Wetlands and Waters

The following measures shall be implemented to avoid or minimize the potential for Project-related impacts on wetlands and waters:

- The County will comply with the terms of a Clean Water Act Section 404 permit issued by the Corps and Section 401 water quality certification issued by the RWQCB for activities involving the discharge of fill material into jurisdictional drainages. The County will also comply with terms of a Streambed Alteration Agreement with the CDFW (if determined necessary by the CDFW). Prior to any discharge into drainages, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.
- Water quality BMPs will be installed around Dry Slough in a manner that prevents water, sediment, and chemicals from draining into the feature, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the drainage.

- Mitigation for 0.023 acres (50.3 linear feet) of permanent impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps-approved in-lieu fund.
- Impacts to Riverine Sensitive Natural Community will be mitigated for through the Yolo HCP/NCCP Natural Community and Land Cover Impacts Mitigation Fees. The specific acreage of compensatory mitigation credits are subject to change depending on consultation with the USFWS and the Conservancy.

MM BIO-7 – Sensitive Natural Communities

Implements Yolo HCP/NCCP AMM9, Establish Buffers around Sensitive Natural Communities

Environmentally Sensitive Area (ESA) fencing will be established around the following Sensitive Natural Communities where they occur within or adjacent to the Project area, when feasible. These areas will be identified on construction drawings and demarcated in the field with flagging and/or signs identifying the area as off limits to all personnel, equipment, and ground-disturbing activities.

Per Yolo HCP/NCCP AMM9, the buffers for each Sensitive Natural Community are as follows:

- Valley foothill riparian: 100 feet from canopy dripline. If avoidance is infeasible, a lesser buffer than is stipulated in the AMMs may be approved by the Conservancy, USFWS, and CDFW if they determine that the sensitive natural community or covered species is avoided to an extent that is consistent with the Project purpose (e.g., if the purpose of the Project is to provide a stream crossing or replace a bridge, the Project may encroach into the buffer and the natural community or species habitat to the extent that is necessary to fulfill the Project purpose). Transportation or utility crossings may encroach into this sensitive natural community provided effects are minimized and all other applicable AMMs are followed.
- Lacustrine and riverine: Outside urban planning units, 100 feet from the top of banks. Within urban planning units, 25 feet from the top of the banks.

MM BIO-8 – Worker Environmental Training Program

Implements Yolo HCP/NCCP AMM6: Conduct Worker Training

- All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.

MM BIO-9 – Tree Removal Documentation and Replacement

The following measures shall be implemented to compensate for the removal of protected trees and to avoid or minimize the potential for Project-related impacts on tree resources.

- Final plans will identify the number, size, and species of protected trees to be removed and include a planting plan, to ensure replacement of trees in a manner consistent with County and Resource Agencies policies. If replanting cannot completely compensate for the number of trees removed within the Project site or on County managed land, purchase of compensatory mitigation credits will be required for the remainder of trees. The replanting plan must be approved by the County and any compensatory mitigation credits for tree resources must be purchased prior to vegetation clearing activities.
- A plan for avoidance and minimization of trees that are in the area of direct impact, but not removed shall be developed by an International Society of Arboriculture (ISA) Arborist and implemented by the County prior to vegetation clearing activities and throughout the construction of the Project.

MM BIO-10 Control Nighttime Lighting

Implements Yolo HCP/NCCP AMM7: (Control Nighttime Lighting of Project Construction Sites

- Workers will direct all lights for nighttime lighting of Project construction sites into the Project construction area and minimize the lighting of natural habitat areas adjacent to the Project construction area.

5.5 **Cultural Resources**

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource pursuant to§15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Environmental Setting

Record Search

An Archeological Survey Report (ASR) (Gallaway Enterprises 2021d) and a Historical Property Survey Report (HPSR) (Gallaway Enterprises 2021c) were prepared for the Project (Appendix E).

Gallaway Enterprises conducted a cultural resources study of Project area. Gallaway Enterprises requested a records search from the Northwest Information Center (NWIC) of the California Historical Resources Information System on November 20, 2020. The search included all previously recorded cultural resources and reports within a half mile radius of the APE. The record search was conducted to determine if any portion of the Project has been previously surveyed and if any cultural resources have been previously recorded within the Project APE. Additional archival research included the California Register of Historic Resources, the National Register of Historic Places, historic topographic maps, historical documentation, and BLM GLO records.

Results of the record search indicate no previous cultural resource assessments occur within a half mile of the APE or within the APE.

Archival Research

In addition to the record search, various historical maps, topographic quadrangles, land grants, and patents, Gallaway Enterprises reviewed the following resources:

- National Register of Historic Places (NRHP)
- California Register of Historic Resources (CRHR)
- General Land Office Plat maps and land patents
- Historic United States Geological Survey (USGS) topographic maps
- Yolo Historical Society
- Hattie Weber Museum
- Yolo County Library

Archival research indicates the bridge was previously assessed as part of the Caltrans statewide historic bridge inventory program. As a result of the Caltrans historic bridge inventory program, the bridge at CR 96 over Dry Slough Bridge # 22C0127, was determined not eligible for the National Register as a category 5 bridge. No properties listed within the NRHP and CRHR fall within the Project boundary.

The entire APE is comprised of paved road, agricultural land, or private residence approaches, which have been heavily modified and disturbed by construction and agricultural related activities. Agricultural properties and home sites abut the entire APE. Ongoing disturbance and development within the APE greatly reduce the likelihood of intact cultural deposits. The Project area appears to contain lands with low to moderate sensitivity for intact prehistoric and historic period sites and/or features.

Native American Consultation

Gallaway Enterprises contacted the Native American Heritage Commission (NAHC) to request sacred lands file search and contact list. On October 20, 2020, the NAHC returned a negative result for sacred lands within the Project APE. Additionally, the NAHC listed three Native American tribes who may have knowledge of sites or traditionally cultural properties that may be affected by Project-related activities. All tribes listed were contacted via letter on October 30, 2020 informing them of the proposed Project and to request participation of interested parties.

One response was received by the Yocha Dehe Wintun Nation. The Project boundary lies within the aboriginal territories of the Yocha Dehe Wintun Nation who claimed authority over the proposed Project area. The Tribe is not aware of any cultural sites within the Project APE and expressed there are no concerns with the current Project. Should cultural material or new information be discovered during the course of the Project, the Tribe requests notification. Additionally, the Tribe recommended cultural sensitivity training prior to construction related activities.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Research and evaluation of historical resources were conducted as part of the ASR and HPSR documents. The research and findings contained within the aforementioned documents concluded that no resources required evaluation. Archival research indicates the bridge was previously assessed as part of the Caltrans statewide historic bridge inventory program. As a result of the Caltrans historic bridge inventory program, the bridge at CR 96 over Dry Slough Bridge # 22C0127 was determined not to be eligible for the National Register as a category 5 bridge. No properties listed within the NRHP and CRHR fall within the Project boundary. Reliance on California Public Resources Code Sections 5097.5 will ensure that inadvertent discoveries will remain at a less than significant level.

b) ***Less Than Significant Impact.*** Research and evaluation of archaeological resources were conducted as part of the ASR document. The research and findings contained within the aforementioned document concluded that no resources required evaluation. Due to the developed character of the site, the potential to encounter surface-level archaeological resources is considered low. However, there is the potential for accidental discovery of archaeological resources. In the event that resources are inadvertently discovered, California Public Resources Code Sections 5097.5 prohibits further excavation, removal, or destruction of any historic or prehistoric ruins, burial grounds, archaeological or historical feature and requires the County to follow the professional standards for determining commercial and archaeological value, in accordance with those procedures established in the federal Archaeological Resources Protection Act of 1979 (Public Law 96-95), as amended, and in

compliance with the Uniform Regulations set forth in Subpart A (commencing with Section 7.1) of Part 7 of Title 43 of the Code of Federal Regulations. Reliance on California Public Resources Code Sections 5097.5 will ensure that inadvertent discoveries will remain at a less than significant level.

c) ***Less Than Significant Impact.*** The ASR and HPSR documents show that that no known cemeteries or burials occur within the Project area of direct impact. In the event of discovery or recognition of any human remains within the Project site, California Health and Safety Code Section 7050.5 requires excavation to cease in the vicinity of the discovery until the coroner of the County has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Reliance on California Health and Safety Code Section 7050.5 and Section 5097.98 of the Public Resources Code will ensure that inadvertent discoveries will remain at a less than significant level.

Mitigation Measures: None Required

5.7 **Energy**

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Potential Environmental Effects

a) ***Less Than Significant Impact.*** All construction equipment would be regulated per the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. CARB standards for construction equipment includes measures to reduce emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles, thereby having a secondary benefit of reducing energy consumption during construction activities.

Project construction would also be required to comply with all applicable YSAQMD rules and regulations. Future maintenance activities (e.g., vegetation control) would likely involve the use of electric or gas-powered equipment.

The Project would be required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that the future activities would be energy efficient to the maximum extent practicable. The Project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and impacts related to construction and operational energy would be considered less than significant.

b) ***Less Than Significant Impact.*** Yolo County has taken steps to reduce overall emissions in the County to reduce GHG emissions and address economic and social adaptation to the effects of climate change. The County's General Plan policies and Climate Action Plan (CAP) address these issues. To demonstrate project-level compliance with CEQA relevant to GHG emissions and climate change impacts, applications for discretionary projects must demonstrate consistency with the General Plan and CAP. Implementation of the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Adherence to the YSAQMD rules (Rules 2.3, 2.5, 2.11, 2.28, 2.32, and 9.8 as applicable) will limit potential construction related GHG impacts. These impacts are considered less than significant.

Mitigation Measures: None required.

5.8 **Geology and Soils**

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Environmental Setting

The Project area is located on the floor of the Central Valley, where the topography is relatively flat and level and there are no nearby active faults.

According to the 2030 Countywide General Plan, the only fault in Yolo County that has been identified by the California Division of Mines and Geology (1997) to be subject to surface rupture (within an Alquist-Priolo Earthquake Fault Zone) is the Hunting Creek Fault, which is partly located in a sparsely inhabited area of the extreme northwest corner of the County. Most of the fault extends through Lake and Napa Counties. The other potentially active faults in the County are the Dunnigan Hills Fault, which extends west of I-5 between Dunnigan and northwest of Yolo, and the more recently identified West Valley and East Valley Faults (Fault Activity Map of California, California Geological Survey, 2010), which are also not in the vicinity of the proposed Project. These faults are not within an Alquist-Priolo Earthquake Fault Zone and are therefore not subject to surface rupture. Crawford & Associates, Inc. developed a draft Foundation Report for the proposed Project (Crawford & Associates, Inc. 2020), which presents the results of subsurface exploration and testing,

engineering analysis, conclusions and recommendations for use in design and construction of the new bridge structure foundations and approach roadway sections.

Potential Environmental Effects

a) ***a-i) Less Than Significant Impact.*** The site does not lie within an Alquist-Priolo Earthquake Fault Zone and no known active faults are mapped within or through the Project area. The Hunting Creek Fault is the only fault in the County that has been identified by the CGS to be active and subject to surface rupture (i.e., is delineated as an Alquist-Priolo Earthquake Fault zone) (Yolo County 2009b). Given the nature of the Project and the distance to the known active fault location, impacts are considered less than significant.

a-ii) Less Than Significant Impact. Earthquake shaking hazards are calculated by projecting earthquake rates based on earthquake history and fault slip rates, the same data used for calculating earthquake probabilities (California Department of Conservation 2020a). Calculations of earthquake shaking hazards for California are part of a cooperative project between USGS and California Geologic Survey (CGS) and are part of the National Seismic Hazard Maps. Yolo County General Plan DEIR Figure IV.L-4 (Regional Ground Shaking Hazard) shows potential seismic shaking based on National Seismic Hazard Map calculations plus amplification of seismic shaking due to the near surface soils. Per Figure IV.L-4 the Project is located in a region where shaking hazards that are '*distant from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.*' The draft Foundation Report (Crawford & Associates, Inc. 2020) concluded there are no over-riding geologic hazards identified and impacts are considered less than significant.

a-iii) Less Than Significant Impact. The proposed Project involves the replacement of an existing bridge which will bring the structure up to current design and safety standards. The proposed Project will not directly or indirectly cause potential adverse effects including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction. Impacts are considered less than significant.

a-iv) Less Than Significant Impact. The Project is located on relatively flat ground. No over-riding geologic hazards, including landslides were identified by either published geologic mapping or observations made at the site. Impacts are considered less than significant.

b) ***Less Than Significant Impact.*** Construction of the proposed Project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. Overall soil erosion and loss would be minimal with implementation of standard construction practices for dust control, erosion and stormwater pollution prevention. Erosion and sediment control measures include the required Caltrans Standard Specifications (§13 Water Pollution Control and §21 Erosion Control) and a stormwater pollution prevention plan (SWPPP) that will be implemented during construction to minimize the potential for erosion. Post-project, the potential for erosion to occur in the Project area would be like current conditions; therefore, the Project would result in less than significant impacts relating to soil erosion and loss of topsoil.

c) ***Less Than Significant Impact.*** The Project does not include activities that would result in soil units onsite becoming unstable and will not potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Impacts are considered less than significant.

d) ***Less Than Significant Impact.*** Expansive soils that may swell enough to cause problems with paved surfaces are generally clays falling into the AASHTO A-6 or A-7 groups, or classified as CH, MH, or OH by the Unified Soil Classification System (USCS), and with a Plasticity Index greater than about 25 as determined by ASTM D4318. Chapter 610 of the Caltrans Highway Design Manual (2012) defines an expansive subgrade to include soils with a Plasticity Index greater than 12 (Caltrans 2012).

The Project is being designed in accordance with the special engineering or construction considerations outlined in Chapter 610 *"Engineering Considerations"* of the Highway Design Manual, California Transportation Department. Because the Project is being designed in accordance with the Caltrans Highway Design Manual and will consider and address expansive soils, impacts are considered less than significant.

e) ***No Impact.*** The proposed Project does not include the use of septic tanks or alternative wastewater disposal systems. No impact will occur.

f) ***Less Than Significant*:** Paleontological resources are known to occur in Yolo County, and the geological formations that underlie Yolo County are generally paleontologically sensitive. The Project would not likely impact paleontological features due to the general disturbed conditions at the site. There is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. Caltrans Standard Specification 14-7.03 requires that if unanticipated paleontological resources are discovered work shall halt within 60 feet of the discovery and the engineer shall be notified, which will ensure that inadvertent discoveries of paleontological resources will remain at a less than significant level.

Mitigation Measures: None required.

5.9 **Greenhouse Gas Emissions**

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide. The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Greenhouse gas emissions for transportation projects can be divided into those produced during operations and those produced during construction. The proposed Project does not increase the capacity of CR 96 and would not increase operational GHG levels. The discussion below therefore focuses on construction related GHG emissions of the Project.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Off-site production of construction materials and onsite construction of the proposed Project would generate short-term emissions of greenhouse gases. Emissions of GHGs resulting from off-road heavy-duty diesel engines during construction activities would be short-term and minor. Adherence to the YSAQMD rules (Rules 2.3, 2.5, 2.11, 2.28, 2.32, and 9.8 as applicable) will limit potential air quality impacts. These impacts are considered less than significant.

b) ***Less Than Significant Impact.*** Yolo County has taken steps to reduce overall emissions in the County to reduce GHG emissions and address economic and social adaptation to the effects of climate change. The County's General Plan policies and their Climate Action Plan (CAP) address these issues. In order to demonstrate project-level compliance with CEQA relevant to GHG emissions and climate change impacts, applications for discretionary projects must demonstrate consistency with the General Plan and CAP. In addition, the County established a working group to implement the County's Climate Change Initiative, aimed at reducing transportation emissions by encouraging the use of electric vehicles, reducing County vehicle trips and purchasing low-polluting construction equipment. Implementation of the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Adherence to the YSAQMD rules (Rules 2.3, 2.5, 2.11, 2.28, 2.32, and 9.8 as applicable) will limit potential construction related GHG impacts. These impacts are considered less than significant.

Mitigation Measures: None required.

5.10 Hazards and Hazardous Materials

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Environmental Setting

A hazardous material is defined by the California EPA, Department of Toxic Substances Control (DTSC), as a material that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 California Code of Regulations (CCR) 25501).

According to Title 22 of the CCR (22 CCR) Section 66261.20, the term “hazardous substance” refers to both hazardous materials and hazardous wastes; both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity.

A hazardous material is defined by 22 CCR Section 66261.10 as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

While public health and safety is potentially at risk whenever hazardous materials are or will be used, the risk is determined by the probability of exposure and the inherent toxicity of a material. Factors that can influence health effects when human beings are exposed to hazardous materials include the dose the person is exposed

to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (22 CCR Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific 22 CCR criteria.

Hazardous materials transport within California is subject to various federal, state, and local regulations including the California Vehicle Code and California and Occupational Health and Safety Administration (CalOSHA) requirements. The California Highway Patrol (CHP) designates routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is generally restricted to these routes.

An Initial Site Assessment (ISA) was prepared for the proposed Project by Crawford & Associates, Inc. in May of 2021 (Appendix I). The purpose of the ISA is to identify recognized soil or groundwater contamination and hazardous material issues that may affect the planned Project improvements. The ISA identifies Recognized Environmental Conditions (RECs) and general hazardous materials issues that may be present at the site, and provides recommendations for further investigation, as warranted. Based on the records search and site reconnaissance Crawford & Associates, Inc. made the following observations.

- The Project site was not identified in the database records reviewed. The records review found the nearest environmental case to be located ±1,250 feet from the Project site, and that case is closed.
- The database records, aerial photographs, and historical topographic maps search did not identify any RECs or historical RECs that have potentially impacted the Project site.
- Reconnaissance did not identify any other suspect sites in the Project site vicinity.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction and operation activities (i.e., equipment maintenance, fuel, and solvents). Implementation of the proposed Project would continue the use, transport, and disposal of potentially hazardous materials on and in the vicinity of the Project site, similar to existing conditions. The Project is required to comply with federal, state, and local regulations regarding the storage, handling, transportation, disposal, and cleanup of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less than significant impact.

b) ***Less Than Significant with Mitigation Incorporated.*** The ISA developed by Crawford & Associates, Inc. did not identify any RECs; however, the report did identify lead-based paint on the existing bridge structure, the potential for agricultural chemicals in the soils, and potentially chemically treated wood in the remnants of a former utility pole. A lead compliance plan that protects workers and the environment from lead exposure will need to be prepared prior to implementation of demolition and construction activities. Painted bridge components will need to be removed, transported, and recycled or disposed of in a manner consistent with the lead compliance plan and applicable State and federal law. Project construction and operation would not routinely generate any hazardous materials. Project operation would not involve the use or storage of any hazardous materials. Although construction would not generate any hazardous materials, a potential hazard to the public and the environment

would be posed by using diesel or gasoline powered construction equipment (trucks, excavators, etc.) and lubricants such as oil and hydraulic fluids. The potential for such a hazard would be temporary and avoidable through the implementation of AMM3 (Confine and Delineate Work Area) and AMM8 (Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas), as required by the Yolo HCP/NCCP. The use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, state, and local laws including California Occupational Health and Safety Administration (CalOSHA) requirements. Adherence to the applicable federal, state, and local laws and the application of AMMs from the Yolo HCP/NCCP and implementation of MM HAZ-1 Lead Compliance Plan and MM HAZ-2 Soils Testing would reduce the potential impacts at a less than significant level through materials testing and developing protocols to handle potentially hazardous waste.

c) ***No Impact.*** No schools occur within 0.25 mile of the Project site.

d) ***No Impact.*** The Project area is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) ***Less Than Significant Impact.*** The Yolo County Airport, which is operated as a general aviation airport and is open to the public, is located approximately 0.5 miles west of the Project site. The Yolo County Airport Comprehensive Land Use Plan addresses public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise as well as to prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of these airports into the future. The runways at the Yolo County Airport are oriented in a north-south direction. The arrangement of the runways is parallel to the direction of CR 96 and therefore it is not expected that airplane approaches and departures would be at low elevations over the Project site. The Project site is not within the 65 CNEL noise contour of the airport. Due to these conditions, it is not expected that the Project will result in a safety hazard or excessive noise for people working in the Project site during construction activities. The proposed Project does not conflict with the Yolo County Airport Comprehensive Land Use Plan. There will be a less than significant impact.

f) ***Less Than Significant Impact.*** During construction, CR 96 will be closed to through traffic and a detour route made available. Vehicular traffic will be able to utilize CR 95, 31, and 29 as alternative routes. Construction is anticipated to begin in Spring 2023 and have a duration of approximately 8 months. Although temporary, short disruptions to normal traffic operations would occur during construction, the impact would be less than significant. The Project is not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan

g) ***No Impact.*** The completed Project will not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires.

Mitigation Measures:

MM HAZ-1 Lead Compliance Plan

A lead compliance plan that protects workers and the environment from lead exposure must be prepared and implemented prior to implementation of demolition and construction activities. The plan must address (Caltrans 2018 Standard Specifications section 7-1.02K(6)(j)(ii), Lead Compliance Plan, and Caltrans 2018

Standard Special Provision 7-1.02K(6)(j)(iii)), and a Health & Safety Plan for workers in accordance with Cal OSHA Title 8, Section 1532.1.

MM HAZ-2 Soils Testing

A Limited Soils Assessment (LSA) shall be prepared and conducted at the southwest portion of the Project site and northeast of the bridge for the purpose of assessing on-site shallow soil for potential impacts from the following constituents of concern prior to implementation of demolition and construction activities.

- organochlorine pesticides (EPA Method 8081)
- chlorinated herbicides (EPA Method 8151)
- organophosphorus pesticides (EPA Method 8141)

The LSA shall also determine if excavated soils generated during construction activities are likely to be classified as a regulated waste. Should any of the constituents of concern be found in excess concentrations, the applicant shall prepare a Soil Management Plan (SMP) or equivalent report, which shall be distributed to construction personnel. The SMP shall establish protocols for handling, sampling, storage, and disposal of any suspected burn ash-impacted soils generated during construction activities.

5.11 Hydrology and Water Quality

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation??	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Environmental Setting

A Floodplain Evaluation Report and Water Quality Study Memorandum for the proposed Project were developed by WRECO (Appendix F and G respectively). The following overview is derived from the aforementioned documents:

The Project is located within the Sacramento Valley Groundwater Basin Yolo Subbasin (5-21.67). Based on California's Groundwater Bulletin 118 (DWR, 2016), the Yolo Subbasin is located on the southern portion of the Sacramento Valley Basin primarily within Yolo County. It is bounded on the east by the Sacramento River, on the west by the Coast Range, on the north by Cache Creek, and on the south by Putah Creek. According to the Central Valley RWQCB Basin Plan (2018), the Sacramento Valley Groundwater Basin Yolo Subbasin is not listed as having beneficial uses for groundwater. The proposed Project is anticipated to have a Disturbed Soil Area (DSA) of 0.30 acres and 0.57 acres of added impervious area. Disturbed soils can result in sediment laden flows and increase the potential for erosion. Generally, as the DSA increases, the potential for temporary water quality impacts also increases. Routinely used temporary BMPs are included to protect water quality. These include preservation of existing vegetation, temporary cover for soil stabilization, temporary fiber rolls, silt fence for sediment control, potential creek diversion, dewatering, and temporary

construction entrances and exits. Long-term impacts from the Project could result from fill placed in environmentally sensitive areas, potential increases to the velocity and volume of downstream flows due to added impervious areas, and sediment transported from erosion. Stormwater runoff from the study area can potentially carry pollutants into naturally flowing streams, as well as into adjacent jurisdictional biotic/aquatic areas.

The Project site is located in Special Flood Hazard Area (SFHA) Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where Base Flood Elevations (BFE) are shown. At the Project site, the 100-year BFE is approximately 86 ft NAVD 88 based on the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS).

The selected 100-year peak design flow for Dry Slough was obtained from the FIS. The 100-year flow is 3,359 cubic feet per second (cfs).

The hydraulic assessment was performed using the United States Army Corps of Engineers' (USACE) Hydrologic Engineering Center's River Analysis System (HECRAS) modeling software. The hydraulic analysis indicates that the proposed bridge replacement would result in no increases in water surface elevation (WSE) for the 100- year storms in the vicinity of the bridge.

Potential Environmental Effects

a) ***Less Than Sign***ific***ant with Mitigation Incorporated.*** Construction of the proposed Project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. Stormwater flowing over the Project features during construction could carry various pollutants downstream such as sediment, nutrients, bacteria and viruses, oil and grease, heavy metals, organics, pesticides, and miscellaneous waste. These pollutants could originate from soil disturbances, construction equipment, building materials, and workers. Erosion potential and water quality impacts are always present during construction and occur when protective vegetative cover is removed, and soils are disturbed. In the case of the proposed Project, it is primarily dewatering activities, grading and excavation associated with the bridge replacement.

Under existing State regulations, the project proponent is required to obtain a water quality certification or waiver from the Central Valley RWQCB. Through the RWQCB permitting process (refer to MM BIO-6), the Project will be required to avoid, minimize, and/or compensate for potential discharges into regulated waterways based on a detailed review of the bridge construction techniques. Existing State permitting requirements by the RWQCB will ensure that the Project will not result in the violation of any water quality standards or waste discharge requirements. Due to the scope and nature of the proposed Project it is not expected that the Project would degrade ground water quality. Construction has the potential to temporarily impact water quality and fill state and federally protected wetlands. During construction, water quality will be protected by implementation of best management practices. Implementation of MM BIO-6 (Wetlands and Waters) will reduce potential impacts to State and federally protected waters and wetlands through avoidance and minimization of impacts, payment of Yolo HCP/NCCP fees, acquiring applicable permits and fulfilling compensatory mitigation requirements to less than significant level. With these standard permitting and water quality requirements in place, potential impacts to water quality from the Project are considered to be less than significant with mitigation.

b) ***No Impact.*** Construction and operation of the Project would have no effect on groundwater supplies. There would be no net change in local aquifers or the local groundwater table because of the Project.

c) ***i Less Than Significant Impact.*** The proposed project's grading and excavation are not anticipated to results in substantial erosion or siltation, on or off-site. Implementation and compliance with the various requirements of the SWRCB statewide general permit for construction (which include water pollution control, erosion control and the development of a SWPPP) will ensure that erosion or siltation on- or off-site during the construction phase of the proposed Project would be less than significant.

ii Less Than Significant Impact. The proposed Project includes minor widening of the paved section of CR96 to improve roadway infrastructure which will result in an increase in impervious surfaces. These increases in impervious surfaces are not a substantial increase when compared to existing conditions. The recontouring and re-establishment of roadway drainage facilities are designed to accommodate the predicted runoff from the proposed Project. The Project will not contribute to a substantial increase in water runoff from the site. Project impacts are less than significant.

iii Less Than Significant Impact. As mentioned above, the proposed Project would include minor increases in runoff water, however the runoff water would not exceed the capacity of existing or planned stormwater drainage systems. The propose Project includes the replacement of an existing bridge and minor widening of an existing road to include improved roadway conditions and will not introduce a substantial additional source of polluted runoff, since the exiting use is similar to the proposed used of the project site. Project impacts are less than significant.

iv Less Than Significant Impact. The proposed Project has been designed to avoid obstructions or redirection of flood flows. The proposed project design has been analyzed (see Floodplain Evaluation Report Appendix F) to ensure there are less than significant impacts as they pertain to hydraulic conditions, impediments, potential flooding and stormwater issues. The Federal Emergency Management Agency (FEMA) has a "no increase" requirement in relation to inundation, floodplain limits and water surface elevations as a result of the project. Through the standard process of design, peer review and meeting the requirements of FEMA, there will be a less than significant impact with respect to impeding flood flows.

d) ***Less Than Significant Impact.*** The Project is within FEMA/FIRM panel 06113C0580G and is located in SFHA Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where BFEs are shown. The completed Project would not include components that risk release of pollutants due to inundation, the Project is not located within a tsunami or seiche zones, and impacts would be considered less than significant.

e) ***No Impact.*** The proposed Project is the replacement of an existing bridge and does not include activities that would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Mitigation Measure: Mitigation Measure BIO-6 (Biological Resources)

5.12 Land Use and Planning

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Environmental Setting

The 2009 Yolo County General Plan is the relevant land use plan for the Project area.

Potential Environmental Effects

a) ***No Impact.*** The Project does not include activities that would result in physically dividing an established community.

b) ***No Impact.*** The proposed Project is consistent with the County General Plan.

Mitigation Measures: None required.

5.13 Mineral Resources

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Environmental Setting

Per the County General Plan, Yolo County contains important mineral resources. A variety of minerals are mined in the County. The chief minerals presently mined are aggregate and natural gas (Yolo County 2009b). The Project is located outside the Cache Creek Area Plan (CCAP) project area, a rivershed management plan that includes approximately 14.5 miles of lower Cache Creek, between the Capay Dam and the town or Yolo. Components of the CCAP establish goals to assist in the overall management and include the Off-Channel Mining Plan (OCMP).

Potential Environmental Effects

a) ***No Impact.*** The Project area is not in an important mineral resource zone or site, as depicted in the County's General Plan DEIR Figure IV.L-2 (Yolo County 2009b). The Project would have no impact on mineral resources.

b) ***No Impact.*** No locally important mineral resource recovery sites are located within the Project area.

Mitigation Measures: None required.

5.14 Noise

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c) For a project located within -the vicinity of a private airstrip or-an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

The 2009 Yolo County General Plan (GP), Chapter 8-Health and Safety Element, Section D (Noise) establishes policies and standards associated with noise producing sources.

Yolo County GP Action HS-A61 states:

> "Adopt a comprehensive Noise Ordinance that includes the following components:
>
> - Standards for acceptable exterior and interior noise levels, their applicability, and any specific exceptions to those standards.
> - Guidelines and technical requirements for noise measurements and acoustical studies to determine conformance with provisions of the ordinance.
> - Standards for construction equipment and noise-emitting construction activities.
> - Regulations for the noise generated by events, including truck loading and unloading, operation of construction equipment, and amplified music."

To date a County noise ordinance addressing construction noise has not been adopted; however, the County relies on the State Office of Noise Control Guidelines when considering new outdoor noise sources.

A Construction Noise Technical Memorandum was developed for the proposed Project by Mark Thomas (Appendix H). The report identifies potential construction-related sources of noise and provides methods to ensure the Project will not result in excessive construction-period noise effects.

No new stationary sources of noise will be established as part of the proposed Project; therefore, the following discussion is focused on potential construction related noise impacts. Section 14-8.10 (Noise and Vibration) of the Caltrans Standard Specifications includes requirements for the control and monitoring of noise resulting from construction activities. The Caltrans Standard Specifics require construction noise to no exceed 86 dBa Lmax at 0 feet from the job site from 9:00p.m. to 6:00 a.am.

Potential Environmental Effects

a) ***Less Than Significant with Mitigation Incorporated.*** Construction activities would temporarily increase noise levels in the vicinity of the Project area. Actual noise levels would vary throughout the day depending on the type of construction equipment involved, activities being implemented, and distance between the source of the noise and receptors. The contractor would comply with noise standards outlined in Caltrans Standard Specifications, and applicable construction equipment will be equipped with appropriate mufflers pursuant to the Standard Specifications and the YSAQMD rules. Long-term noise associated with use of CR 96 would be similar to current conditions. There are several noise receptors bordering the Project area. These include three agricultural properties with residences located at 25540, 25599, and 25635 CR 96. These residences are located approximately 75 feet north, 250 feet south, and 350 feet south of the bridge, respectively. The Countywide General Plan does not consider residences on agriculturally zoned land to be sensitive receptors. The closest residentially zoned land which contains residences (sensitive receptors) is at 25350 CR 96 (APN: 037-020-026) and is approximately 275 feet north of the Project boundary.

To avoid substantial construction-period noise impacts to nearby receptors, MM NOI-1 Control of Construction Noise will be implemented during Project construction. With implementation of MM NOI-1, the County will ensure that applicable minimization measures to reduce construction related noise and potential impacts on sensitive receptors will be implemented. Thus, impacts would be reduced to a less than significant level.

b) ***Less Than Significant Impact.*** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks), which may result in the periodic, temporary generation of ground-borne vibration. The Project does not introduce new sources of ground-borne vibration. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.

c) ***Less Than Significant Impact.*** The Yolo County Airport, which is operated as a general aviation airport and is open to the public, is located approximately 0.5 miles west of the Project site. The Yolo County Airport Comprehensive Land Use Plan addresses public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise as well as to prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of these airports into the future. The runways at the Yolo County Airport are oriented in a north-south direction. The arrangement of the runways is parallel to the direction of CR 96 and therefore it is not expected that airplane approaches and departures would be at low elevations over the Project site. The Project site is not within the 65 CNEL noise contour of the airport. Due to these conditions, it is not expected that the Project will result in a safety hazard or excessive noise for people working in the Project site during construction activities.

Mitigation Measures:

MM NOI-1 – Control of Construction Noise

To avoid substantial construction-period noise impacts to nearby sensitive receptors, the Best Management Practices listed below will be implemented during Project construction. With implementation of these

standard construction period specifications, the Project will not result in excessive construction-period noise effects.

1. Project-related noise-generating activities at, or adjacent to, the construction site shall comply with the Caltrans standard specifications section 14-8.02. "Control and monitor noise resulting from work activities. Do not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m."
2. All internal combustion engine driven equipment shall be equipped with the appropriate intake and exhaust mufflers, which are in good condition.
3. “Unnecessary” idling of internal combustion engines shall be strictly prohibited.
4. Avoid staging construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment as far as practical from existing noise receptors. Construct temporary barriers to screen noise generating equipment when located in areas adjoining noise-sensitive land uses.
5. “Quiet” air compressors and other stationary noise sources shall be used when applicable.
6. All construction traffic shall be routed to and from the Project site via designated truck routes. Construction-related heavy truck traffic shall be prohibited in residential areas where feasible. Construction truck traffic shall be prohibited in the Project vicinity during non-allowed hours.
7. The businesses, residents and schools in the Project area shall be notified in writing by the County of the construction schedule.
8. The County shall designate a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint and implement reasonable measures to correct the problem. The contractor shall visibly post the telephone number for the disturbance coordinator at the construction site. The County shall include the telephone number in the notice sent to residents regarding the construction schedule.

5.15 Population and Housing

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Potential Environmental Effects

a) ***No Impact.*** The Project does not include activities that would result in substantial unplanned population growth either directly or indirectly.

b) ***No Impact.*** The Project does not include any activities that would result in the displacement of housing or people.

Mitigation Measures: None required.

5.16 Public Services

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☒	☐
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable. The bridge and associated roadway will be closed to through traffic and a detour route made available.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** During construction, CR 96 will be closed to through traffic and a detour route made available. Vehicular traffic will be able to utilize CR 95, 31, and 29 as alternative routes. Construction is anticipated to begin in Spring 2023 and have a duration of approximately eight months. The Project is not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The proposed detour around the Project site would add approximately 9 minutes by automobile (6 miles). Although temporary, short duration disruptions to normal traffic operations would occur during construction, the impact would be less than significant. No adverse effects on service ratios, response times, or service objectives for any of the public services are anticipated. The Project would have a less than significant impact on fire and police protection response times during construction activities. Once the Project is completed there would be no impact on fire and police protection services. There will be no impacts on schools, parks, or other public facilities.

Mitigation Measures: None required.

5.17 Recreation

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

The Project is in a rural area of the County that is primarily used for agricultural and farming practices. There are no parks in the vicinity of the Project site. The Yolo County Airport supports the recreational activity of skydiving and a shooting range. No other known recreational facilities or uses are in the vicinity of the Project site.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** There are no recreational facilities that would be affected by the proposed Project. The replacement of the bridge would not affect the recreational uses at the Yolo County Airport. No parks are in the vicinity of the Project site; therefore, impacts are less than significant.

b) ***No Impact***. The Project would not require the construction or expansion of recreational facilities.

Mitigation Measures: None required.

5.18 Transportation

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision	☐	☐	☒	☐
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☒	☐
e) Result in inadequate parking capacity?	☐	☐	☐	☒

Potential Environmental Effects

a) ***No Impact.*** The proposed Project does not include activities that would cause a permanent negative impact to the circulation system (roads), including transit, roadway, bicycle, and pedestrian facilities. The proposed Project is identified in the SACOG Metropolitan Transportation Plan / Sustainable Communities Strategy (MTP/SCS). The bridge replacement will occur in the same location as the existing bridge and is designed to provide for public safety.

Once constructed, the Project would not result in an increase in traffic in the area and will not conflict with the Yolo County General Plan, MTP/SCS, or any ordinance, policy, or congestion management program. The Project will have no impact on traffic circulation plans or policies.

b) ***Less Than Significant Impact.*** The Project would not have an impact on vehicle miles traveled. During the 10-month construction period, worker commute and equipment hauling vehicles would be traveling to and from the Project site causing a minor, temporary increase in localized traffic; however, this would cease once construction is complete. There may be a minor increase in regional commuting times during construction activities, which is estimated to be 9 minutes longer than normal when using alternative routes; however, upon completion of the Project, regional commuting times will return to pre-project conditions. Once completed, the Project would not result in any changes to vehicle miles travelled. The impact associated with temporary increases in Project-related traffic would be less than significant.

c) ***No Impact.*** The Project replaces the existing bridge to improve public safety. The Project does not include features that introduce or exacerbate any transportation or traffic hazards due to a design feature. The proposed bridge replacement has been designed to accommodate automobiles, as well as farm equipment, while providing improvements to public safety.

d) ***Less Than Significant Impact.*** The completed Project will have no impact on emergency access. The Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable. Impacts would be considered less than significant.

e) ***No Impact.*** The Project would not result in an increase in demand for parking in the vicinity of the Project.

Mitigation Measures: None required.

5.19 Tribal Cultural Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Setting

The ASR and HPSR studies did not identify any archaeological resources resource within the Project site.

The Native American Heritage Commission (NAHC) was contacted to request sacred lands file search and contact list. On October 27, 2020, the NAHC returned a negative result for sacred lands within the Project's Area of Potential Effects (APE). the Tribes requesting notification in Yolo County, were delivered a letter via email on June 18, 2021, giving formal notice and invitation by Yolo County to initiate AB 52 consultation on the proposed Project and to request participation of interested parties.

See Section 2 (Environmental Checklist) above for a summary of Project related consultation and coordination with Native American tribes.

Potential Environmental Effects

a) ***i- Less Than Significant Impact.*** Based on the results of the ASR and HPSR documents prepared for the Project and the AB 52 consultation there are no sites, features, places, or cultural landscapes that are geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, or that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) at the Project site. Therefore, impacts are considered less than significant.

ii- Less Than Significant with Mitigation Incorporated. The County sent AB 52 consultation letters to four Native American Tribes who may have knowledge of sites or traditional cultural properties that may be affected by Project-related activities. All tribes listed by the NAHC, including those Tribes requesting notification in Yolo County, were contacted via email that included a letter on June 18,

2021, informing them of the proposed Project and to request participation of interested parties. As of the date of developing this document, no responses from Native American Tribes in response to the letters have been received.

The Yocha Dehe Wintun Nation representatives attended a field review meeting on February 20, 2020 to visit the Project site and to better understand the proposed Project activities. Yocha Dehe Wintun Nation requested to be notified of Project initiation so they can provide cultural resources education. Implementation of MM TCR-1: Cultural Sensitivity Training will reduce potential impacts to inadvertent discoveries of Tribal Cultural Resources to a less than significant level through educating Project personnel on the importance and value of Tribal Cultural Resources. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measures:

MM TCR-1 – (Sensitivity Training)

Prior to the start of the Project, Project personnel will attend cultural sensitivity training from the Yocha Dehe Wintun Nation. Contact Yocha Dehe Wintun Nation Cultural Resources, Office: (530) 215-6180 or cell (530) 796-3400.

5.20 Utilities/ Service Systems

Would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new water or expanded wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

There are several utilities in the Project area. AT&T and PG&E (Electric and Gas) utilities will be relocated as a result of the proposed Project. New utility services will not be required to serve the proposed Project after completion.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The Project involves the replacement of an existing bridge and will not require new water or expanded wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities to serve the Project. Utility relocation and realignment will be required, none of which, would involve significant environmental impacts. Implementation of the Project will require the relocation of drainage ditches and above-ground utilities outside the clear recovery zone, which will include extension, replacement, and/or relocation of existing drainage structures to accommodate the widened road. This will also include relocation and/or abandonment of underground utilities where they are in conflict with the Project. The Project may include the installation of high-speed internet as well as relocation of AT&T and PG&E facilities. The installation and relocation of these utilities and infrastructure will occur within the footprint of the disturbance area and will not cause significant environmental effects. This is considered a less than significant impact.

b) ***Less Than Significant Impact.*** The Project would not involve any actions that would require a new water supply or generate wastewater. There may be the need for minor landscaping irrigation to establish vegetation and replanting along the proposed facilities; however, this water need is not expected to be in perpetuity, nor is it expected to impact existing service levels regarding water use. No new water or wastewater facilities would be constructed or needed as part of the Project.

c) ***No Impact.*** The Project would not produce wastewater.

d) ***Less Than Significant Impact.*** Solid waste generated by the Project would be limited to construction debris. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills; likely the Yolo County Central Landfill located approximately 8 miles east of the Project. The Project would not generate solid waste in amounts that would substantially affect the existing capacity of the Yolo County Central Landfill and impacts would be less than significant.

e) ***No Impact.*** The Project would conform to all applicable state and federal solid waste regulations.

Mitigation Measures: None required

5.21 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Environmental Setting

In accordance with California Public Resource Code Section 4201-4204 and Government Code Section 51175-51189, the CalFire has mapped areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), represent the risks associated with wildland fires.

In California, responsibility for wildfire prevention and suppression is shared by federal, state, and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas (FRA). The State of California has determined that non-federal lands in unincorporated areas with watershed value are of Statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by CalFire. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA). Most of the western third of Yolo County has been classified as SRA, with FRA near the northwest and west County boundaries (Figure IV.M-2).

The Project is not located in any Fire Hazard Severity Zone per the 2018 CalFire Fire Hazard Severity Zones map (CalFire 2020).

Under State regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

Potential Environmental Effects

a) ***No Impact.*** The Project is being implemented to improve safety along CR 96. During construction traffic would be routed around the Project site, which results in an approximate 9-minute detour. The Project would not impair an adopted emergency response plan or emergency evacuation plan.

b) ***No Impact.*** The proposed Project would not exacerbate wildfire risks or expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) ***Less than Significant Impact.*** The Project involves replacement of an existing bridge. The completed Project would not exacerbate fire risk. The completed Project will improve public safety/fire prevention by better facilitating transportation of fire-fighting equipment. Project impacts are less than significant.

d) ***No Impact.*** The Project does not include activities that would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Mitigation Measures: None required.

5.22 Mandatory Findings of Significance

To be filled out by Lead Agency if required	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Potential Environmental Effects

a) ***Less Than Significant with Mitigation Incorporated.*** The proposed Project does not have the potential to significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Based on the preceding environmental analysis, the application of existing regulations and the incorporation of BMPs, Yolo HCP/ NCCP AMMs, and mitigation measures, all potentially significant impacts associated with the Project, including those related to biological resources, tribal cultural resources, noise, hazards and hazardous materials, hydrology and water quality, would be avoided, minimized, or mitigated to maintain a level that is considered less than significant with mitigation incorporated.

b) ***Less Than Significant Impact.*** The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts; therefore, the Project would not cause any additional environmental effects or significantly contribute to a cumulative impact.

c) ***Less Than Significant Impact.*** The Project would not result in substantial direct or indirect adverse effects from noise, either during Project construction or operation, nor would it result in impacts to air quality, water quality, or utilities and public services. Additionally, measures have been identified to maintain the Project's effects to air quality, water quality, hazards and hazardous materials, and noise levels at less than significant levels. Therefore, the Project would not cause substantial adverse effects on human beings.

6. Summary of Mitigation Measures

The following mitigation measures were identified to reduce impacts to less than significant:

BIOLOGICAL RESOURCES

MM BIO-1 – Western Pond Turtle

Implements Yolo HCP/NCCP AMMs 4 and 14: Cover Trenches and Holes during Construction and Maintenance; Minimize Take and Adverse Effects on Habitat of Western Pond Turtle

The following measures will reduce potential impacts to western pond turtles:

- A pre-construction survey for western pond turtle shall be conducted by a qualified biologist. If a western pond turtle nest is identified during the survey, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist. The County will inform CDFW if the nest cannot be avoided and such an activity must occur.
- If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground-disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.
- To prevent injury and mortality of western pond turtle, workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.

MM BIO-2 – Swainson's Hawk and White-Tailed Kite

Implements Yolo HCP/NCCP AMM16: Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-Tailed Kite

The following avoidance and minimization measures will be implemented to minimize the potential for adverse impacts on Swainson's hawk and white-tailed kite to the maximum extent possible:

- The Project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 1 and August 30, with the final survey conducted no more than 7 days prior to the beginning of the construction activity. The results of the survey(s) will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If Project-related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the Project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of

individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

MM BIO-3 – Tricolored Blackbird

Implements Yolo HCP/NCCP AMM21: Minimize Take and Adverse Effects on Habitat of Tricolored Blackbird

The following avoidance and minimization measures will be implemented to minimize the potential for adverse impacts on tricolored blackbird to the maximum extent possible:

- The qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008).
- If active colony is present or has been present within the last 5 years, implement a species protection buffer within 1,300 feet of the colony site(s) from March 1 to July 30, unless a shorter distance is approved, based on site-specific conditions, by the Conservancy and CDFW.

MM BIO-4 – Special-Status Bird Species, Migratory Birds, and Raptors

The following measures will be implemented to further reduce the potential for impacts on special-status and migratory birds and raptors that may nest in or near the Project area, including northern harrier:

- Project activities and vegetation removal within the Project area shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities and vegetation removal cannot be initiated outside of the bird nesting season than the following will occur:
    - A qualified biologist will conduct a pre-construction survey within 3 days prior to the initiation of Project activities.
    - If an active avian nest (i.e., with egg[s] or young) is observed within 250 feet of the Project area during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored once per week and a report submitted to the lead agency weekly.

MM BIO-5 – Bat Avoidance and Minimization The following measures will be implemented to further reduce the potential for impacts on bats that may roost in the Project area.

- Mature trees and the existing bridge structure should be removed and/or fallen between September 16 – March 15 outside of the bat maternity season. Trees and existing bridge structure should be removed at dusk to minimize impacts to roosting bats.
- If tree and existing bridge structure removal cannot be performed outside of the maternity season a qualified biologist shall conduct a preconstruction survey of suitable roosting habitat within 7 days prior to construction activities.
    - If bats are found, consult with CDFW.
    - If no bats are found tree and existing bridge structure removal can proceed.
- If bridge removal cannot be performed outside of the maternity season, a bat exclusion plan shall be developed and implemented to prevent bat species from roosting within the existing bridge. The exclusion plan shall be submitted to CDFW for review prior to implementation.

MM BIO-6 – Wetlands and Waters

Implements Yolo HCP/NCCP AMMs 1, 2, 3, 8, 9, and 10: Establish Buffers around Sensitive Natural Communities; Confine and Delineate Work Area to Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas; Avoid and Minimize Effects on Wetlands and Waters

The following measures shall be implemented to avoid or minimize the potential for Project-related impacts on wetlands and waters:

- The County will comply with the terms of a Clean Water Act Section 404 permit issued by the Corps and Section 401 water quality certification issued by the RWQCB for activities involving the discharge of fill material into jurisdictional drainages. The County will also comply with terms of a Streambed Alteration Agreement with the CDFW (if determined necessary by the CDFW). Prior to any discharge into drainages, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.
- Water quality BMPs will be installed around Dry Slough in a manner that prevents water, sediment, and chemicals from draining into the feature, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the drainage.
- Mitigation for 0.023 acres (50.3 linear feet) of permanent impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps-approved in-lieu fund.
- Impacts to Riverine Sensitive Natural Community will be mitigated for through the Yolo HCP/NCCP Natural Community and Land Cover Impacts Mitigation Fees. The specific acreage of compensatory mitigation credits are subject to change depending on consultation with the USFWS and the Conservancy.

MM BIO-7 – Sensitive Natural Communities

Implements Yolo HCP/NCCP AMM9, Establish Buffers around Sensitive Natural Communities

Environmentally Sensitive Area (ESA) fencing will be established around the following Sensitive Natural Communities where they occur within or adjacent to the Project area, when feasible. These areas will be identified on construction drawings and demarcated in the field with flagging and/or signs identifying the area as off limits to all personnel, equipment, and ground-disturbing activities.

Per Yolo HCP/NCCP AMM9, the buffers for each Sensitive Natural Community are as follows:

- Valley foothill riparian: 100 feet from canopy dripline. If avoidance is infeasible, a lesser buffer than is stipulated in the AMMs may be approved by the Conservancy, USFWS, and CDFW if they determine that the sensitive natural community or covered species is avoided to an extent that is consistent with the Project purpose (e.g., if the purpose of the Project is to provide a stream crossing or replace a bridge, the Project may encroach into the buffer and the natural community or species habitat to the extent that is necessary to fulfill the Project purpose). Transportation or utility crossings may encroach into this sensitive natural community provided effects are minimized and all other applicable AMMs are followed.
- Lacustrine and riverine: Outside urban planning units, 100 feet from the top of banks. Within urban planning units, 25 feet from the top of the banks.

MM BIO-8 – Worker Environmental Training Program

Implements Yolo HCP/NCCP AMM6: Conduct Worker Training

- All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.

MM BIO-9 – Tree Removal Documentation and Replacement

The following measures shall be implemented to compensate for the removal of protected trees and to avoid or minimize the potential for Project-related impacts on tree resources.

- Final plans will identify the number, size, and species of protected trees to be removed and include a planting plan, to ensure replacement of trees in a manner consistent with County and Resource Agencies policies. If replanting cannot completely compensate for the number of trees removed within the Project site or on County managed land, purchase of compensatory mitigation credits will be required for the remainder of trees. The replanting plan must be approved by the County and any compensatory mitigation credits for tree resources must be purchased prior to vegetation clearing activities.
- A plan for avoidance and minimization of trees that are in the area of direct impact, but not removed shall be developed by an International Society of Arboriculture (ISA) Arborist and implemented by the County prior to vegetation clearing activities and throughout the construction of the Project.

MM BIO-10 – Control Nighttime Lighting

Implements Yolo HCP/NCCP AMM7: (Control Nighttime Lighting of Project Construction Sites

Workers will direct all lights for nighttime lighting of Project construction sites into the Project construction area and minimize the lighting of natural habitat areas adjacent to the Project construction area.

Hazardous Materials

MM HAZ-1 Lead Compliance Plan

A lead compliance plan that protects workers and the environment from lead exposure must be prepared and implemented prior to implementation of demolition and construction activities. The plan must address (Caltrans 2018 Standard Specifications section 7-1.02K(6)(j)(ii), Lead Compliance Plan, and Caltrans 2018 Standard Special Provision 7-1.02K(6)(j)(iii)), and a Health & Safety Plan for workers in accordance with Cal OSHA Title 8, Section 1532.1.

MM HAZ-2 Soils Testing

A Limited Soils Assessment (LSA) shall be prepared and conducted at the southwest portion of the Project site and northeast of the bridge for the purpose of assessing on-site shallow soil for potential impacts from the following constituents of concern prior to implementation of demolition and construction activities.

- organochlorine pesticides (EPA Method 8081)
- chlorinated herbicides (EPA Method 8151)
- organophosphorus pesticides (EPA Method 8141)

The LSA shall also determine if excavated soils generated during construction activities are likely to be classified as a regulated waste. Should any of the constituents of concern be found in excess concentrations, the applicant shall prepare a Soil Management Plan (SMP) or equivalent report, which shall be distributed to construction personnel. The SMP shall establish protocols for handling, sampling, storage, and disposal of any suspected burn ash-impacted soils generated during construction activities.

NOISE

MM NOI-1 – Control of Construction Noise

To avoid substantial construction-period noise impacts to nearby sensitive receptors, the best Practices listed below will be included during Project construction. With implementation of these standard construction period specifications, the Project will not result in excessive construction-period noise effects.

1. Project-related noise-generating activities at, or adjacent to, the construction site shall comply with the Caltrans standard specifications section 14-8.02. "Control and monitor noise resulting from work activities. Do not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m."
2. All internal combustion engine driven equipment shall be equipped with the appropriate intake and exhaust mufflers, which are in good condition.
3. “Unnecessary” idling of internal combustion engines shall be strictly prohibited.
4. Avoid staging construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment as far as practical from existing noise receptors. Construct

temporary barriers to screen noise generating equipment when located in areas adjoining noise-sensitive land uses.

5. "Quiet" air compressors and other stationary noise sources shall be used when applicable.
6. All construction traffic shall be routed to and from the Project site via designated truck routes. Construction-related heavy truck traffic shall be prohibited in residential areas where feasible. Construction truck traffic shall be prohibited in the Project vicinity during non-allowed hours.
7. The businesses, residents and schools in the Project area shall be notified in writing by the County of the construction schedule.
8. The County shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint and implement reasonable measures to correct the problem. The contractor shall visibly post the telephone number for the disturbance coordinator at the construction site. The County shall include the telephone number in the notice sent to residents regarding the construction schedule.

MM TCR-1 – Sensitivity Training

- Prior to the start of the Project, Project personnel will attend cultural sensitivity training from the Yocha Dehe Wintun Nation. Contact Yocha Dehe Wintun Nation Tribal Monitor Supervisor, Office: (530) 215-6180.

7. Supporting Information Sources

7.1 Report Preparation

Yolo County Department of Community Services, CEQA Lead Agency

Stephanie Cormier	Principal Planner Planning Division
Mark Christison	Project Engineer, Senior Civil Engineer, Public Works Division

Mark Thomas (Engineering Consultant)

Julie Passalacqua	Project Engineer

Gallaway Enterprises (Environmental Consultant)

Kevin Sevier	Senior Planner
Brittany Reaves	Biologist

7.2 References

California Air Resources Board (CARB). 2021. Maps of State and Federal Area Designations. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

California Department of Conservation. 2020. 2014-2016 Important Farmland Data – Yolo County. Accessed at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Yolo.aspx. December.

California Department of Fish and Wildlife (CDFW). 15 October 2018. Vegetation classification and mapping program (VegCAMP): California Natural Communities List. Biogeographic Data Branch, Sacramento, CA.

California Environmental Quality Act (CEQA) Statutes. 1970. Public Resources Code Section 21000, et seq.

California Geological Survey, 2010, Fault Activity Map of California

CalFire. Accessed October 2021. Recommended and Remaining Draft Local Responsibility Area (including Cities and other Local Agencies) Fire Hazard Severity Zone Maps and Adopted State Responsibility Area Fire Hazard Severity Zone Maps. https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

Crawford & Associates, Inc. 2021a. Initial Site Assessment County Road 96 Bridge Replacement Over Dry Slough Yolo County, California Bridge No. 22C0127.

Crawford & Associates, Inc. 2020. Draft Foundation Report County Road 96 Bridge Replacement over Dry Slough Yolo County, California CAInc File No. 18-474.2 Bridge No.: 22C-0127

Federal Highway Administration (FHWA). 2006. Construction Noise Handbook, Final Report. U.S. Department of Transportation, Federal Highway Administration Office of Natural and Human Environment, Washington, D.C. 20590.

Federal Highway Administration (FHWA). 2017. Highway Traffic Noise Analysis and Abatement Policy and Guidance. U.S. Department of Transportation, Federal Highway Administration, 1200 New Jersey Avenue, SE, Washington D.C. 20590. https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

Gallaway Enterprises. 2020a. Natural Environment Study for the County Road 96 over Dry Slough Bridge Replacement Project Federal Project No. BRLO-5922 (104)

Gallaway Enterprises. 2020b. Draft Delineation of Waters of the United States for the County Road 96 over Dry Slough Bridge Replacement Project Federal Project No. BRLO-5922 (104)

Gallaway Enterprises. 2020c. Archeological Survey Report, and Historical Property Survey Report for the County Road 96 over Dry Slough Bridge Replacement Project BRLO-5922(104)

ICF. 2018. Yolo Habitat Conservation Plan/Natural Community Conservation Plan. Yolo Habitat Conservancy. Yolo County, California.

Mark Thomas. 2021. Dry Slough Bridge Construction Noise Technical Memorandum BRLO-5922(104)

Natural Resource Conservation Service (NRCS). 2021. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/

State Water Resources Control Board, Central Valley Region. 2018. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region, Fifth Edition, Revised May 2018 (with approved amendments)

Van Gosen, B.S., and Clinkenbeard, J.P., 2011, Reported historic asbestos mines, historic asbestos prospects, and other natural occurrences of asbestos in California: U.S. Geological Survey Open-File Report 2011–1188, 22 p., 1 pl.

Western Regional Climate Center, Desert Research Institute. 2021. http://www.wrcc.dri.edu. Local Climate Summary for the Davis 2 WSW Exp Farm, California (042294) NOAA Cooperative Station.

Wreco. 2020. Draft Bridge Design Hydraulic Study Report County Road 96 Bridge over Dry Slough Yolo County, California Federal-Aid Project No. BRLO-5922(104) Existing Bridge No. 22C0127

Wrceo. 2021a. Floodplain Evaluation Report County Road 96 Bridge over Dry Slough Yolo County, California Federal-Aid Project No. BRLO-5922(104) Existing Bridge No. 22C0127

Wreco. 2021b. Water Quality Study Memorandum for the CR 96 Over Dry Slough Bridge

Yolo County. 2009a. 2030 Countywide General Plan.

Yolo County. 2009b. Final Environmental Impact Report on the Yolo County 2030 Countywide General Plan (SCH #2008102034).

Yolo Solano Air Quality Management District (YSAQMD). 2007. Handbook for Assessing and Mitigating Air Quality Impacts.

Yolo Solano Air Quality Management District (YSAQMD). 2019. Attainment Status accessed at: https://www.ysaqmd.org/plans-data/attainment/. Accessed December 2020.

Appendix A

Farmlands Study Memo

gallaway
ENTERPRISES

117 Meyers Street • Suite 120 • Chico CA 95928 • 530-332-9909

05/02/2022

Caltrans District 3 – North Region Local Assistance
ATTN: Thaleena Bhattal, Associate Environmental Planner
703 B Street
Marysville, CA 95901

RE: Farmlands Study for the County Road 96 at Dry Slough Bridge Replacement Project – Yolo County

Ms. Bhattal;

UPDATE: The following farmlands study serves as an update to the impacts analysis previously conducted for the Dry Slough Bridge Replacement Project. Due to updated parcel information related to Williamson Act lands (APN 037-010-035), a new analysis was appropriate. Please find the former study, dated 03/21/2022, attached for comparison (Attachment D).

The Yolo County Department of Public Works has reviewed the County Road 96 at Dry Slough Bridge Replacement Project (Project) to determine if there are potential impacts to adjacent agricultural lands from the Project's proposed construction activity. Specifically, this study focused on farmland of prime, local potential, and grazing important farmland within the proposed Project boundary. An additional evaluation of preliminary impacts to parcels with Williamson Act contracts is provided as well.

The purpose of the Project is to replace the existing, functionally obsolete single-span reinforced concrete T-girder bridge over Dry Slough. The Project site is located in an agricultural/rural setting immediately surrounded by riparian woodland, row crops, orchards and rural residences. Dry Slough is an intermittent drainage that flows in a northeastern direction through the site and is fed by smaller upstream water, groundwater and runoff from precipitation. The Project will result in an estimated 0.20 acres of permanent impacts and 0.13 acres of temporary impacts to Williamson Act Lands. Impacts to important farmland are an estimated 0.33 acres per NRCS Soil Survey. The following are justifications for the evaluations in Part VI of form AD1006 wherein a larger numeric score reflects a higher potential impact to farmland resources.

Evaluation 1: How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
The proposed Project is located in an agricultural/rural setting. More than 95 percent of the land surrounding the Project site is considered non-urban; therefore, it is valued at the maximum of 15 points.

Evaluation 2: How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent of the Project perimeter borders agricultural land; therefore, it is valued at the maximum of 10 points.

Evaluation 3: How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than 5 of the last 10 years?
There is no farmland within the Project site; therefore, this criterion is rated at a 0 out of a possible 20.

Evaluation 4: Is the site subject to State or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
According to the latest 2020 Yolo County Assessor Maps, two adjacent parcels are enrolled under a Williamson Act contract and will be partially impacted by construction activities (APN 037-010-028 west and 037-010-035 east). These parcels border a majority of the Project site. Permanent acquisition totals approximately 0.20 acres while temporary impacts are an estimated 0.13 acres. Additionally, most of the lands surrounding the Project have an agricultural designation, according to the County's 2030 General Plan Land Use Map and are subject to the County's agricultural protections of Goal AG-1: Preserve and defend agriculture as fundamental to the identity of Yolo County – Agriculture and Economic Development Element) The criterion is rated 20 out of 20 points.

Evaluation 5: How close is the site to an urban built-up area?
The site is further than 2 miles from any urban built-up area. Davis, CA, which is considered urban built-up due to a population exceeding fifty thousand, is the nearest urban area at approximately 2.5 miles away. According to the latest census data Davis has a population of 66,850; therefore, a maximum rating of 15 of a possible 15 is given.

Evaluation 6: How close is the site to water lines, sewer lines and/or other local facilities and services whose capacities and design would promote nonagricultural use?
According to the Public Facilities and Services Element of the Yolo County General Plan 2030, the Project site, located approximately 6.3 miles southwest of Woodland, and approximately 2.5 miles northwest of Davis, has no community wastewater system. Local facilities and services are present but not less than 2 miles from the site; therefore, a maximum rating of 15 points is given.

Evaluation 7: Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the county?
According to the 2017 Census of Agriculture the Average Size of Farm Acres in Yolo County, CA is 484 acres. The bridge site borders five surrounding parcels all with significantly lower acreages than that of the county average; Parcel 037-010-028 SW, 157.04 acres, is 32% of the average, Parcel 037-020-034 NW, 4.7 acres, is less than 1%, Parcel 037-030-002 NE, 1.3 acres, is less than 1%, Parcel 037-010-035 E, 79.25 acres, is 16%, Parcel 037-010-025 SE, 1 acre, is less than 1%. This criterion is rated 0 out of 10

Evaluation 8: If this site is chosen for the project, how much of the remaining land on the farm will become nonfarmable because of interference with land patterns?
The proposed Project will directly convert approximately 0.07 acres of farmable land, on parcel 037-010-028, due to construction related impacts. The extent of road construction will modify a farm access road, however a new access road will be established in the same general location. As a result, this criterion is rated at 1 out of 10 due to approximately 5 percent of the acres within the Project boundary becoming non-farmable.

Evaluation 9: Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
It is assumed that the site has an adequate supply of farm support services and markets, therefore this criterion is rated at a 5 out of a possible 5.

Evaluation 10: Does the site have substantial and well-maintained on-farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
The parcels surrounding the Project site have a moderate amount of substantial and well-maintained on-farm investments. The bridge site contains on-farm investments such as barns, other storage buildings, fruit trees and vines. Parcel 037-010-035, to the east, contains a barn structure and numerous ornamental

trees that lie within the Project boundary. However, this area will only be temporarily impacted during bridge construction and will not incur permanent acquisition. The bridge site contains components of field terraces, drainage, irrigation and waterways but will not significantly impact use of these resources. This criterion is rated 18 out of 20 possible points.

Evaluation 11: Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
The proposed Project would not reduce the demand for farm support services so as to jeopardize the continued existence of these support services and the viability of the farms remaining in the area. This criterion is rated at a 0 out of a possible 10.

Evaluation 12: Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural uses?
The proposed Project involves the replacement of a functionally obsolete bridge on the existing alignment and is not considered to be fully incompatible with the existing agricultural use of surrounding farmland; however, the Project will require the permanent conversion of approximately 0.07 acres of farmland to nonagricultural use. The percentage of acreage to be permanently converted in comparison to the total Project boundary acreage is 4 percent; therefore, this criterion is considered tolerable to existing agricultural uses and is rated 1 out of a possible 10

Please find attached a U.S. Department of Agriculture Form AD-1006 that shows this Project earning a preliminary score of 100 Assessment Points in Part VI. When the final scores from Part V and Part VI are less than 160 alternative assessments are not required.

Regarding Williamson Act contract lands, estimated permanent right-of-way acquisitions total 0.20 acres and temporary construction easement impacts total 0.13 acres. These impact acreages are approximations for planning purposes and subject to revision during the right-of-way acquisition process

UPDATE: It is assumed the Farmland Conversion Impact Rating score, from parts V and IV on form AD-1006, will exceed a cumulative score of 160, therefore an alternatives analysis will be required. However, the previous alternatives analysis conducted for the former farmlands study will suffice. Please refer to the former study for complete alternatives analysis details.

Regards,

Anthony McLaughlin
GIS Analyst and Environmental Planner
anthony@gallawayenterprises.com

Enclosed: Attachment A: Form AD-1006
Attachment B: Farmland Impacts Map
Attachment C: Williamson Act Lands
Attachment D: Farmland Study 03/21/2022

Attachment A: Form AD-1006

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 05/02/2022
Name of Project CR96 at Dry Slough Bridge Replacemen	Federal Agency Involved FHWA/Caltrans
Proposed Land Use Bridge	County and State Yolo County, CA
PART II *(To be completed by NRCS)*	Date Request Received By NRCS / Person Completing Form:

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.15			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	1.56			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	20			
5. Distance From Urban Built-up Area	(15)	15			
6. Distance To Urban Support Services	(15)	15			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	1			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	18			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	1			
TOTAL SITE ASSESSMENT POINTS	160	100	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	100	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	100	0	0	0

Site Selected: A	Date Of Selection 05/02/2022	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Alternative A will have the least impact on important farmlands and soils and will better fulfill the Project's goals in comparison to the alternatives

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

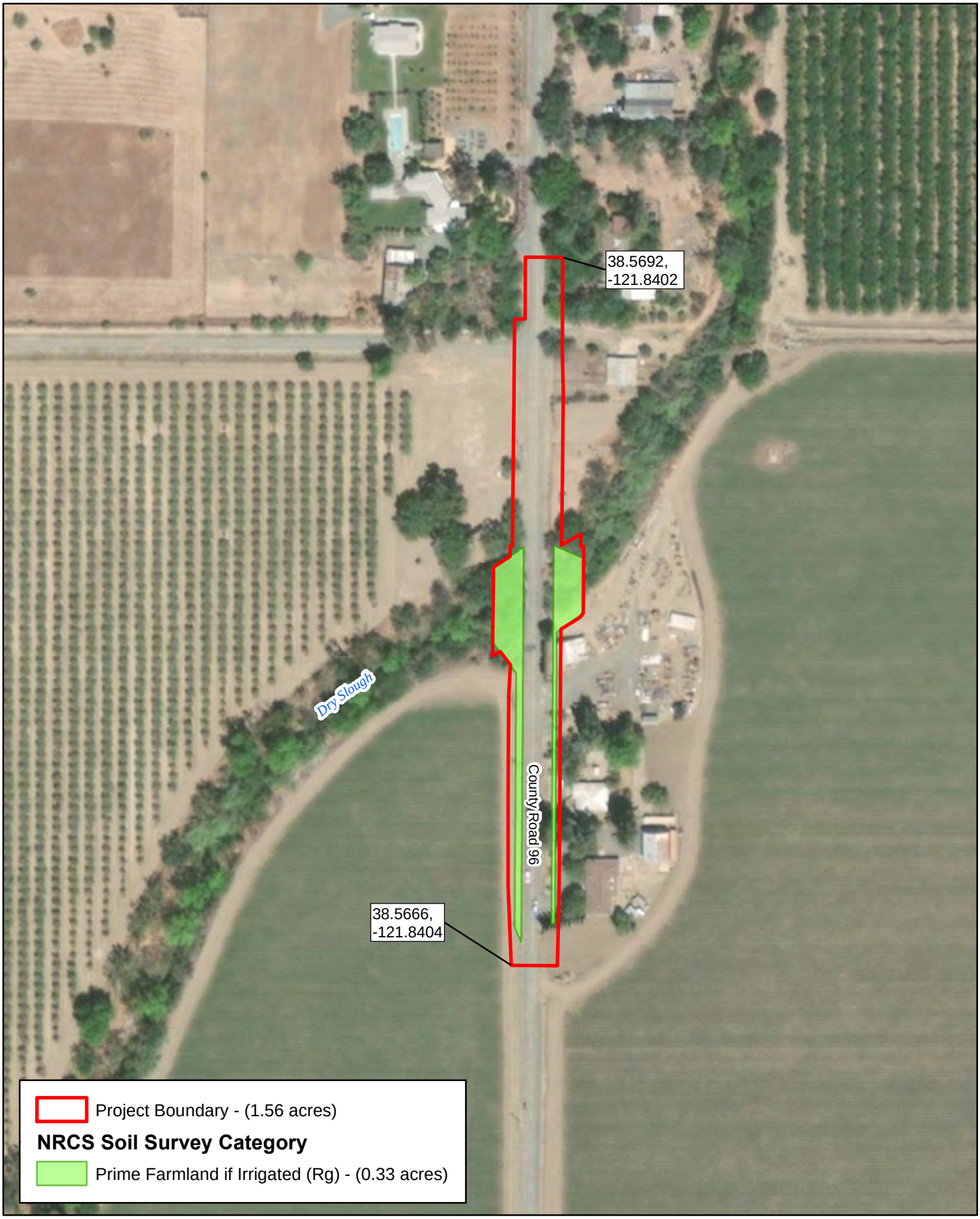
Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Attachment B: Farmland Impacts Map



NORTH

1:2,000

0 50 100 Feet

Data Sources: ESRI, County of Yolo, Maxar 05/30/2021, Mark Thomas, NRCS

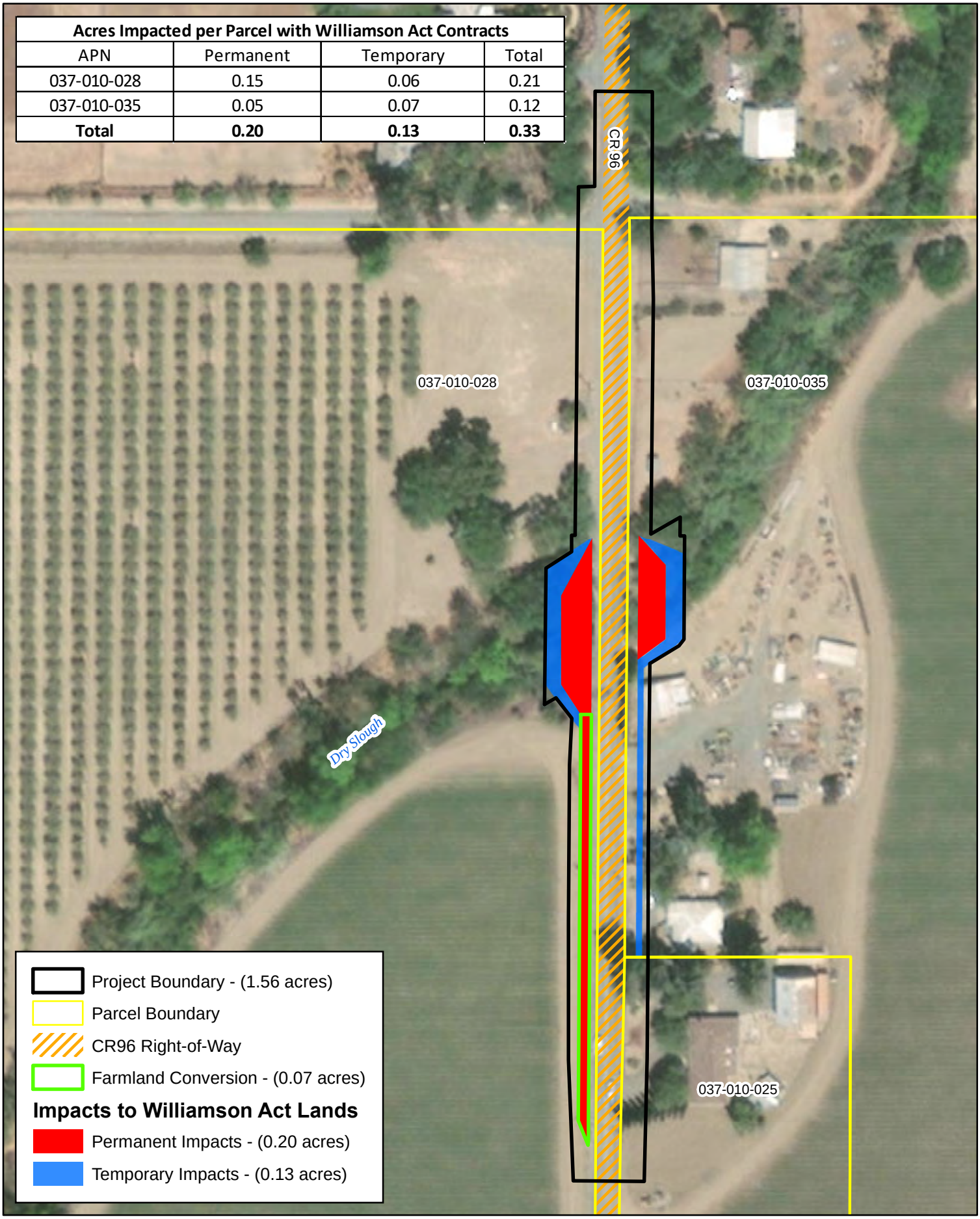
County Road 96 Over Dry Slough
Farmland Impacts Map
Attachment B

gallaway ENTERPRISES

GE: #17-013A Map Date: 04/28/2022

Attachment C: Williamson Act Land

Acres Impacted per Parcel with Williamson Act Contracts			
APN	Permanent	Temporary	Total
037-010-028	0.15	0.06	0.21
037-010-035	0.05	0.07	0.12
Total	**0.20**	**0.13**	**0.33**



NORTH

1:1,300

0 50 100 Feet

Data Sources: ESRI, County of Yolo, Maxar 05/30/2021, Mark Thomas

County Road 96 Over Dry Slough
Impacts to Williamson Act Lands
Attachment C

gallaway ENTERPRISES

GE: #17-013A Map Date: 5/2/2022

Attachment D: Farmlands Study 03/21/2022

gallaway
ENTERPRISES

117 Meyers Street • Suite 120 • Chico CA 95928 • 530-332-9909

March 21, 2022

Caltrans District 3 – North Region Local Assistance
ATTN: Thaleena Bhattal, Associate Environmental Planner
703 B Street
Marysville, CA 95901

RE: Farmlands Study for the County Road 96 at Dry Slough Bridge Replacement Project – Yolo County

Ms. Bhattal;

The Yolo County Department of Public Works has reviewed the County Road 96 at Dry Slough Bridge Replacement Project (Project) to determine if there are potential impacts to adjacent agricultural lands from the Project's proposed construction activity. Specifically, this study focused on farmland of prime, local potential, and grazing important farmland within the proposed project boundary. An additional evaluation of preliminary impacts to parcels with Williamson Act contracts is provided as well.

The purpose of the project is to replace the existing, functionally obsolete single-span reinforced concrete T-girder bridge over Dry Slough. The Project site is located in an agricultural/rural setting immediately surrounded by riparian woodland, row crops, orchards and rural residences. Dry Slough is an intermittent drainage that flows in a northeastern direction through the site and is fed by smaller upstream water, groundwater and runoff from precipitation. The project will result in an estimated 0.15 acres of permanent impacts and 0.06 acres of temporary impacts to Williamson Act Lands. Impacts to important farmland were found non-existent as the project site is classified (D) Urban and Built-up Land. The following are justifications for the evaluations in Part VI of form AD1006 wherein a larger numeric score reflects a higher potential impact to farmland resources.

Evaluation 1: How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
The proposed project is located in an agricultural/rural setting. More than 95 percent of the land surrounding the project site is considered non-urban; therefore, it is valued at the maximum of 15 points.

Evaluation 2: How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent of the Project perimeter borders agricultural land; therefore, it is valued at the maximum of 10 points.

Evaluation 3: How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than 5 of the last 10 years?
There is no farmland within the project site; therefore, this criterion is rated at a 0 out of a possible 20.

Evaluation 4: Is the site subject to State or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
According to the latest 2020 Yolo County Assessor Maps, one adjacent parcel to the west (APN 037-010-028) is enrolled under a Williamson Act contract and will be partially impacted by construction activities. This parcel borders nearly half of the project site. Permanent acquisition, in this parcel, totals approximately 0.15 acres while temporary impacts are an estimated 0.06 acres. Additionally, most of the lands surrounding the project have an agricultural designation, according to the County's 2030 General Plan Land Use Map and are subject to the County's agricultural protections of Goal AG-1: Preserve and defend agriculture as fundamental to the identity of Yolo County – Agriculture and Economic Development Element) The criterion is rated 10 out of 20 points.

Evaluation 5: How close is the site to an urban built-up area?
The site is further than 2 miles from any urban built-up area. Davis, CA, which is considered urban built-up due to a population exceeding fifty thousand, is the nearest urban area at approximately 2.5 miles away. According to the latest census data Davis has a population of 66,850; therefore, a maximum rating of 15 of a possible 15 is given.

Evaluation 6: How close is the site to water lines, sewer lines and/or other local facilities and services whose capacities and design would promote nonagricultural use?
According to the Public Facilities and Services Element of the Yolo County General Plan 2030, the project site, located approximately 6.3 miles southwest of Woodland, and approximately 2.5 miles northwest of Davis, has no community wastewater system. Local facilities and services are present but not less than 2 miles from the site; therefore, a maximum rating of 15 points is given.

Evaluation 7: Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the county?
According to the 2017 Census of Agriculture the Average Size of Farm Acres in Yolo County, CA is 484 acres. The bridge site borders five surrounding parcels all with significantly lower acreages than that of the county average; Parcel 037-010-028 SW, 157.04 acres, is 32% of the average, Parcel 037-020-034 NW, 4.7 acres, is less than 1%, Parcel 037-030-002 NE, 1.3 acres, is less than 1%, Parcel 037-010-024 E, 4.7 acres, is less than 1%, Parcel 037-010-025 SE, 1 acre, is less than 1%. This criterion is rated 0 out of 10

Evaluation 8: If this site is chosen for the project, how much of the remaining land on the farm will become nonfarmable because of interference with land patterns?
The proposed Project will directly convert approximately 0.07 acres of farmable land, on Parcel 037-010-028, due to construction related impacts. The extent of road construction will modify a farm access road, however a new access road will be established in the same general location. As a result, this criterion is rated at 1 out of 10 due to approximately 4 percent of the acres within the Project boundary becoming non-farmable.

Evaluation 9: Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
It is assumed that the site has an adequate supply of farm support services and markets, therefore this criterion is rated at a 5 out of a possible 5.

Evaluation 10: Does the site have substantial and well-maintained on-farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
The parcels surrounding the Project site have a moderate amount of substantial and well-maintained on-farm investments. The bridge site contains on-farm investments such as barns, other storage buildings, fruit trees and vines. Parcel 037-010-024, to the east, contains a barn structure and numerous ornamental

trees that lie within the project boundary. However, this area will only be temporarily impacted during bridge construction and will not incur permanent acquisition. The bridge site contains components of field terraces, drainage, irrigation and waterways but will not significantly impact use of these resources. This criterion is rated 18 out of 20 possible points.

Evaluation 11: Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
The proposed Project would not reduce the demand for farm support services so as to jeopardize the continued existence of these support services and the viability of the farms remaining in the area. This criterion is rated at a 0 out of a possible 10.

Evaluation 12: Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural uses?
The proposed Project involves the replacement of a functionally obsolete bridge on the existing alignment and is not considered to be fully incompatible with the existing agricultural use of surrounding farmland; however, the project will require the permanent conversion of approximately 0.07 acres of farmland to nonagricultural use. The percentage of acreage to be permanently converted in comparison to the total project boundary acreage is 4 percent; therefore, this criterion is considered tolerable to existing agricultural uses and is rated 1 out of a possible 10

Please find attached a U.S. Department of Agriculture Form AD-1006 that shows this project earning a score of 95 Assessment Points in Part VI. When the final scores from Part V and Part VI are less than 160 alternative assessments are not required.

Regarding Williamson Act contract lands, estimated permanent right-of-way acquisitions total 0.15 acres and temporary construction easement impacts total 0.06 acres. These impact acreages are approximations for planning purposes and subject to revision during the right-of-way acquisition process.

UPDATE: A consultation with NRCS, occurring March 21, 2022 reveals a combined section score of 185 thus requiring an alternatives analysis. The CA Revised Storie Index was used, by NRCS, to determine 0.15 acres of impacts to Prime farmland. Accordingly, an alternatives analysis was performed and is attached.

Regards,

Anthony McLaughlin
GIS Analyst and Environmental Planner
anthony@gallawayenterprises.com

Enclosed: Attachment A: Form AD-1006
Attachment B: Farmland Impacts Map
Attachment C: Williamson Act Lands
Attachment D: NRCS Farmland Classification Report
Attachment E: Reason for Selection

Attachment A: Form AD-1006

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 03/21/2022
Name of Project CR96 at Dry Slough Bridge Replacement	Federal Agency Involved FHWA/Caltrans
Proposed Land Use Bridge	County and State Yolo County, CA
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 3/21/2022 / Person Completing Form: Jacqueline Vega-NRCS

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated 234,703	Average Farm Size 484
Major Crop(s) Almonds,Tomatoes,Grapes/wine	Farmable Land In Govt. Jurisdiction Acres: 73.9 % 482,645	Amount of Farmland As Defined in FPPA Acres: 54 % 352,555	
Name of Land Evaluation System Used CA Revised Storie Index	Name of State or Local Site Assessment System None	Date Land Evaluation Returned by NRCS 3/21/2022	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.15			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	0.15			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.15			
B. Total Acres Statewide Important or Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.000			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	18.05			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	90			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	15			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	10			
5. Distance From Urban Built-up Area	(15)	15			
6. Distance To Urban Support Services	(15)	15			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	1			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	18			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	1			
TOTAL SITE ASSESSMENT POINTS	160	95	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	90	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	95	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	185	0	0	0

Site Selected: A	Date Of Selection 03/22/2022	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Alternative A will have the least impact on important farmlands and soils and will better fulfill the Project's goals in comparison to the alternatives.

Name of Federal agency representative completing this form: Anthony McLaughlin Date: 03/22/2022

(See Instructions on reverse side)

Form AD-1006 (03-02)

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

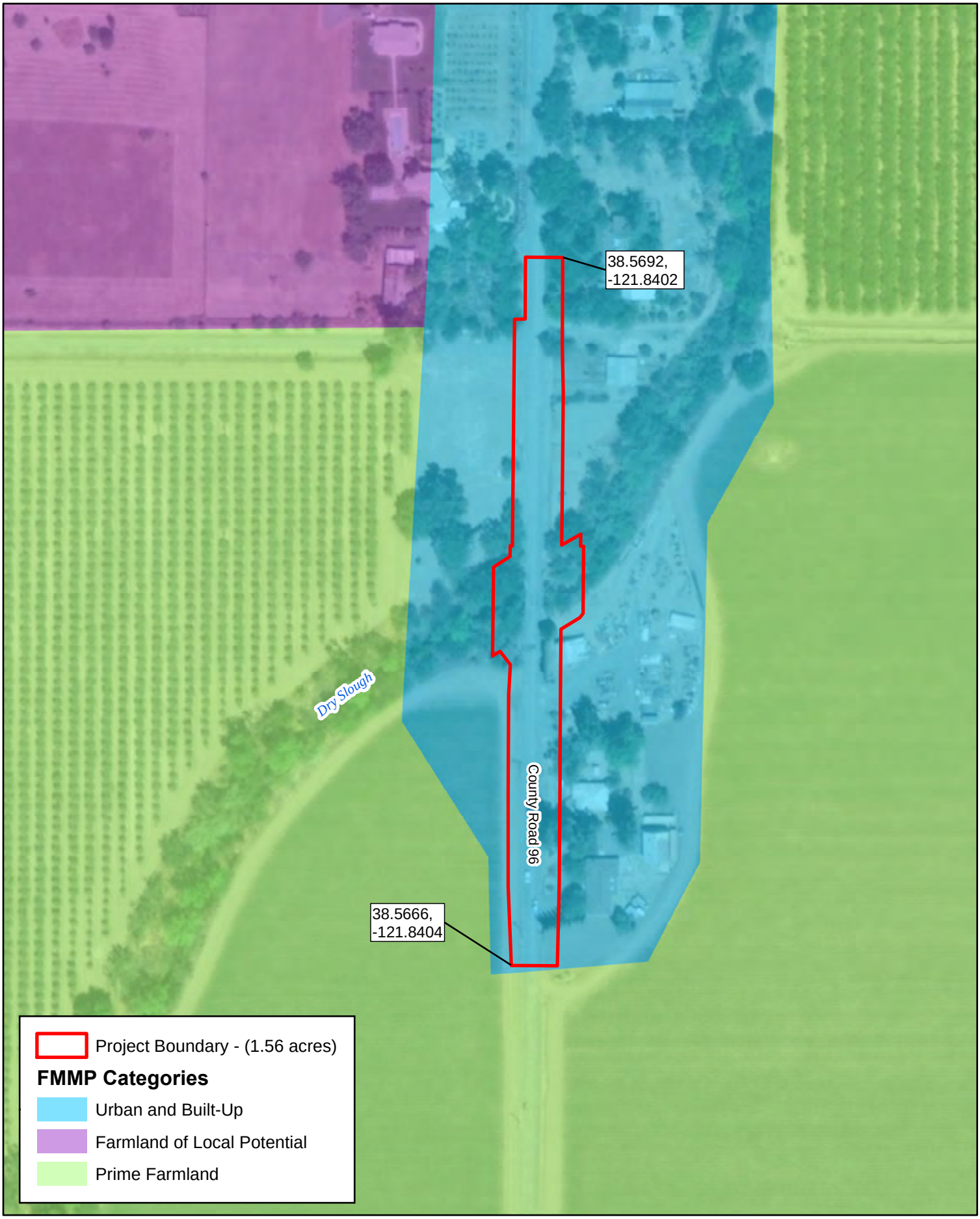
Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Attachment B: Farmland Impacts Map



NORTH

1:2,000

0 50 100 Feet

Data Sources: ESRI, County of Yolo, Maxar 05/30/2021, Mark Thomas, FMMP

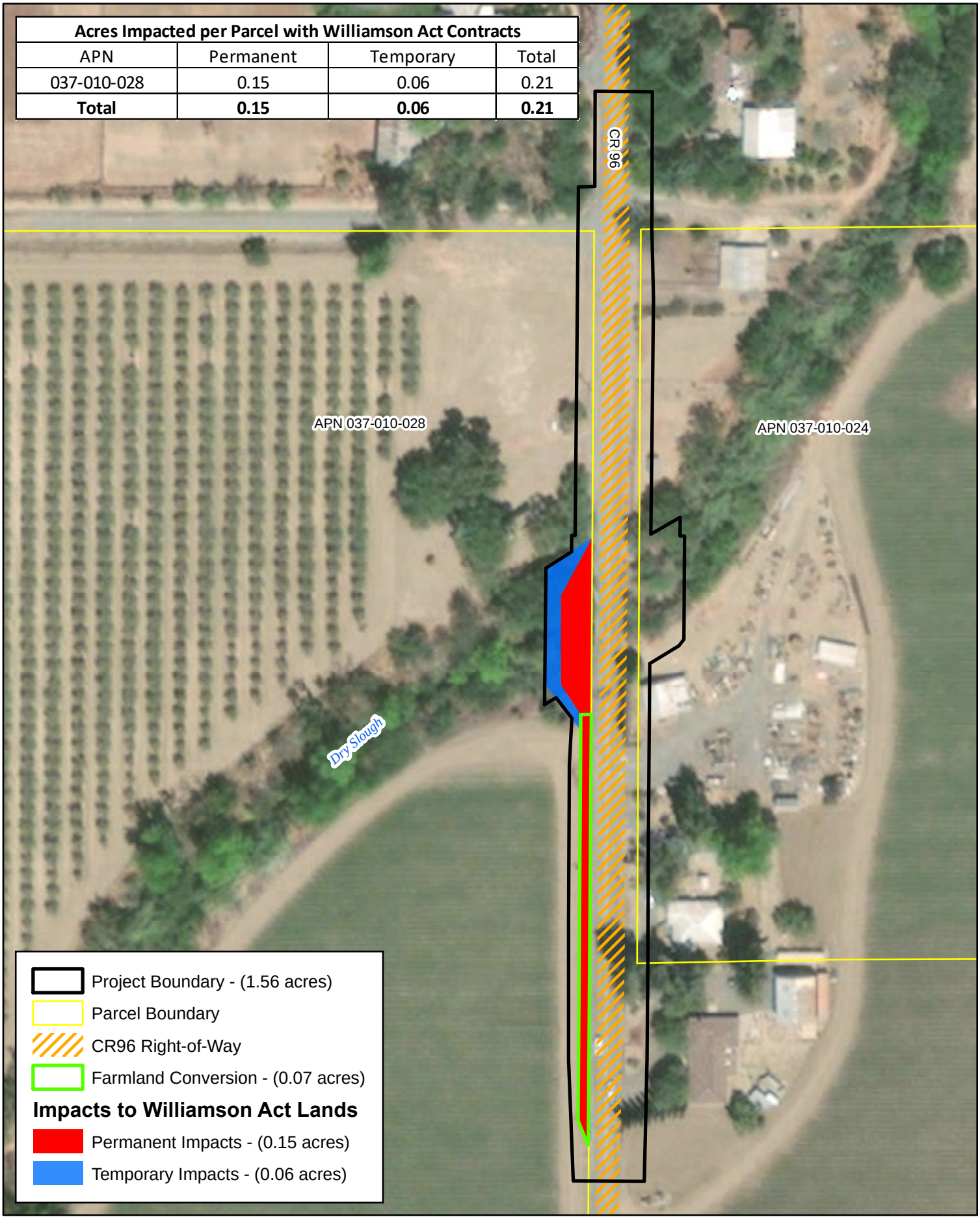
County Road 96 Over Dry Slough
Farmland Impacts Map
Attachment B

gallaway ENTERPRISES

GE: #17-013A Map Date: 03/17/2022

Attachment C: Williamson Act Land

Acres Impacted per Parcel with Williamson Act Contracts			
APN	Permanent	Temporary	Total
037-010-028	0.15	0.06	0.21
Total	**0.15**	**0.06**	**0.21**



NORTH

1:1,300

0 50 100 Feet

Data Sources: ESRI, County of Yolo, Maxar 05/30/2021, Mark Thomas

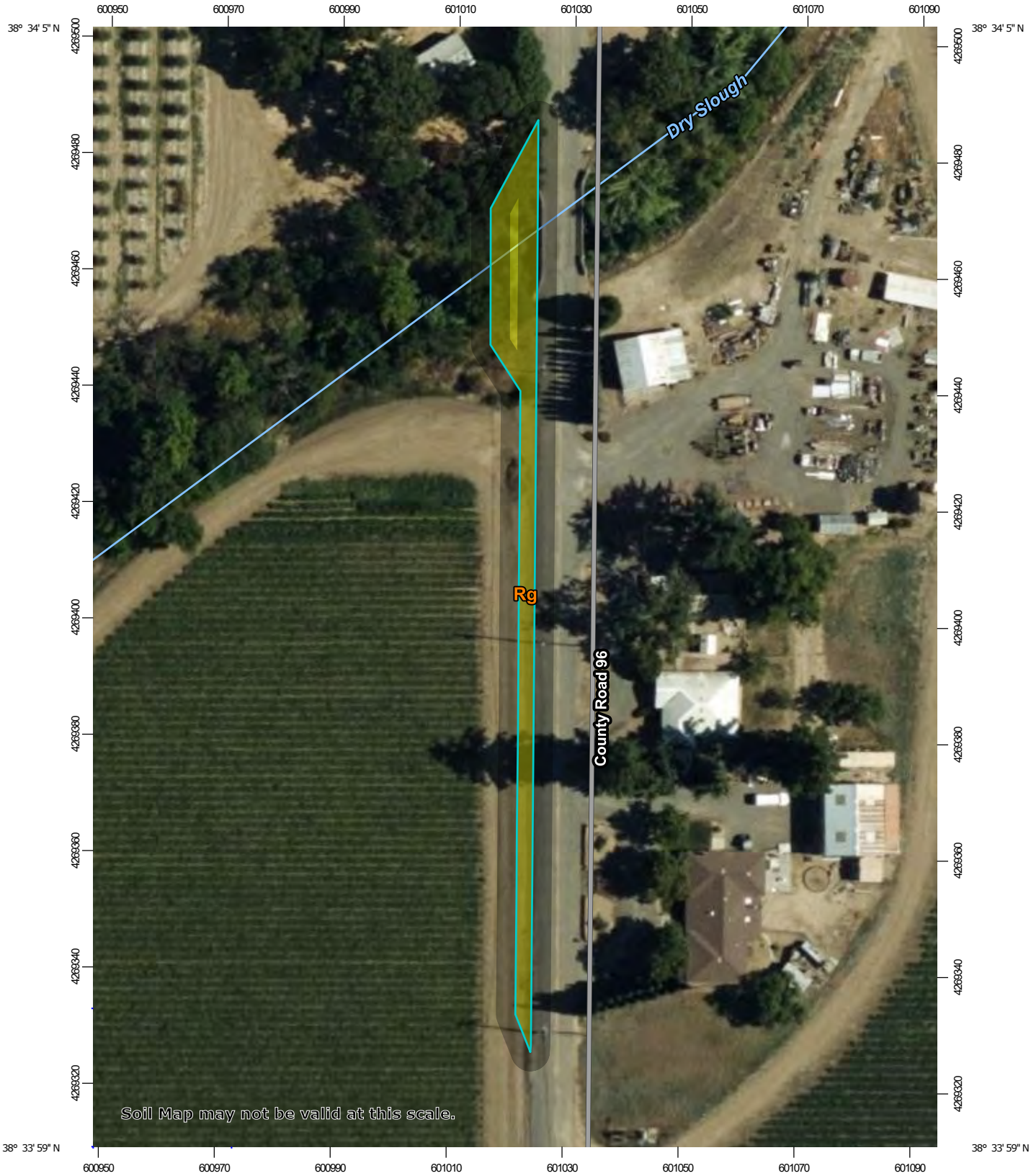
County Road 96 Over Dry Slough
Impacts to Williamson Act Lands
Attachment C

gallaway ENTERPRISES

GE: #17-013A Map Date: 3/21/2022

Attachment D: NRCS Farmland Classification Report

Farmland Classification—Yolo County, California
(CR_96_DrySlough_Boundary_FPPA)



Map Scale: 1:939 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yolo County, California
Survey Area Data: Version 17, Sep 6, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Rg	Rincon silty clay loam	Prime farmland if irrigated	0.1	100.0%
Totals for Area of Interest			**0.1**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The majority of soil attributes are associated with a component of a map unit, and such an attribute has to be aggregated to the map unit level before a thematic map can be rendered. Map units, however, also have their own attributes. An attribute of a map unit does not have to be aggregated in order to render a corresponding thematic map. Therefore, the "aggregation method" for any attribute of a map unit is referred to as "No Aggregation Necessary".

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Attachment E: Reason for Selection

Important Farmland Soils Alternatives Analysis for the CR 96 Bridge over Dry Slough BRLO-5922(104)

A total score between 160 and 220 in part V and part VI of form AD 1006 requires two alternatives to be evaluated. The current proposed project scored a 185, therefore a review of alternatives is required. The proposed project is a bridge replacement, with no other off-site options, therefore on-site alternatives should be reviewed.

The first alternative (Alternative B) considered for this plan, but dropped from consideration, was to utilize a larger shoulder slope (approximately 3:1) which resulted in a larger impact to farmlands and associated resources. Alternative B resulted in an approximate 10-percent greater impact to important farming soils.

The proposed project (Alternative A) was originally developed to increase the slope of the shoulder with the intended goal of reducing the total impact on surrounding important farming soils. Additionally, the purpose of this project is to improve public safety by replacing the bridge and the associated approach roadway. Alternative A will not negatively impact public safety and will have the least impact on important farming soils.

The third alternative (Alternative C) is a no project alternative. The no project alternative does not meet the operational and safety goals established in County's general Plan or SACOG's Metropolitan Transportation Plan, to provide infrastructure that is safe for the public and therefore does not meet the project purpose and is removed from consideration.

Based on the review of Alternative A, Alternative B, and the no project alternative - Alternative A upholds the operational and safety goals outlined in the County's general Plan and has the least impact to important farming soils, for this reason Alternative A is selected.

Appendix B

Road Construction Emissions Model Output

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Salem Street over Little Chico Creek Bridge Replacement Project

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.97	9.86	9.34	5.41	0.41	5.00	1.40	0.36	1.04	0.02	2,150.95	0.58	0.04	2,178.69
Grading/Excavation	4.86	40.17	50.18	7.10	2.10	5.00	2.91	1.87	1.04	0.10	10,016.77	2.93	0.13	10,127.50
Drainage/Utilities/Sub-Grade	3.52	33.04	34.37	6.48	1.48	5.00	2.39	1.35	1.04	0.07	6,934.43	1.56	0.09	7,000.62
Paving	1.14	14.99	10.92	0.57	0.57	0.00	0.50	0.50	0.00	0.03	2,438.46	0.65	0.05	2,469.06
Maximum (pounds/day)	4.86	40.17	50.18	7.10	2.10	5.00	2.91	1.87	1.04	0.10	10,016.77	2.93	0.13	10,127.50
Total (tons/construction project)	0.30	2.72	3.05	0.50	0.13	0.37	0.19	0.12	0.08	0.01	617.29	0.17	0.01	623.87

Notes:

Project Start Year ->	2023
Project Length (months) ->	8
Total Project Area (acres) ->	2
Maximum Area Disturbed/Day (acres) ->	1
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	200	40
Grading/Excavation	0	0	0	0	1,120	40
Drainage/Utilities/Sub-Grade	0	0	0	0	720	40
Paving	0	0	0	0	320	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Salem Street over Little Chico Creek Bridge Replacement Project

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.09	0.08	0.05	0.00	0.04	0.01	0.00	0.01	0.00	18.93	0.01	0.00	17.39
Grading/Excavation	0.17	1.41	1.77	0.25	0.07	0.18	0.10	0.07	0.04	0.00	352.59	0.10	0.00	323.40
Drainage/Utilities/Sub-Grade	0.11	1.02	1.06	0.20	0.05	0.15	0.07	0.04	0.03	0.00	213.58	0.05	0.00	195.61
Paving	0.02	0.20	0.14	0.01	0.01	0.00	0.01	0.01	0.00	0.00	32.19	0.01	0.00	29.57
Maximum (tons/phase)	0.17	1.41	1.77	0.25	0.07	0.18	0.10	0.07	0.04	0.00	352.59	0.10	0.00	323.40
Total (tons/construction project)	0.30	2.72	3.05	0.50	0.13	0.37	0.19	0.12	0.08	0.01	617.29	0.17	0.01	565.97

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Appendix C

Natural Environment Study

County Road 96 over Dry Slough Bridge Replacement Project

Natural Environment Study

Yolo County, California

Sections 2 and 3
Township 8N, Range 1E

Merritt Quadrangle

District 3-YOL-CR 96
Federal Project No. BRLO-5922 (104)

February 2021

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Natural Environment Study

STATE OF CALIFORNIA
Department of Transportation
District 3-YOL-CR 96

Prepared By: Brittany Reaves Date: 6/28/21
Brittany Reaves, Biologist
(530) 332-9909
Gallaway Enterprises
117 Meyers Street, Suite 120
Chico CA 95928

Prepared By: Mark T. Christison Date: 6/28/21
Mark T. Christison, P.E. Senior Civil Engineer
(530) 666-8842
Yolo County, Department of Community Services
292 West Beamer Street
Woodland, CA 95695

Recommended for Approval By: Brooks Taylor Date: 07/02/2021
Brooks Taylor, District Biologist
(530) 740-4807
North Region Environmental Planning M-1
Caltrans District 3

Approved By: Laura Loeffler Date: 07/02/2021
Laura Loeffler, District Environmental Branch Chief:
(530) 741-4592
North Region Environmental Planning M-1
Caltrans District 3

Table of Contents

List of Figures Tables and Appendices

List of Abbreviated Terms

BSA	Biological Study Area
BMP	Best Management Practices
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
County	Yolo County
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
GIS	Geographic Information System
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Quality Act
NES	Natural Environmental Study
NOAA	National Oceanic and Atmospheric Administration

NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
SSC	State Species of Special Concern
SWRCB	State Water Resources Control Board
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOTUS	Waters of the United States

Summary

Yolo County proposes to replace the existing bridge on County Road 96 crossing over Dry Slough with funding made available through the Federal Highway Administration Highway Bridge Program and administered by the California Department of Transportation. The bridge was determined to be functionally obsolete by California Department of Transportation as recently as 2013 and currently has a sufficiency rating of 53.6.

The project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113. County Road 96 is a rural local roadway that extends between Russell Boulevard to the south and County Road 27 to the north. The purpose of the project is to improve public safety while traveling on the County road. Construction of this project is anticipated to begin Spring of 2023 and to be completed within a single construction season.

The proposed project will construct a new bridge along the same roadway alignment. The new bridge is anticipated to be a single-span structure, approximately 60 to 70 feet long. Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Tree removal and removal of other vegetation along the slough will be necessary for the project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway. Relocation of overhead electrical and communication lines, including four utility poles, along the west side of County Road 96 is anticipated as part of the project.

Gallaway Enterprises conducted assessments in compliance with the Yolo County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The assessments included a Land Cover Mapping and Covered Species Habitat Assessment and a Planning Level Survey for Land Cover Types and Covered Species Habitat. The purpose of the assessments was to determine the presence of special-status species, quantify land cover types, and define impacts within the Biological Study Area (BSA). The BSA for the project includes the roadway and bridge structure, County right-of-way, areas of proposed right-of-way acquisition along County Road 96, and a 10-foot buffer from the areas of direct impact (Fee Buffer) as required by the Yolo HCP/NCCP. Land cover types designated by the Yolo

County HCP/NCCP as Sensitive Natural Communities occur within the BSA: Riverine and Valley Foothill Riparian. Other Yolo HCP/NCCP land cover types that occur within the BSA are: Barren, Cultivated Lands, Developed, and Semiagricultural.

There is no suitable habitat for special-status plant species within the BSA. There is suitable habitat within the BSA for western pond turtle, Swainson's hawk, white-tailed kite, and tricolored blackbird, which are covered species under the Yolo County HCP/NCCP. There is modeled habitat for western pond turtle, Swainson's hawk, white-tailed kite, western yellow-billed cuckoo, and tricolored blackbird within the BSA. Modeled habitat represents land areas for which the Yolo County HCP/NCCP expects to provide habitat for covered species based on modeled habitat parameters (e.g., land cover type, distance from aquatic areas, topography, species occurrences). There is also a potential for occurrence within the BSA for northern harrier, pallid bat, and nesting migratory birds and raptors protected under the Migratory Bird Treaty Act and California Fish and Game Code.

Consistent with the Yolo County HCP/NCCP, planning level surveys were conducted for the federally listed western yellow-billed cuckoo due to the presence of modeled habitat; however, suitable nesting habitat was not identified within the BSA.

There will be no impacts to western pond turtle, Swainson's hawk, white-tailed kite, tricolored blackbird, northern harrier, pallid bat, or nesting migratory birds and raptors with the implementation of avoidance and minimization measures in accordance with the Yolo County HCP/NCCP.

There will be minor permanent impacts to Dry Slough, an "other water" tributary (0.023 acres). There will be no impacts to wetlands as currently defined under the federal Clean Water Act. Mitigation for impacts to jurisdictional waters of the United States will be addressed through the purchase of credits at a Corps approved mitigation bank or payment to a Corps approved in-lieu fund.

Chapter 1 – Introduction

The purpose of the County Road (CR) 96 Over Dry Slough Bridge Replacement Project (project) is to improve public safety by replacing the current bridge on CR 96 over Dry Slough which was determined to be functionally obsolete in 2013. The project is located in unincorporated Yolo County, California (**Figure 1: Regional Location Map, Figure 2: Project Location Map**).

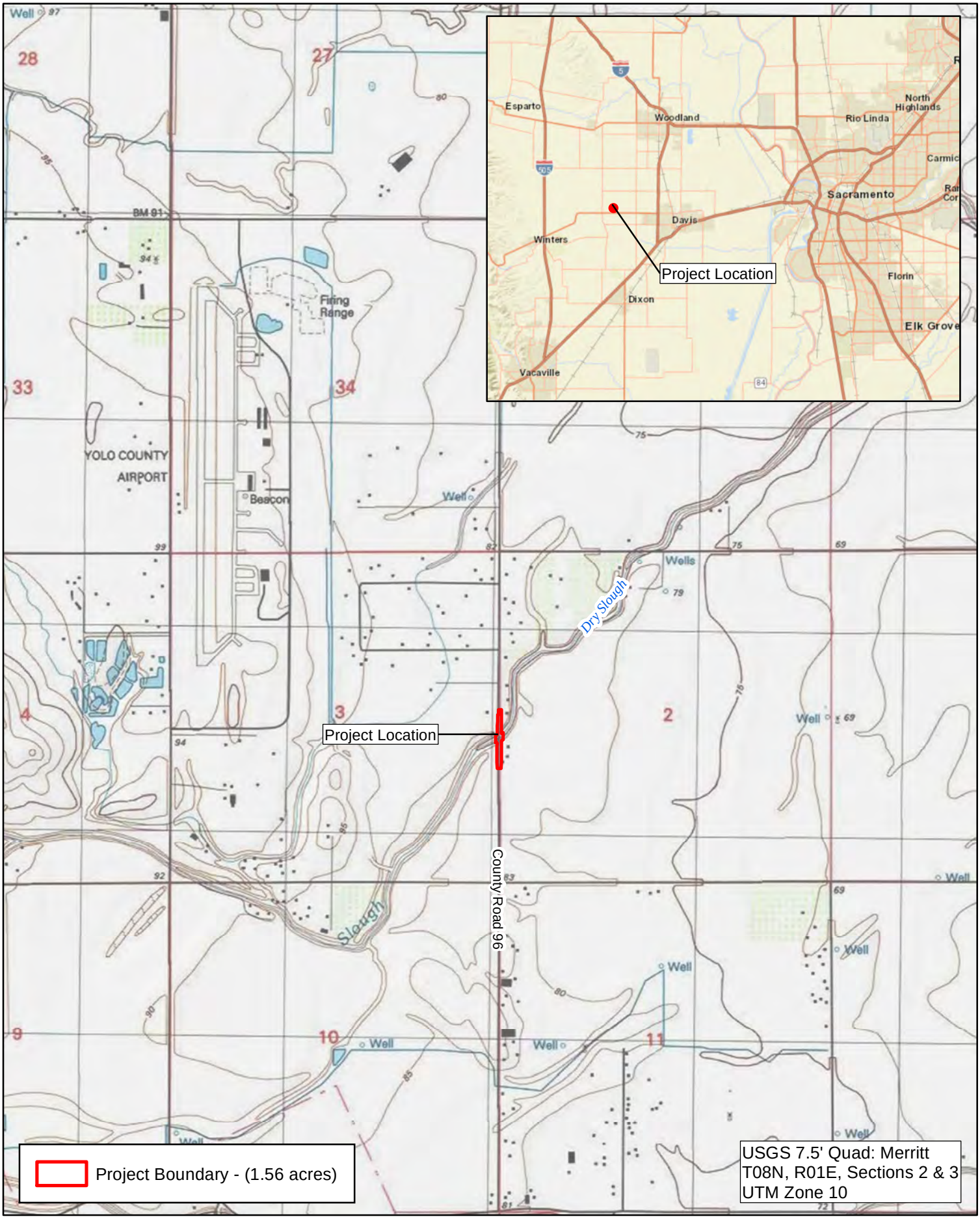
The purpose of this Natural Environment Study (NES) is to evaluate potential project impacts to special-status species and their habitats within the project vicinity. In addition, this NES complies with the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP) survey and reporting requirements.

Project History and Description

Yolo County (County) proposes to replace the existing bridge on CR 96 over Dry Slough with funding made available through the Federal Highway Administration (FHWA) Highway Bridge Program and administered by the California Department of Transportation (Caltrans). The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6.

The project site is located within the southern region of Yolo County, east of the Yolo County Airport. County Road 96 is a rural local roadway that extends between Russell Boulevard to the south and CR 27 to the north. County Road 96 is paved and has an approximate width of 20 feet. The bridge, with an Average Daily Traffic count of 216 vehicles, is bordered by agricultural and residential parcels. There is a residential structure approximately 100 feet northwest of the bridge and an agricultural building approximately 60 feet southeast of the bridge. The posted speed limit along CR 96 within the project vicinity is 45 mph.

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span, reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition, with spalling and exposed rebar.



NORTH

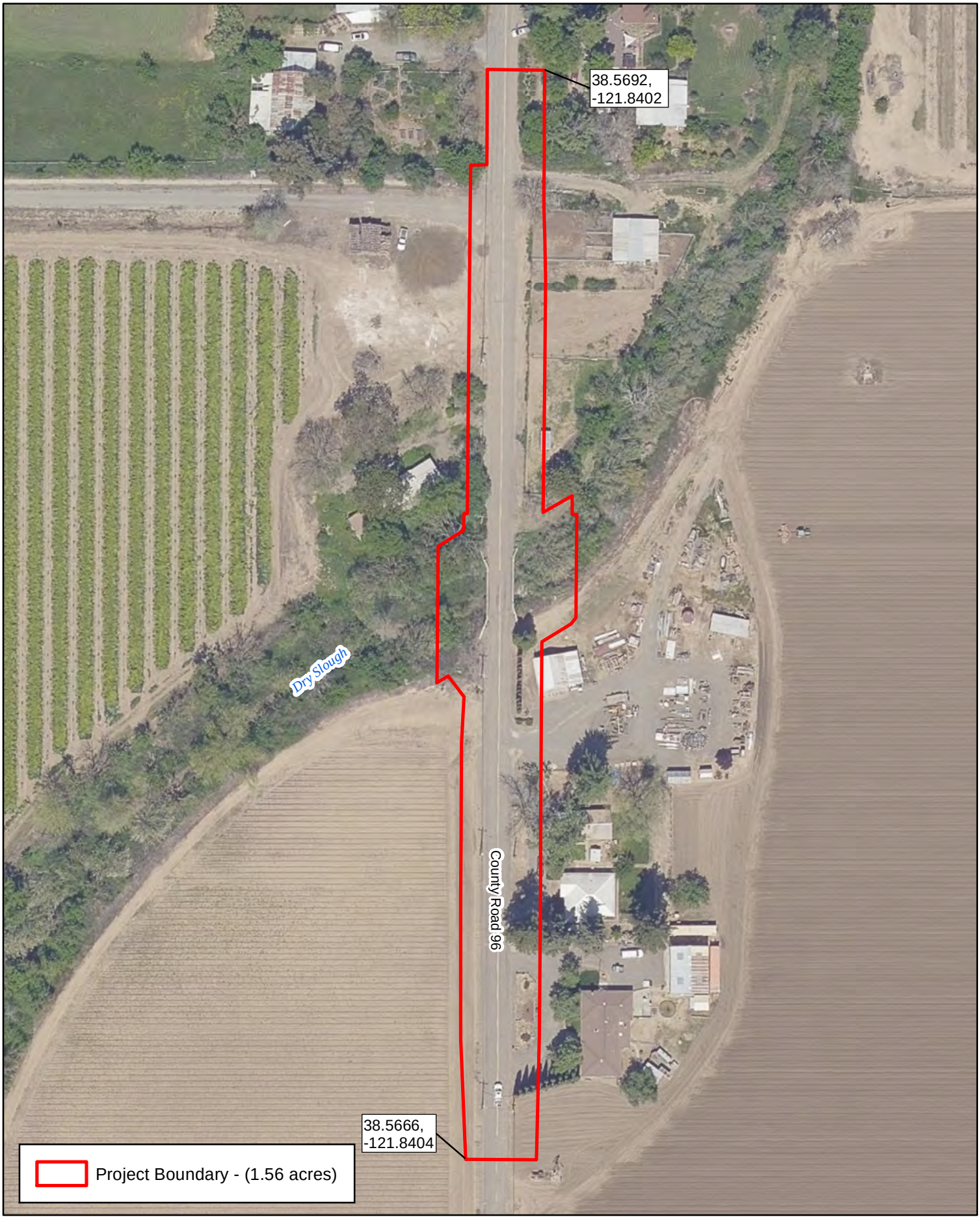
1:24,000
0 1,000 2,000 Feet

Data Sources: ESRI, Yolo County, USGS, Mark Thomas

County Road 96 Over Dry Slough
Regional Location Map
Figure 1

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20



NORTH

1:1,300
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Project Location Map
Figure 2

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20

The proposed project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes and 2-foot shoulders. The new bridge is anticipated to be a single-span structure, approximately 60 feet long. The structure type is expected to consist of a cast-in-place, post-tensioned concrete slab. The roadway and bridge profile will be lowered slightly to smooth out the existing substandard vertical curve, while still providing clearance over the 100-year storm event.

Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Tree removal and removal of other vegetation along the slough will be necessary for the project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the project. Although the traveled way and shoulders will remain within the County's right of way, permanent acquisitions may be needed for the approach grading and utility relocation from three to four parcels. Temporary construction easements may be needed from up to seven parcels adjacent to the project to facilitate driveway conforms, utility relocations, and allow construction access.

During construction, CR 96 will be closed to through traffic and a detour route made available. Vehicular traffic will be able to utilize CR 95, 31, and 29 as alternative routes. Construction is anticipated to begin in Spring 2023 and have a duration of approximately 8 months.

Chapter 2 – Study Methods

Biological and botanical surveys were conducted by Gallaway Enterprises after consulting the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) species list, National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) official species list, NOAA NMFS Essential Fish Habitat (EFH) mapper database, California Natural Diversity Database (CNDDB) records, and the California Native Plant Society's (CNPS) list of rare and endangered plants gathered for the Biological Study Area (BSA) (**Appendix A: Species Lists, Figure 3: Biological Study Area**). The BSA for the project includes the roadway and bridge structure where construction will take place, County right-of-way, areas of proposed right-of-way acquisition along County Road 96, and a 10-foot buffer from the areas of direct impact (Fee Buffer) as required by the Yolo HCP/NCCP. Additionally, a map was obtained from the CNDDB Geographic Information System (GIS) database, which provided general locations of species that had recorded CNDDB occurrences within a quarter-mile radius of the project location (**Figure 4: CNDDB Occurrences**). This quarter-mile buffer was utilized based on project proximity requirements implemented in the Yolo HCP/NCCP. Based on the results of the species lists and CNDDB map, appropriate biological, botanical, and planning-level surveys were conducted.

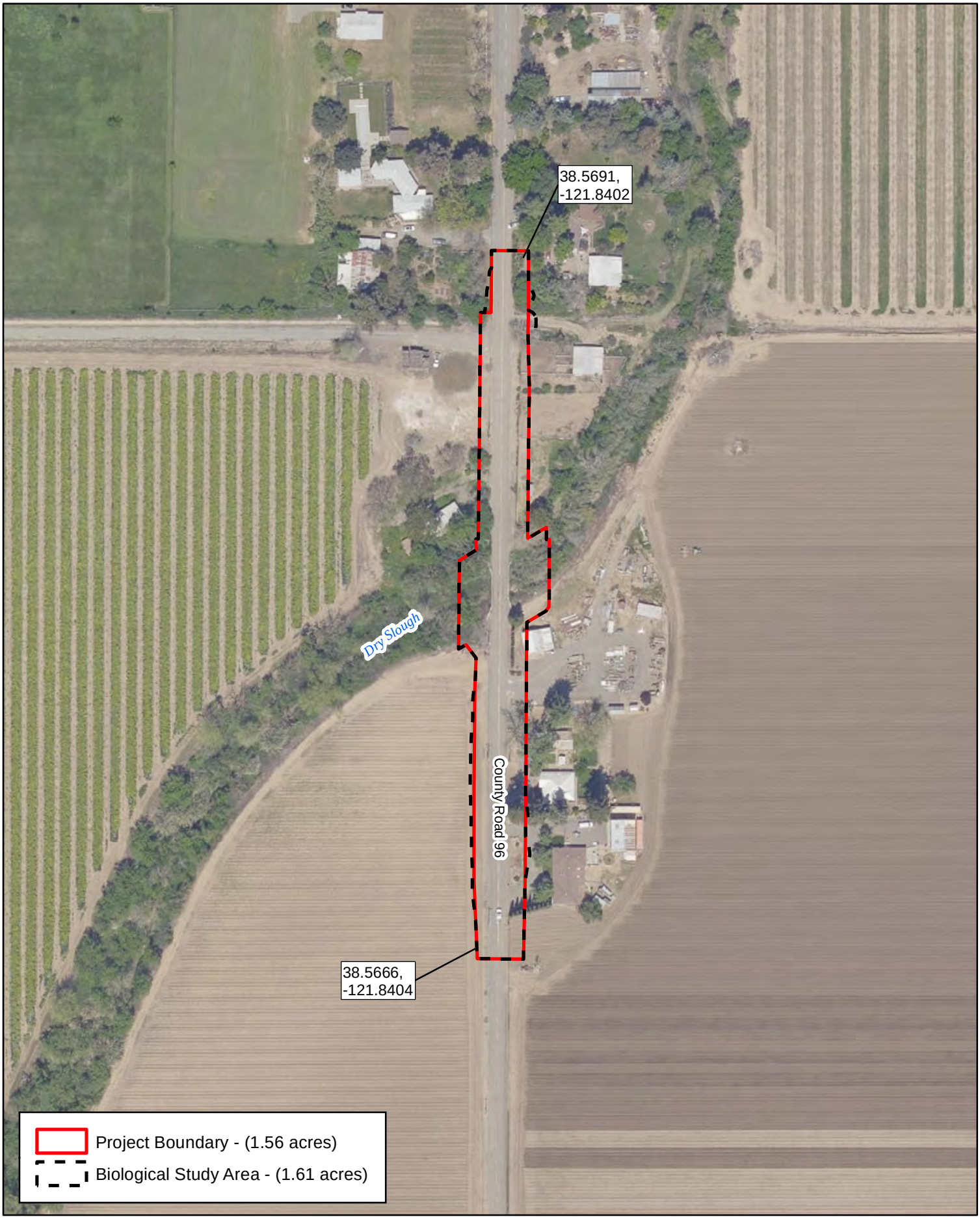
Regulatory Requirements

The following describes federal, state, and local environmental laws and policies that are relevant to the NEPA and CEQA review processes and documents compliance with the Yolo HCP/NCCP Implementation Handbook: Permitting Guide (February 2020).

Federal

<u>Federal Endangered Species Act</u>

The United States Congress passed the federal Endangered Species Act (ESA) in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The ESA makes it unlawful to "take" a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."



NORTH

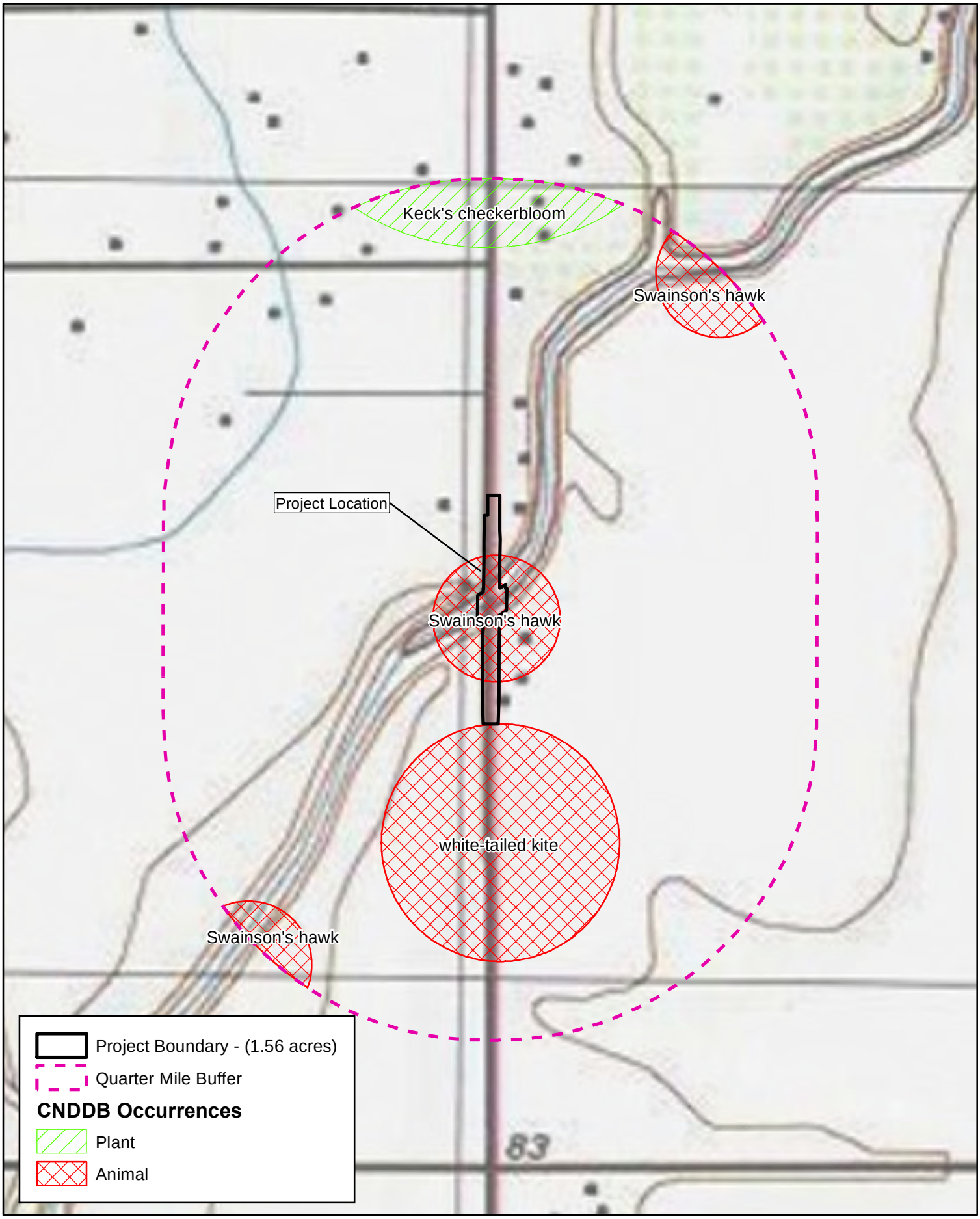
1:2,000
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Biological Study Area
Figure 3

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20



NORTH

1:6,200

0 250 500 Feet

Data Sources: ESRI, Yolo County, USGS, Mark Thomas, CNDDB

County Road 96 Over Dry Slough
CNDDB Occurrences
Figure 4

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e., exotic) species (50 Code of Federal Regulations (CFR) §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31 in the Central Valley). If vegetation removal or ground disturbance activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA present in the construction area prior to commencement of construction. If active nests are located or presumed present, then appropriate avoidance measures (e.g., spatial or temporal buffers) must be implemented.

Waters of the United States, Clean Water Act, Section 404

The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States (WOTUS), under the Clean Water Act (§404). The term "waters of the United States" is an encompassing term that includes "wetlands" and "tributaries." Wetlands have been defined for regulatory purposes as follows: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas." Tributaries are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit.

Executive Orders 13112; Prevention and Control of Invasive Species

On Feb 3, 1999, Executive Order 13112 was signed establishing the National Invasive Species Council. Executive Order 11312 directs all federal agencies to prevent and control introductions of invasive nonnative species in a cost-effective and environmentally sound manner to minimize their economic, ecological, and human health impacts. Executive Order 11312 established a national Invasive Species Council made up of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of state, local, and private entities. The Invasive Species Council and Advisory Committee oversees and facilitates implementation of the Executive Order, including preparation of a National Invasive Species Management Plan.

Section two (2) of the Executive Order states:

(a) Each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law, (1) identify such actions; (2) subject to the availability of appropriations, and within Administration budgetary limits, use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them; and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.

(b) Federal agencies shall pursue the duties set forth in this section in consultation with the Invasive Species Council, consistent with the Invasive Species Management Plan and in cooperation with stakeholders, as appropriate, and, as approved by the Department of State, when Federal agencies are working with international organizations and foreign nations.

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the California Department of Fish and Wildlife (CDFW) when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, "Species of Special Concern" receive consideration by CDFW. Species of Special Concern are those whose numbers, reproductive success, or habitat may be threatened.

California Fish and Game Code

The California Fish and Game Code (CFGC) (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Clean Water Act, Section 401

The Clean Water Act (CWA) (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the CWA (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board (SWRCB), Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the CWA (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

Streambed Alteration Agreement

The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The CFGC (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds… except when the department has been notified pursuant to Section 1601." If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Rare and Endangered Plants

The California Native Plant Society (CNPS) maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The CNPS California Rare Plant Rank (CRPR) categorizes plants as the following:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Game Code §1913 exempts from the 'take' prohibition 'the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way."

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or

state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Yolo County

Yolo Habitat Conservation Plan/Natural Community Conservation Plan

The Yolo HCP/NCCP is a 50-year regional plan that proposes to protect endangered species and natural resources while allowing for orderly development in Yolo County consistent with local General Plans. The plan covers 12 wildlife and plant species and implements guidelines for identifying and minimizing potential impacts to species that are covered under the plan. The NES has been prepared in accordance with the Yolo HCP/NCCP Implementation Handbook: Permitting Guide (February 2020).

Studies Required

Gallaway Enterprises conducted biological and botanical habitat assessments within the BSA. Gallaway Enterprises' qualified biologist Melissa Murphy and senior botanist Elena Gregg conducted planning level surveys and field verified Yolo HCP/NCCP mapped land cover types. Planning level surveys are conducted during the project planning and permitting process. There are two types of planning level surveys: 1) surveys conducted to assess land cover types and covered species habitat, and 2) surveys to determine the presence or absence of covered species through species-specific protocol-level surveys. Information collected during planning level surveys is used to determine land cover impacts, mitigation fees, and applicable avoidance and minimization measures.

Planning level surveys were conducted following review of the Yolo HCP/NCCP, USFWS IPaC report, CNDDB Rarefind 5 report, CNPS list, and the CNDDB occurrence map (**Figure 4: CNDDB Occurrences**). The United States Geological Survey (USGS) "Merritt" 7.5-minute quadrangle was used to derive the agency species lists (**Appendix A: Species Lists**). Based on the results of these inquiries, Gallaway Enterprises conducted planning level surveys and protocol-level surveys to identify any Yolo HCP/NCCP-covered, rare, endangered, threatened, or sensitive species and their habitats that may have the potential to occur within the BSA. The Yolo HCP/NCCP covers 12 species and their

habitats; however, Gallaway biologists conducted habitat assessments for all sensitive wildlife and plant species that could be impacted by the project.

On May 29, 2020, biologists approved by the Yolo HCP/NCCP conducted planning level surveys for land cover types and covered species habitat. When applicable, species-specific surveys were completed. Ms. Murphy and Mrs. Gregg verified the location of the BSA within the Yolo HCP/NCCP designated planning units and the acreage of land cover types present (**Figure 2: Project Location**).

A delineation of waters of the United States (WOTUS) was completed for the BSA. The BSA was surveyed on-foot by Gallaway Enterprises staff on May 29, 2020 to identify potentially jurisdictional features. The surveys involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (2008). The boundaries of non-tidal, non-wetland waters, when present, were delineated at the OHWM as defined in 33 Code of Federal Regulations (CFR) 328.3 and further described in the U.S. Army Corps of Engineers' *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (2008). The OHWM represents the limit of Corps jurisdiction over non-tidal waters (e.g., streams and ponds) in the absence of adjacent wetlands (33 CFR 328.04) (Curtis et al. 2011).

Personnel and Survey Dates

Gallaway Enterprises visited the BSA on May 29, 2020. During the visit, senior biologist Melissa Murphy and senior botanist Elena Gregg conducted planning level surveys as prescribed by the Yolo HCP/NCCP. (**Appendix B: Observed Species List, Appendix C: Project Site Photos**).

Ms. Murphy has over 8 years of experience surveying at the protocol and general level for listed reptiles and amphibians including giant garter snake, California red-legged frog, foothill yellow-legged frog, and western pond turtle. Ms. Murphy has extensive experience PIT tagging reptiles, assisting in de-watering activities including fish relocation, surveying for nesting birds and raptors, capturing and banding waterfowl, and conducting habitat assessments for listed species. She regularly conducts habitat assessments and develops and implements mitigation measures for a variety of private and public works projects throughout northern California. Ms. Murphy is approved by the Yolo Conservancy to conduct surveys prescribed by the Yolo HCP/NCCP.

Mrs. Gregg has over 15 years of experience conducting rare plant surveys, wetland delineations, and habitat assessments in California. She has a working knowledge of

CNPS, CDFW, and USFWS survey protocols and holds a CDFW collection permit for listed plant species. Through her extensive field experience in a wide array of habitats and eco-regions in northern California, Mrs. Gregg has gained knowledge of locally invasive plants species and noxious weeds. Mrs. Gregg is approved by the Yolo Conservancy to conduct surveys prescribed by the Yolo HCP/NCCP.

Land Cover Mapping and Covered Species Habitat Assessment Verification

The Land Cover Mapping and Covered Species Habitat Assessment and a Planning Level Survey for Land Cover Types and Covered Species Habitat were conducted by walking the entire BSA and identifying specific habitat types and elements. Land within 1,320 feet of the project limits was evaluated for land cover types and the presence of suitable habitat for species covered under the Yolo HCP/NCCP. If suitable habitat was observed for special-status species, it was then evaluated for quality based on vegetation composition and structure, physical features (e.g., water, soils), micro-climate, surrounding area, presence of predatory species and available resources (e.g., prey items, nesting substrates).

Botanical Habitat Assessment

A botanical habitat assessment was conducted on May 29, 2020 by senior botanist Elena Gregg to assess potential for special-status plant species to occur within the BSA. The assessment was conducted by walking in all accessible areas of the BSA and noting the habitat elements present (e.g., soils, geology, hydrology, topography, aspect, elevation, etc.) and vegetation communities present. If present, natural and man-made disturbance patches were noted as well as the successional stage of vegetation within the BSA. Botanical species observed within the BSA during this field visit are listed in **Appendix A**.

Limitations That May Influence Results

Only lands where Yolo County secured a right of entry were surveyed. Lands outside of the BSA that required analysis by the Yolo HCP/NCCP were done so remotely. There were no other limitations that may influence results of the Land Cover Mapping and Covered Species Habitat Assessment and planning level surveys within the BSA.

Chapter 3 – Results: Environmental Setting

Description of the Existing Biological and Physical Conditions

Study Area

The BSA is the area where the focus of biological surveys is conducted and where all construction and staging will occur (**Figure 3: Biological Study Area**). The BSA includes all anticipated right of way acquisition areas. The survey area encompasses the entire existing CR 96 over Dry Slough Bridge and approaches on both sides on the bridge, as well as the Yolo HCP/NCCP Fee Buffer. The total area of the BSA is 1.61 acres. In accordance with the Yolo HCP/NCCP, land within 1,320 feet of the project limits was evaluated for land cover types and the presence of suitable habitat for species covered under the plan.

Physical Conditions

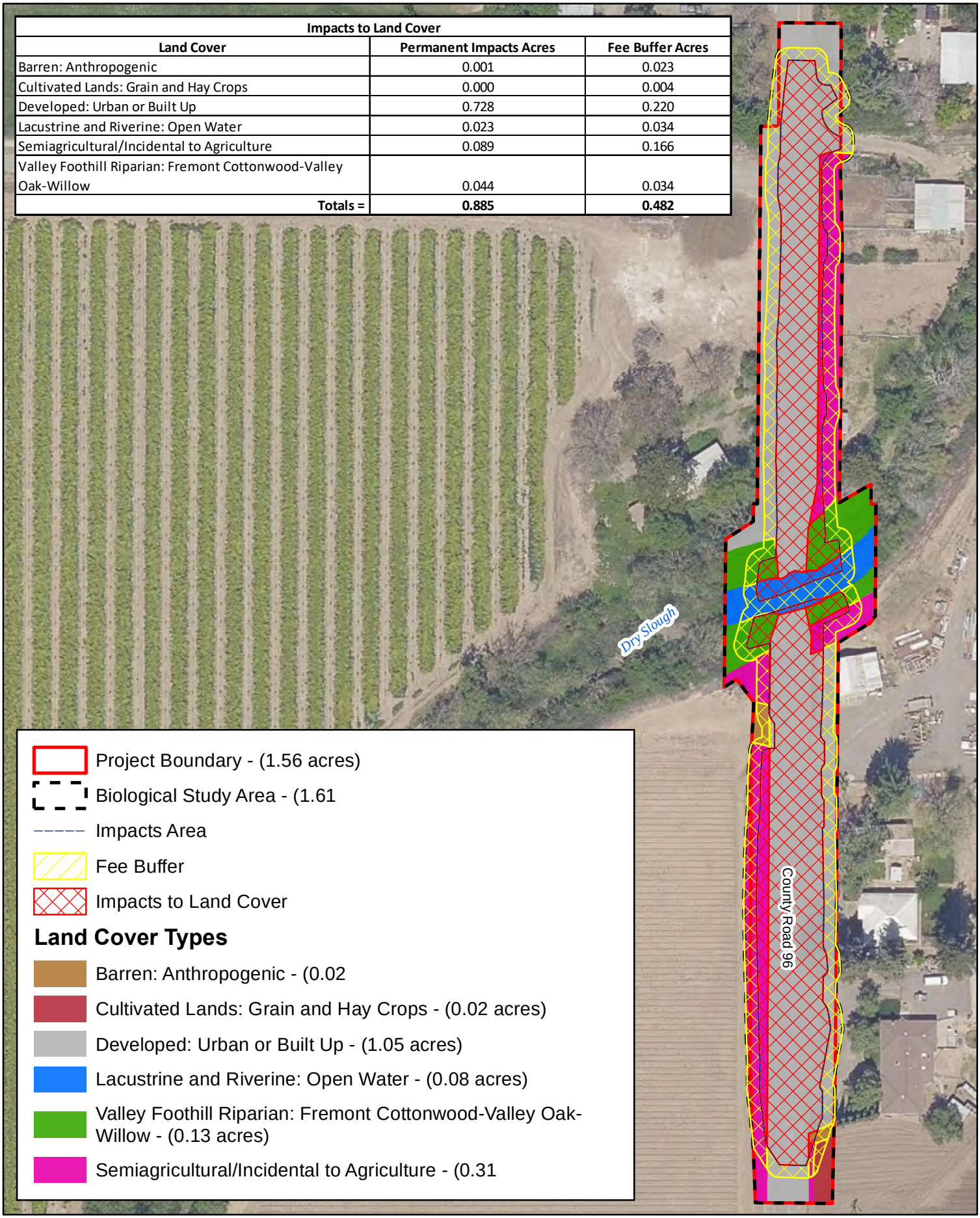
The BSA is located within the Sacramento Valley, west of Davis in unincorporated Yolo County, California. The BSA is composed primarily of existing asphalt roadway, gravel road shoulders, and the bridge spanning Dry Slough. Land within the BSA that occurs outside of the roadway and bridge is composed of Dry Slough (a perennial drainage), a narrow band of valley foothill riparian vegetation along the steep banks, rural residences, and active agricultural land. Soils within the BSA consist of loam. The average annual precipitation for the area is 17.55 inches and the average temperature is 60.35° F (Western Regional Climate Center 2020). The BSA occurs at an elevation of approximately 85 feet above sea level. The overall area is sloped between 0 and 2 percent; however, the banks of Dry Slough are highly channelized with slopes of 70 percent or greater.

Biological Conditions in the Biological Study Area

Land cover types delineated by the Yolo HCP/NCCP within the BSA are Barren: Anthropogenic, Cultivated Lands: Grain and Hay Crops, Developed: Urban or Built Up, Riverine: Open Water, Semiagricultural: Incidental to Agriculture, and Valley Foothill Riparian: Fremont Cottonwood-Valley Oak-Willow (**Figure 5: Impacts to Land Cover**).

Land cover types were mapped within the BSA, including the area where construction will occur and a 10 foot buffer from the areas of permanent impact which is referred to as the “Fee Buffer.” The Yolo HCP/NCCP requires that permanent impacts to land cover types and the Fee Buffer areas be calculated and entered into the application form for coverage under the Yolo HCP/NCCP, thus **Figure 5** includes a column that depicts the permanent impacts to land cover types and well as the Fee Buffer areas.

Impacts to Land Cover		
Land Cover	**Permanent Impacts Acres**	**Fee Buffer Acres**
Barren: Anthropogenic	0.001	0.023
Cultivated Lands: Grain and Hay Crops	0.000	0.004
Developed: Urban or Built Up	0.728	0.220
Lacustrine and Riverine: Open Water	0.023	0.034
Semiagricultural/Incidental to Agriculture	0.089	0.166
Valley Foothill Riparian: Fremont Cottonwood-Valley Oak-Willow	0.044	0.034
Totals =	**0.885**	**0.482**



NORTH

1:1,200
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Impacts to Land Cover Types
Figure 5

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/21/20

Yolo HCP/NCCP Land Cover Types

Riverine

The Lacustrine and Riverine land cover type is defined by the Yolo HCP/NCCP as a Sensitive Natural Community (SNC) and is comprised of the open water portions of lakes, rivers, and streams. Within the BSA, there is one (1) drainage that qualifies as Riverine habitat: Dry Slough (**Figure 5**). Dry Slough is a perennial drainage that is used in the summer months to transport agricultural water. Perennial drainages typically flow year-round and have a documented hydrologic connection to a Traditionally Navigable Water. High-flowing water was observed within Dry Slough during the May field visit. Riverine habitat provides food for waterfowl, herons (*Ardeidae* sp.), and many species of insectivorous birds, hawks, and their prey. Riverine habitats support many species of fish, amphibians, reptiles, birds, and mammals (Meyer and Laudenslayer 1988).

Cultivated Lands : Grain and Hay Crops

The Cultivated Lands: Grain and Hay Crops land cover type consists of irrigated and dryland grain and hay crops; predominately wheat, barley, rye, and oat hay. Grain and hay crops do not conform to normal habitat stages and are regulated by the crop cycle in California. Rodents, birds, and some mammals have adapted to field crops and are often controlled by fencing, trapping, and poisoning (Mayer and Laudenslayer 1988). Grain and hay crops may support foraging habitat for Swainson's hawk, white-tailed kite, and tricolored blackbird per the Yolo HCP/NCCP.

Valley Foothill Riparian: Fremont Cottonwood-Valley Oak-Willow

The Valley Foothill Riparian: Fremont Cottonwood-Valley Oak-Willow land cover type is designated as a SNC by the Yolo HCP/NCCP and consists of deciduous trees along streams and rivers, dominated by cottonwoods, willows, and oaks, and areas dominated by herbaceous or shrubby riparian vegetation if less than 1 acre in size. In the BSA, the canopy species include mature valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), and tree-of-heaven (*Ailanthus altissima*), a noxious plant. There is a dense shrub layer of sandbar willow (*Salix exigua*), giant reed (*Arundo donax*), and a few mulberry (*Morus* sp.), and an understory of Himalayan blackberry (*Rubus armeniacus*), mugwort (*Artemisia douglasiana*), and perennial pepperweed (*Lepidium latifolium*). Valley foothill riparian habitats provide food, water, migration, and dispersal corridors for fish species, and escape, nesting, and thermal cover for an abundance of other wildlife species. Within the BSA, the Fremont Cottonwood-Valley Oak-Willow land cover type occurs along the banks of Dry Slough.

Developed: Urban

The Developed: Urban land cover type consists of areas dominated by pavement and building structures, including barren lands graded for development. This environment can present a mosaic of vegetation, including primarily ornamental landscaping, but can also incorporate native tree species. Generalist and invasive species often occupy urban habitat such as common raven (*Corvus corax*), house sparrow (*Passer domesticus*), scrub-jay (*Aphelocoma californica*), and Brewer's blackbird (*Euphagus cyanocephalus*), as well as small to medium mammals (e.g., raccoon, opossum, striped skunk) (Mayer and Laudenslayer 1988).

Semiagricultural/Incidental to Agriculture

Semiagricultural areas include livestock feedlots, farmsteads, and miscellaneous semiagricultural features such as small roads, ditches, and unplanted areas of cropped fields (e.g., field edges). The Semiagricultural land cover type provides marginal potential habitat for wildlife.

Regional Species and Habitats and Natural Communities of Concern

The following special-status species were identified under the Yolo HCP/NCCP, USFWS IPaC species list, NOAA-NMFS official species list, CNDDB Rarefind 5, and the CNPS inventory of rare and endangered plants as having potential to occur within the vicinity of the BSA and/or having recorded observations within or within close proximity of the BSA. Not all special-status species listed under federal and state species lists have potential to occur within the BSA due to unsuitable habitat or lack of observations in the area. A summary of special-status species listed in the Yolo HCP/NCCP, USFWS IPaC, CNDDB, and the CNPS species lists derived from the "Merritt" USGS 7.5-minute quadrangle and their potential to occur within the BSA is described in **Table 1**.

Table 1: Listed and Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the CR 96 over Dry Slough Bridge Replacement Project Area.

Common Name	Scientific Name	Status Fed, State, CNPS, HCP	General Habitat Description	Habitat Present/ Absent	Rationale
SENSITIVE NATURAL COMMUNITIES					
Riverine	N/A	HCP	The open water portions of rivers and streams.	HP	There is Riverine Natural Community present within the BSA.
Valley Foothill Riparian	N/A	HCP	Scrubby vegetation, deciduous trees, and alder, willow, and oak forests associated with streams and riparian areas.	HP	There is Valley Foothill Riparian Natural Community present within the BSA.

PLANTS					
California alkali grass	*Puccinellia simplex*	1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. (BP: Mar - May)	A	There is no suitable habitat within the BSA. This species was not observed during the protocol-level survey conducted within the BSA on May 29, 2020.
Ferris' milk-vetch	*Astragalus tener var. ferrisiae*	1B.1	Meadow & seep, Valley & foothill grassland, Wetland. (BP: Apr–May)	A	There is no suitable wetland habitat present in the BSA. This species was not observed during the protocol-level survey conducted within the BSA on May 29, 2020.
Heartscale	*Atriplex cordulata var. cordulata*	1B.2	Chenopod scrub, meadows and seeps, valley/foothill grassland (sandy), in saline or alkaline soils. (BP: Apr -Oct)	A	There is no suitable habitat within the BSA. This species was not observed during the protocol-level survey conducted within the BSA on May 29, 2020.
Keck's checkerbloom	*Sidalcea keckii*	FE/1B.1	Grassy slopes in blue oak woodland. On serpentine-derived, clay soils, at least sometimes. Found at elevations between 85-505 meters. (BP: Apr-May)	A	There is no blue oak woodland within the BSA. The BSA is outside of the species known elevational range. This species was not observed during the protocol-level survey conducted within the BSA on May 29, 2020. No effect.
Palmate-bracted bird's beak	*Chloropyron palmatum*	FE/SE/1.B1/HCP	Alkali prairie land cover type. (BP: May - Oct)	A	There is no suitable habitat within 250 feet of the BSA. This species was not observed during the protocol-level survey conducted within the BSA on May 29, 2020. No effect.
INVERTEBRATES					
Crotch bumble bee	*Bombus crotchii*	SC	Grassland and scrub habitats. Nests underground. Forages at open flowers with short corollas.	A	There are no grassland nor scrub habitats within the BSA. Floral resources are limited due to agricultural practices within the BSA.
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT/HCP	Blue elderberry shrubs usually associated with riparian areas.	A	No elderberry shrubs were observed within the BSA during the field visit. No effect.
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Moderately turbid, deep, cool-water vernal pool.	A	There are no vernal pools within the BSA. No effect.
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE	Vernal pools, swales, and ephemeral freshwater habitat.	A	There are no vernal pools within the BSA. No effect.
Western bumble bee	*Bombus occidentalis*	SC	Meadows and grasslands with abundant floral resources. Largely confined to high elevation sites. Nests underground in cavities such as old squirrel or other animal nests and in open west-southwest slopes bordered by trees.	A	There are no grassland nor meadow habitats within the BSA. Floral resources are limited due to agricultural practices within the BSA.

AMPHIBIANS AND REPTILES					
California red-legged frog	*Rana draytonii*	FT/SSC	Inhabits quiet pools of streams, marshes, and occasionally ponds.	A	California red-legged frogs have been extirpated from the valley floor since the 1960s (USFWS 2002). There are no CNDDB occurrences within 20 miles of the BSA. No effect.
California tiger salamander *Central California DPS*	*Ambystoma californiense*	FT/ST/HCP	Vernal pools, alkali sinks, ponds, grasslands, blue oak woodlands, blue oak-foothill pine, valley oak alliance, and pastures occurring within Planning Units 4, 5, 13, 16, or 18.	A	There is no suitable breeding habitat within 500 feet of the BSA and the surrounding agricultural practices preclude suitable upland burrows. California tiger salamander are not expected to occur within the BSA's Planning Unit (11). No effect.
Giant garter snake	*Thamnophis gigas*	FT/ST/HCP	Agricultural wetlands and ricelands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes ponds, sloughs, small lakes, and their associated uplands located east of Highway 113 and Interstate 5.	A	Per the HCP/NCCP, there is no suitable habitat for giant garter snake west of Highway 113 and Interstate 5 where the BSA is located. There is no suitable habitat within 500 feet of the BSA. No effect.
Western pond turtle	*Emys marmorata*	SSC/HCP	Ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft. elevation.	HP	The BSA contains suitable aquatic habitat for this species.
Western spadefoot	*Spea hammondii*	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Open, sparsely vegetated, intermittent pools are essential for breeding and egg-laying (January through May).	A	Dry Slough is not suitable habitat for western spadefoot due to heavy vegetative cover (USFWS 2005) and lack of suitable aestivation habitat.
FISH					
Chinook salmon *Central Valley spring-run ESU*	*Oncorhynchus tshawytscha*	FT/ST	Sacramento River and its tributaries.	A	The perennial stream present does not provide suitable habitat and barriers exist between downstream population and the BSA. No effect.
Chinook salmon *Sacramento River winter-run ESU*	*Oncorhynchus tshawytscha*	FE/SE	Sacramento River and its tributaries.	A	The perennial stream present does not provide suitable habitat and barriers exist between downstream population and the BSA. No effect.
Delta smelt	*Hypomesus transpacificus*	FT/SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay.	A	The BSA is outside of this species known range. No effect.

Steelhead *California Central Valley DPS*	*Oncorhynchus mykiss irideus*	FT	Sacramento and San Joaquin rivers and their tributaries.	A	The perennial stream present does not provide suitable habitat and barriers exist between downstream population and the BSA. No effect.
BIRDS					
Bank swallow	*Riparia riparia*	ST/HCP	Barren- gravel and sand bars land cover types in Planning Units 6, 7, 12, 14, or 17.	A	There is no suitable habitat within 500 feet of the BSA. The BSA is located in Planning Unit 11, which does not contain suitable habitat for this species.
Burrowing owl	*Athene cunicularia*	SSC/HCP	California annual grassland alliance and barren-anthropogenic land cover types, cultivated lands/pasture, alfalfa.	A	The surrounding agricultural practices eliminate the potential establishment of nesting burrows. There is no suitable habitat within 500 feet of the BSA.
Least Bell's vireo	*Vireo bellii pusillus*	FE/SE/HCP	Blackberry alliance, coyote brush, Fremont Cottonwood-valley oak-willow riparian forest association, Mixed Fremont cottonwood-willow, mixed willow alliance, and white alder (mixed willow) riparian forest land cover types located within Planning Units 7, 9, 12, 14, 17, or 18.	A	There is no suitable nesting habitat present within the BSA and the BSA is not located within 500 feet of Yolo HCP/NCCP modeled habitat. The BSA is located in Planning Unit 11, which does not contain suitable habitat for this species. No effect.
Northern harrier	*Circus hudsonius*	SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas.	HP	The nearest CNDDB occurrence (#51) is located approximately 4.9 miles east of the BSA within a wheat field. There are suitable agricultural fields that could support nesting and foraging activity for this species within the BSA.
Swainson's hawk	*Buteo swainsoni*	ST/HCP	Open grasslands, shrublands and agricultural fields, often near riparian forests.	HP	There is suitable nesting and foraging habitat within the BSA.
Tricolored blackbird	*Agelaius tricolor*	ST/HCP	Colonial nester in large freshwater marshes. Requires open, accessible water source and does most of its foraging in open habitats such as farm fields, pastures, cattle pens, large lawns.	HP	Tricolored blackbirds have adapted to nesting in blackberry brambles and dryland grain crops, which occur within the BSA. Dryland grain crops within and adjacent to the BSA may provide suitable foraging habitat.

Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT/SE/HCP	Fremont Cottonwood-valley oak-willow (ash-sycamore) riparian forest association, mixed Fremont cottonwood-willow alliance, and white alder (mixed willow) riparian forest land cover types that occur in patch sizes of 25 acres or greater with a width of at least 330 feet.	A	The BSA is located within what is modeled as western yellow-billed cuckoo habitat by the Yolo HCP/NCCP; however, there is no suitable nesting habitat present within the BSA. No effect.
White-tailed kite	*Elanus leucurus*	FP/HCP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes often next to deciduous woodlands.	HP	There are suitable nesting trees and foraging habitat within the BSA.
MAMMALS					
American badger	*Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	A	The surrounding agricultural practices and urban development eliminate the potential establishment of badger dens within the BSA.
Pallid bat	*Antrozous pallidus*	SSC	Deserts, grasslands, shrubland, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	HP	There is suitable habitat in plugged drainage hole in existing bridge, as well as in the peeling bark or crevices of trees within the BSA.

Absent [A] - no habitat present and no further work needed. Habitat Present [HP] -habitat is, or may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Candidate (SC); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1B = Rare or Endangered in California or elsewhere; CRPR 2 = Rare or Endangered in California, more common elsewhere; CRPR 3 = More information is needed; CRPR 4 = Plants with limited distribution; 0.1=Seriously Threatened; 0.2= Fairly Threatened; 0.3= Not very Threatened; Covered under the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP).

Chapter 4 – Results: Biological Resources, Discussion of Impacts and Mitigation

Waters of the United States

A delineation of WOTUS was performed for the entire project boundary (**Appendix D: Draft Delineation of Waters of the US Map**). Project impacts to potentially jurisdictional WOTUS were determined by overlaying the project plans over the delineation map. **Figure 6** depicts the anticipated impacts to WOTUS. There will be 0.023 acres of permanent impacts to Dry Slough, a jurisdictional perennial drainage. No impacts to wetlands as currently defined by the Clean Water Act will occur. Mitigation for impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps-approved in-lieu fund.

Habitats and Natural Communities of Special Concern

All land cover types that occur within the BSA, except Barren and Developed, require mitigation fees for impacts. Barren, Cultivated Lands, Developed, and Semiagricultural land cover types provide limited habitat for wildlife and plant species due to high levels of disturbance and lack of vegetation. In this section, only land cover types designated as Sensitive Natural Communities by the Yolo HCP/NCCP are discussed.

Riverine

The Riverine land cover type is identified as a SNC by the Yolo HCP/NCCP and is defined as the open water portions of rivers and streams. Within the BSA, Dry Slough provides Riverine habitat. Dry Slough has been identified as a perennial drainage that is used in the summer months to transport agricultural water. The section of Dry Slough within the BSA is highly channelized.

Perennially aquatic natural communities usually support fish, which may affect suitability for invertebrates, amphibians, and some reptiles. Turbidity, water temperature, and oxygen content affect the quality of habitat for many plant and animal species, including covered species. The concentration and characteristics of the particles that cause turbidity within the water column affect the quantity and quality of light penetration, which affects plant and algal growth rates. Water temperature varies by season and depth within the water column. Riverine habitat also provides food for waterfowl, herons (*Ardeidae* sp.), and many species of insectivorous birds, hawks, and their prey. Anadromous fish do not occur within Dry Slough due to known fish passage barriers.

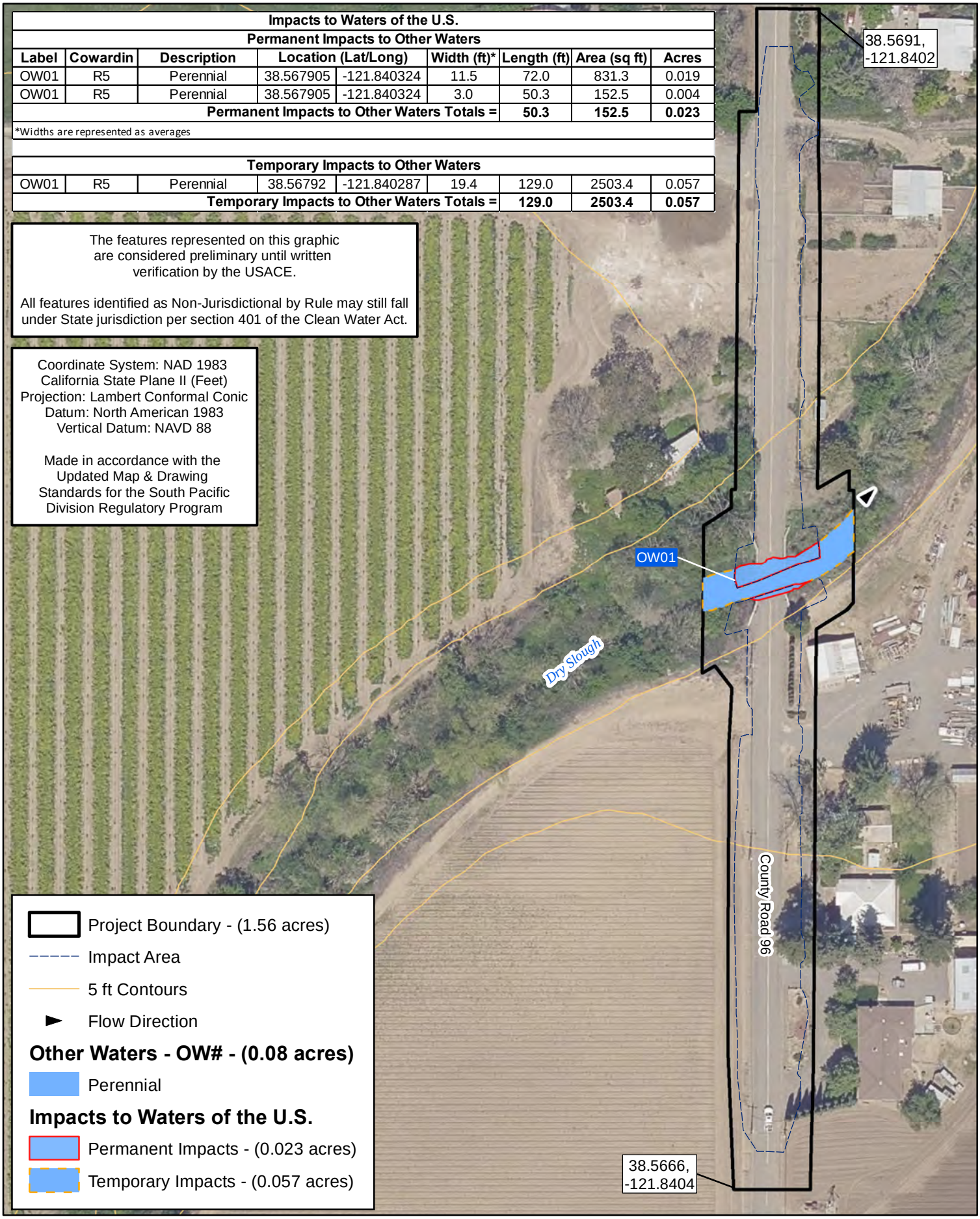
Impacts to Waters of the U.S.								
Permanent Impacts to Other Waters								
Label	**Cowardin**	**Description**	**Location (Lat/Long)**		**Width (ft)***	**Length (ft)**	**Area (sq ft)**	**Acres**
OW01	R5	Perennial	38.567905	-121.840324	11.5	72.0	831.3	0.019
OW01	R5	Perennial	38.567905	-121.840324	3.0	50.3	152.5	0.004
					Permanent Impacts to Other Waters Totals =	**50.3**	**152.5**	**0.023**
*Widths are represented as averages								
Temporary Impacts to Other Waters								
OW01	R5	Perennial	38.56792	-121.840287	19.4	129.0	2503.4	0.057
					Temporary Impacts to Other Waters Totals =	**129.0**	**2503.4**	**0.057**

The features represented on this graphic are considered preliminary until written verification by the USACE.

All features identified as Non-Jurisdictional by Rule may still fall under State jurisdiction per section 401 of the Clean Water Act.

Coordinate System: NAD 1983
California State Plane II (Feet)
Projection: Lambert Conformal Conic
Datum: North American 1983
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards for the South Pacific Division Regulatory Program



NORTH

1:1,200 1 inch = 100 feet
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Anticipated Impacts to Waters of the U.S.
Figure 6

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20

Survey Results

Dry Slough provides Riverine SNC within the BSA.

Project Impacts

The proposed project is anticipated to permanently impact approximately 0.023 acres of the Riverine SNC due to the placement of the new bridge abutments and Rock Slope Protection (RSP). The project will temporarily impact 0.057 acres of Riverine SNC due to construction occurring within the channel, which will likely include dewatering activities. Avoidance and minimization measures will be implemented to ensure effects are minimized.

Avoidance and Minimization Efforts

Avoidance and minimization measures (AMMs) for Sensitive Natural Communities are designated by the HCP/NCCP.

AMM1, Establish Buffers. Project proponents will design projects to avoid and minimize direct and indirect effects of permanent development on the sensitive natural communities and covered species habitat by providing buffers, as stipulated in the relevant sensitive natural community AMMs and covered species AMMs. On lands owned by the project proponent, the project proponent will establish a conservation easement, consistent with Yolo HCP/NCCP Section 6.4.1.3, Land Protection Mechanisms, to protect the buffer permanently if that land is being offered in lieu of development fees, as described in Yolo HCP/NCCP Section 4.2.2.6, Item 6: HCP/NCCP Fees or Equivalent Mitigation. The project proponent will design buffer zones adjacent to permanent residential development projects to control access by humans and pets (AMM2, Design Developments to Minimize Indirect Effects at Urban-Habitat Interfaces).

Where existing development is already within the stipulated buffer distance (i.e., existing uses prevent establishment of the full buffer), the development will not encroach farther into the space between the development and the sensitive natural community.

This AMM does not apply to seasonal construction buffers for covered species, which are detailed for each species in Yolo HCP/NCCP Section 4.3.4, Covered Species.

A lesser buffer than is stipulated in the AMMs may be approved by the Yolo Conservancy, USFWS, and CDFW if they determine that the sensitive natural community or covered species is avoided to an extent that is consistent with the project purpose (e.g., if the purpose of the project is to provide a stream crossing or replace a bridge, the project may encroach into the buffer and the natural community or species habitat to the extent that is necessary to fulfill the project purpose).

AMM9, Establish Buffers around Sensitive Natural Communities

Lacustrine and Riverine: Outside urban planning units, 100 feet from the top of banks (defined as the area within which water is contained in a channel). Within urban planning units, 25 feet from the top of the banks. If avoidance is infeasible, a lesser buffer or encroachment into the sensitive natural community may be allowed if approved by the Conservancy and the wildlife agencies, based on the criteria listed in AMM1. Transportation or utility crossings may encroach into this sensitive natural community provided effects are minimized and all other applicable AMMs are followed.

AMM10, Avoid and Minimize Effects on Wetlands and Waters. Project proponents will comply with stormwater management plans that regulate development as part of compliance with regulations under National Pollutant Discharge Elimination System (NPDES) permit requirements. Covered activities that result in any fill of waters or wetlands will also comply with requirements under Section 404 of the Clean Water Act, State Water Resources Control Board (State Board), Fish and Game Code Section 1602, and Regional Board regulations. Other than requirements for buffers, minimizing project footprint, and species-specific measures for wetland-dependent covered species, this HCP/NCCP does not include specific best management practices (BMPs) for protecting wetlands and waters because they may conflict with measures required by the Corps, State Board, Regional Board, and CDFW.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on Riverine SNC within the project BSA.

Compensatory Mitigation

Impacts to 0.023 acres of Riverine habitat will be mitigated for in accordance with the Yolo HCP/NCCP (**Appendix E: Yolo HCP/NCCP Application Form 4**). Additionally, mitigation for impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps-approved in-lieu fund.

Valley Foothill Riparian

The Fremont Cottonwood-Valley Oak-Willow land cover type is designated as part of the Valley Foothill Riparian SNC by the Yolo HCP/NCCP. A narrow band of Valley Foothill Riparian SNC occurs along Dry Slough within the BSA.

This habitat contains a multilayered woodland plant community with a tree overstory and diverse shrub layer. Canopy species include mature valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), ash (*Fraxinus* sp.), and willow (*Salix* sp.). In a mature riparian forest, canopy heights reach approximately 100 feet, and canopy cover ranges from 20 to 80 percent. California rose (*Rosa californica*), poison oak (*Toxicodendron diversilobum*), and blackberry (*Rubus* sp.) may form dense thickets in the understory of mature riparian forests. California grape (*Vitis californica*) creates a dense network of vines in the canopy. In areas that are disturbed by frequent flooding, fire, or human activity, this natural community often consists of smaller trees, more shrubs, and more invasive nonnative species.

The Valley Foothill Riparian SNC supports a diversity of plant and animal species and a variety of specialized plant and animal species that are restricted to this natural community for all or important parts of their life cycle. It provides nesting habitat and cover for many wildlife species. It also provides continuous corridors and isolated matrix stopover habitat that facilitates movement between habitat areas for many wildlife species. Riparian natural communities are the most productive among California's natural communities because they receive abundant water during the hot, dry summers of California's Mediterranean climate.

Some of the common wildlife species found in the Valley Foothill Riparian SNC include the red-shouldered hawk (*Buteo lineatus*), scrub-jay, downy woodpecker (*Picoides pubescens*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), oak titmouse (*Baeolophus inornatus*), and various rodents.

Survey Results

Fremont Cottonwood-Valley Oak-Willow land cover type within the Valley Foothill Riparian SNC occurs along the banks of Dry Slough within the BSA.

Project Impacts

The project is anticipated to impact 0.044 acres of Fremont Cottonwood-Valley Oak-Willow land cover type within the Valley Foothill Riparian SNC.

Avoidance and Minimization Efforts

AMM8, Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas. Project proponents should locate construction staging and other temporary work areas for covered activities in areas that will ultimately be a part of the permanent project development footprint. If construction staging and other temporary work areas must be located outside of permanent project footprints, they will be located either in areas that do not support habitat for covered species or are easily restored to prior or

improved ecological functions (e.g., grassland and agricultural land). Construction staging and other temporary work areas located outside of project footprints will be sited in areas that avoid adverse effects on the valley foothill riparian land cover type.

Project proponents will follow specific AMMs for sensitive natural communities (Section 4.3.3, Sensitive Natural Communities) and covered species (Section 4.3.4, Covered Species) in temporary staging and work areas. For establishment of temporary work areas outside of the project footprint, project proponents will conduct surveys to determine if any of the biological resources listed above are present.

Within one year following removal of land cover, project proponents will restore temporary work and staging areas to a condition equal to or greater than the covered species habitat function of the affected habitat.

Restoration of vegetation in temporary work and staging areas will use clean, native seed mixes approved by the Conservancy..

AMM9, Establish Buffers around Sensitive Natural Communities

Valley Foothill Riparian: One hundred feet from canopy dripline. If avoidance is infeasible, a lesser buffer or encroachment into the sensitive natural community may be allowed if approved by the Conservancy and the wildlife agencies, based on the criteria listed in AMM1. Transportation or utility crossings may encroach into this sensitive natural community provided effects are minimized and all other applicable AMMs are followed.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on Valley Foothill Riparian SNC within the project BSA.

Compensatory Mitigation

Impacts to 0.044 acres of Fremont Cottonwood-Valley Oak-Willow land cover type within the Valley Foothill Riparian SNC will be mitigated for in accordance with the Yolo HCP/NCCP (**Appendix E: Yolo HCP/NCCP Application Form 4**).

Special Status Plant Species

There is no suitable habitat for special-status plant species within the BSA. All of the plant species from the federal and state species lists and the Yolo HCP/NCCP do not have potential to occur within the BSA, due to either the lack of suitable habitat elements or due to the extensive farming and agricultural activities occurring within the

BSA. Historic CNDDB occurrences of special-status plant species within the vicinity of the BSA have been extirpated from the area due to agricultural practices and urban development. There are no further botanical surveys recommended.

Special Status Animal Species Occurrences

There is suitable habitat within the BSA for Swainson's hawk, white-tailed kite, western pond turtle, tricolored blackbird, northern harrier, pallid bat, and migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC). There is Yolo HCP/NCCP modeled habitat for western yellow-billed cuckoo within the BSA.

Western Pond Turtle

The western pond turtle is a Species of Special Concern in California and is a covered species under the Yolo HCP/NCCP. Western pond turtles are drab, darkish colored turtles with a yellowish to cream colored head. They range from the Washington Puget Sound to the California Sacramento Valley. Suitable aquatic habitats include slow moving to stagnant water, such as back waters and ponded areas of rivers and creeks, semi-permanent to permanent ponds, and irrigation ditches. Preferred habitats include features such as hydrophytic vegetation for foraging and cover and basking areas to regulate body temperature. In early spring through early summer, female turtles begin to move over land in search for nesting sites. Eggs are laid on the banks of slow-moving streams. The female digs a hole approximately 4 inches deep and lays up to eleven eggs. Afterwards, the eggs are covered with sediment and are left to incubate under the warm soils. Eggs are typically laid between March and August (Zeiner et al. 1990). Current threats facing the western pond turtle include loss of suitable aquatic habitats due to rapid changes in water regimes and removal of hydrophytic vegetation.

<u>Survey Results</u>

Dry Slough provides suitable aquatic habitat for western pond turtle.

<u>Project Impacts</u>

The project will impact 0.023 acres of Riverine SNC that could potentially serve as western pond turtle habitat. The BSA contains Riverine SNC, which triggers AMMs per the Yolo HCP/NCCP that typically adequately protect western pond turtles. The implementation of a 100-foot avoidance buffer from the top of the banks of Dry Slough will not be feasible due to the nature of the project. Per AMM1, the project purpose of bridge replacement allows for the encroachment into the resource protection buffer to the extent that is necessary to fulfill the project purpose. There will be no impacts to

western pond turtle individuals with the implementation of the AMMs that otherwise protect western pond turtles.

Habitat modeled by the Yolo HCP/NCCP for western pond turtle will be impacted by the project.

Avoidance and Minimization Efforts

AMM14, Minimize Take and Adverse Effects on Habitat of Western Pond Turtle. There are no specific design requirements for western pond turtle habitat, however, project proponents must follow design requirements for the valley foothill riparian and lacustrine and riverine natural communities described in AMMs 9 and 10, which require a 100-foot (minimum) permanent buffer zone from the canopy drip-line (the farthest edge on the ground where water will drip from the tree canopy, based on the outer boundary of the tree canopy).

A lesser buffer than is stipulated in the AMMs may be approved by the Yolo Conservancy, USFWS, and CDFW if they determine that the sensitive natural community or covered species is avoided to an extent that is consistent with the project purpose (e.g., if the purpose of the project is to provide a stream crossing or replace a bridge, the project may encroach into the buffer and the natural community or species habitat to the extent that is necessary to fulfill the project purpose).

If modeled upland habitat will be impacted, a qualified biologist must be present and will assess the likelihood of western pond turtle nests occurring in the disturbance area (based on sun exposure, soil conditions, and other species habitat requirements). If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground-disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on western pond turtle within the project BSA.

Compensatory Mitigation

The project is anticipated to permanently impact 0.023 acres of Riverine SNC that could potentially serve as western pond turtle aquatic habitat, as well as 0.044 acres of Valley Foothill Riparian land cover type that may potentially serve as nesting and wintering habitat. Impacts to land cover types that may support western pond turtle will be mitigated by paying fees in accordance with the Yolo HCP/NCCP (**Appendix D: Yolo HCP/NCCP Application Form 4**).

Swainson's Hawk

Swainson's hawks are listed as threatened in the State of California and are a covered species under the Yolo HCP/NCCP. They are found throughout the western part of the United States and from Canada to Mexico. Swainson's hawks are a fairly large, slender hawk with three different color morph displays. The most common morph in northern California is the dark morph, which demonstrates black to dark brown under coverts and flight feathers. Swainson's hawks primarily nest in riparian forests next to open fields that provide foraging opportunities. Nesting and courtship begin in April. Current threats facing the Swainson's hawk are loss of nesting and foraging habitat, change in agricultural regimes, pesticides, poaching, and human disturbances (CDFW 1994).

Survey Results

There are suitable nesting trees within the BSA and suitable foraging habitat in the form of open agricultural fields within and adjacent to the BSA. There were no active Swainson's hawk nests observed during the biological evaluation; however, based on the size of the trees within the BSA, there is potential for future nest establishment. Furthermore, there are CNDDB records of Swainson's hawks nesting within (#460) and adjacent (#720, #731, #432) to the BSA. None of these nesting occurrences are active (i.e., nesting activity observed within the last 5 years); however, there are multiple active nesting occurrences within 10 miles of the BSA (#98, #614, #871, #1709, #1995, #2677, #2688, #2689).

There is potential for Swainson's hawk to occur within the BSA due to the presence of suitable nesting and foraging habitat within and adjacent to the BSA, as well as past CNDDB records of nesting Swainson's hawk within and adjacent to the BSA.

Project Impacts

The project will impact 0.044 acres of Valley Foothill Riparian land cover type that could potentially serve as Swainson's hawk nesting habitat as defined by the Yolo HCP/NCCP. The BSA contains Swainson's hawk foraging habitat and nest trees, which triggers avoidance and minimization measures per the Yolo HCP/NCCP. There will be no impacts to Swainson's hawk individuals with the implementation of avoidance and minimization measures.

Avoidance and Minimization Efforts for Swainson's Hawk and White-tailed Kite

The following are recommended avoidance and minimization measures for Swainson's hawk and white-tailed kite as specified by the Yolo HCP/NCCP:

AMM16, Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-tailed Kite. The project proponent will retain a qualified biologist to conduct planning-

level surveys and identify any nesting habitat present within 1,320 feet of the project footprint.

Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.

If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent, with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 15 and August 30, within 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.

For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on Swainson's hawk or Swainson's hawk foraging habitat within the project BSA.

Compensatory Mitigation

Per the Yolo HCP/NCCP, there is 0.044 acres of Valley Foothill Riparian SNC that could potentially serve as Swainson's hawk nesting habitat within the area of impact. Impacts to Valley Foothill Riparian SNC will be mitigated for in accordance with the Yolo HCP/NCCP (**Appendix E: Yolo HCP/NCCP Application Form 4**).

White-tailed Kite

The white-tailed kite (*Elanus leucurus*) was listed as Fully Protected by the State of California in 1957. White-tailed kites are also protected under the MBTA (16 USC §703) and CFGC §3503, and are a covered species under the Yolo HCP/NCCP. They are yearlong residents in coastal and valley lowlands; frequently found near agricultural areas. White-tailed kites also inhabit herbaceous and open stages of most habitats in cismontane California. They forage in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands; however, they will rarely dive into tall cover. They use a variety of tree species to perch and roost, preferring to place their nests near tops of dense oak, willow, or other tree stands. Nests are usually located near an open foraging area that supports dense vole populations.

Survey Results

There is suitable nesting and foraging habitat present within and adjacent to the BSA. There are large trees that line Dry Slough that provide suitable nesting habitat. Dryland grain crops within and adjacent to the BSA provide foraging habitat. There were no active white-tailed kite nests observed during the biological evaluation; however, based on the presence of suitable trees within the BSA, there is potential for future nest establishment. There are three (3) CNDDB occurrences indicating nesting within 5 miles of the BSA (#43, #44, #50). All of these occurrences were recorded in 1993. Occurrence #43 is located at the southern edge of the BSA.

Project Impacts

The project will permanently impact 0.044 acres of Valley Foothill Riparian SNC that could potentially serve as white-tailed kite nesting habitat as defined by the Yolo HCP/NCCP. The BSA contains white-tailed kite foraging habitat and nest trees, which triggers avoidance and minimization measures per the Yolo HCP/NCCP. There will be no impacts to white-tailed kite individuals with the implementation of avoidance and minimization measures.

Avoidance and Minimization Efforts for Swainson's Hawk and White-tailed Kite

The following are recommended avoidance and minimization measures for Swainson's hawk and white-tailed kite as specified by the Yolo HCP/NCCP:

AMM16, Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-tailed Kite. The project proponent will retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint.

Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.

If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 15 and August 30, within 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.

For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on white-tailed kite or white-tailed kite habitat within the project BSA.

Compensatory Mitigation

Per the Yolo HCP/NCCP, there is 0.044 acres of Valley Foothill Riparian SNC that could potentially serve as white-tailed kite nesting habitat within the area of impact. Impacts to Valley Foothill Riparian SNC will be mitigated for in accordance with the Yolo HCP/NCCP (**Appendix E: Yolo HCP/NCCP Application Form 4**).

Western Yellow-billed Cuckoo

The western yellow-billed cuckoo is federally listed as threatened, State listed as endangered, and is a covered species under the Yolo HCP/NCCP. The western yellow-billed cuckoo is a medium-sized bird with a slender, long-tailed profile and a stout, slightly down-curved bill that is blue-black above and yellow on the base of the lower mandible. The western population occupies riparian woodlands along perennial rivers and streams at elevations below 6,600 feet. Cottonwood-willow galleries are most often inhabited; however, salt cedar, mesquite bosques, and other riparian tree communities may also be used. The species requires relatively large (at least 325 feet in width and 200 acres or more in extent) contiguous patches of multi-layered riparian habitat with dense understory foliage for nesting (79 FR 48548).

Survey Results

The BSA contains modeled habitat for western yellow-billed cuckoo according to the Yolo HCP/NCCP. There is one (1) CNDDB occurrence (#88) of western yellow-billed cuckoo at Putah Creek, 3.5 miles southeast of the BSA. This occurrence indicates historic observations from 1942, with a lack of observations "despite thorough coverage by field ornithologists" until 2012 (Gaines 1977 cited in CNDDB 2020). In 2012 a western yellow-billed cuckoo call was detected, and in 2013 a western yellow-billed cuckoo individual was seen and heard according to observation data. No nesting activity was observed or detected. Per the HCP/NCCP Covered Species Account for western yellow-billed cuckoo, there are no confirmed breeding records of this species in Yolo County.

There are no other recorded occurrences of western yellow-billed cuckoo within Putah Creek or Dry Slough, and there are no other CNDDB occurrences within 19 miles of the BSA. CNDDB occurrences within 25 miles (#95, #194) are occurrences associated with mature riparian habitat adjacent to the Sacramento River from the late 1800s, do not indicate nesting status, and are considered extirpated (CNDDB 2020).

Dry Slough does not contain contiguous suitable riparian habitat in the patch size required to support breeding cuckoos. The Western Yellow-Billed Cuckoo Modeled Habitat and Occurrences map included in the Covered Species Account of the HCP/NCCP indicates Dry Slough as containing suitable habitat; however, the riparian vegetation associated with Dry Slough in and near the project BSA does not meet the minimum

required habitat patch size to support breeding cuckoos (Halterman and Laymon 1989 cited in the Yolo HCP/NCCP). While it is not unlikely that western yellow-billed cuckoos may migrate through, forage within, or otherwise visit riparian areas associated with Putah Creek and Dry Slough, these riparian areas do not contain suitable habitat patch sizes of expansive stands of mature cottonwood-willow forests, dynamic riverine habitats, and dense understory vegetation that are required to support nesting activity.

Per the recommendations and requirements of the Yolo HCP/NCCP, qualified biologist Melissa Murphy conducted a planning level survey (PLS) of the modeled habitat for western yellow-billed cuckoo within the BSA. The purpose of the survey was to determine the presence of suitable habitat for western yellow-billed cuckoo.

Suitable habitat may be determined on a site-by-site basis by a qualified biologist. Results of the PLS indicate that the habitat in and within 500 feet of the BSA is unsuitable for breeding western yellow-billed cuckoos. Habitat consists of a narrow strip of riparian vegetation along Dry Slough with intensive agriculture on either side. Additionally, vehicle use on County Road 96, combined with disturbances from the adjacent residences, diminish habitat suitability for western yellow-billed cuckoos. Nesting cuckoos are very sensitive to human disturbance, especially during pair formation and the nest building stage, thus nest sites are rarely successful near areas with extensive human disturbance (Halterman 2001). The PLS was conducted on May 29, 2020. Due to the lack of suitable habitat for nesting in and within 500 feet of the BSA, a PLS for western yellow-billed cuckoo nests is not required.

Project Impacts

There will be no impacts to western yellow-billed cuckoo as a result of the project.

Avoidance and Minimization Efforts

As the BSA does not contain suitable western yellow-billed cuckoo nesting habitat, no AMMs are proposed.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects western yellow-billed cuckoo within the project BSA.

Compensatory Mitigation

There will be no impacts to western yellow-billed cuckoo and no compensatory mitigation is proposed.

Tricolored Blackbird

Tricolored blackbirds are listed as threatened under the CESA, are also protected under the MBTA (16 USC §703) and CFGC §3503, and are a covered species under the Yolo HCP/NCCP. They range from southern Oregon through the Central Valley, and coastal regions of California into the northern part of Mexico. Tricolored blackbirds are medium-size birds with black plumage and distinctive red marginal coverts, bordered by whitish feathers. Tricolored blackbirds nest in large colonies within agricultural fields, marshes with thick herbaceous vegetation, or in clusters of large blackberry bushes near a source of water and suitable foraging habitat. They are nomadic migrators, so documenting occurrence at any location does not mean that they will necessarily return to that area. Current threats facing tricolored blackbirds include colonial breeding in regards to small population size, habitat loss, overexploitation, predation, contaminants, extreme weather events and drought, water availability, and climate change (CDFW 2018).

Survey Results

There is suitable nesting habitat within 1,300 feet of the BSA. There are blackberry brambles that line the banks of Dry Slough which provide suitable nesting habitat. In 1991, tricolored blackbirds were recorded nesting in the blackberry brambles along Dry Slough 2 miles northeast of the BSA (CNDDB Occurrence #404). Dryland grain crops that occur adjacent to the BSA may also provide nesting habitat. Dryland grain crops have become an alternative nesting location for large colonies of tricolored blackbirds as most of the species' natural nesting habitat has been converted into other land uses (CDFW 2018). Tricolored blackbirds often forage in agricultural fields, which occur adjacent to the BSA and are modeled as tricolored blackbird foraging habitat by the Yolo HCP/NCCP.

There is potential for tricolored blackbird to occur within the BSA due to the presence of suitable nesting habitat within and within 1,300 feet of the BSA, as well as the presence of suitable foraging habitat adjacent to the BSA.

Qualified biologist Melissa Murphy conducted a species-specific planning level survey for tricolored blackbird nests on May 29, 2020. No tricolored blackbirds, tricolored blackbird nests, or tricolored blackbird colonies were observed.

Project Impacts

Per the Yolo HCP/NCCP, the project will not impact land cover types designated as tricolored blackbird nesting and foraging habitat. The BSA contains and is within 1,300 feet of suitable tricolored blackbird nesting and foraging habitat, which triggers AMMs

per the Yolo HCP/NCCP. There will be no impacts to tricolored blackbird individuals with the implementation of AMMs.

Avoidance and Minimization Efforts

AMM21, Minimize Take and Adverse Effects on Habitat of Tricolored Blackbird. The project proponent will retain a qualified biologist to identify and quantify (in acres) tricolored blackbird nesting and foraging habitat (as defined in Yolo HCP/NCCP Appendix A, Covered Species Accounts) within 1,300 feet of the footprint of the covered activity. If a 1,300-foot buffer from nesting habitat cannot be maintained, the qualified biologist will check records maintained by the Conservancy (which will include CNDDB data, and data from the tricolored blackbird portal) to determine if tricolored blackbird nesting colonies have been active in or within 1,300 feet of the project footprint during the previous 5 years. If there are no records of nesting tricolored blackbirds on the site, the qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008).

Operations and maintenance activities or other temporary activities that do not remove nesting habitat and occur outside the nesting season (March 1 to July 30) do not need to conduct planning or construction surveys or implement any additional avoidance measures.

If an active tricolored blackbird colony is present or has been present within the last five years within the planning-level survey area, the project proponent will design the project to avoid adverse effects within 1,300 feet of the colony site(s), unless a shorter distance is approved by the Conservancy, USFWS, and CDFW. If a shorter distance is approved, the project proponent will still maintain a 1,300-foot buffer around active nesting colonies during the nesting season but may apply the approved lesser distance outside the nesting season. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on tricolored blackbird habitat within the project BSA.

Compensatory Mitigation

With the implementation of AMMs, there will be no impacts to tricolored blackbird as a result of project activities and no compensatory mitigation is required.

Northern Harrier

The northern harrier (*Circus hudsonius*) is a SSC in the state of California. They range throughout California in low elevation areas such the Central Valley, desert and coastal regions. Northern harriers are dimorphic. Males have grey tones while females and juveniles display a rusty brown coloring. Suitable habitat for foraging and breeding include fresh water and coastal marshes, annual and perennial grasslands, pastures and low growing crops, sagebrush scrub and desert sinks. Northern harriers nest on the ground among tall grasses or shrubs. Current threats facing northern harriers include loss of foraging and nesting habitat, small mammal control, and human disturbances (Shuford and Gardali 2008).

Survey Results

There is suitable foraging and nesting habitat present within and adjacent to the BSA. There is one (1) CNDDB occurrence (#51) located approximately 5 miles east of the BSA, where a pair of northern harriers were observed nesting in a wheat field in 2015. There are no other CNDDB occurrences within 30 miles of the BSA.

Project Impacts

There will be no impacts to northern harrier with the implementation of avoidance and minimization measures.

Avoidance and Minimization Efforts

The following are recommended avoidance and minimization measures for northern harrier:

- Project activities and vegetation removal within the BSA shall be initiated outside of the bird nesting season (February 1 – August 31).
- If project activities and vegetation removal cannot be initiated outside of the bird nesting season than the following will occur:
    - A qualified biologist will conduct a pre-construction survey within 7 days prior to the initiation of project activities.
    - If an active northern harrier nest (i.e. with egg(s) or young) is observed within 250 feet of the BSA during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored once per week and a report submitted to the lead agency weekly.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects northern harrier within the project BSA.

Compensatory Mitigation

As there will be no impacts to northern harrier, no compensatory mitigation will be required.

Pallid Bat

Pallid bats (*Antrozous pallidus*) are designated as a CDFW SSC. Pallid bats roost alone, in small groups (2 to 20 bats), or gregariously (100s of individuals). Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings. Roosts generally have unobstructed entrances/exits, and are high above the ground, warm, and inaccessible to terrestrial predators. However, this species has also been found roosting on or near the ground under burlap sacks, stone piles, rags, and baseboards. Lewis 1996 found that pallid bats have low roost fidelity and both pregnant and lactating pallid bats changed roosts an average of once every 1.4 days throughout the summer. Overwintering roosts have relatively cool, stable temperatures and are located in protected structures beneath the forest canopy or on the ground, out of direct sunlight. In other parts of the species' range, males and females have been found hibernating alone or in small groups, wedged deeply into narrow fissures in mines, caves, and buildings. At low latitudes, outdoor winter activity has been reported at temperatures between –5 and 10 °C (Western Bat Working Group 2020).

Survey Results

There is bachelor day-roosting habitat within tree crevices and peeling bark within the BSA, as well as in plugged drainage holes in the existing bridge over Dry Slough. During the May 29, 2020 field visit, Gallaway Enterprises' biologist found evidence of bats roosting in the existing Dry Slough bridge. The species of bats were not identified. There is one (1) CNDDB occurrence within 5 miles of the BSA (#312). This occurrence was recorded in 1964 in the City of Davis. The majority of bats are not recorded on the CNDDB due to low detectability and widespread abundance.

Project Impacts

There will be no impacts to pallid bat individuals with the implementation of avoidance and minimization measures.

Avoidance and Minimization Efforts

To minimize impacts to pallid bats protected by the CDFW and CFGC the following are recommended avoidance and minimization measures:

- Mature trees and existing bridge structure should be removed and/or fallen between September 16 – March 15 outside of the bat maternity season. Trees and existing bridge structure should be removed at dusk to minimize impacts to roosting bats.
- If tree and existing bridge structure removal cannot be performed outside of the maternity season a qualified biologist shall conduct a preconstruction survey of suitable roosting habitat within seven (7) days prior to construction activities.
    - If bats are found, consult with CDFW.
    - If no bats are found tree and existing bridge structure removal can proceed.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on pallid bat within the project BSA.

Compensatory Mitigation

As there will be no impacts to pallid bat, no compensatory mitigation will be required.

Migratory Birds and Raptors

Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also

states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto”.

Survey Results

There is suitable nesting habitat within the BSA for migratory birds and raptors protected under the MBTA and CFGC. There are suitable trees, shrubs, and structures that offer nesting habitat for a variety of avian species.

There is potential for a variety of migratory birds and raptors to occur within the BSA due to the presence of suitable nesting habitat.

Project Impacts

There will be no impacts to migratory birds and raptors with the implementation of avoidance and minimization measures.

Avoidance and Minimization Efforts

The following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities and vegetation removal within the BSA shall be initiated outside of the bird nesting season (February 1 – August 31).
- If project activities and vegetation removal cannot be initiated outside of the bird nesting season than the following will occur:
    - A qualified biologist will conduct a pre-construction survey within 7 days prior to the initiation of project activities.
    - If an active avian nest (i.e., with egg[s] or young) is observed within 250 feet of the BSA during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored once per week and a report submitted to the lead agency weekly.

Cumulative Impacts

There are no current or planned projects that will have cumulative effects on migratory birds and raptors within the project BSA.

Compensatory Mitigation

As there will be no impacts to nesting migratory birds and raptors, no compensatory mitigation will be required.

Chapter 5 – Conclusions and Regulatory Determinations

Federal Endangered Species Act Consultation Summary

The USFWS and NMFS were consulted on May 28, 2020 for lists of endangered, threatened, sensitive, and rare species and their habitats with potential to occur within the BSA. The lists were later referenced to determine appropriate biological and botanical surveys and potential species occurrence.

Essential Fish Habitat Consultation Summary

As there are no drainages that could support anadromous fish species, there is no Essential Fish Habitat present within the BSA.

California Endangered Species Act Consultation Summary

The CDFW and CNPS were consulted on May 28, 2020 for lists of State endangered, threatened, sensitive, and rare species and their habitats with potential to occur within the BSA. The list was later referenced to determine appropriate biological and botanical surveys and potential species occurrence.

Wetlands and Other Waters Coordination Summary

A delineation of WOTUS was conducted by Gallaway Enterprises on May 29, 2020. The results of the delineation will be summarized in the *Draft Delineation of Waters of the United States* report, which will be submitted to the Corps as part of the permitting process (**Appendix D**).

There will be 0.023 acres of permanent impacts to Dry Slough, a jurisdictional perennial drainage (**Figure 6: Anticipated Impacts to Waters of the U.S.**). No wetlands will be impacted by the project. As there are jurisdictional "other waters" that will be impacted by project activities, a CDFW §1602 Streambed Alteration Agreement, RWQCB §401 Water Quality Certification permit, and a Corps Nationwide §404 14 permit are necessary. Mitigation for impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps-approved in-lieu fund.

Invasive Species

Many non-native plant species occur in California's natural lands. Some of these non-natives have become naturalized and are relatively benign; however, there are a

number of these non-natives that are considered highly invasive. The non-native plants that are considered invasive are tracked and ranked by their invasiveness by the United State Department of Agricultural (USDA) Natural Resource Conservation Service (NRCS) and the California Invasive Plant Council (Cal-IPC). Within the BSA, ten (10) invasive plant species were observed that are included on the Cal-IPC invasive and noxious weed plant list as having a moderate or higher degree of invasiveness in California (**Table 2**).

Table 2. Invasive Plant Species Identified within the CR 96 Over Dry Slough Bridge Replacement BSA.

Scientific Name	Common Name	Cal-IPC Rating
Ailanthus altissima	Tree-of-heaven	Moderate
Arundo donax	Giant reed	High
Bromus diandrus	Rip-gut brome	Moderate
Cynodon dactylon	Bermuda grass	Moderate
Festuca perennis	Rye-grass	Moderate
Ficus carica	Wild fig	Moderate
Hordeum murinum	Wall hare barley	Moderate
Lepidium latifolium	Tall whitetop	High
Rubus armeniacus	Himalayan blackberry	High
Torilis arvensis	Hedge parsley	Moderate

It is recommended that general BMPs be implemented prior and during construction activities as recommended under the Cal-IPC *Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors* (2012). The following are the general BMPs recommended by Cal-IPC:

- Provide prevention training to staff and contractors prior to starting work.
- Schedule activities to minimize potential for introduction and spread of invasive plants.
- Designate specific areas for cleaning tools, vehicles, equipment, clothing, and gear.
- Plan travel routes to avoid areas infested with invasive plants.
- Clean tools, equipment, vehicles, and animals before transporting materials and before entering and leaving worksites.
- Clean clothing, footwear, and gear before leaving infested areas.
- Prepare worksites to limit the introduction and spread of invasive plants.
- Minimize soil and vegetation disturbance.

Chapter 6 – References

California Department of Fish and Wildlife (CDFW) 2020 California Natural Diversity Database (CNDDB), Rarefind version 5. United States Geological Survey (USGS) "Merritt" 7.5 minute quadrangle.

California Department of Fish and Wildlife (CDFW). 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks. CDFW. Sacramento, CA.

CDFW. 2018. Report to the Fish and Game Commission: A Status Review of the Tricolored Blackbird (*Agelaius tricolor*) in California.

Cal-IPC. 2012. Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors. Cal-IPC Publication 2012-01. California Invasive Plant Council, Berkeley, CA. Available at www.cal-ipc.org.

Curtis, K.E., Lichvar, R., & Dixon, L. 2011. Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region. Wetland Regulatory Assistance Program, U.S. Army Corps of Engineers. Washington, D.C.

Halterman, M.D. 2001. Population Status of the Yellow-billed Cuckoo at the Bill Williams River NWR and Alamo Dam, Arizona, and Southern Nevada: Summer 2000. Southern Sierra Research Station, Weldon, CA.

Holland, D. C. 1994. Final report on the western pond turtle project. Report, prepared for Wildlife Diversity Division, Oregon Department of Fish and Wildlife, Portland.

Mayer, K.E and Laudenslayer, W.F. 1988. A guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection. Sacramento, California.

Moyle, P.B. 2002. Inland fishes of California. University of California Press, Berkeley, CA. 502 pp.

Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

USFWS. 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon.

USFWS. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxvi + 606 pages.

Western Bat Working Group. 2020. Western Bat Species Accounts. http://wbwg.org/western-bat-species/

Western Regional Climate Center, Desert Research Institute. 2020. http://www.wrcc.dri.edu. Local Climate Summary for the Davis 2 WSW Exp Farm, California (042294) NOAA Cooperative Station.

Xerces Society for Invertebrate Conservation, Defenders of Wilidlife, Center for Food Saftety. 2018. A Petition to the State of California Fish and Game Commission to List the Crotch Bumble Bee (*Bombus crotchii*), Franklin's Bumble Bee (*Bombus franklini*), Suckley Cuckoo Bumble Bee (*Bombus suckleyi*), and Western Bumble Bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. The Xerces Society, Portland Oregon.

Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California.

Appendix A – Species Lists

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: December 16, 2020
Consultation Code: 08ESMF00-2021-SLI-0568
Event Code: 08ESMF00-2021-E-01568
Project Name: County Road 96 Over Dry Slough Bridge Replacement Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2021-SLI-0568

Event Code: 08ESMF00-2021-E-01568

Project Name: County Road 96 Over Dry Slough Bridge Replacement Project

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: bridge replacement

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.56785851041474N121.84029957893446W

Counties: Yolo, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

From: Samantha Morford
To: "nmfswcrca.specieslist@noaa.gov"
Subject: Bridge Replacement on County Road 98 Over Dry Slough
Date: Wednesday, August 05, 2020 8:57:00 AM

Quad Name **Merritt**

Quad Number **38121-E7**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Samantha Morford
Biologist
Gallaway Enterprises, Inc.
117 Meyers Street, Suite 120
Chico, CA 95928
(530) 332-9909 office
(530) 332-9905 fax
www.gallawayenterprises.com
A DBE certified business dedicated to exceptional client services.

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Merritt (3812157))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
Antioch multilid wasp *Myrmosula pacifica*	IIHYM15010	None	None	GH	SH	
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California alkali grass *Puccinellia simplex*	PMPOA53110	None	None	G3	S2	1B.2
California tiger salamander *Ambystoma californiense*	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Ferris' milk-vetch *Astragalus tener var. ferrisiae*	PDFAB0F8R3	None	None	G2T1	S1	1B.1
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
heartscale *Atriplex cordulata var. cordulata*	PDCHE040B0	None	None	G3T2	S2	1B.2
hoary bat *Lasiurus cinereus*	AMACC05030	None	None	G5	S4	
Keck's checkerbloom *Sidalcea keckii*	PDMAL110D0	Endangered	None	G2	S2	1B.1
northern harrier *Circus hudsonius*	ABNKC11011	None	None	G5	S3	SSC
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G5	S3	SSC
Sacramento Valley tiger beetle *Cicindela hirticollis abrupta*	IICOL02106	None	None	G5TH	SH	
silver-haired bat *Lasionycteris noctivagans*	AMACC02010	None	None	G5	S3S4	
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2	S3	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G4	S3S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
western bumble bee *Bombus occidentalis*	IIHYM24250	None	Candidate Endangered	G2G3	S1	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western spadefoot *Spea hammondii*	AAABF02020	None	None	G3	S3	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP

Record Count: 25

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

1 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 3812157

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 09 December 2020].

Appendix B – Observed Species List

Plant Species Observed within the Dry Slough BSA on May 29, 2020	
Scientific Name	**Common Name**
Ailanthus altissima	Tree-of-heaven
Alcea sp.	Hollyhock
Amaranthus albus	Tumbleweed
Artemisia douglasiana	California mugwort
Arundo donax	Giant reed
Bromus diandrus	Rip-gut brome
Bromus hordeaceus	Soft chess
Bromus madritensis ssp. rubens	Red brome
Convulvulus arvensis	Bindweed
Cotinus coggygria	Common smokebush
Croton setiger	Turkey-mullein
Cynodon dactylon	Bermuda grass
Epilobium brachycarpum	Tall willowherb
Erigeron bonariensis	South American horseweed
Erodium botrys	Long-beaked stork's-bill
Erodium cicutarum	Cut-leaf filaree
Festuca perennis	Rye-grass
Ficus carica	Wild fig
Galium aparine	Bedstraw
Hordeum murinum	Wall hare barley
Juglans hindsii	Black walnut
Juglans regia	English walnut
Koelreuteria paniculata	Golden rain tree
Lactuca serriola	Prickly lettuce
Leontodon saxatilis	Hawkbit
Lepidium latifolium	Tall whitetop
Ligustrum lucidum	Privet
Malva neglecta	Common mallow
Malvella leprosa	Alkali mallow
Morus sp.	Mulberry
Nerium oleander	Oleander
Polygonum aviculare	Prostrate knotweed
Populus fremontii	Fremont's cottonwood
Proboscidea sp.	Common devil's claw
Quercus lobata	Valley oak
Rosa sp.	Rose
Rubus armeniacus	Himalayan blackberry
Rumex crispus	Curly dock
Salix exigua	Sandbar willow
Salsola sp.	Russian thistle
Senecio vulgaris	Old-man-in-the-Spring
Sequoia sempervirens	Coast redwood (planted)
Silybum marianum	Milk thistle

Scientific Name	**Common Name**
Sisymbrium officinale	Hedge mustard
Solanum americanum	Common nightshade
Sonchus asper	Sow thistle
Sorghum halepense	Johnsongrass
Torilis arvensis	Hedge parsley
Tragopogon sp.	Salsify
Tribulus terrestris	Puncture vine
Vitis sp	Grape

Appendix C – Project Site Photos

Taken May 29, 2020

Looking north at the Dry Slough Bridge on County Road 96.

Looking south at the Dry Slough Bridge on County Road 96.

Overview of Dry Slough Bridge. Taken facing south.

On the Dry Slough Bridge, facing southwest.

Under the Dry Slough Bridge, facing west.

Underside of the Dry Slough Bridge, looking south.

Appendix D – Draft Delineation of Waters of the U.S. Map

Draft Delineation of Waters of the U.S.								
Other Waters								
Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01	R5	Perennial	38.567905	-121.84032	27.0	129.0	3486.6	0.08
					Other Waters Totals =	**129.0**	**3486.6**	**0.08**
					Total Waters of the U.S. =	**129.0**	**3486.6**	**0.08**

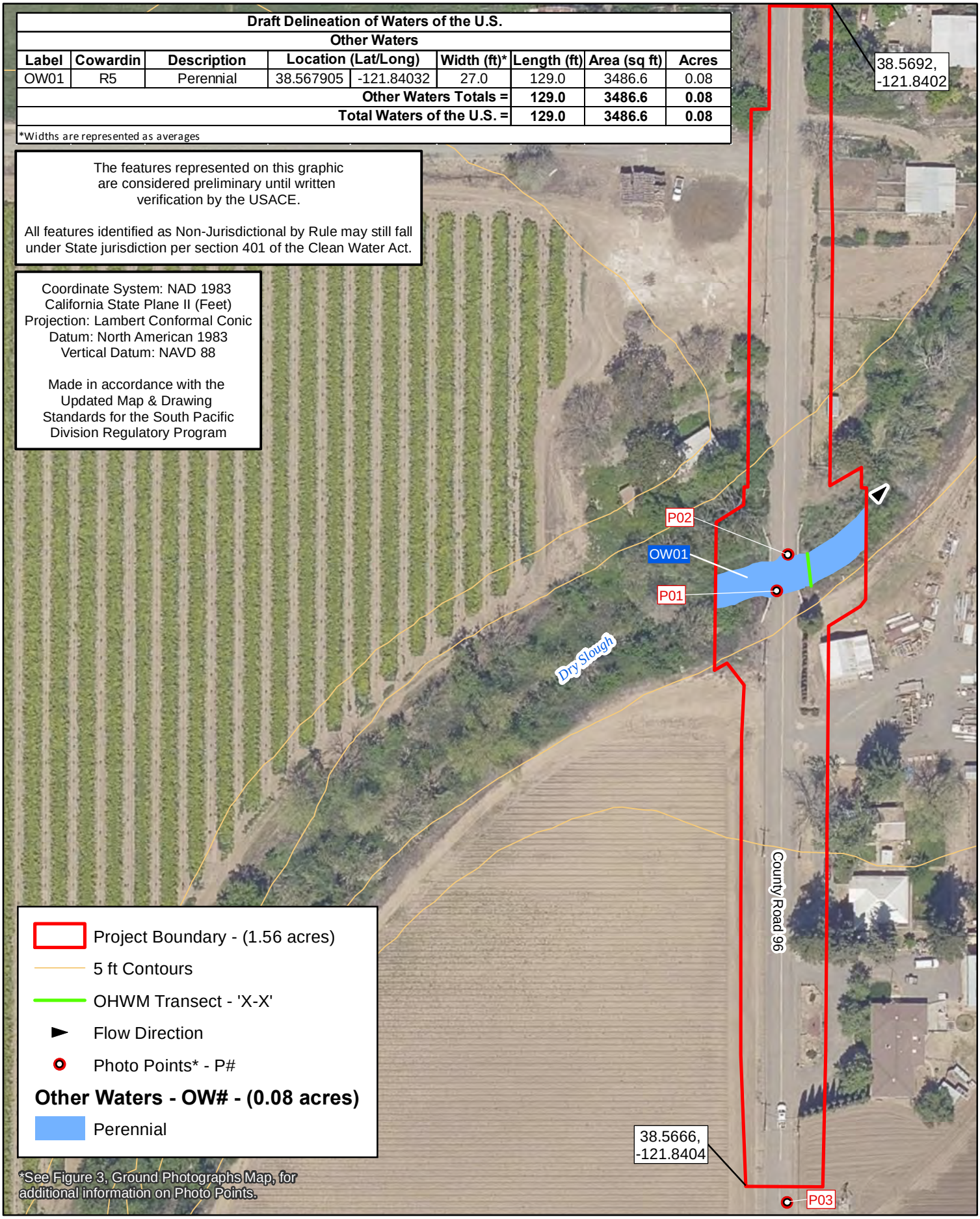
*Widths are represented as averages

The features represented on this graphic are considered preliminary until written verification by the USACE.

All features identified as Non-Jurisdictional by Rule may still fall under State jurisdiction per section 401 of the Clean Water Act.

Coordinate System: NAD 1983
California State Plane II (Feet)
Projection: Lambert Conformal Conic
Datum: North American 1983
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards for the South Pacific Division Regulatory Program



Project Boundary - (1.56 acres)
5 ft Contours
OHWM Transect - 'X-X'
Flow Direction
Photo Points* - P#
Other Waters - OW# - (0.08 acres)
Perennial

*See Figure 3, Ground Photographs Map, for additional information on Photo Points.

NORTH

1:1,200 1 inch = 100 feet
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Draft Delineation of Waters of the U.S.
Figure 4

Delineation by: E. Gregg
Map by: B. Reaves

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20

Appendix E – Yolo HCP/NCCP Application Form 4

REPORTING FORM

PURPOSE

Complete this form to report coverage under the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP) as a Permittee. Chapter 4 of the Permitting Guide, available on the Yolo Habitat Conservancy's ("Conservancy") web site under the "Permitting" tab, provides instructions for form completion. The form requirements are minimum requirements; the Conservancy may request more information to clarify or complete the form. Submittal of a preliminary reporting form to the Conservancy is encouraged to ensure timely and accurate completion. If an application fee is required (see Screening Form, Box Y), the Permittee should submit this fee to the Conservancy early in the application process. The Permitting Guide and additional resources are available on the Conservancy's web site under the "Permitting" tab. The Conservancy automatically adjusts mitigation fees on or around March 15th of each year to reflect current land prices and other expenses. If an applicant does not complete their application and issue payment prior to the fee update, the new fees will apply. The applicant may, however, pay mitigation fees early at the previous year's rate consistent with the Conservancy's Early Payment of Migitation Fees Policy.

Regional-scale data related land cover, sensitive natural communities, and covered species habitats in Yolo is made available through the Yolo HCP/NCCP GeoMapper online mapping tool. The GeoMapper tool is accessible via the Resources tab of the Yolo Habitat Conservancy website identified below, although it is intended for informational purposes only. All HCP/NCCP permit applicants must have site-specific planning level surveys by a qualified biologist to determine actual land cover and sensitive natural communities and species habitats in and around a project site to determine the correct amount of land cover mitigation fees and project specific Avoidance and Minimization Measures (AMMs).

https://www.yolohabitatconservancy.org/resources

BOX A: Preliminary/Final Application Form	
Check one box.	
☐ Preliminary Form (signature not required)	☐ Final Form (complete form and signature required)

BOX B: APPLICATION DETAILS	
1 Project name	County Road 96 over Dry Slough Bridge Replacement Project
2 Submittal date	
3 Member agency internal tracking number	Federal Project No. BRLO-5922 (104)
4 YHC internal tracking #	
5 Member agency	☒ Yolo County ☐ City of Davis ☐ City of Woodland ☐ City of West Sacramento ☐ City of Winters

BOX C: MEMBER AGENCY CONTACT INFORMATION			
1 Member agency			
1.a Member agency name	Yolo County Community Services Department		
1.b Mailing address	292 W Beamer St, Woodland, CA 95695		
1.c Phone (home/office)	(530) 666-8775	1.d Phone (Cellular)	
1.e Email	lilia.razo@yolocounty.org		

BOX D: PROJECT INFORMATION		
1 Project address and location	County Road 96 (see attached map)	
2 Assessor parcel number(s) APNs and acreage by parcel (not applicable for linear projects)	N/A	
3 Total acreage of parcel(s) (not applicable for linear projects)	Project acreage: 1.56 acres	
4 Using the GeoMapper's Spatially Defined Planning Unit Map, find your proposed project site. Check the Planning Unit in which your project lies.	Yolo County Planning Units ☐ 1 – Little Blue Ridge ☐ 2 – North Blue Ridge ☐ 3 – South Blue Ridge ☐ 4 – Capay Hills ☐ 5 – Dunnigan Hills ☐ 6 – Upper Cache Creek ☐ 7 – Lower Cache Creek ☐ 8 – Upper Putah Creek ☐ 9 – Lower Putah Creek ☐ 10 – Hungry Hollow Basin ☒ 11 – Willow Slough Basin	☐ 12 – Colusa Basin ☐ 13 – Colusa Basin Plains ☐ 14 – North Yolo Basin ☐ 15 – South Yolo Basin ☐ 16 – Yolo Basin Plains ☐ 17 – North Yolo Bypass ☐ 18 – South Yolo Bypass Cities ☐ 19 – City of Woodland ☐ 20 – City of Davis ☐ 21 – City of West Sacramento ☐ 22 – City of Winters
5 ☒ Provide a project description. Please refer to the Permitting Guide for details to include in the project description. Label as Attachment 1 or indicate in this box the document name and page numbers of the report where this information can be found, and attach report or relevant excerpts.		
6 ☒ Provide a legible vicinity map of the project site and surrounding area (PDF). Refer to the Permitting Guide for more information about details to include on the vicinity map. Label as Attachment 2. Rather than a separate PDF, applicant may include the site plan in the planning level survey report or other report. If so, provide report name and page number here, and attach report or relevant excerpts:		
7 ☒ Provide a site plan that shows the proposed project site and surrounding area. (PDF and CAD or GIS-compatible). Refer to the Permitting Guide (Page 7-2) for more information about details to include in the site plan. Label as Attachment 3. Rather than a separate PDF, applicant may include the site plan in the planning level survey report or other report. if so, provide report name and page number here, and attach report or relevant excerpt:		

BOX E: NATURAL COMMUNITY AND LAND COVER IMPACTS AND MITIGATION FEES

Complete Items 1-26 below, referring to the Permitting Guide for calculation methods.

- Total fee amount for each land cover type will be auto-generated based on acreage amount (and for recurring temporary impacts, number of years out of the 50-year permit term the impact will occur).
- Temporary impact fee formula = land cover fee x area of temporary effect in acres x (F/50) where F = the number of years in which the activity will occur during the rest of the permit term (until 2069).
- Must include required land cover fee buffer area associated with the project. This is generally 10 feet for linear projects (e.g. roads, utility cooridors, pipelines) and 50 feet for all other projects. See Chapter 4 of the Permitting Guide under Box E instructions regarding the option of lumping land cover categories for the fee buffer calculations for linear projects.
- Fees will be updated annually, typically mid-March.
- Wetland fees are in addition to land cover fees.

Submit a planning-level survey, including a field-verified land cover map and the name and qualifications of the qualified biologist(s) responsible for preparation of the report. Label as Attachment 4. Mapped areas shown on the site plan (Attachment 3 in Box D, Item 7) should be consistent with the acreages entered below. Include photographs of temporary impact areas. Label photos as Attachment 5.

Land Cover Types	Land Cover Permanently Impacted by Project (in acres)			Land Cover Temporarily Impacted by Project (in acres)	Years of Recurring Temporary Impact	Fees (Auto Generated)				
	Permanent Impact (acres)	Fee Buffer (acres)	TOTAL			Land Cover Fee (per acre)	Wetland Fee (per acre)	Permanent Impact, Land Cover Fee	Temporary Impact, Land Cover Fee	Wetland Fee
1 ☒ Developed (including ruderal with no covered species habitat)[a]	0.7	0.2	0.9	0.0	0	$0	$0	$ 0.00	$ 0.00	$ 0.00
2 ☐ Ruderal with covered species habitat[a]	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
3 ☒ Barren, No Covered Species Habitat	0.0	0.0	0.0	0.0	0	$0	$0	$ 0.00	$ 0.00	$ 0.00
4 ☐ Barren, With Covered Species Habitat	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
5 ☐ Vegetated Corridor with Covered Species Habitat	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
6 ☐ Grassland (all types)	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
7 ☐ Alkali Prairie	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
8 ☐ Fresh Emergent Wetland (all types)	0.00	0.0	0.00	0.00	0	$15,169	$77,366	$ 0.00	$ 0.00	$ 0.00
9 ☒ Valley Foothill Riparian	0.04	0.03	0.08	0.00	0	$15,169	$85,683	$ 1,183.18	$ 0.00	$ 6,683.27

Land Cover Types	Land Cover Permanently Impacted by Project (in acres)			Land Cover Temporarily Impacted by Project (in acres)	Years of Recurring Temporary Impact	Fees (Auto Generated)				
	Permanent Impact (acres)	Fee Buffer (acres)	TOTAL			Land Cover Fee (per acre)	Wetland Fee (per acre)	Permanent Impact, Land Cover Fee	Temporary Impact, Land Cover Fee	Wetland Fee
10 ■ Lacustrine and Riverine	0.02	0.03	0.06	0.00	0	$15,169	$62,048	$ 864.63	$ 0.00	$3,536.74
11 ■ Cultivated Land (all types)	0.00	0.0	0.0	0.0	0	$15,169	$0	$ 60.68	$ 0.00	$ 0.00
12 ☐ Citrus/Subtropical	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
13 ☐ Deciduous Fruits/Nuts	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
14 ☐ Vineyards	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
15 ☐ Turf Farm	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
16 ☐ Flowers/Nursery/Tree Farms	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
17 ■ Semiag/Incidental to Agriculture	0.1	0.2	0.3	0.0	0	$15,169	$0	$ 3,868.10	$ 0.00	$ 0.00
18 ☐ Eucalyptus	0.0	0.0	0.0	0.0	0	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
19 ☐ Linear buffers (combine non-fee-paying land cover types)	N/A	0.0	0.0	N/A	N/A	$0	$0	$ 0.00	$ 0.00	$ 0.00
20 ☐ Linear buffers (combine fee-paying land cover types[b])	N/A	0.0	0.0	N/A	N/A	$15,169	$0	$ 0.00	$ 0.00	$ 0.00
TOTAL:	0.89	0.48	1.37				TOTAL:	$5,976.59	$ 0.00	$10,220.01
21 TOTAL LAND COVER IMPACTS AND MITIGATION FEES								$16,196.60		
22 APPLICATION FEE (The application fee is credited towards the cost of the mitigation fees if the application fee is paid prior to the submittal of the mitigation fee payment . Application fee as of January 1, 2020: $1,981)								$ 0.00		
23 OTHER CREDITS (Advanced fee payment or in lieu fee credit – must be verified by Conservancy). Add Attachment 6								$ 0.00		
24 TOTAL LAND COVER IMPACTS AND MITIGATION FEES DUE (Mitigation fees due are determined at the time of payment unless they were paid in accordance with the Yolo HCP/NCCP Early Payment of Mitigation Fees Policy. See www.yolohabitatconservancy.org for current fee schedule.)								$ 16,196.60		

[a] *Land cover fees may be applicable if covered species habitat is present.*

[b] *Fresh Emergent Wetland, Valley Foothill Riparian, and Lacustrine and Riverine land cover types cannot be lumped with other land cover types and must be entered in the fee buffer columns.*

BOX F: CONDITIONS OF APPROVAL: CONDUCT PLANNING LEVEL SURVEYS

Based on a planning level survey conducted by a qualified biologist using the land cover definitions described in the Permitting Guide in Table 2-1, indicate which sensitive natural communities and covered species are relevant to your project. Indicate below whether suitable covered species habitats are present (Column A) and, where applicable, if there is a need to conduct a pre-construction survey, a more focused survey(s) for covered species (Column B) to confirm presence. Complete species-specific planning level survey as needed consistent with protocols provided in Appendix A of the Permitting Guide. Alternatively, covered species presence can be assumed, which would requires adherence to applicable AMMs and implementation of avoidance measures or pre-construction surveys. Attach all species-specific planning level surveys as Attachment 6. Describe, map, and tabulate impacts the project will have on each natural community and each species for which habitat is present. Impact calculations must correspond to the permanent and temporary impact calculations in Box E. Label as Attachment 7. Alternatively, the impact assessment can be incorporated into the planning level survey. Important: Be aware of the timing requirements for conducting a species-specific planning-level survey (Table 6-1 in the Permitting Guide) to avoid project delays.

	A. Project Site Conditions Requiring Planning-Level Survey	B. Species-Specific Planning Level Survey Results	C. Documentation
Sensitive Natural Communities			
1 Alkali prairie and vernal pool complex	Are vernal pools or alkali seasonal wetlands present within 250 feet of project footprint? ☐ Yes. *Design project to avoid vernal pools or alkali seasonal wetlands by 250 feet or lesser buffer if approved by wildlife agencies. Check Box G, AMMs 9 and 10. Go to Column C.* ☒ No	N/A	Map attached? (Attachment 4 or 6?) ☐ Yes ☒ No If vernal pools or alkali seasonal wetlands are present on or near the site, provide map showing how project avoids these wetlands.
2 Valley foothill riparian	Is valley foothill riparian present within 100 feet of the project site boundary? ☒ Yes. *Design project to avoid valley foothill riparian by 100 feet or count all portions within 100 feet in the impact acreage (see Permitting Guide Table 2-1). Check Box G, AMMs 9 and 10. Go to Column C and provide map.* ☐ No	N/A	Map attached? (Attachment 4 or 6?) ☒ Yes ☐ No Provide map showing the valley foothill riparian in relation to the project footprint.
3 Lacustrine and riverine	Are any streams, rivers, lakes, or ponds within 25 feet of project footprint inside urban planning units, or within 100 feet of project footprint outside urban planning units? ☒ Yes. *Design project to avoid these resources by 25 feet inside urban planning units or 100 feet outside urban planning units, or count all portions within these distances in the impact acreage, unless a variance is allowed. Check Box G, AMMs 9 and 10. Go to Column C and provide map.* ☐ No	N/A	Map attached? (Attachment 4 or 6?) ☒ Yes ☐ No Provide map showing any streams, rivers, lakes, or ponds in relation to the project footprint.

BOX F: CONDITIONS OF APPROVAL: CONDUCT PLANNING LEVEL SURVEYS			
	A. Project Site Conditions Requiring Planning-Level Survey	B. Species-Specific Planning Level Survey Results	C. Documentation
Sensitive Natural Communities			
4 Fresh emergent wetlands	Are there any fresh emergent wetlands within 50 feet of project footprint outside urban planning units? ☐ Yes. *Design project to avoid these resources by 50 feet, or count all portions within 50 feet in the impact acreage. Check Box G, AMMs 9 and 10. Go to Column C and provide map). Survey period: May 31–September 30* ■ No	N/A	Map attached? (Attachment 4 or 6?) ☐ Yes ■ No Provide map of fresh emergent wetlands in relation to the project footprint.
Plants			
5 Palmate-bracted bird's beak	Is suitable habitat present within 250 feet of the project site boundary? ☐ Yes. *Survey for palmate-bracted bird's beak consistent with Permitting Guide Appendix A. Check Box G, AMM 11. Go to Column B. Survey period: May 31–September 30* ■ No	Is palmate-bracted bird's beak present? ☐ Yes. *Design project to avoid occupied habitat as described in AMM 11. Go to Column C.* ■ No. *Go to Column C.*	Species-Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ■ No *Include Species-Specific Planning-Level Survey and map of habitat and any plants found in relation to project footprint.*
Invertebrates			
6 Valley elderberry longhorn beetle	Is there presence of elderberry shrubs in the project site or within 100 feet outside of the project site boundary that could be impacted by the project? ☐ Yes. *Identify and map all elderberry shrubs in and within 100 feet of project footprint with stems greater than one inch in diameter at ground level. For mapped shrubs that cannot be avoided, quantify the number of stems greater than one inch in diameter at ground level, and identify any such stems with valley elderberry longhorn beetle exit holes. Check Box G, AMM 12. Go to Column C and provide survey report. Survey period: Year-round* ■ No	N/A	Species-Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ■ No

BOX F: CONDITIONS OF APPROVAL: CONDUCT PLANNING LEVEL SURVEYS			
	A. Project Site Conditions Requiring Planning-Level Survey	B. Species-Specific Planning Level Survey Results	C. Documentation
Amphibians			
7 California tiger salamander	Is there presence of California tiger salamander aquatic or upland habitat in the project footprint, or aquatic habitat within 500 feet of the project footprint? ☐ Yes. *Check box G, AMM 13. Is the habitat within designated critical habitat for California tiger salamander, as determined using the GeoMapper?* ☐ Yes. Design project to avoid designated critical habitat. ☐ No. *If aquatic habitat cannot be avoided by 500 feet, either conduct surveys as described in the Permitting Guide Appendix A, or assume species presence. Survey period: After rainfall, November 1 to May 15. Go to Column B.* ■ No	Are California tiger salamanders present or assumed to be present in aquatic habitat? ☐ Yes. *If the species is present or assumed to be present, the Yolo HCP/NCCP will not allow any loss of occupied aquatic habitat until at least four new occupied breeding pools are discovered or established and protected in the Plan Area. Contact Yolo Habitat Conservancy. Go to Column C.* ■ No	Species-Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ■ No
Reptiles			
8 Western pond turtle	Is western pond turtle habitat present in the project footprint? ■ Yes. Check Box G, AMM 14. A qualified biologist is required to evaluate whether there is moderate to high likelihood of western pond turtle presence. *Go to Columns B and C.* ☐ No	Moderate to high likelihood of western pond turtle presence? ■ Yes: Check Box F for western pond turtle Pre-construction surveys. ☐ No	Habitat evaluation attached? (Attachment 6) ■ Yes ☐ No
9 Giant garter snake	Is there any giant garter snake habitat within the project footprint? ☐ Yes. *Design project to avoid or minimize impact on giant garter snake habitat to the extent practicable. If habitat cannot be avoided, see AMM 15. Check Box F for giant garter snake Pre-construction surveys, and check Box G, AMM 15.* ■ No	N/A	N/A

BOX F: CONDITIONS OF APPROVAL: CONDUCT PLANNING LEVEL SURVEYS			
	A. Project Site Conditions Requiring Planning-Level Survey	B. Species-Specific Planning Level Survey Results	C. Documentation
Birds			
10 Swainson's hawk and white-tailed kite	Are there suitable Swainson's hawk or white-tailed kite nest trees within 1,320 feet of the project footprint? ☒ Yes. *If nest trees cannot be avoided by 1,320 feet, check Box F for hawk and kite Pre-construction surveys, and Box G, AMM 16.* ☐ No	N/A	N/A
11 Western yellow-billed cuckoo	Is suitable habitat present within 500 feet of the project site boundary? ☐ Yes. *If there are breeding records for the western yellow-billed cuckoo within ¼ mile of the project site from the previous three years (as determined by GeoMapper), then assume species is present. If there are no breeding records with ¼ mile, then either assume species is present or survey consistent with Chapter 6 of the Permitting Guide. See columns B and C. Check Box F for western yellow-billed cuckoo Pre-construction surveys and Check Box G, AMM 17.* *Survey period: June 1–August 30.* ☒ No	Is western yellow-billed cuckoo present or assumed to be present? ☐ Yes. *If project cannot avoid occupied habitat by 500 feet, avoid take of nesting birds as described in AMM 17.* ☒ No.	Species-Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ☒ No
12 Western burrowing owl	Is western burrowing owl habitat present on the project site, or within 500 feet of the project site? ☐ Yes. *Conduct planning-level surveys for occupied habitat as described in Permitting Guide Appendix A. Go to Columns B and C. Survey period: February 1–August 31 during the breeding season; September 1–January 31 during nonbreeding season.* ☒ No	Are burrowing owls present? ☐ Yes. *Check Box G, AMM18. If burrows cannot be avoided, consistent with Permitting Guide Chapter 5, Check Box F for western burrowing owl Pre-construction surveys.* ☒ No	Species-Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ☒ No

BOX F: CONDITIONS OF APPROVAL: CONDUCT PLANNING LEVEL SURVEYS			
	A. Project Site Conditions Requiring Planning-Level Survey	B. Species-Specific Planning Level Survey Results	C. Documentation
13 Least Bell's vireo	Is least Bell's vireo habitat present in and within 500 feet of project footprint? ☐ Yes. *Check Box G, AMM 19. Are there nesting records for the species within ¼ mile of the site from the previous three years (determined using the GeoMapper)?* ☐ Yes. *Assume species is present. See Column B.* ☐ No. *Conduct planning-level surveys, as described in Permitting Guide Appendix A. See Columns B and C. Survey period: April 1–July 15* ☒ No	Are least Bell's vireo nests present or assumed to be present? ☐ Yes. *Check Box F for least Bell's vireo Pre-construction surveys. Avoid take of birds as described in AMM 19.* ☒ No.	Species –Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ☒ No
14 Bank swallow	Is bank swallow nesting habitat present on the project site, or within 500 feet of the project site? ☐ Yes. *Check Box G, AMM 20. Conduct planning-level surveys as described in Permitting Guide Appendix A. Go to Columns B and C. Survey period: March 1–August 15* ☒ No	Are nesting bank swallows present? ☐ Yes. *Check Box F for bank swallow Pre-construction surveys. Avoid take of birds as described in AMM 19.* ☒ No.	Species-Specific Planning-Level Survey attached? (Attachment 6) ☐ Yes ☒ No
15 Tricolored blackbird	Is tricolored blackbird nesting habitat present on the project site, or within 1,300 feet of the project site? ☒ Yes. *Conduct planning-level surveys as described in Permitting Guide Appendix A. Check Box G, AMM 21. Go to Column C. Survey period: March 1–July 30* ☐ No	N/A	Species-Specific Planning-Level Survey attached? (Attachment 6) ☒ Yes ☐ No

BOX G: CONDITIONS OF APPROVAL: CONDUCT PRE-CONSTRUCTION SURVEYS	
Indicate which species in Items 1-7 are relevant to your project. Important: Refer to Chapter 4 of the Permitting Guide for information about survey purpose, the land cover types and site conditions requiring pre-construction surveys, survey area size, and survey timing.	
Birds	
1 ☒ Swainson's hawk	4 ☐ Western burrowing owl
2 ☒ White-tailed kite	5 ☐ Least Bell's vireo
3 ☐ Western yellow-billed cuckoo	
Reptiles	
6 ☐ Giant garter snake	7 ☐ Western pond turtle

BOX H: CONDITIONS OF APPROVAL: AVOIDANCE AND MINIMIZATION MEASURES (AMMs)	
Check the avoidance and minimization measures below that apply to your project. Refer to the Permitting Guide for assistance. Describe how you will fulfill the requirements of each required condition. Plan your construction carefully around the translocation or other dates required by the AMMs. Label as Attachment 8.	
1	■ AMM1: *Establish Resource Protection Buffers*
2	☐ AMM 2: *Design Developments to Minimize Indirect Effects at Urban-Habitat Interfaces (this AMM does not apply to new development where it is immediately adjacent to existing developed lands)*
3	■ AMM 3: *Confine and Delineate Work Area*
4	☐ AMM 4: *Cover Trenches and Holes during Construction and Maintenance*
5	☐ AMM 5: *Control Fugitive Dust*
6	■ AMM 6: *Conduct Worker Training*
7	☐ AMM 7: *Control Nighttime Lighting of Project Construction Sites*
8	☐ AMM 8: *Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas*
9	■ AMM 9: *Establish Resource Protection Buffers around Sensitive Natural Communities*
10	☐ AMM 10: *Avoid and Minimize Effects on Wetlands and Waters*
11	☐ AMM 11: *Minimize Take and Adverse Effects on Palmate-Bracted Bird's Beak*
12	☐ AMM 12: *Minimize Take and Adverse Effects on Habitat of Valley Elderberry Longhorn Beetle*
13	☐ AMM 13: *Minimize Take and Adverse Effects on Habitat of California Tiger Salamander*
14	■ AMM 14: Minimize Take and Adverse Effects on Habitat of Western Pond Turtle
15	☐ AMM 15: *Minimize Take and Adverse Effects on Habitat of Giant Garter Snake*
16	■ AMM 16: *Minimize Take and Adverse Effects on Habitat of Swainson's Hawk and White-Tailed Kite*
17	☐ AMM 17: *Minimize Take and Adverse Effects on Habitat of Western Yellow-Billed Cuckoo*
18	☐ AMM 18: *Minimize Take and Adverse Effects on Western Burrowing Owl*
19	☐ AMM 19: *Minimize Take and Adverse Effects on Least Bell's Vireo*
20	☐ AMM 20: *Minimize Take and Adverse Effects on Habitat of Bank Swallow*
21	■ AMM 21: *Minimize Take and Adverse Effects on Habitat of Tricolored Blackbird*

BOX I: ATTACHMENT CHECKLIST
Indicate which attachments are provided below. Note: Attachments must meet the requirements described in Permitting Guide. If these requirements are not met, your application may be delayed.
All Projects
■ Attachment 1. Project Description (Box C). Attach separately or indicate attached report page #s here: 1
■ Attachment 2. Vicinity map PDF (Box C). Attach separately or indicate report page # here: 2 & 3
■ Attachment 3. Site Plan (Box C). Attach separately or indicate report page # here: 3 & 6

BOX I: ATTACHMENT CHECKLIST
Projects with Impacts
☒ Attachment 4. Planning level survey (Box D)
☐ Attachment 5. Photos of temporary impact areas. Attach separately or indicate report page #s here:
☒ Attachment 6. Species-specific planning level survey(s) (Box E). Attach separately or indicate report page #s here: 5 & 12-14
☒ Attachment 7. Unavoidable impacts on covered species. Attach separately or indicate report page #s here: 15, 23-33, 44
☒ Attachment 8. Description of compliance with Avoidance and Minimization Measures (Box G). Attach separately or indicate report page #s here: 25-28, 30-34, 38-42

BOX J: SIGNATURES				
2 & 3 ☐ By checking the box and signing below I certify all information in the application is true and correct to the best of my knowledge. I also certify I understand the requirements of the AMMs, including dates for elderberry translocation or other dates that may affect construction timing.				
1	Member agency contact name and contact information	Name		
		Phone		Email	
2	Member agency signature		Date	

FORM SUBMITTAL INSTRUCTIONS
Submit this form electronically to the Yolo Habitat Conservancy at the PO Box provided below. Provide a copy to the applicable planning office contact below, for informational purposes.

LOCAL AGENCY PLANNING OFFICE CONTACT INFORMATION				
Yolo County Stephanie Cormier Planning Division Department of Community Services 292 West Beamer Street, Woodland (530) 666-8041	City of West Sacramento David Tilley Community Development Department 1110 West Capitol Ave., 2nd Floor, West Sacramento (916) 617-4645	City of Davis Sherri Metzker Community Development & Sustainability 23 Russell Blvd., Suite 2, Davis (530) 757-5610 ext. 7239	City of Woodland Cindy Norris Planning Division 300 First Street, Woodland (530) 661-5911	City of Winters Dave Dowswell Community Development Department 318 First Street, Winters (530) 794-6714

YOLO HABITAT CONSERVANCY CONTACT INFORMATION
Address: PO Box 2202, Woodland, CA 95776 Phone: 530-666-8150 Email: info@yolohabitatconservancy.org

Appendix D

Draft Delineation of Waters of the U.S. Map

Draft Delineation of Waters of the U.S.								
Other Waters								
Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01	R5	Perennial	38.567905	-121.84032	27.0	129.0	3486.6	0.08
					Other Waters Totals =	**129.0**	**3486.6**	**0.08**
					Total Waters of the U.S. =	**129.0**	**3486.6**	**0.08**

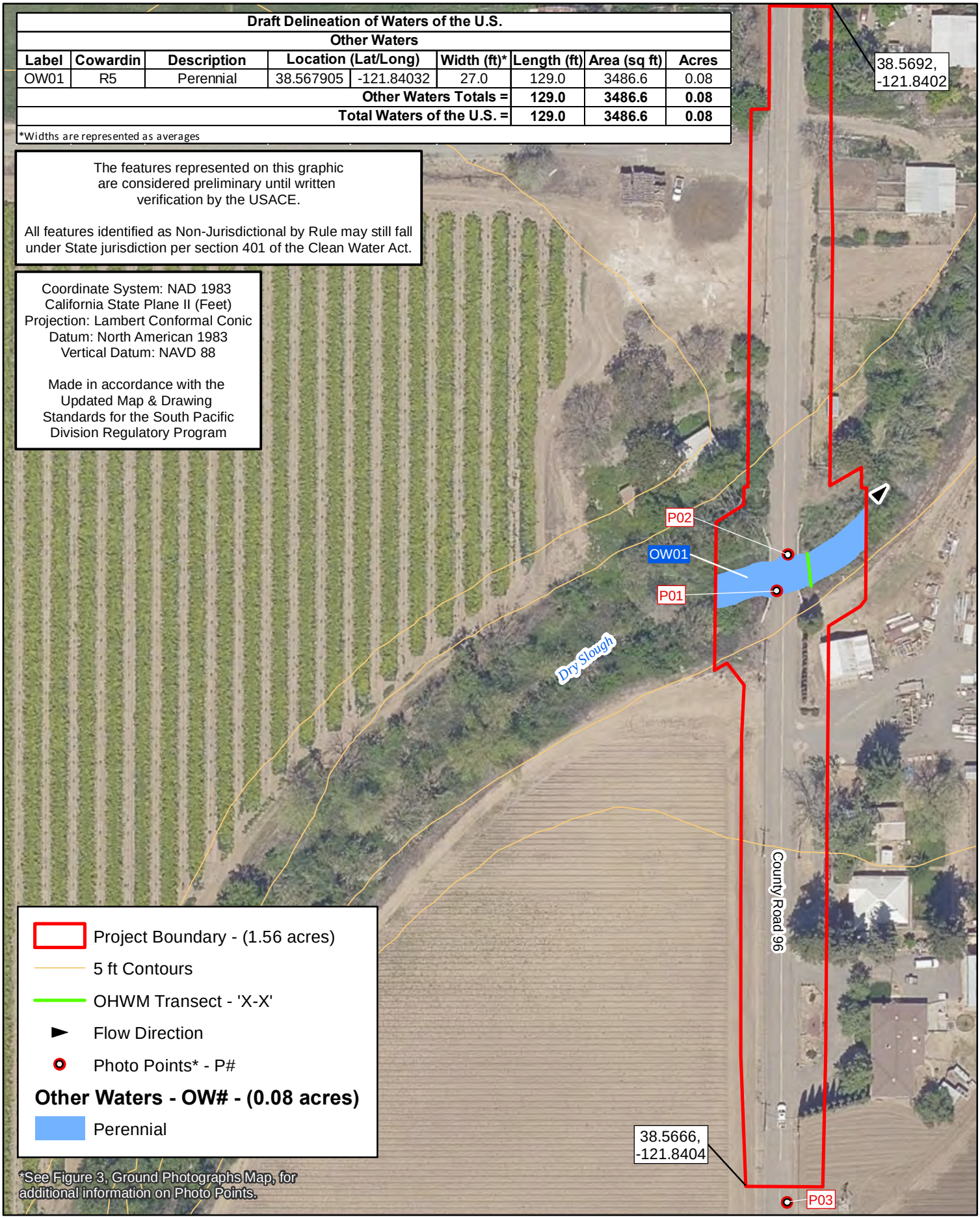
*Widths are represented as averages

The features represented on this graphic are considered preliminary until written verification by the USACE.

All features identified as Non-Jurisdictional by Rule may still fall under State jurisdiction per section 401 of the Clean Water Act.

Coordinate System: NAD 1983
California State Plane II (Feet)
Projection: Lambert Conformal Conic
Datum: North American 1983
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards for the South Pacific Division Regulatory Program



Project Boundary - (1.56 acres)
5 ft Contours
OHWM Transect - 'X-X'
Flow Direction
Photo Points* - P#
Other Waters - OW# - (0.08 acres)
Perennial

*See Figure 3, Ground Photographs Map, for additional information on Photo Points.

NORTH

1:1,200 1 inch = 100 feet
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Draft Delineation of Waters of the U.S.
Figure 4

Delineation by: E. Gregg
Map by: B. Reaves

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20

Appendix E

Archaeological Survey Report / Historic Property Survey Report

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	County	Federal Project. Number. (Prefix, Agency Code, Project No.)	Location
03	YOL	5922(104)	County Road 96 over Dry Slough

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019* (5024 MOU) as applicable.

Project Description:

Yolo County (County) proposes to replace the existing bridge on County Road (CR) 96 over Dry Slough with funding made available through the Federal Highway Administration (FHWA) Highway Bridge Program and administered by the California Department of Transportation (Caltrans). The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6. The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The new structure will accommodate two 11-foot travel lanes and two-foot shoulders. The new bridge is anticipated to be a single-span structure, approximately 60 feet long. See full project description in the attached Archaeological Survey Report (ASR), attachment 1.

2. AREA OF POTENTIAL EFFECTS

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for the project was established in consultation with William Larson, Caltrans Associate Environmental Planner – Archaeology, Vlad Popko, the District 3 Local Assistance Engineer, and Mark Christison, Senior Civil Engineer, on September 9, 2021. The APE map is located in in the attached ASR, Figure 3.

The APE was established as approximately 1.56 acres and includes a portion of CR 96, including 422 feet of road north of the bridge and 472 feet of roadway south of the bridge. The APE includes 129 linear feet of Dry Slough, running southwest to northeast through the project. Construction of the bridge will involve excavation for and construction of concrete abutments, founded on either spread footings or deep foundations. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the project. Although the traveled way and shoulders will remain

within the County's right of way, permanent acquisitions may be needed for the approach grading from three to four parcels. Temporary construction easements will be needed from four parcels adjacent to the bridge to facilitate driveway conforms, utility relocations, and allow construction access. The APE has been designed to encompass all project related activity.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

☒ Local Government

Mark Christison, Senior Civil Engineer Yolo County Department of Community Services

☒ Native American Heritage Commission

The Native American Heritage Commission (NAHC) was contacted on October 20, 2020 to request a sacred lands file search and contact list. A result was received on October 27, 2020. The sacred lands file search was negative. See appendix b in attachment 1 for consultation record.

☒ Native American Tribes, Groups and Individuals

Contact letters were sent to all parties listed on the contact list received from the NAHC on October 30, 2020. One response was received by the Yocha Dehe Wintun Nation. The project boundary lies within the aboriginal territories of the Yocha Dehe Wintun Nation and claimed authority over the proposed project area. The tribe is not aware of any cultural sites within the project APE and expressed there are no concerns with the current project. Should cultural material or new information be discovered during the course of the project, the Yocha Dehe requests notification. Additionally, the tribe recommended cultural sensitivity training prior to construction related activities. Native American consultation efforts can be found in appendix b of the attached ASR (attachment 1).

☒ Local Historical Society / Historical Preservation Groups

In support of the ASR and HPSR completed for this project, Gallaway Enterprises contacted the Archives and Records Center of the Yolo County Library, Historical Resources Management Commission, Davis Historical Society, Friends of Davis Historical Resources, Yolo County Historical Society, Davis Branch Library, and the Davis Friends of Hattie Webber Museum on July 29, 2021 for input, comments and information regarding potential historic resources that may be affected by the project. (See Appendix B of Attachment 2)

4. SUMMARY OF IDENTIFICATION EFFORTS

☒ National Register of Historic Places (NRHP)

☒ California Register of Historical Resources (CRHR)

☒ National Historic Landmark (NHL)

☒ California Historical Landmarks (CHL)

☒ California Points of Historical Interest

☒ California Historical Resources Information System (CHRIS)

☒ Caltrans Historic Bridge Inventory

☒ Other Sources consulted:

BLM GLO Records

☒ Results: A record search of the Northwest Information Center (NWIC) at Sonoma State University was performed by NWIC staff on November 20, 2020 (Record Search No. 20-0779). The search included all previously recorded cultural resources and reports within a half mile radius of the APE. Results of the record search indicated no previous cultural resources within the APE and no cultural resources recorded within a half mile of the project boundary. No cultural resource reports are recorded within the project boundary and no reports have been recorded within a half mile of the project boundary. Archival research indicates the bridge was previously assessed as part of the Caltrans statewide historic bridge inventory program. As a result of the Caltrans historic bridge inventory program, the bridge at CR 96 over Dry Slough Bridge # 22C0127, was determined not eligible for the national register as a category 5 bridge. No properties listed within the NRHP and CRHR fall within the project boundary.

5. PROPERTIES IDENTIFIED

☒ Caltrans, in accordance with Section 106 PA Stipulation VIII.C.5 has determined there are cultural resources within the APE that were **previously determined not eligible** for inclusion in the NRHP with SHPO concurrence and those determinations remain valid. Copy of SHPO/Keeper correspondence is attached.

☒ Bridges listed as **Category 5** (previously determined not eligible for listing in the NRHP) in the Caltrans Historic Bridge Inventory are present within the APE and those determinations remain valid. Appropriate pages from the Caltrans Historic Bridge Inventory are attached.

County Road 96 over Dry Slough bridge, Bridge No. 22C0127 (see appendix C of the ASR for the Caltrans Historic Bridge Inventory Sheet)

6. FINDING FOR THE UNDERTAKING

☒ Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of **No Historic Properties Affected** is appropriate for this undertaking because there are no historic properties within the APE.

7. CEQA CONSIDERATIONS

☒ Not applicable; **Caltrans is not the lead agency under CEQA**.

8. LIST OF ATTACHED DOCUMENTATION

☒ Project Regional, Location, and APE Maps: Figures 1, 2 and 3, respectively, within the attached ASR – Attachment 1

☒ Caltrans Historic Bridge Inventory Sheet:
Appendix C of the ASR

☒ Archaeological Survey Report (ASR): Catherine Davis, February 2021. Archaeological Survey Report for County Road 96 Over Dry Slough Bridge Replacement Project, Yolo County, California - Attachment 1

9. HPSR PREPARATION AND CALTRANS APPROVAL

Prepared by: _____ 9/27/2021

Catherine Davis, Archaeology/Anthropology Date
PQS Archaeology, Gallaway Enterprises, Chico, CA

Reviewed for
Approval by: William E. Larson 9/28/21
William Larson, District 3 Caltrans PQS PI – Prehistoric Archaeology Date

Approval by: Laura Loeffler 10/0821
Laura Loeffler, District 3 Environmental Branch Chief Date

Attachment 1

ARCHAEOLOGICAL SURVEY REPORT
FOR
County Road 96 Over Dry Slough Bridge Replacement Project,
Yolo County, California

California Department of Transportation District 3
Yolo County, California

Prepared by: _____ Date 9/27/2021

Catherine Davis, M.A., RPA
Gallaway Enterprises
Chico, California 95928

Reviewed by: William E. Larson Date 9/28/21

William Larson, PQS: PI - Prehistoric Archaeology
Environmental Planner – Archaeology,
California Department of Transportation
District 3, Marysville

Approved by: Laura Loeffler Date 10/08/21

Laura Loeffler, Environmental Branch Chief
California Department of Transportation
District 3, Marysville

USGS Merritt 7.5'
Circa 1.56 acres
February 2021

Contents

FIGURES

APPENDICES

Summary of Findings

Yolo County proposes to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough with funding made available through the Federal Highway Administration Highway Bridge Program and administered by the California Department of Transportation. The bridge was determined to be functionally obsolete by California Department of Transportation as recently as 2013 and currently has a sufficiency rating of 53.6.

The CR 96 over Dry Slough Bridge Replacement Project (Project) is located within the Merritt 7.5' USGS Quadrangle, Sections 2 & 3, T08N; R01E, in Yolo County, California. The Project site is located within the southern region of Yolo County, between Interstate 505 and State Route (SR) 113. County Road 96 is a rural local roadway that extends between Russell Boulevard to the south and CR 27 to the north. The purpose of the Project is to improve public safety while traveling on the county road. Construction of this Project is anticipated to begin spring of 2023 and to be completed within a single construction season.

The proposed Project will construct a new bridge along the same roadway alignment. The new bridge is anticipated to be a single-span structure, approximately 60 feet long. Construction of the bridge will involve excavation to a depth of 14 feet for the construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Tree removal and removal of other vegetation along the slough will be necessary for the Project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway. Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the Project.

Cultural resources identification efforts for this report included survey of the entire APE, a records search at the Northwest Information Center (NWIC), and archival research. As a result of the record search at the NWIC, no cultural resources were recorded within the Project area of potential effects (APE). The pedestrian survey resulted in a finding of no cultural resources identified within the APE.

It is Caltrans' policy to avoid cultural resources whenever possible. Further investigations may be needed if the site[s] cannot be avoided by the Project. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the Project changes to include areas not previously surveyed.

Archaeological Survey Report

Project Location:

Yolo County, California

Sections 2 & 3, T08N; R01E,

7.5 USGS Quadrangle Merritt

1 INTRODUCTION

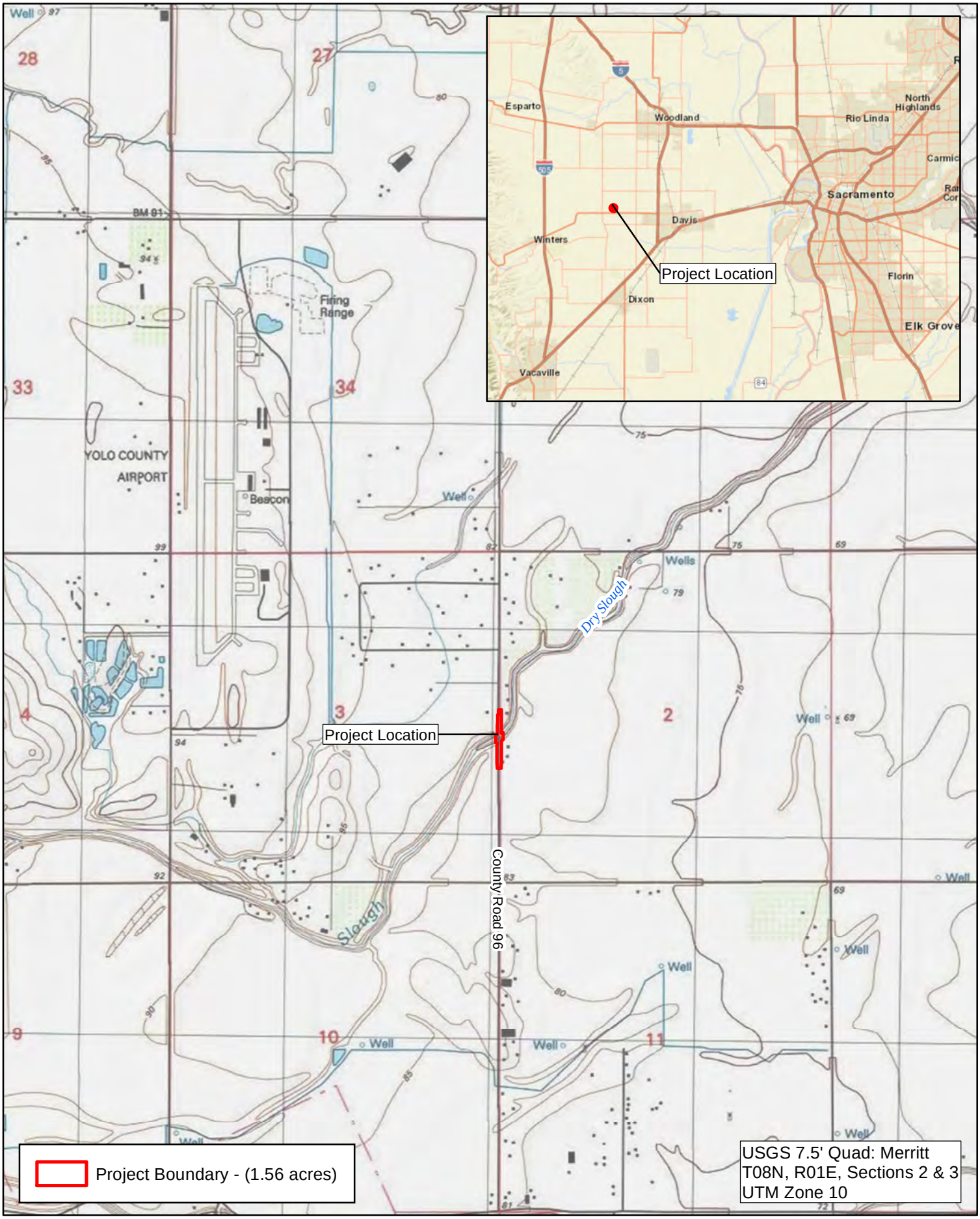
Yolo County (County) and the California Department of Transportation (Caltrans) are proposing to replace the bridge over County Road (CR) 96 Over Dry Slough. The purpose of the CR 96 Over Dry Slough Bridge Replacement Project (Project) is to improve public safety by replacing the current bridge on CR 96 over Dry Slough which was determined to be structurally deficient in 2013. The Project is located in unincorporated Yolo County, California within the Merritt 7.5' USGS Quadrangle, Sections 2 & 3 of T08N; R01E, latitude 38.567909 and longitude -121.840340 (**Figure 1: Regional Location Map, Figure 2: Project Location Map**). The Project currently proposed on the site is the construction of a new bridge along a similar alignment as the existing structurally deficient bridge being replaced.

To access the site from the Sacramento area, take I-80 W toward San Francisco. From I-80 W, take exit 70 for CA-113 N. From CA-113 N take exit 29 for Covell Blvd and turn left onto W Covell Blvd. Continue W Covell Blvd/E6/County Road 31 for approximately 4 miles and turn right onto CR 96. Continue on CR 96 for approximately 0.4 miles and you will arrive at the CR 96 Bridge. The survey area encompasses the entire existing CR 96 over Dry Slough Bridge and approaches on both sides on the bridge.

1.1 Project Description

Yolo County proposes to replace the existing bridge on CR 96 over Dry Slough with funding made available through the Federal Highway Administration (FHWA) Highway Bridge Program and administered by Caltrans. The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6.

The Project site is located within the southern region of Yolo County, east of the Yolo County Airport. CR 96 is a rural local roadway that extends between Russell Boulevard to the south and CR 27 to the north. County Road 96 is paved and has an approximate width of 20 feet. The bridge, with an Average Daily Traffic count of 216 vehicles, is bordered by agricultural and residential parcels.



NORTH

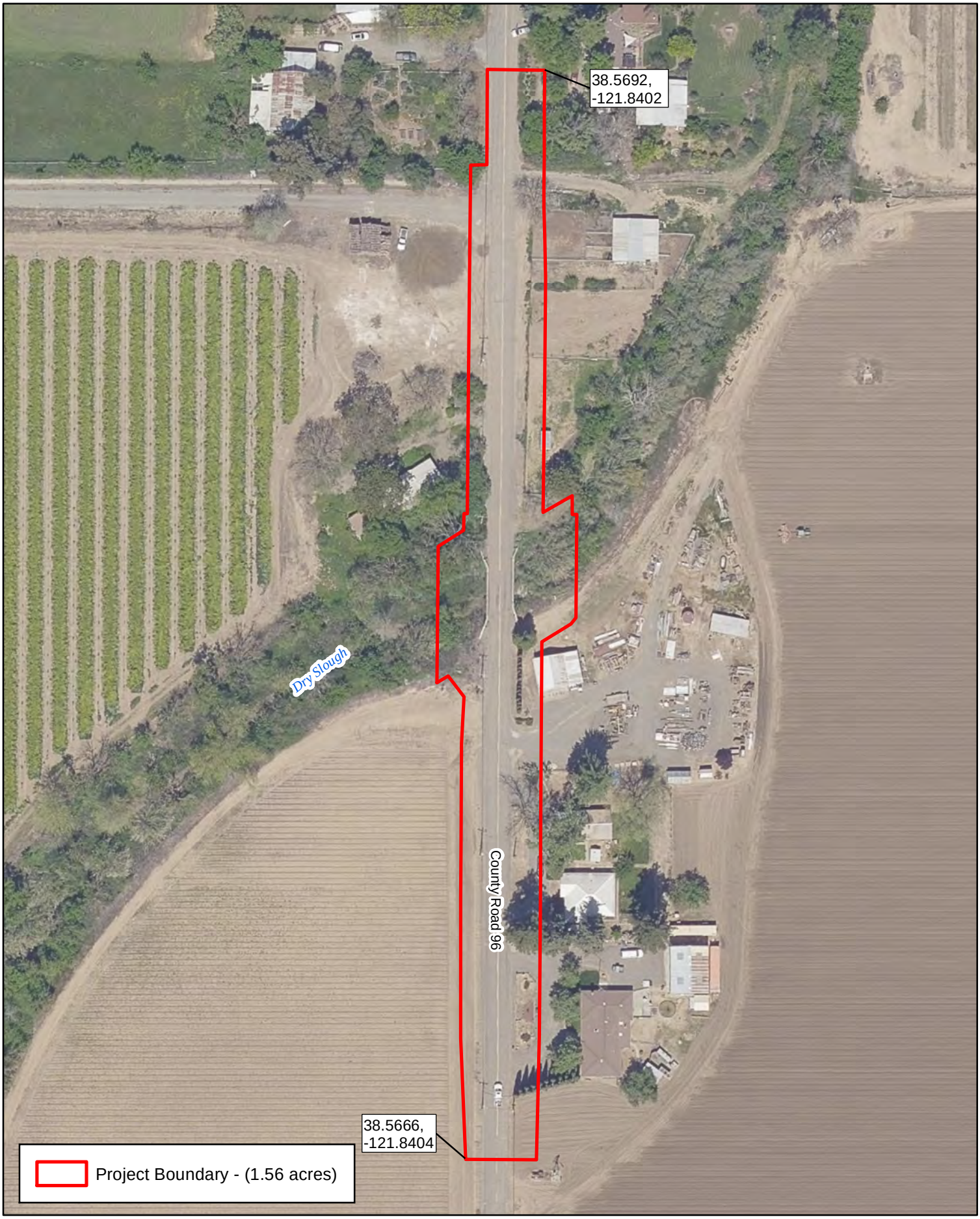
1:24,000
0 1,000 2,000 Feet

Data Sources: ESRI, Yolo County, USGS, Mark Thomas

County Road 96 Over Dry Slough
Regional Location Map
Figure 1

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20



NORTH

1:1,300
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Project Location Map
Figure 2

gallaway ENTERPRISES

GE: #17-013A Map Date: 12/15/20

There is a residential structure approximately 100 feet northwest of the bridge and an agricultural building approximately 60 feet southeast of the bridge. The posted speed limit along CR 96 within the project vicinity is 45 mph. The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span, reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition, with spalling and exposed rebar. The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes and two-foot shoulders. The new bridge is anticipated to be a single-span structure, approximately 60 feet long. The structure type is a cast-in-place, post-tensioned concrete slab. The roadway and bridge profile will be raised slightly to clear the 100-year storm event.

1.2 Area of Potential Effects

The APE for the Project was established in consultation with and signed by William Larson, PQS: PI - Prehistoric Archaeology, Mark Christison, Senior Civil Engineer, and Local Assistance Engineer, Vlad Popko; approved on September 8, 2021. The APE is approximately 1.56 acres and includes a portion of CR 96, including 422 feet of road north of the bridge and 472 feet of roadway south of the bridge. The APE includes 129 linear feet of Dry Slough, running southwest to northeast through the Project.

Construction of the bridge will involve excavation to a depth of 14 feet for the construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Tree removal and removal of other vegetation along the slough will be necessary for the Project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the Project. Although the traveled way and shoulders will remain within the County's right of way, permanent acquisitions may be needed for the approach grading from three to four parcels. Temporary construction easements will be needed from four parcels adjacent to the bridge to facilitate driveway conforms, utility relocations, and allow construction access. The APE has been designed to encompass all Project related activity, in additional to the APE the Area of Direct Impact (ADI) has been identified to show all areas of direct impact (**Figure 3**).

1.3 Regulatory Context

The proposed Project is considered a federal undertaking subject to 36 CFR Part 800, implementing regulations for Section 106 of the National Historic Preservation Act (NHPA) and conducted under the guidelines of the January 1, 2014, First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the

National Historic Preservation Act (January 1, 2014) (PA). In addition, the Project is subject to state historic preservation laws and regulations set forth in the California Environmental Quality Act (PRC§21000 et seq.).

1.4 Personnel

Archaeological background research and fieldwork for the Project and preparation of this ASR was completed by:

- Catherine Davis; M.A. in Anthropology from California State University Chico, Chico; RPA certified; 6+ years archaeological experience in California; 4 years in cultural resource management.

2 SOURCES CONSULTED

2.1 Summary of Methods and Results

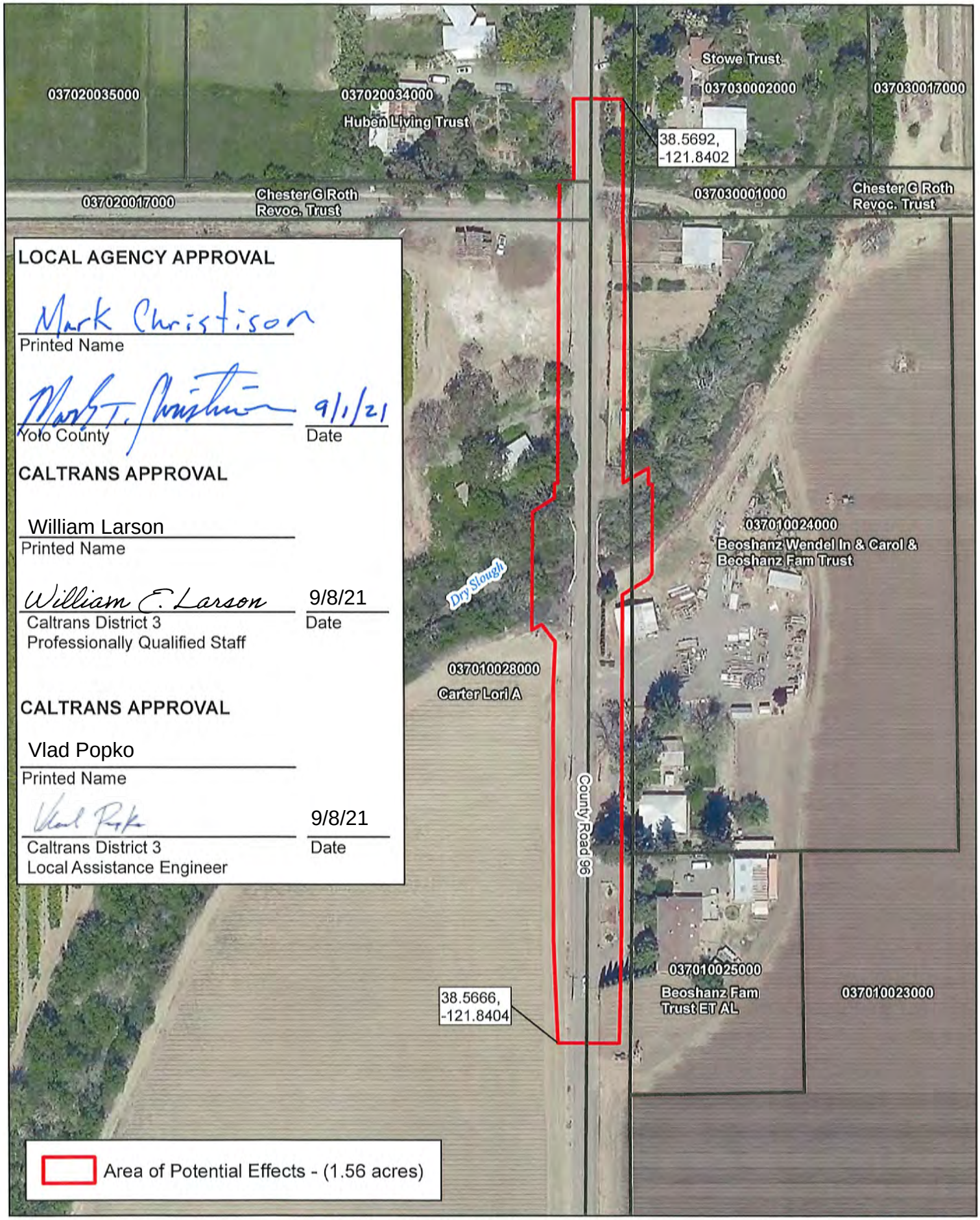
Archaeological survey report efforts included a pedestrian survey, a records search, Native American outreach, and archival research. No cultural resources were identified as a result of the pedestrian survey, Native American outreach, or archival research efforts and record search results. No information about any historical resources resulted from consultation with historical groups; at the time of writing this document, no responses from the historical society have been received in regard to this Project.

2.1.1 Records Search and Results

A record search of the Northwest Information Center (NWIC) at Sonoma State University was performed by NWIC staff on November 20, 2020 (Record Search No. 20-0779). The search included all previously recorded cultural resources and reports within a half mile radius of the APE (see Appendix A). The record search was conducted to determine if any portion of the Project has been previously surveyed and if any cultural resources have been previously recorded within the Project APE.

Results of the record search indicated no previous cultural resources within the APE and no cultural resources recorded within a half mile of the Project boundary. No cultural resource reports are recorded within the Project boundary and no reports have been recorded within a half mile of the Project boundary. Five reports classified as “other” reports have been conducted on geographical boundaries that include the Project boundary. These reports are general research reports or thesis research that generally include large portions of land and do not include pedestrian survey.

Archival research indicates the bridge was previously assessed as part of the Caltrans statewide historic bridge inventory. The bridge at CR 96 over Dry Slough, bridge #22C0127, was determined not eligible for the National Register of Historic Places (NRHP) as a category 5 bridge (see Appendix C). Archrival research also indicates several structures present surrounding the bridge were built between the 1940s and 1960s. One structure is indicated existing to the northwest of the bridge just outside of the Project boundary that is present on the 1907 Woodland USGS topographic map. Several additional structures to the south and southwest next appear on the 1941 USGS Woodland topographic map. None of the structures fall within the Project APE or ADI.



LOCAL AGENCY APPROVAL

Mark Christison
Printed Name

Mark T. Christison 9/1/21
Yolo County Date

CALTRANS APPROVAL

William Larson
Printed Name

William E. Larson 9/8/21
Caltrans District 3 Date
Professionally Qualified Staff

CALTRANS APPROVAL

Vlad Popko
Printed Name

Vlad Popko 9/8/21
Caltrans District 3 Date
Local Assistance Engineer

NORTH

1:1,500
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Area of Potential Effects
Figure 3

gallaway ENTERPRISES

GE: #17-013A Map Date: 2/16/21

2.1.2 Summary of Native American Consultation

Native American outreach was initiated on October 20, 2020 with a record search and sacred land files request sent to the Native American heritage Commission. A result of the sacred lands file returned a negative result. All parties listed on the contact list were sent notification letters on October 30, 2020.

One response was received by the Yocha Dehe Wintun Nation Tribal Historic Preservation Officer (THPO). The letter indicated the Yocha Dehe Wintun Nation have cultural interest in the Project location and assigned the Tribe as the authority in the proposed Project area. The response also indicated no known cultural resources within the Project boundary and stated no monitor would be required. Should any new information or items be discovered as result of Project related activity, the Yocha Dehe Wintun Nation requests notification. Additionally the tribe recommended sensitivity training prior to construction related activity. The assigned contact information is also provided and available in Appendix B.

2.1.3 Summary of Historical Group Consultation

Gallaway Enterprises contacted local historical groups consisting of the Archives and Records Center of the Yolo County Library, Historical Resources Management Commission, Davis Historical Society, Friends of Davis Historical Resources, Yolo County Historical Society, Davis Branch Library, and the Davis Friends of Hattie Webber Museum on July 29, 2021 for input, comments and information regarding potential historic resources that may be affected by the project. No responses to the initial outreach were received by August 12, 2021. Gallaway Enterprises made additional attempts to contact the historical groups by phone and email on August 13 and 16, 2021. At the time of writing this document, no responses from the historical groups have been received in regard to this Project.

3 BACKGROUND

3.1 Environment

The Project site is located within the Central Valley in unincorporated Yolo County, California. The Project site is composed of the barren paved roadway, a perennial drainage, Dry Slough, with a narrow band of valley foothill riparian vegetation along the steep banks, urban habitats, and active agricultural land. The site is the location of an existing structurally deficient bridge, the County Road 96 Bridge over Dry Slough. The land surrounding the Project site is primarily rural residential and commercial buildings and active agricultural land. The stretch of Dry Slough within the Project site is highly channelized.

The average annual precipitation is 17.55 inches and the average annual temperature is 60.35° F (WRCC 2020) in the region where the Project site is located. The Project site occurs at an average elevation of 85 feet above sea level. The overall area is sloped between 0 and 2 percent; however, the channel banks were highly channelized and had slopes of 70 percent or greater. Soils within the site were loams with a restrictive layer occurring more than 80 inches deep.

3.2 Ethnography

The APE is located in the traditional territory of the Patwin. The Patwin belong to the Wintuan family of Penutian speakers, a linguistic language family whose members are found throughout California (Moratto

1984). Wintuan language subgroups consist of Wintu (Northern Wintuan), Nomlaki (Central Wintuan) and Patwin (Southern Wintuan) (Kroeber 1925). The Patwin are traditionally subdivided into two groups, the Hill Patwin and the River Patwin. The APE lies in the traditional territory of the River Patwin who inhabited areas of high ground along the Sacramento River. Patwin were said to have had one of the largest nations of the state, consisting of the triblets (Powers 1877).

The Patwin subsistence patterns consisted of hunting, fishing, and gathering. Acorns are considered to have been a staple of the Patwin and were used for gruel, soup, and bread. Other good gathered included berries, roots, nuts, seeds, wild honey, and greens. Hunting sources included aquatic birds, quail, tule elk, rabbits, beaver, deer, fishing, and shellfish collecting. Deer were an important resource and typically caught using snares, or by community drives. Fish were another important resource to the River Patwin and salmon runs and fishing rights were regulated by the River Patwin. Fish were consumed fresh and dried to be consumed during winter months (Johnson 1978).

Villages contained several structures including houses, the menstrual hut, dance houses, granaries, and sweat houses (Kroeber 1925). Villages typically contained anywhere from four to five, to several dozen houses. Patwin technology included ground and flaked stone tools, mortars and sinew backed bows, basketry, nets, and leather working. Trade was conducted with surrounding tribes and included obsidian, marine shells, acorns, and chert tools.

At the time of contact, Native Americans in the Sacramento Valley suffered devastating consequences. Euro-American presence in the region including fur trapping expeditions through the region in 1832-33 resulted in the introduction of devastating diseases. As a result, large population and territory losses were suffered by the Patwin and neighboring Native American groups.

3.3 Prehistory

Archaeological data has shown human occupation in California, including the Sacramento Valley, for at least the past 10,000–12,000 years. Due to the varied environmental conditions throughout California, technological adaptations are greatly varied both geographically and temporally. The following cultural chronology has been synthesized from work by Moratto (1984), and Rosenthal, White, and Sutton (2007). The prehistory of this region is defined in five major periods, the Paleo-Indian, Lower Archaic, Middle Archaic, Upper Archaic, and Emergent.

The Paleo-Indian Period (11,500 BC–8550 BC) – Represented by relatively few known sites. Sites are located along the shores of large lakes. Traditionally, Paleo-Indian subsistence and land use has been tied to the hunting. Fluted projectile points and concave base points.

The Lower Archaic Period (8550 BC–5550 BC) - Generally, drier conditions prevailed bringing about a reduction in the size and number of large pluvial lakes. Subsistence focus shifted to the consumption of plant foods. Assemblages represented by stemmed points, chipped stone crescents, and other flaked stone. Valley floor assemblages also seem to vary from the Coast Range foothills where unlike the absence

of milling implements in valley floor assemblages, the Coast Range Foothills sites often contain accumulations of milling slabs, handstones, and other milling implements.

The Middle Archaic Period (5550 BC– 550 BC) – this period is represented by a marked change in environmental temperature to a warmer drier climate resulting in the declines of lakes throughout the region. Along with the shrinking of lakes came the birth of the Sacramento- San Joaquin Delta. Research done on this period has led to the identification of two settlement-subsistence adaptations, those being the foothills and valley floor adaptations. Foothill Traditions are marked by expedient cobble-based pounding, chopping, scraping, and mulling tools. Assemblages are composed of flaked and ground stone tools. Valley Traditions assemblages are rare in number especially compared to those associated with the foothill tradition. The assemblages of this tradition are marked by increasing year round settlement along the river corridors of the Sacramento and San Joaquin Rivers marked by an archaeological assemblage of specialized tools and trade objects.

Upper Archaic Period (550 BC–1100 AD) - Upper Archaic environmental conditions are marked by cooler, wetter weather, and a more stable climate. Archaeological assemblages represent more cultural diversity evidenced by differences in burials and material cultures. Bone tools, beads, ceremonial blades, polished ground stone plummets are all common in this period. Substantial village settlements evidenced by mound sites in the region.

Emergent Period (1000 AD– Historic) – The emergent period is marked by the Sweetwater and Shasta Complexes in the northern Sacramento Valley. This period is also representative of the most substantial artifact assemblage. Several technological and social changes distinguish this period. The bow and arrow were introduced. Territorial boundaries between groups became well established and settlement patterns were highly sedentary. Exchange of goods between groups is more regular with more resources, including raw materials, entering into the exchange networks. During the latter years of this period, large-scale European settlement began to greatly impact traditional Native American lifeways.

3.4 History

The Project boundary lies within the County of Yolo, one of the original 27 counties of California. Yolo is bounded by Colusa County to the north, Solano County to the south Napa County and Lake County to the west and Sutter County and Sacramento County to the East. The Sacramento River comprises of the eastern boundary of the County and a majority of the western boundary is comprised of ridgeline. Yolo County, within the Sacramento Valley, contained land with rich soil and many came to area to take advantage of the fertile soil. Settlement of Yolo County began with towns concentrated near the Sacramento River. The first County seat, Fremont, was founded in 1849 at the confluence of the Sacramento and Feather Rivers.

Originally, Yolo County was divided into several Mexican Land Grants. Settlement patterns in the County continued to grow through the 1800s as farmers and ranchers flocked to the county in pursuit of the rich soil and land. John Wolfskill acquired a grant of four leagues along Putah Creek approximately 4 miles

southwest of the APE in 1842. Wolfskill introduced vines and orchards to his rancho and provided cuttings to new immigrants. In 1845 the Mexican government granted Rancho Laguna de Santos Calle east of Wolfskill's grant, to Marcos Vaca and Victor Prudon. Immigrant Joseph B. Chiles purchased a portion of the grant, upon which Davis sits, in 1849 (Larkey and Walters, 1987).

During the next several decades factors that increased stability for the residents along Putah Creek in southern Yolo County included a growing concern over transportation. Prior to 1862, Washington (later known as Broderick), a town on the western bank of the Sacramento River, had served as the County seat. On the eastern bank of the Sacramento River, just east of Washington, laid the City of Sacramento. The first bridge crossing the Sacramento River was built in 1857 and connected Washington and Sacramento. In 1869, the bridge was rebuilt to accommodate the transcontinental railroad (Kyle 1990). With the introduction of the rail line growth in the region was largely influenced by the railroad and as the route diverted traffic away from Washington and through the greater Sacramento area, Washington was incorporated into West Sacramento.

The introduction of the railroad is also credited with the establishment of the City of Davis. The Project lies just west of the City of Davis. The City of Davis is located at the junction of the Vallejo-Sacramento line, and the north bound line. The City of Davis was originally called Davisville and was named after a ranching family who owned a ranch that covered 12,000 acres of land, a portion of which the City would later be built on. The California Pacific Railroad purchased 7,000 acres of the ranch in the 1868 to establish a stop on the railroad line. This route was an important transport route connecting the agricultural lands with the Bay Area and was later joined by a rail line running north-south. The original stop, called the Town of Davisville became an important hub of transportation. After a bid to be the location of a university farm was won, the town newspaper renamed itself the Davis Enterprise and in 1907 the town post office officially adopted the name change. In 1908, Berkley's College of Agriculture opened a university state farm near Davis increasing the population and infrastructure to the area. After a fire in the town in 1916, the town expanded its civic services and infrastructure, and the City of Davis was incorporated in 1917. The University would continue to play a large role in the development of the City with the inclusion of a four year college degree program (Larkey 1980).

Just northwest of the Project lies the Yolo County Airport. The airport is a general aviation airport 4 miles west of the City of Davis. Originally termed the Winters-Davis Flight Strip, the airport was built in 1941 with construction completing in 1942. The facility was a military training ground on land acquired from a local farming family. The airport is also famously associated with assisting in the training of the Tokyo Raiders attack in 1942 known as the Doolittle Raid. Additional facilities included an operation tower, five bomb fuze storage magazines, thirteen bomb storage revetments, temporary troop quarters and various associated structures. The flight strip was assigned inactive status on December 30, 1945 (USACE 1995). In 1949 the airstrip was placed into the administrative control of Yolo County and renamed the Yolo County International Airport. While the airport was named the Yolo County airport, the site did not function as a traditional airport. In 1974, Yolo Aviation Inc. leased 14.9 acres of the airport and began small scale flight operations for activities such as crop dusting, and for instructional use (USACE 1995; Gallaudet, 2021).

The Project area appears to have a long history of agricultural use. As evidenced from topographic maps dating back to 1907, structures are present on the properties surrounding the APE prior to 1907. The land on which the Project falls is included in two land grants in the late 1800s, both sale cash entries. One entry was made by Maurice Reardon, who was granted 160 acres outside of Davis. A portion of this land would later be claimed to form a portion of the Winters-Davis Flight strip. The land continues to be used for agricultural purposes.

4 FIELD METHODS

4.1 Survey Methods and Coverage

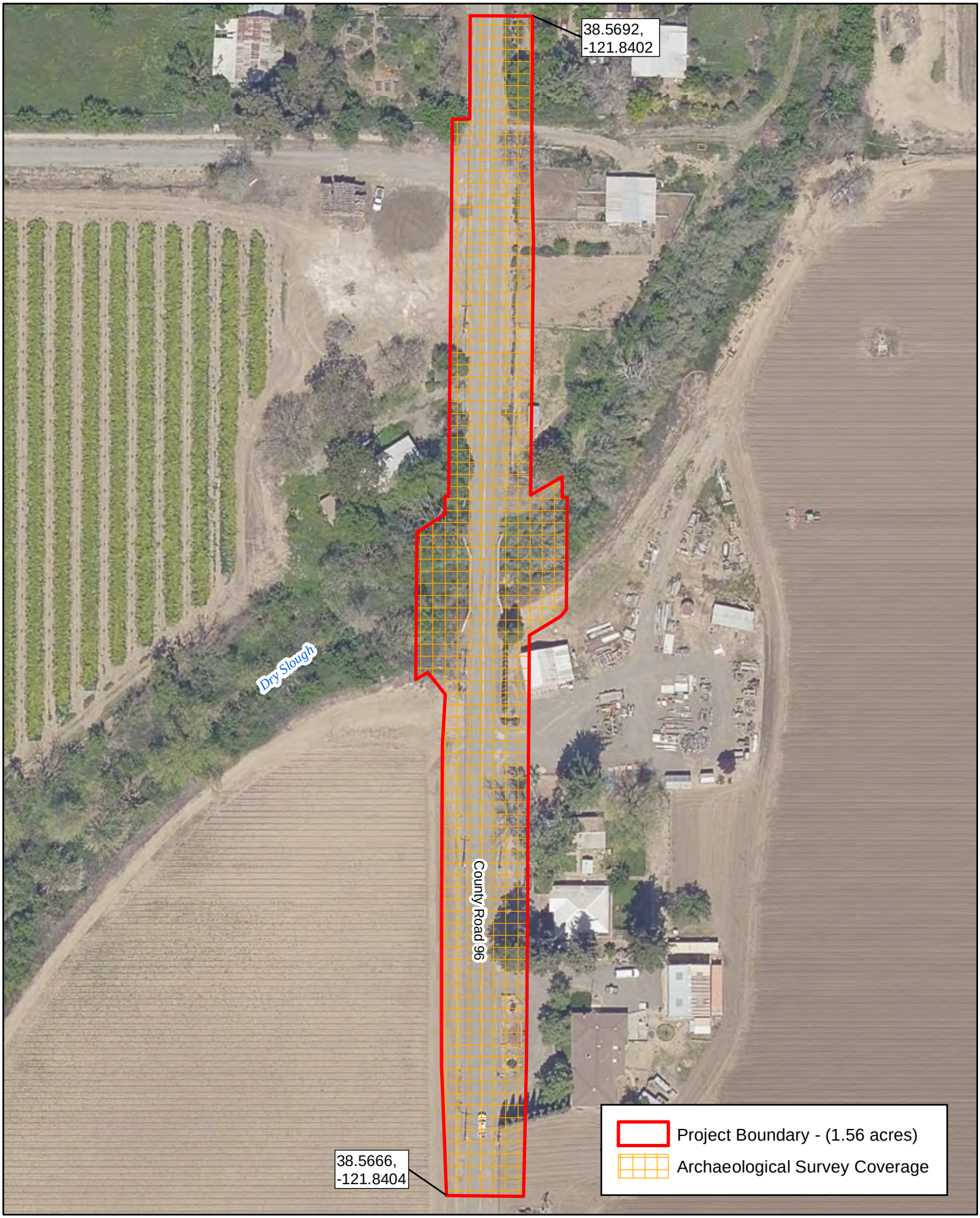
A pedestrian survey was completed on December 10, 2020 by Gallaway Enterprises Archaeologist, Catherine Davis. Due to the narrow Project boundary, the pedestrian survey covered the entire APE (**Figure 4**). The weather was sunny with no cloud cover. The entire APE is comprised of paved road, agricultural land, or private residence approaches. The roadway within the APE is very narrow and abuts private property throughout the APE. A row of ornamental non-native trees line the roadway to the southeast of the bridge and historic farming equipment and miscellaneous material are stored on the property beyond the ornamental trees (**Figure 5**). USGS topographic maps indication the oldest structure near the APE lay just northwest of the bridge. Currently the property is home to a new structure with a wooden shed just west of this. Both structures fall outside of the APE and the ADI is limited to the roadway in this portion of the Project. No archaeological sites or artifacts were identified during the pedestrian survey. The bridge approaches were clean and free of debris; likewise the ground below the bridge contained very little debris (**Figure 6**). A plaque on the bridge reads '1929 W.O. Russell – SUP..; A. G. Proctor – Eng.'

5 STUDY FINDINGS AND CONCLUSIONS

A record search returned a finding of no previously recorded archaeological sites within the Project boundary and no resources previously identified within a half mile of the Project location. Archival research indicates the bridge at CR 96 over Dry Slough, bridge #22C0127, was previously determined not eligible for the National Register of Historic Places (NRHP) as a category 5 bridge (see Appendix C). As a result of the pedestrian survey no previously unidentified archaeological sites were identified. Native American outreach likewise returned a negative result for culturally sensitive material or known archaeological sites.

5.1 Unidentified Cultural Materials

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if Project limits are extended beyond the present survey limits.



NORTH

1:1,200
0 50 100 Feet

Data Sources: ESRI, Yolo County
04/13/2018, Mark Thomas

County Road 96 Over Dry Slough
Archaeological Survey Coverage
Figure 4

gallaway ENTERPRISES

GE: #17-013A Map Date: 2/16/21

5.2 Site Photos Taken on December 10, 2020

Figure 5. Southeast of the bridge viewing ornamental trees and historic farming equipment

Figure 6. Viewing east

6 REFERENCES

California, State of
1970 Public Resources Code, Section 21000, et seq. (CEQA), and The California Environmental Quality Act Guidelines, California Administrative Code, Section 15000 et seq. (Guidelines, as amended December 28, 2018)

Gallaudet, Bruce
2021 Yolo at war: Warbirds left their mark at airport. The Davis Enterprises, https://www.davisenterprise.com/news/local/yolo-county-airport-once-hosted-doolittles-raiders/, accessed 2/15/2021

Hoover, Mildred B., Hero E. Rensch, and Ethal G. Rensch
1990 Historic Spots in California. Fourth Edition Revised by Douglas E. Kyle. Stanford University Press. Stanford, California

Johnson, Patti J.
1978 Patwin. In Handbook of North American Indians, Volume 8, California, edited by Robert F. Heizer, pp. 350-360. Smithsonian Institution, Washington, D.C.

Kroeber, A.L.
1916 California Place Names of Indian Origin. University of California Publications *in* American Archaeology and Ethnology 12(2):31-69

1925 Handbook of the Indians of California. Bureau of American Ethnography, Bulletin 78. Washington, D.C.: Smithsonian Institution. DuBois, Cora

Kyle, Douglas E. ed.
2002 Historic Spots in California, 5th Edition. Stanford: Stanford University Press

Larkey Joann L. and Shipley Walters
1987 *Yolo County: Land of Changing Patterns.* Northridge, CA: Windsor Publications

Larkey, Joann Leach
1980 *Davisville '68 The History and Heritage of The City of Davis, Yolo County California.* Davis, CA: Davis Historical and Landmarks Commission, 1969 reprint

Morratto, Michael J.
1984 California Archaeology. Academic Press, Inc. Orlando, Florida

Powers, Stephen
1877 Tribes of California. Contributions to North American Ethnology 3. U.S. Geographic and Geological Survey of the Rocky Mountain Region, Washington. Somerset Publishers, Inc.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 The Central Valley: A view from the Catbird's Seat *in* California Prehistory; Colonization, Culture, and Complexity. Ed. Terry L. Jones and Kathrym A. Klar

State of California Office of Historic Preservation
2020 California Register of Historical Resources, Yolo County. Electronic Document. https://ohp.parks.ca.gov/ListedResources/?view=county&criteria=57, accessed 12-07-2020

United States Army Corps of Engineers St. Louis District
1995 Yolo County Airport Formerly Winters-Davis Flight Strip, Yolo County California. Project No. J09CA009402, http://www.militarymuseum.org/WintersASR.pdf, accessed 2-15-2021

United States Department of the Interior; Bureau of Land Management
2020 Bureau of Land Management; General Land Office Records. https://glorecords.blm.gov/results/default.aspx?searchCriteria=type=patent|st=CA|cty=|twp_nr=08|twp_dir=N|rng_nr=01|rng_dir=E|sec=3|m=21|sp=true|sw=true|sadv=false, accessed 12-07-2020

United States Department of the Interior, National Park Service
2020 National Register of Historic Places. Electronic Document https://npgallery.nps.gov/NRHP/SearchResults/, accessed 12-08-2020

United States Geological Survey [USGS].
1941 Woodland, California 60-minunte quadrangle map. Electronic document https://livingatlas.arcgis.com/topoexplorer/index.html /, accessed 12-08-2020

Western Regional Climate Center,

2020 Desert Research Institute http://www.wrcc.dri.edu. Local Climate Summary for the Davis 2 WSW Exp. Farm, California (042294) NOAA Cooperative Station.

Appendix A

Northwest Information Center Record Search

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA, COLUSA, CONTRA COSTA, DEL NORTE, HUMBOLDT, LAKE, MARIN, MENDOCINO, MONTEREY, NAPA, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLATA, SANTA CRUZ, SOLANO, SONOMA, YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

11/20/2020 NWIC File No.: 20-0779

Catherine Davis
Gallaway Enterprises
117Meyers Street, Suite 120
Chico, CA 95928

Re: County Road 96 Over Dry Slough

The Northwest Information Center received your record search request for the project area referenced above, located on the Merritt USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a 0.5 mi. radius:

Resources within project area:	None listed
Resources within 0.5 mi. radius:	None listed
Reports within project area:	S-595*, 9795*, 17835*, 30204*, 32596*, 51085*
Reports within 0.5 mi. radius:	None listed

Resource Database Printout (list):		☐ enclosed	☐ not requested	☒ nothing listed
Resource Database Printout (details):		☐ enclosed	☐ not requested	☒ nothing listed
Resource Digital Database Records:		☐ enclosed	☐ not requested	☒ nothing listed
Report Database Printout (list):		☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):		☒ enclosed	☐ not requested	☐ nothing listed
Report Digital Database Records:		☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:		☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	*	☐ enclosed	☐ not requested	☒ nothing listed
OHP Built Environment Resources Directory:		☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:		☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	**	☐ enclosed	☐ not requested	☐ nothing listed
Caltrans Bridge Survey:		☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	**	☐ enclosed	☐ not requested	☐ nothing listed

Historical Literature:	☐ enclosed	☐ not requested	☒ nothing listed
Historical Maps:	☒ enclosed	☐ not requested	☐ nothing listed
Local Inventories:	☒ enclosed	☐ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☒ enclosed	☐ not requested	☐ nothing listed

Notes:
*These are in our "Other Reports' category, no PDFs requested.
** Sent with 20-0777: County Rd 49 ovr Hamilton Crk.

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,
Annette Neal
Researcher

Appendix B

Native American and Historical Society Outreach

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

October 27, 2020

Catherine Davis, MA, RPA
Gallaway Enterprises

Via Email to: cate@gallawayenterprises.com

Re: County Road 96 Over Dry Slough Project, Yolo County

Dear Ms. Davis:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Sarah.Fonseca@nahc.ca.gov.

Sincerely,

Sarah Fonseca
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Yolo County
10/27/2020

Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
Clifford Mota, Tribal Preservation Liaison
3730 Highway 45 — Wintun
Colusa, CA, 95932
Phone: (530) 458 - 8231
cmota@colusa-nsn.gov

Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
Daniel Gomez, Chairman
3730 Highway 45 — Wintun
Colusa, CA, 95932
Phone: (530) 458 - 8231
dgomez@colusa-nsn.gov

Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
Charlie Wright, Chairperson
P.O. Box 1630 — Wintun
Williams, CA, 95987
Phone: (530) 473 - 3274
Fax: (530) 473-3301

Yocha Dehe Wintun Nation
Laverne Bill, Site Protection Manager
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
lbill@yochadehe-nsn.gov

Yocha Dehe Wintun Nation
Leland Kinter, THPO
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov

Yocha Dehe Wintun Nation
Isaac Bojorquez, Director of Cultural Resources
PO Box 18 Brooks, CA 95606 — Patwin
Phone: (530) 796 - 0103
ibojorquez@yochadehe-nsn.gov

Yocha Dehe Wintun Nation
Anthony Roberts, Chairperson
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
aroberts@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed County Road 96 Over Dry Slough Project, Yolo County.

Communication Log	
	Initial Outreach Letter
Daniel Gomez, Chairperson, Cachil Dehe Band of Wintun Indians of the Calusa Indian Community	30-Oct-20
Clifford Mota, Tribal preservation Liasion, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community	30-Oct-20
Charlie Wright, Chairperson, Cortina Rancheria - Kletsel Dehe Band of Wintun Indians	30-Oct-20
Anthony Roberts, Chairperson, Yocha Dehe Wintun Nation	30-Oct-20
Leland Kinter, THPO, Yocha Dehe Wintun Nation	30-Oct-20
Laverne Bill, Site Protection Manager, Yocha Dehe Wintun Nation	30-Oct-20
Isaac Bojorquez, Director of Cultural Resources, Yocha Dehe Wintun Nation	30-Oct-20

gallaway
ENTERPRISES

117 Meyers Street • Suite 120 • Chico CA 95928 • 530-332-9909

October 30, 2020

Laverne Bill, Site Protection Manager
Yocha Dehe Wintun Nation
P.O. Box 18
Brooks, CA, 95606

RE: County Road 96 over Dry Slough Bridge Replacement Project

Dear Mr. Bill;

Gallaway Enterprises has been requested to conduct an archaeological survey of the County Road 96 over Dry Slough Bridge Replacement Project (Project) consisting of approximately 1.54 acres. The project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113. County Road 96 is a rural local roadway that extends between Russell Boulevard on the south and County Road 27 on the north. Yolo County proposes to replace the existing bridge on County Road 96 crossing over Dry Slough with funding made available through the Federal Highway Administration Highway Bridge Program and administered by the California Department of Transportation. The bridge was determined to be functionally obsolete by California Department of Transportation as recently as 2013. The proposed project will construct a new bridge along the same roadway alignment. The new bridge is anticipated to be a single-span structure, approximately 60 to 70 feet long.

Gallaway Enterprises is contacting the Yocha Dehe Wintun Nation to aid in the identification of any cultural resources within the project boundary or any initial concerns with the proposed project. Please notify us within 14 days with any pertinent information you may have regarding the project location. We value your assistance and look forward to your response. Please contact Catherine Davis at Gallaway Enterprises with any questions or concerns you may have. Thank you for your attention to this matter.

Sincerely,

Catherine Davis, M. A., RPA
Gallaway Enterprises, Inc.
530.332.9909 ext. 206
Cate@gallawayenterprises.com
117 Meyers St. Suite 120
Chico, Ca. 95928

Encl. *County Road 96 over Dry Slough Bridge Replacement Project Project Location Map.*

YOCHA DEHE
CULTURAL RESOURCES

November 16, 2020

Gallaway Enterprises
Attn: Catherine Davis, M. A., RPA
117 Meyers Street, Suite 120
Chico, CA 95928

RE: CR 96 Dry Slough Bridge Project YD-02042020-01

Dear Ms. Davis:

Thank you for your project notification letter dated, October 30, 2020, regarding cultural information on or near the proposed CR 96 Dry Slough Bridge Project, Yolo County. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

Based on the information provided, Yocha Dehe Wintun Nation is not aware of any known cultural resources near this project site and a cultural monitor is not needed. However, if any new information is available or cultural items are found, please contact the Cultural Resources Department. In addition, we recommend cultural sensitivity training for any pre-project personnel. Please contact the individual listed below to schedule the cultural sensitivity training, prior to the start of the project.

Laverne Bill, Cultural Resources Manager
Yocha Dehe Wintun Nation
Phone: (530) 723-3891
Email: lbill@yochadehe-nsn.gov

Please refer to identification number YD-02042020-01 in correspondence concerning this project.

Thank you for providing us the opportunity to comment.

Sincerely,

DocuSigned by:
5C39F9463F58429
Tribal Historic Preservation Officer

Organizations/ Individuals Receiving Letter Soliciting Input Regarding Historic Resources

Ike Nijoku, Staff Planner
Historical Resources Management Commission
City of Davis
23 Russell Blvd Suite 2
Davis, CA 95616

Mark Fink
Yolo County Archives
226 Buckeye Street
Woodland, CA 95695

John Lofland,
Davis Historical Society
jlofland@dcn.org

Tim Allis
Friends of Davis Historical Resources
timallis@ucdavis.edu

Kathy Harryman, President
Yolo County Historical Society
PO Box 1447
Woodland, CA 95776

Mary L. Stephens - Davis Branch Library
315 E 14th Street
Davis, CA 95616

Jim Becket
Davis Friends of Hattie Webber Museum
jimbecket@sbcglobal.net

Communication Log	**Mail/Email**	
CR 96 Bridge -Dry Slough	**Initial Outreach Letter**	Follow Up
Ike Nijoku, Staff Planner, Historical Resources Management Commission, City of Davis	Mailed 7/29/2021	Ike Nijoku called on 8/16/21 and no comments
Mark Fink- Yolo County Archives	Mailed 7/29/2021	Mark called on 8/16/21 and No Comments
John Lofland, Davis Historical Society	Emailed 7/29/2021	John emailed on 8/16/21 and no comments
Tim Allis, Friends of Davis Historical Resources	Emailed 7/29/2021	Email Undeliverable see project for receipt
Kathy Harryman, President,Yolo County Historical Society	Mailed 7/29/2021	Left Msg 8/13/21 and 8/16/2021
Mary L. Stephens - Davis Branch Library	Mailed 7/29/2021	Left Msg 8/13/21 and 8/16/2021
Jim Becket, Davis Friends of Hattie Webber Museum	Emailed7/29/2021	Left Msg 8/13/21 and 8/16/2021

Appendix C

Caltrans Historic Bridge Inventory Sheet

Structure Maintenance & Investigations

SM&I

Historical Significance - Local Agency Bridges

March 2019

District 03

Yolo County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	
22C0075	COTTONWOOD SLOUGH	1.78 MI W OF CO RD 86A	5. Bridge not eligible for NRHP	1932	1956
22C0076	WILLOW SLOUGH BYPASS	Just North of CR #29	5. Bridge not eligible for NRHP	1997	
22C0078	CHICKAHOMINY SLOUGH	0.7 MI W OF C.R. #95	5. Bridge not eligible for NRHP	1983	
22C0079	DRY SLOUGH	JUST EAST OF C.R. #95	5. Bridge not eligible for NRHP	1959	
22C0080	DRY SLOUGH	0.2 MI WEST OF C.R. #96	5. Bridge not eligible for NRHP	1959	
22C0081	WEST ADAMS CANAL	1 MILE NORTH OF CAPAY	5. Bridge not eligible for NRHP	1930	
22C0082	GOODNOW SLOUGH	3.0 MI NORTH OF CAPAY	5. Bridge not eligible for NRHP	1925	
22C0083	SOUTH FORK OAT CREEK	0.4 MI N OF CR # 13	5. Bridge not eligible for NRHP	2006	
22C0084	SYCAMORE SLOUGH	0.10 Mi S of Route 45	5. Bridge not eligible for NRHP	1961	
22C0085	BRANCH PUTAH CREEK	0.1 MI E OF C.R. #103	5. Bridge not eligible for NRHP	1921	
22C0086	UNION SCHOOL SLOUGH	0.2 MI N OF C.R. #29	5. Bridge not eligible for NRHP	1980	
22C0087	SOUTH FORK WILLOW SLOUGH	0.71 MI N OF C.R. 27	5. Bridge not eligible for NRHP	1980	
22C0088	WILLOW SLOUGH	1.5 MI W OF CO RD 98	5. Bridge not eligible for NRHP	1987	
22C0091	CACHE CREEK	0.12 MI FR S.H. 16	5. Bridge not eligible for NRHP	1930	
22C0094	PINE CREEK	0.14 MI N/O SH 16	5. Bridge not eligible for NRHP	1960	
22C0095	HAMILTON CREEK	0.11 MI N/O C. R. 50	5. Bridge not eligible for NRHP	1911	
22C0096	SALT CREEK	0.60 MI N/O SH 16	5. Bridge not eligible for NRHP	1940	
22C0098	WINTERS CANAL	0.32 MI E OF C.R. 85B	5. Bridge not eligible for NRHP	1939	
22C0100	WINTERS CANAL	0.64 MI S C.R. #23	5. Bridge not eligible for NRHP	1950	
22C0102	COTTONWOOD SLOUGH	0.14 MI W OF C.R. #86A	5. Bridge not eligible for NRHP	1917	
22C0103	WINTERS CANAL	0.24 MI E/O CR #87	5. Bridge not eligible for NRHP	1955	
22C0105	CHICKAHOMINY SLOUGH	2.53 MI W OF C. R. 88	5. Bridge not eligible for NRHP	1917	
22C0106	CREEK S14	0.01 MI S OF S.H. 128	5. Bridge not eligible for NRHP	1930	
22C0107	COTTONWOOD SLOUGH	0.55 MI S OF C. R. 23	5. Bridge not eligible for NRHP	1930	
22C0108	UNION SCHOOL SLOUGH	0.57 MI W/O CR #88	5. Bridge not eligible for NRHP	1955	
22C0109	UNION SCHOOL SLOUGH	0.96 MI S OF C.R. #27	5. Bridge not eligible for NRHP	1916	
22C0110	WINTERS CANAL	0.15 MI N OF C.R. #29	5. Bridge not eligible for NRHP	1930	
22C0111	UNION SCHOOL SLOUGH	0.67 MI W OF C.R. #91B	5. Bridge not eligible for NRHP	1940	
22C0112	WINTERS CANAL	0.13 MI E OF C.R. #88	5. Bridge not eligible for NRHP	1920	
22C0113	CHICKAHOMINY SLOUGH	0.51 MI N OF C.R. #31	5. Bridge not eligible for NRHP	1957	
22C0115	SOUTH FORK WILLOW SLOUGH	0.29 E OF C.R.93	5. Bridge not eligible for NRHP	1930	
22C0116	NORTH FORK WILLOW SLOUGH	0.22 MI E OF C.R. #95	5. Bridge not eligible for NRHP	1930	
22C0117	DRY SLOUGH	0.77 MI W OF C.R. #98	5. Bridge not eligible for NRHP	1930	
22C0118	CHICKAHOMINY SLOUGH	0.27 MI W OF C.R. 91A	5. Bridge not eligible for NRHP	1976	
22C0119	DRY SLOUGH	0.77 MI N OF I 505 RAMP	5. Bridge not eligible for NRHP	1970	
22C0120	DRY SLOUGH	0.83 MI N OF SR 128	5. Bridge not eligible for NRHP	1947	
22C0121	DRY SLOUGH	0.06 MI N OF C.R. #32	5. Bridge not eligible for NRHP	1913	
22C0125	DRY SLOUGH	0.06 MI N OF C.R. #31	5. Bridge not eligible for NRHP	1930	
22C0126	UNION SCHOOL SLOUGH	1.38 MI S OF C.R. #27	5. Bridge not eligible for NRHP	1930	
22C0127	DRY SLOUGH	0.45 MI N OF C.R. #31	5. Bridge not eligible for NRHP	1929	
22C0128	DRY SLOUGH	0.34 MI N OF C.R.29	5. Bridge not eligible for NRHP	1975	
22C0129	BRETONA CREEK	0.50 MI E OF C.R. #91B	5. Bridge not eligible for NRHP	1940	
22C0131	WILLOW SPRING CREEK	0.04 Mi West of CR #94	5. Bridge not eligible for NRHP	1940	

Appendix F

Floodplain Evaluation Report

County Road 96 Bridge over Dry Slough
Yolo County, California
Federal-Aid Project No. BRLO-5922(104)
Existing Bridge No. 22C0127

Floodplain Evaluation Report

Prepared for:

Prepared by:

March 2021

This page intentionally left blank

County Road 96 Bridge over Dry Slough
Yolo County, California
Federal-Aid Project No. BRLO-5922(104)
Existing Bridge No. 22C0127

Floodplain Evaluation Report

Submitted to:
Yolo County

This report has been prepared by or under the supervision of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained herein and has judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.

Han-Bin Liang, Ph.D., P.E.
Registered Civil Engineer

3/5/2021
Date

REGISTERED PROFESSIONAL ENGINEER
HAN–BIN LIANG
No. C 48404
Exp. 6/30/2022
CIVIL
STATE OF CALIFORNIA

March 2021

This page intentionally left blank

Table of Contents

Figures

Tables

Appendices

Executive Summary

Yolo County (County) is proposing to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough. The CR 96 Bridge over Dry Slough Project (Project) is located approximately 6 miles (mi) northwest of the City of Davis.

The existing single-span bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44-feet (ft)-long and 20-ft-wide. The proposed Project will construct a new bridge along the same roadway alignment. The new bridge is anticipated to be a single-span structure, approximately 60-ft-long.

The purpose of this *Floodplain Evaluation Report* is to examine and analyze the existing floodplain within the Project limits, and to determine any potential impacts to recommend any avoidance, minimization, or mitigation measures that may be required to address the impacts.

The Project site is located in Special Flood Hazard Area (SFHA) Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where Base Flood Elevations (BFE) are shown. At the Project site, the 100-year BFE is approximately 86 ft NAVD 88 based on the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS).

The selected 100-year peak design flow for Dry Slough was obtained from the FIS. The 100-year flow is 3,359 cubic feet per second (cfs).

The hydraulic assessment was performed using the United States Army Corps of Engineers' (USACE) Hydrologic Engineering Center's River Analysis System (HEC-RAS) modeling software. The hydraulic analysis indicates that the proposed bridge replacement would result in no increases in water surface elevation (WSE) for the 100-year storms in the vicinity of the bridge.

The Project is not proposing to change the overall land uses within the watershed. The Project is anticipated to add impervious area. The proposed bridge replacement will provide additional fill along the roadway approach to the bridge. Based on the hydraulic model, the bridge and roadway approaches for both the existing and the proposed conditions result in overtopping of the roadway approach on either side of the bridge. Therefore, the existing and proposed bridge replacement would be expected to experience traffic interruptions during a 100-year flow.

The Project has been designed to minimize floodplain impacts and special mitigation measures are not proposed. The Project would not trigger incompatible floodplain development. The Project would maintain local and regional access, and would not create new access to developed or undeveloped lands.

Potential short-term adverse effects to natural and beneficial floodplain values during the removal and replacement of the bridge include loss of vegetation during construction

activity, and temporary disturbances to vegetation, waters, or sensitive habitats. With proposed measures, long-term adverse effects to the natural and beneficial floodplain values are not anticipated from the Project. Temporary environmental impacts from construction activities for the proposed Project could be minimized with standard measures that meet the requirements of the Project's permit conditions. The County will coordinate with local, state, and federal water resources and floodplain management agencies as necessary during all aspects of the proposed Project.

Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ADT	average daily traffic
BFE	Base Flood Elevations
BIR	Bridge Inspection Report
Caltrans	California Department of Transportation
cfs	cubic feet per second
County	County of Yolo
CR	County Road
CVFPB	Central Valley Flood Protection Board
ESRI	Environmental Systems Research Institute
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
ft	feet, foot
HDM	Highway Design Manual
HEC-1	Hydraulic Engineering Center 1
HEC-RAS	Hydrologic Engineering Center's River Analysis System
LRFD	Load and Resistance Factor Design
mi	mile
mph	miles per hour
NAVD 88	North American Vertical Datum of 1988
NBI	National Bridge Inventory
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
WSE	water surface elevation

This page intentionally left blank

LOCATION HYDRAULIC STUDY FORM

Dist. 03 Co. Yolo Rte. CR 96 Project ID _____
Federal-Aid Project Number: BRLO-5922(104)

Floodplain Description:
The Project site is located in Special Flood Hazard Area (SFHA) Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where BFEs are shown. At the Project site, the 100-year BFE is 86 ft NAVD 88.

1. Description of Proposal *(include any physical barriers i.e. concrete barriers, sound walls, etc. and design elements to minimize floodplain impacts)*
Yolo County proposes to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough. The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-ft travel lanes and 2-ft shoulders. The new bridge is anticipated to be a single-span structure, approximately 60 ft long.

2. ADT: Current 216 (2010) Projected 126 (2034)

3. Hydraulic Data: Base Flood Q100= 3,360 CFS
WSE100= 87.3 ft *The flood of record, if greater than Q100:*
Q= N/A CFS WSE= N/A
Overtopping flood Q= 1,500 CFS WSE= 85.2 ft

Are NFIP maps and studies available? NO ____ YES ✓

4. Is the highway location alternative within a regulatory floodway?
NO ✓ YES ____

5. Attach map with flood limits outlined showing all buildings or other improvements within the base floodplain.

Potential Q100 backwater damages:

A.	Residences?	NO ✓	YES ____
B.	Other Bldgs?	NO ✓	YES ____
C.	Crops?	NO ✓	YES ____
D.	Natural and beneficial Floodplain values?	NO ✓	YES ____

"Natural and beneficial flood-plain values" shall include but are not limited to fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge.

6. Type of Traffic:

A. Emergency supply or evacuation route?	NO ✓	YES ____
B. Emergency vehicle access?	NO ✓	YES ____
C. Practicable detour available?	NO ____	YES ✓
D. School bus or mail route?	NO ____	YES ✓

7. Estimated duration of traffic interruption for 100-year event hours: 12 hours

8. Estimated value of Q100 flood damages (if any) – moderate risk level.

A.	Roadway	$ N/A
B	Property	$ N/A
	Total	$ N/A

9. Assessment of Level of Risk
Low ✓
Moderate ____
High ____

For High Risk projects, during design phase, additional Design Study Risk Analysis may be necessary to determine design alternative.

LOCATION HYDRAULIC STUDY FORM cont.

Dist. 03 Co. Yolo Rte. CR 96 P.M. _____
Federal-Aid Project Number: BRLO-5922(104)
Project ID _____ Bridge No. 22C0127

PREPARED BY:

Signature:
I certify that I have conducted a Location Hydraulic Study consistent with 23 CFR 650 and that the information summarized in items numbers 3, 4, 5, 7, and 9 of this form is accurate.

_____ *Date* _____
District Hydraulic Engineer *(capital and 'on' system projects)*

_____ *Date* 3/5/2021
Local Agency/Consulting Hydraulic Engineer *(local assistance projects)*

Is there any longitudinal encroachment, significant encroachment, or any support of incompatible Floodplain development? NO ✓ YES _____

If yes, provide evaluation and discussion of practicability of alternatives in accordance with 23 CFR 650.113

Information developed to comply with the Federal requirement for the Location Hydraulic Study shall be retained in the project files.

I certify that item numbers 1, 2, 6 and 8 of this Location Hydraulic Study Form are accurate and will ensure that Final PS&E reflects the information and recommendations of said report:

_____ *Date* _____
District Project Engineer *(capital and 'on' system projects)*

_____ *Date* 5/11/2021
Local Agency Project Engineer *(local assistance projects)*

CONCURRED BY:
I have reviewed the quality and adequacy of the floodplain submittal consistent with the attached checklist, and concur that the submittal is adequate to meet the mandates of 23 CFR 650.

_____ *Date* _____
District Project Manager *(capital and 'on' system projects)*

_____ *Date* 5/11/2021
Local Agency Project Manager *(Local Assistance projects)*

_____ *Date* 6/11/2021
District Local Assistance Engineer *(or District Hydraulic Branch for very complex projects or when required expertise is unavailable. Note: District Hydraulic Branch review of local assistance projects shall be based on reasonableness and concurrence with the information provided).*

I concur that the natural and beneficial floodplain values are consistent with the results of other studies prepared pursuant to 23 CFR 771, and that the NEPA document or determination includes environmental mitigation consistent with the Floodplain analysis.

Laura Loeffler _____ *Date* 06/21/21
District Senior Environmental Planner *(or Designee)*

Note: If a significant floodplain encroachment is identified as a result of floodplains studies, FHWA will need to approve the encroachment and concur in the Only Practicable Alternative Finding.

SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 03 Co. Yolo Rte. CR 96 K.P. _____
Federal-Aid Project Number *(Local Assistance)* BRLO-5922(104)
Project No.: _____ Bridge No. 22C0127
Limits: The approximate limits for this Project are 500 ft on either side of the existing bridge crossing on CR 96 over Dry Slough.
Floodplain Description: The Project site is located in Special Flood Hazard Area (SFHA) Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where BFEs are shown. At the Project site, the 100-year the BFE is 86 ft NAVD 88.

		No	Yes
1.	Is the proposed action a longitudinal encroachment of the base floodplain?	✓	
2.	Are the risks associated with the implementation of the proposed action significant?	✓	
3.	Will the proposed action support probable incompatible floodplain development?	✓	
4.	Are there any significant impacts on natural and beneficial floodplain values?	✓	
5.	Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	✓	
6.	Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	✓	
7.	Are Location Hydraulic Studies that document the above answers on file? If not explain.		✓

PREPARED BY:

_____ *Date* _____
District Project Engineer *(capital and 'on' system projects)*

_____ *Date* 3/5/2021
Local Agency/Consulting Hydraulic Engineer *(local assistance projects)*

CONCURRED BY:

_____ *Date* _____
District Project Manager *(capital and 'on' system projects)*

_____ *Date* 6/11/2021
District Local Assistance Engineer *(Local Assistance projects)*

I concur that impacts to natural and beneficial floodplain values are consistent with the results of other studies prepared pursuant to 23 CFR 771, and that the NEPA document or determination includes environmental mitigation consistent with the Floodplain analysis.

Laura Loeffler *Date* 06/21/21
District Senior Environmental Planner *(or Designee)*

Note: If a significant floodplain encroachment is identified as a result of floodplains studies, FHWA will need to approve the encroachment and concur in the Only Practicable Alternative Finding.

This page intentionally left blank

1 GENERAL DESCRIPTION

Yolo County (County) proposes to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough. The CR 96 Bridge over Dry Slough Project (Project) is located approximately 6 miles (mi) northwest of the City of Davis. See Figure 1 for the Project Location Map, Figure 2 for the Project Vicinity Map, and Figure 3 for the Project Aerial Map.

1.1 Project Description

The County proposes to replace the existing bridge on County Road (CR) 96 crossing over Dry Slough with funding made available through the Federal Highway Administration (FHWA) Highway Bridge Program and administered by California Department of Transportation (Caltrans). The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6.

The Project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113. CR 96 is a rural local roadway that extends between Russell Boulevard on the south and CR 27 on the north. Within the Project vicinity, CR 96 is paved and has an approximate width of 20 feet (ft). The bridge, with an Average Daily Traffic (ADT) count of 216 vehicles, is bordered by agricultural and residential parcels. There are five driveways on the east side and four driveways on the west side of CR 96. There is a residential structure approximately 100 ft northwest of the bridge and an agricultural building approximately 60 ft southeast of the bridge. The posted speed limit along CR 96 within the Project vicinity is 45 miles per hour (mph).

1.2 Existing Bridge

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44-ft-long and 20-ft-wide. The structure consists of single-span reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition with spalling and exposed rebar.

1.3 Proposed Bridge

The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-ft travel lanes and 2-ft shoulders. The new bridge is anticipated to be a single-span structure, approximately 60-ft-long (see Figure 4). The structure type is expected to consist of a cast-in-place, post-tensioned concrete slab. The roadway and bridge profile will be raised slightly to clear the 100-year storm event.

Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement,

and installation of a guardrail. Tree removal and removal of other vegetation along the slough will be necessary for the Project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the Project. Although the traveled way and shoulders will remain within the County's right-of-way, permanent acquisitions may be needed for the approach grading and utility relocation from three to four parcels. Temporary construction easements may be needed from up to seven parcels adjacent to the project to facilitate driveway conforms, utility relocations, and allow construction access.

During construction, CR 96 will be closed to through traffic and a detour route will be made available. Vehicular traffic will be able to utilize CR 95, 31, and 29 as alternative routes. Construction is anticipated to begin in Spring 2023 and have a duration of approximately 8 months.

1.4 Study Purpose

The purpose of this *Floodplain Evaluation Report* is to examine and analyze the existing floodplain within the Project limits, and to determine any potential impacts to recommend any avoidance, minimization, or mitigation measures that may be required to address the impacts.

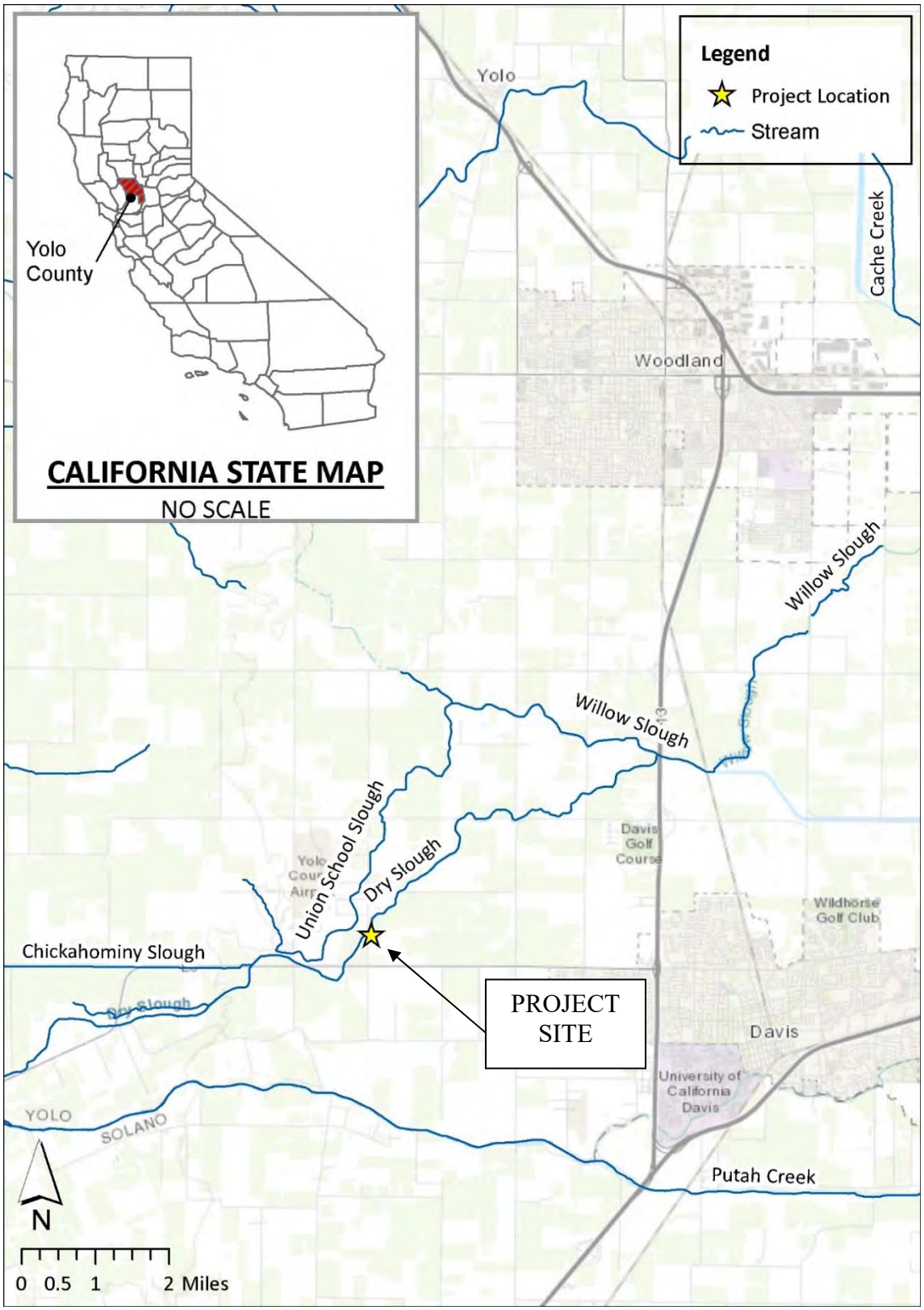


Figure 1. Project Location Map

Source: United States Geological Survey (USGS)

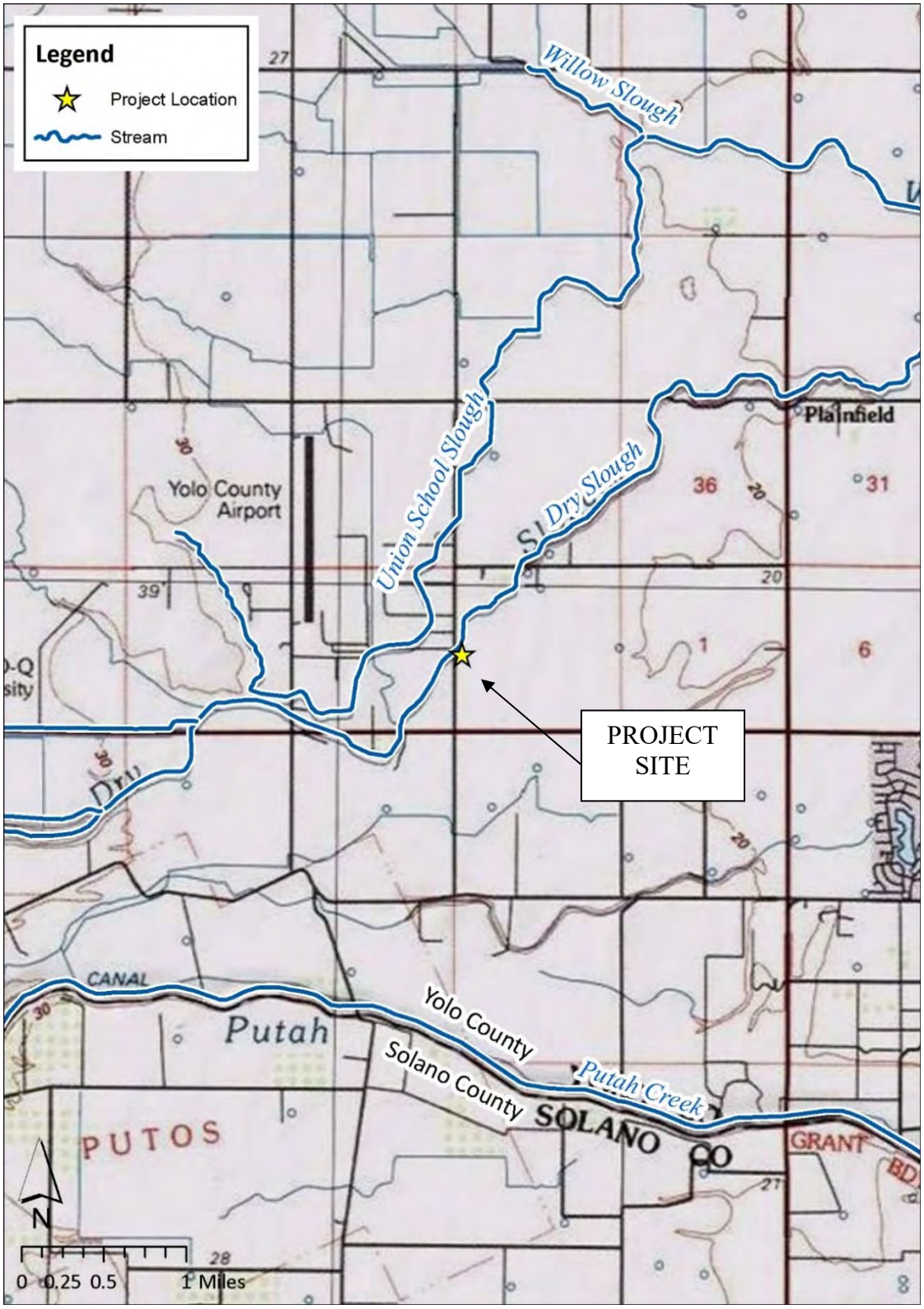


Figure 2. Project Vicinity Map

Source: USGS

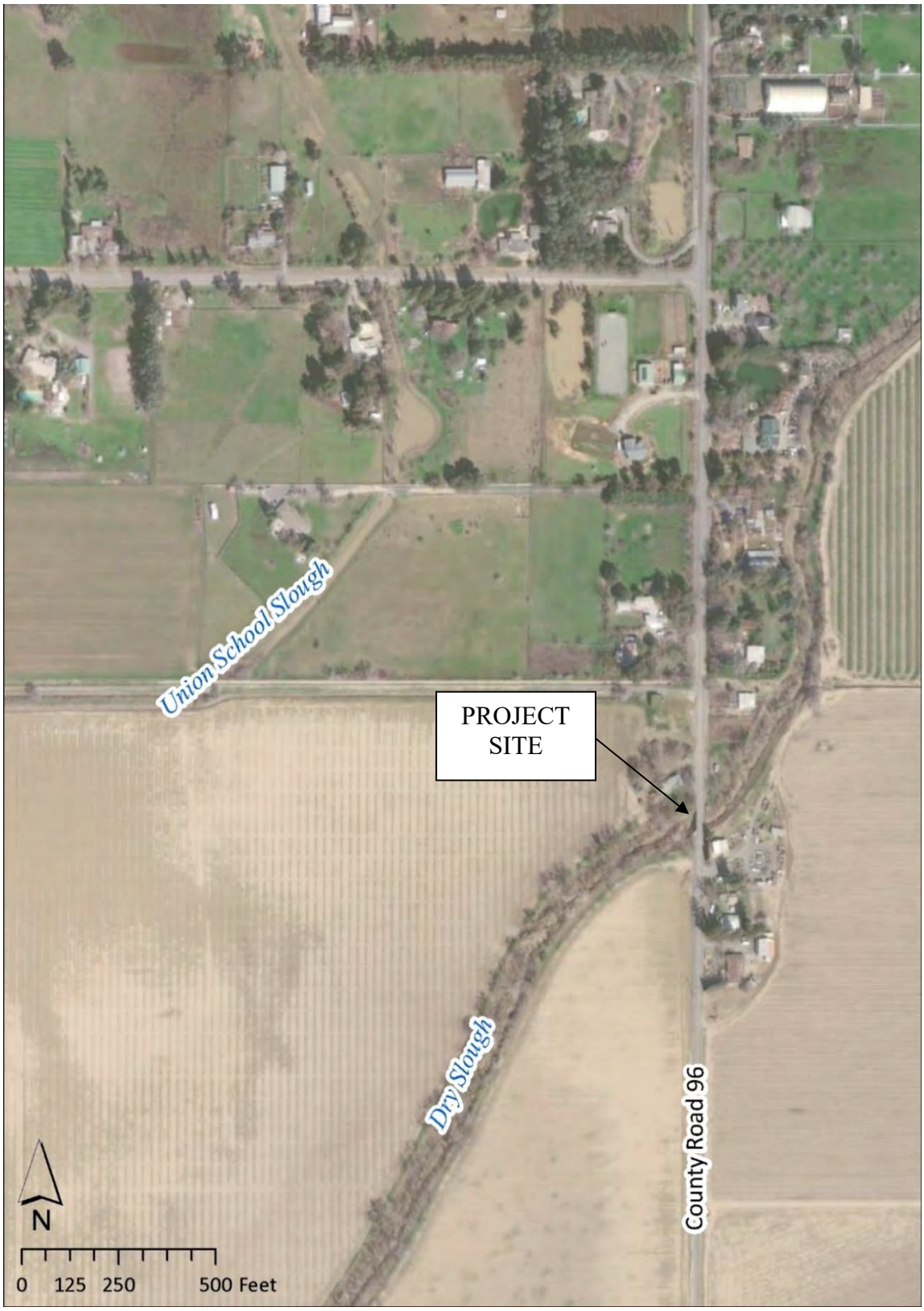


Figure 3. Project Aerial Map

Source: ESRI

This page intentionally left blank

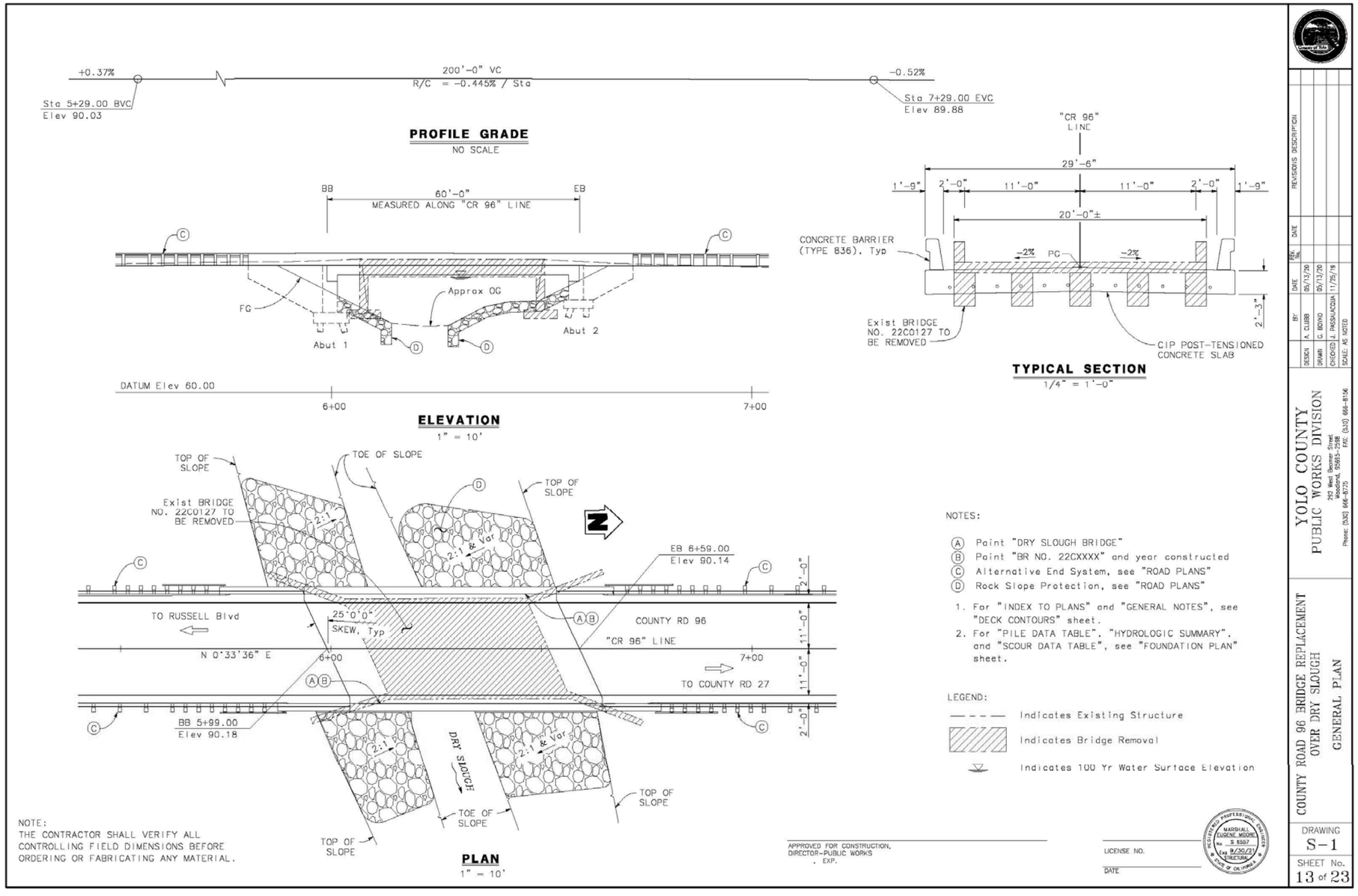


Figure 4. Proposed Bridge General Plan

Source: Mark Thomas

This page intentionally left blank

1.5 Regulatory Setting

1.5.1 Executive Order 11988 (Floodplain Management, 1977)

Executive Order 11988 (Floodplain Management) directs all federal agencies to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative (1977). Requirements for compliance are outlined in Title 23, Code of Federal Regulations, Part 650, Subpart A (23 CFR 650A) titled "Location and Hydraulic Design of Encroachment on Floodplains" (United States, Federal Highway Administration, Department of Transportation, 2019).

If the preferred alternative involves significant encroachment onto the floodplain, the final environmental document (final Environmental Impact Statement or finding of no significant impact) must include:

- The reasons why the proposed action must be located in the floodplain,
- The alternatives considered and why they were not practicable, and
- A statement indicating whether the action conforms to applicable state or local floodplain protection standards.

1.5.2 California's National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is the nationwide administrator of the National Flood Insurance Program (NFIP), which is a program that was established by the National Flood Insurance Act of 1968 to protect lives and property, and to reduce the financial burden of providing disaster assistance. Under the NFIP, FEMA has the lead responsibility for flood hazard assessment and mitigation, and it offers federally backed flood insurance to homeowners, renters, and business owners in communities that choose to participate in the program. FEMA has adopted the 100-year floodplain as the base flood standard for the NFIP. FEMA is also concerned with construction that would be within a 500-year floodplain for proposed projects that are considered "critical actions," which are defined as any activities where even a slight chance of flooding is too great. FEMA issues the Flood Insurance Rate Maps (FIRM) for communities that participate in the NFIP. These FIRMs present delineations of flood hazard zones.

In California, nearly all of the State's flood-prone communities participate in the NFIP, which is locally administered by the California Department of Water Resources' (DWR) Division of Flood Management. Under California's NFIP, communities have a mutual agreement with the State and federal governments to regulate floodplain development according to certain criteria and standards, which are further detailed in the NFIP.

1.5.3 Yolo County Floodplain Data

As part of the NFIP, typically, each county (or community) has a Flood Insurance Study (FIS), which is used to locally develop FIRMs and Base Flood Elevations (BFE). The County FIS Number is 06113CV000.

1.6 Design Standards

1.6.1 FEMA Standards

FEMA standards are employed for design, construction, and regulation to reduce flood loss and to protect resources. Two types of standards are often employed: design criteria and performance standards.

A design criteria or specified standard dictates that a provision, practice, requirement, or limit be met; e.g., using the 1% flood and establishing floodway boundaries so as not to cause more than a 1-ft increase in flood stages.

A performance standard dictates that a goal is to be achieved, leaving it to the individual application as to how to achieve the goal; e.g., providing protection to the regulatory flood, keeping post-development stormwater runoff the same as pre-development, or maintaining the present quantity and quality of water in a wetland.

The 1% annual chance flood and floodplain have been adopted as a common design and regulatory standard in the United States. The NFIP adopted it in the early 1970s, and it was adopted as a standard for use by all federal agencies with the issuance of Executive Order 11988. States or local agencies are free to impose a more stringent standard within their jurisdiction.

1.6.2 Hydraulic Design Criteria

1.6.2.1 FHWA Standards

According to the *California Amendments to the American Association of State Highway and Transportation Officials* (AASHTO) *Load and Resistance Factor Design* (LRFD) *Bridge Design Specifications (2017 Eighth Edition)*, the FHWA mandated that LRFD be used on all new bridge design commencing on or after October 1, 2007 (Department of Transportation State of California, 2019). In 2011, the *California Amendments to the AASHTO LRFD Bridge Design Specifications (Fourth Edition)* updated certain sections of the guidance, including Section 2 in its entirety.

From Section 2 of the *California Amendments to the AASHTO LRFD Bridge Design Specifications*, the proposed bridge profile should provide adequate freeboard to pass anticipated drift for the 50-year design flood, to pass the 100-year base flood without freeboard, or the flood of record without freeboard, whichever is greater (Department of Transportation State of California, 2011).

Subsequent revisions to the *California Amendments to the AASHTO LRFD Bridge Design Specifications* in 2014 and 2019 did not include changes to Section 2. The sections that are not revised in subsequent versions of the *California Amendments to the AASHTO LRFD Bridge Design Specifications* are still in effect.

1.6.2.2 Caltrans Standards

From Chapter 820 of the Caltrans' *Highway Design Manual* (HDM), the criteria for the hydraulic design of bridges is that they be designed to pass the 2% probability of annual exceedance flow (50-year design discharge) with adequate freeboard to pass anticipated drift and debris (2020). Two (2) ft of freeboard is commonly used in bridge designs. Alternatively, the bridge can also be designed to pass the 1% probability of annual exceedance flow (100-year design discharge, or base flood). No freeboard is added to the base flood.

1.6.2.3 Central Valley Flood Protection Board Standards

Streams regulated by the Central Valley Flood Protection Board (CVFPB) must adhere to the design criteria from Title 23 of the California Code of Regulations. The Project is not within the jurisdiction of the CVFPB.

1.6.2.4 Yolo County Standard

Per the Yolo County *City/County Drainage Design* criteria, a minimum of 2 ft of freeboard for the 100-year event and 1 ft of freeboard for the 200-year event shall be provided for bridges at crossings (Yolo County, 2010).

1.7 Traffic

Based on the Caltrans' Bridge Inspection Report (BIR), the existing bridge has a functional classification as a major collector rural road. Based on the 2019 BIR, traffic data, the ADT in 2010 was 216 vehicles per day. The future ADT is projected to be 126 vehicles per day in 2034 (Caltrans, 2019)

1.8 Vertical Datum

The Project references the North American Vertical Datum of 1988 (NAVD 88).

This page intentionally left blank

2 AFFECTED ENVIRONMENT

2.1 Geographic Location

The Project is located within the southern region of the County at 38°34'3.92" North latitude and 121°50'25.13" West longitude. The Project area is relatively flat, sloping west to east towards Willow Slough.

2.2 Watershed Description

The watershed originates in the Rocky Ridge, which is located along the Yolo/Napa county line west of the Project site. Salt Creek, Pine Creek, and Chickahominy Slough combine approximately 12 mi west of the Project site (see Figure 5 for the Project watershed). Chickahominy Slough continues flowing east for approximately 10 mi before merging with Dry Slough. From there, Dry Slough flows east and northeast approximately 2 mi to the Project site. Basin characteristics from United States Geological Survey (USGS) StreamStats are identified in Table 1.

Table 1. Basin Characteristics

Parameter	Value	Unit
Drainage area	44.4	square mi
Mean annual precipitation	24	inches
Mean basin elevation	400	ft

Source: USGS

2.3 FEMA Floodplains

The Project is within FEMA FIRM Number 06113C0580G Panel 580 of 785 (See Appendix A). The Project site is located in Special Flood Hazard Area (SFHA) Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where BFEs are shown. Based on the FEMA FIRM, BFE is approximately 86 ft NAVD 88 at the Project site. The FEMA Flood map at the Project site is shown in Figure 6.

This page intentionally left blank

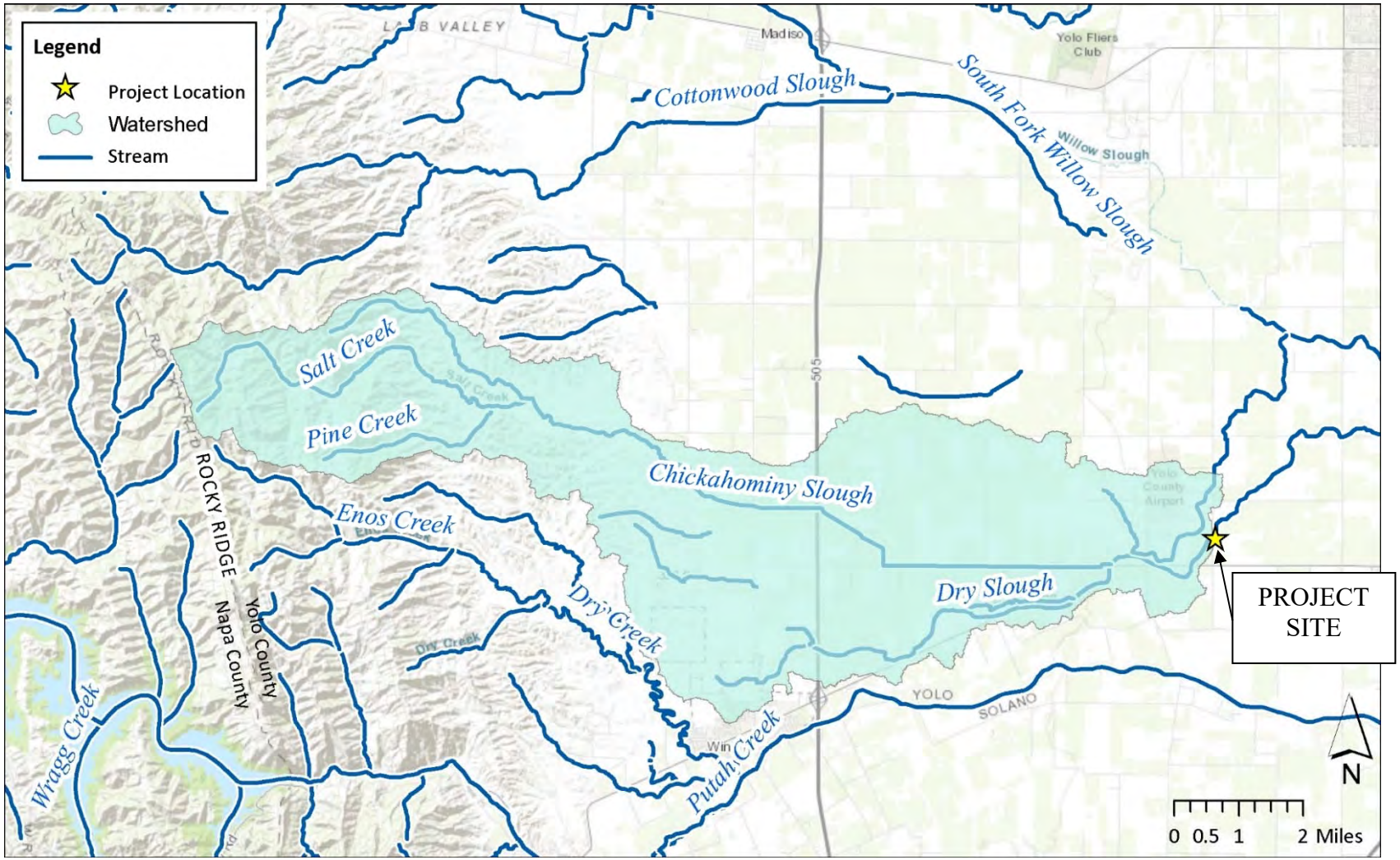


Figure 5. Project Watershed Map

Source: ESRI

This page intentionally left blank

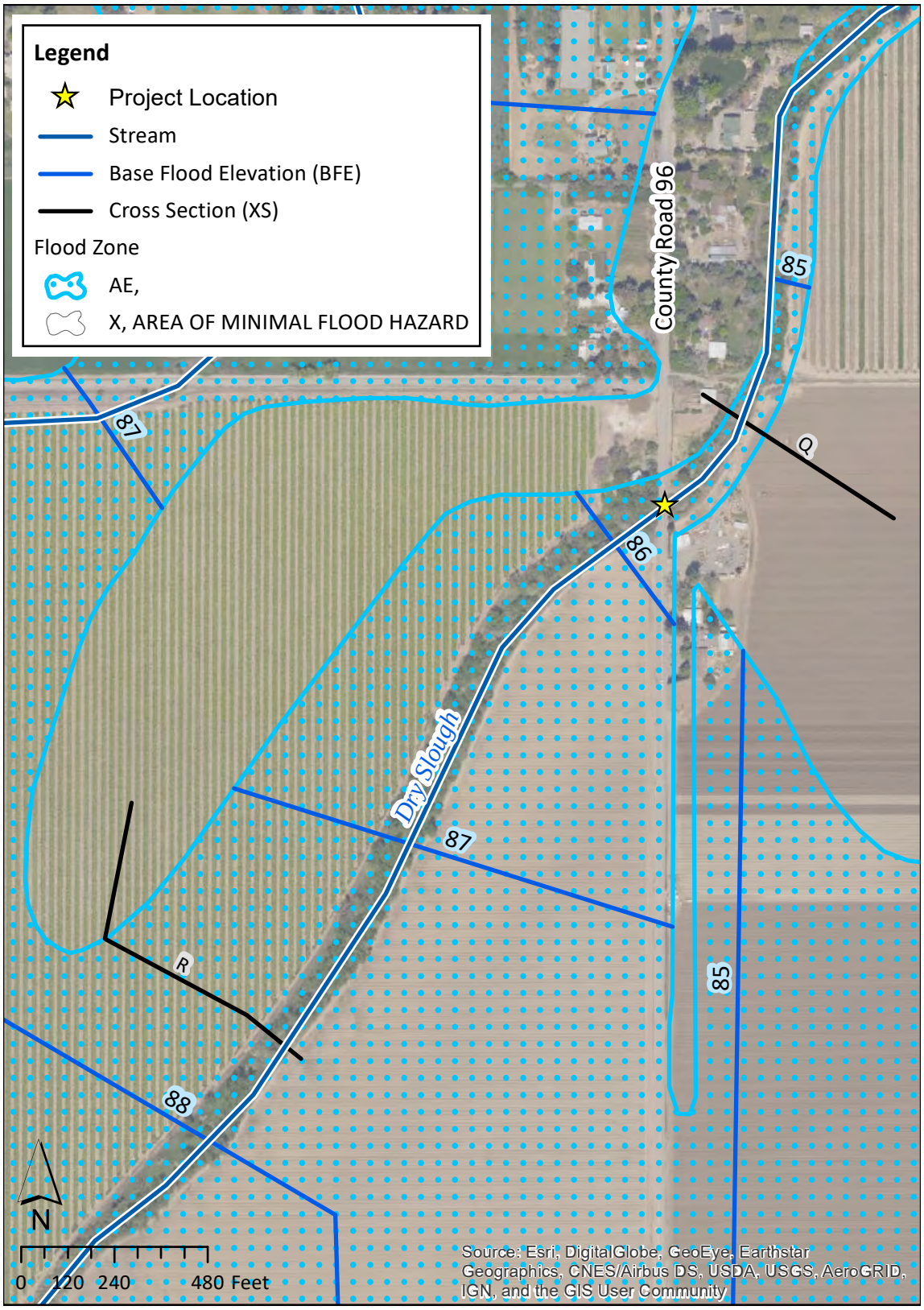


Figure 6. Floodplain Map

Source: FEMA and ESRI

This page intentionally left blank

3 HYDROLOGY AND HYDRAULICS

3.1 Hydrologic Assessment

WRECO evaluated the hydrology at the Project site using the following hydrologic design methods/sources:

1. USGS Regional Regression Equations
2. FEMA FIS

3.1.1 USGS Regional Regression Equations

Flood-frequency equations were developed by the USGS and based on analysis of data from gage stations. California is divided into six regions; the Project site is within the North Coast region. These flood-frequency equations are generally used to estimate stream flow for ungaged sites that are not affected by substantial urban development and that are natural (unregulated) streams. The 100-year flow from the reginal regression equation is 7,580 cfs.

3.1.2 Federal Emergency Management Agency Flood Insurance Study

The Project site is located within Yolo County, California. The effective FIS for Yolo County, California and Incorporated Areas included flow rates for Dry Slough at three locations, which are presented in Table 2.

Table 2. 100-year Peak Flows for Dry Slough

Location	Drainage Area (square mi)	Flow (cfs)
At State Highway 113	47.11	714*
Approximately 650 ft upstream of Road 31	46.21	3,359*
Approximately 2,500 ft upstream of CR 95	44.78	3,614

Notes: * Decrease in flow with increase in area is result of spill.

Source: FEMA

The Project site is located approximately 0.6 mi downstream of Road 31, and the 100-year peak flow most appropriate to the Project site is 3,359 cfs.

3.1.3 Selected Design Discharges

Even though the regional regression equation is more conservative, it does not give an accurate interpretation of the flows in Dry Slough. The regression equations do not consider that surface water flows that escape the channel along the bank of Dry Slough, and flows away towards the east. The USGS regional regression equations overestimate the peak flows because they do not consider escape flows. Because the USGS regional regression estimates do not account for the spill flows, the flow from the FEMA FIS was

recommended for the hydraulic analyses for the Project. The selected 100-year peak flow discharge for this Project site was 3,359 cfs.

3.2 Hydraulic Assessment

The following sections discuss the development of the hydraulic models and summarize the results for the existing and proposed conditions. The water surface profile plots, hydraulic summary tables, and channel cross sections are included in Appendix B for the existing bridge and Appendix C for the proposed bridge.

3.2.1 Design Tools

The hydraulic analyses were performed for the existing and proposed conditions using the United States Army Corps of Engineers' (USACE) Hydrologic Engineering Center's River Analysis System (HEC-RAS) modeling software, Version 5.0.6. The hydraulic model was evaluated using the steady state flow analysis with subcritical flow regime.

3.2.2 Hydraulic Model Development

3.2.2.1 Cross-section Data

The cross-sectional channel geometry for the hydraulic model was developed using survey data provided by Mark Thomas (2019). The survey references NAVD 88. The cross section locations are shown in Figure 7.

3.2.2.2 Modeled Hydraulic Structures

The existing bridge was modeled based on survey data provided by Mark Thomas (2019). The hydraulic opening of the bridge (perpendicular to the flow direction) is modeled as 35 ft. The existing bridge has a minimum soffit elevation of 87.2 ft.

The proposed bridge was modeled based on the general plan (see Figure 4) provided by Mark Thomas (2019). The hydraulic opening of the bridge (perpendicular to the flow direction) is modeled as 55 ft. The proposed bridge has a minimum soffit elevation of 87.6 ft.

3.2.2.3 Model Boundary Condition

A normal depth slope of 0.0018 ft/ft was used as the downstream boundary condition, and it was based on the thalweg elevations from the survey of Dry Slough downstream of the bridge.

3.2.2.4 Manning's Roughness Coefficients

Manning's roughness coefficients were used in the hydraulic model to estimate energy losses in the flow due to friction. A roughness coefficient of 0.05 was used to describe the channel, and a roughness coefficient ranging from 0.05 to 0.08 were used to describe the overbank areas.

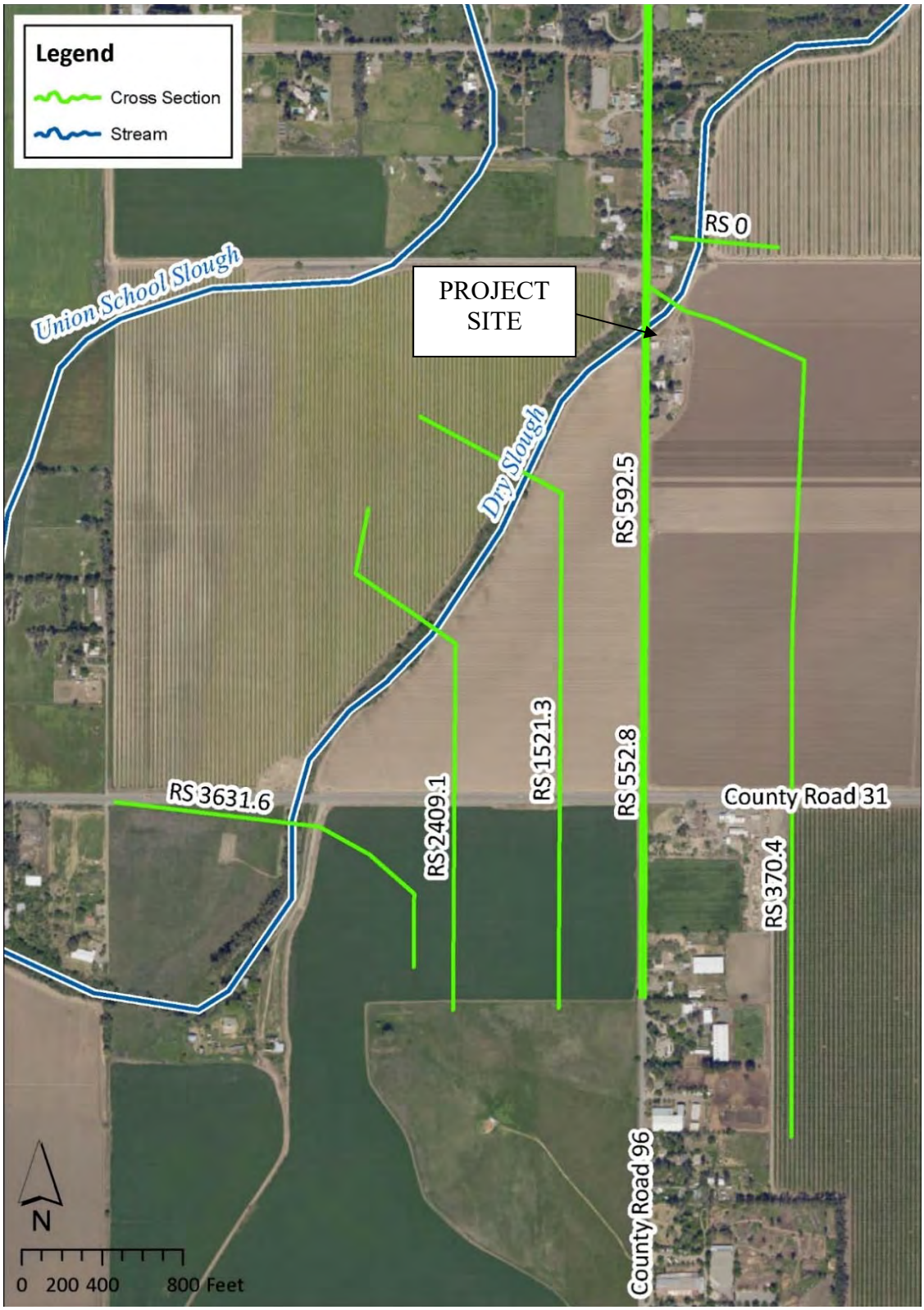


Figure 7. Cross Section Locations

Source: ESRI

3.2.3 Expansion and Contraction Coefficients

Expansion and contraction coefficients were used in the hydraulic model to represent energy losses in the channel. An expansion coefficient of 0.3 and a contraction coefficient of 0.1 were used to represent the channel. These values represent a channel with gradual transitions between cross sections. The expansion and contraction coefficients used in the vicinity of the bridges were 0.5 and 0.3, respectively. These values represent the flow interference caused by the bridge.

3.3 Hydraulic Model Results

3.3.1 Water Surface Elevations

The Water Surface Elevations (WSE) were estimated for the existing and proposed conditions as described in Section 3.2.2. The 100-year water surface profiles comparing the existing and proposed condition model results are depicted in Figure 8. The cross sections at the upstream faces of the existing and proposed structures are shown in Figure 9 and Figure 10.

Approximately a third of the total flow is conveyed through the main channel at the bridge while the remaining flow is distributed to the floodplains on either side of the bridge. The WSEs in the immediate vicinity of the bridges are shown in Table 3 for the 100-year storm events.

Table 3. Dry Slough 100-Year Water Surface Elevations

River Station	Description/Distance from Existing Bridge Centerline (feet)	Water Surface Elevation (ft NAVD 88)[1]	
		Existing	Proposed
592.5	20 feet upstream	87.4	87.4
572.7 BR U	Upstream face of bridge	87.3	87.3
572.7 BR D	Downstream face of bridge	87.3	87.3
552.8	20 feet downstream	87.3	87.3

Notes:
BR U=upstream face of bridge.
BR D=downstream face of bridge.
[1] Elevations listed are rounded to the nearest 0.1 ft.

The hydraulic analysis indicates that the proposed bridge would result in no increases in WSE for the 100-year storms in the vicinity of the bridge (see Table 3).

The approach roadways of the existing bridge are overtopped due to the wide floodplain. The proposed bridge profile will be raised slightly to clear the 100-year storm, but will not be raised to meet the 2 ft of freeboard over the 50-year WSE criteria. The proposed bridge will clear the 50-year storm with some freeboard. Raising the bridge to meet the 2 ft of freeboard over the 50-year WSE criteria would require the approach roadways be raised, which would further block the flood flows.

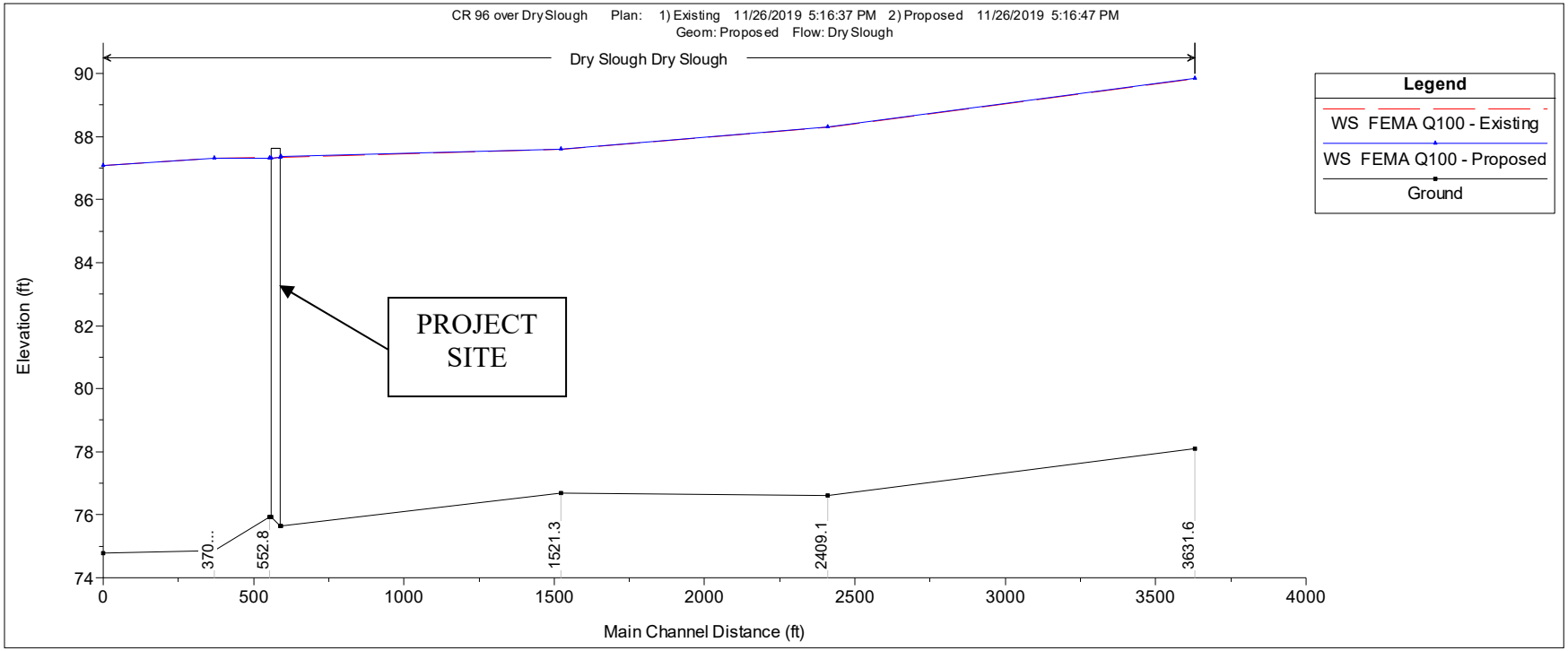


Figure 8. Dry Slough 100-Year Water Surface Profile at County Road 96

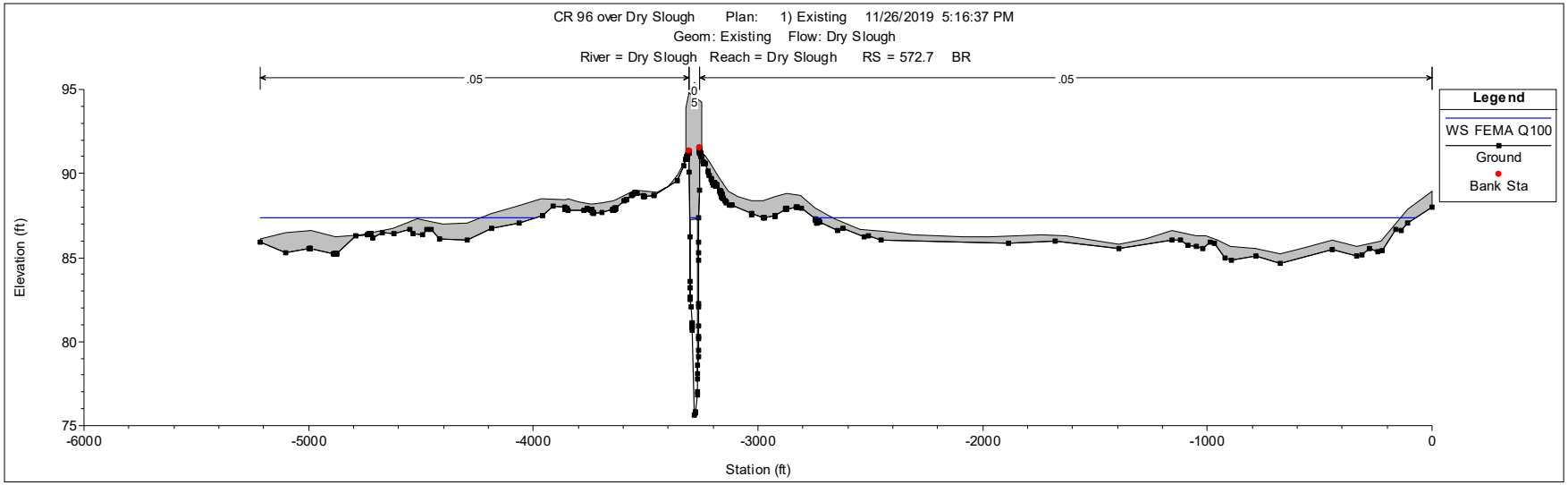


Figure 9. Upstream Face of Existing Bridge, Looking Downstream (northeast)

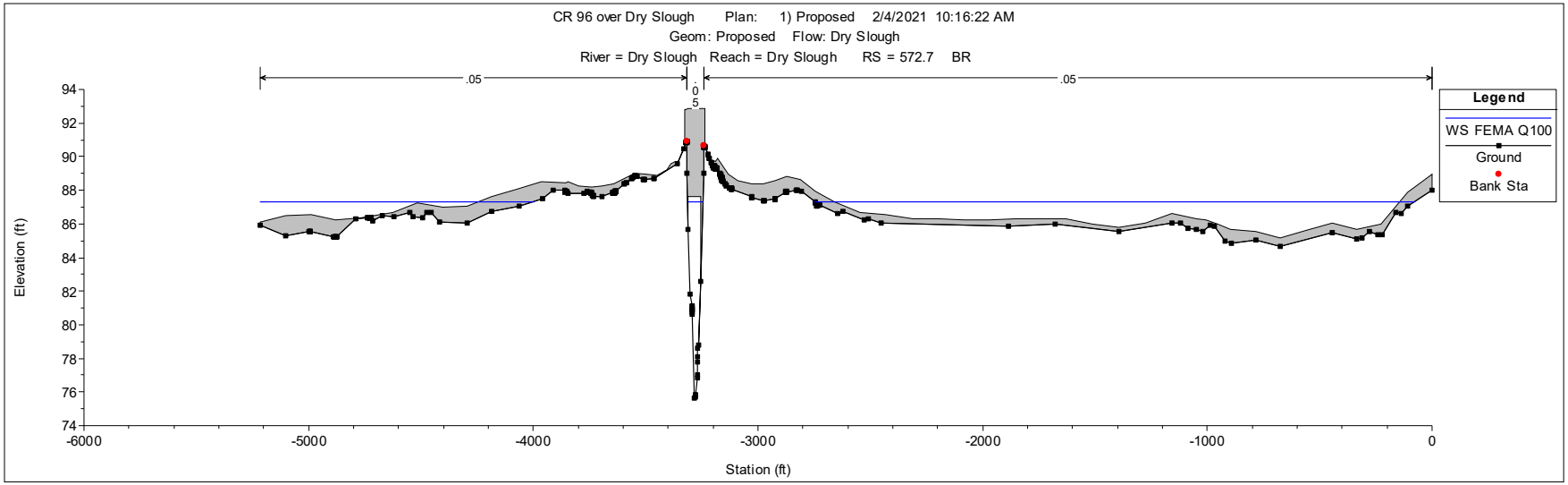


Figure 10. Upstream Face of Proposed Bridge, Looking Downstream (northeast)

This page intentionally left blank

4 PROJECT EVALUATION

Executive Order 11988 requires federal agencies to avoid to the maximum extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. This section analyzes the impacts associated with this Project.

4.1 Risk Associated with the Proposed Action

As defined by the FHWA, risk shall mean the consequences associated with the probability of flooding attributable to an encroachment. It shall include the potential for property loss and hazard to life during the service life of the bridge and roadway.

The potential risk associated with the implementation of the proposed action includes, but is not limited to: 1) change in land use, 2) change in impervious surface area, 3) fill inside the floodplain, or 4) change in the 100-year WSE. The measures to minimize the potential floodplain impacts associated with the action are summarized in Section 5.

4.1.1 Change in Land Use

According to the Yolo County *2030 Countywide General Plan,* the land around CR 96 crossing over Dry Slough within the Project limits consists of largely agricultural uses (County of Yolo, 2009). The Project proposes to replace the existing bridge structure. Due to the nature of the work proposed, the Project would not change the overall land use within the watershed basin.

4.1.2 Change in Impervious Surface Area

The Project is anticipated to have 0.57 acres of added impervious area. The Project will result in a net increase in impervious surface area.

4.1.3 Fill Inside the Floodplain

The proposed bridge replacement will provide additional fill along the roadway approach to the bridge to raise the bridge profile. The replacement bridge will pass the 100-year flow.

4.1.4 Change in the 100-Year Water Surface Elevation

As demonstrated by the HEC-RAS hydraulic model, the proposed bridge would result in no change in the WSE upstream or downstream of the bridge.

4.2 Summary of Potential Encroachments

The FHWA defines a significant encroachment as a highway encroachment, and any direct support of likely base floodplain development, that would involve one or more of the following construction or flood-related impacts: 1) significant potential for interruption or termination of a transportation facility that is needed for emergency vehicles or provides a community's only evacuation route, 2) a significant risk, or 3) a

significant adverse impact on the natural and beneficial floodplain values (FHWA, 1994). The following sections discuss the potential impacts to the floodplain that may result from the proposed action. The risk associated with implementation of the action is discussed in Section 4.1.

4.2.1 Potential Traffic Interruptions for the Base Flood

The base flood is that flood that has a 1% chance of occurrence in any given year (100-year flood). Potential flooding conditions for the proposed Project were evaluated based on the hydraulic modeling of the existing and proposed conditions using HEC-RAS. The hydraulic modeling shows the bridge for both the existing and proposed conditions pass the 100-year storm event. Therefore, the existing and proposed bridge replacement would be expected to experience traffic interruptions during a 100-year flow.

The approach roadways of the existing bridge are overtopped due to the wide floodplain. The proposed bridge profile will be raised slightly to clear the 100-year storm, but will not be raised to meet the 2 ft of freeboard over the 50-year WSE criteria. The proposed bridge will clear the 50-year storm with some freeboard. Raising the bridge to meet the 2 ft of freeboard over the 50-year WSE criteria would require the approach roadways be raised, which would further block the flood flows.

4.2.2 Potential Impacts on Natural and Beneficial Floodplain Values

Natural and beneficial floodplain values include, but are not limited to: fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge (United States, FHWA, Department of Transportation, 2019).

The *Water Quality Control Plan (Basin Plan)* from the California Regional Water Quality Control Board Central Valley Region (2018) does not list any beneficial uses for Dry Slough, which is a tributary to the Yolo Bypass. The Yolo Bypass indicates beneficial uses in the *Basin Plan* (2018). As a tributary to the area, Dry Slough has the same beneficial uses shown in Table 4.

Potential short-term adverse effects during the removal and replacement of the bridge to natural and beneficial floodplain values include: 1) loss of vegetation during construction activity; and 2) temporary disturbance to aquatic and/or wildlife habitat. With proposed measures (see Section 5.2), long-term adverse effects to the natural and beneficial floodplain values are not anticipated from the Project.

Table 4. Beneficial Uses

Beneficial use	Yolo Bypass
Agriculture Irrigation	E
Agriculture Stock Watering	E
Water Contact Recreation	E
Other Non-Water Contact Recreation	E
Warm Freshwater Habitat	E
Cold Freshwater Habitat	P
Warm Water Spawning	E
Wildlife Habitat	E

Notes:

- Beneficial uses include but are not limited to these uses
- E = Existing beneficial uses
- P =Potential beneficial uses

4.2.3 Support of Probable Incompatible Floodplain Development

As defined by the FHWA, the support of incompatible base floodplain development will encourage, allow, serve, or otherwise facilitate incompatible base floodplain development, such as commercial development or urban growth.
The Project would not trigger incompatible floodplain development. The Project proposes to replace an already existing bridge. The proposed bridge would not create new access route to developed or undeveloped lands.

4.2.4 Longitudinal Encroachments

As defined by the FHWA, a longitudinal encroachment is an action within the limits of the base floodplain that is longitudinal to the normal direction of the floodplain.

A longitudinal encroachment is "[a]n encroachment that is parallel to the direction of flow. Example: A highway that runs along the edge of a river is usually considered a longitudinal encroachment."

Because the proposed bridge replacement would be approximately perpendicular to the direction of the flow for the 100-year flood, the Project would not be considered a longitudinal encroachment.

This page intentionally left blank

5 AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The proposed Project would not change the overall land use within the Project watershed. There would be an increase in impervious area. However, based on the results of the hydraulic analysis, the proposed bridge does not change the WSE. The Project has been designed to minimize floodplain impacts and special mitigation measures are not proposed.

5.1 Minimize Floodplain Impacts

The proposed bridge profile will be raised slightly to clear the 100-year storm, but will not be raised to meet the 2 ft of freeboard over the 50-year WSE criteria. To minimize the floodplain impacts, the proposed bridge roadway approach is relatively insignificant and the WSE is maintained to prevent any additional blocking of flow in the floodplain.

5.2 Restore and Preserve Natural and Beneficial Floodplain Values

Temporary environmental impacts from construction activities for the proposed Project could be minimized with standard best management practice measures to reduce erosion such as protection of existing vegetation with erosion and sediment controls, stabilization of exposed soils, and revegetation. Other avoidance, minimization, and mitigation measures will be identified in the Project's Natural Environmental Study to ensure sensitive areas within the Project limit will not be disturbed during construction. Regulatory permits and approvals are expected to be required from the RWQCB, USACE, and California Department of Fish and Wildlife (CDFW). A Section 401 Water Quality Certification from the RWQCB, a Section 404 Nationwide Permit from the USACE, and a Section 1602 Streambed Alteration Agreement from the CDFW are expected to be required for the Project.

5.3 Alternatives to Significant Encroachments

The Project would not be a significant encroachment to the base floodplain. Therefore, alternatives to significant encroachments were not analyzed.

5.4 Coordination with Local, State, and Federal Water Resources and Floodplain Management Agencies

The County will coordinate with local, state, and federal water resources and floodplain management agencies as necessary during all aspects of the proposed Project.

This page intentionally left blank

6 REFERENCES

California Department of Transportation. (2015). Bridge Inspection Report. Structure Name: Dry Slough. Bridge Number: 22C0127. Facility Carried: C.R. #96. Location: 0.45 mi N of C.R. #31.

California Department of Transportation. (2014). *California Amendments to the AASHTO LRFD Bridge Design Specifications (2012 Sixth Edition).* <http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/ca-to-aashto-lrfd-bds/page/v6/section_2.pdf> (Last accessed: January 28, 2021).

California Department of Transportation. (2014). *California Amendments to the AASHTO LRFD Bridge Design Specifications (2012 Sixth Edition).* <http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/ca-to-aashto-lrfd-bds/page/v6/preface.pdf> (Last accessed: January 28, 2021).

California Department of Transportation. (2011). *California Amendments to AASHTO LRFD Bridge Design Specifications* – Fourth Edition. Section 2: General Design and Location Features. <http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/ca-to-aashto-lrfd-bds/page/sec_2_2011.pdf> (Last accessed January 28, 2021).

California Department of Transportation. (2010). Highway Design Manual. Chapter 820 Section 821.3 Selection of Design Flood. Page 820-2. <http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/chp0820.pdf> (Last accessed: January 28, 2021).

Department of Transportation State of California. (2019). *California Amendments to the AASHTO LRFD Bridge Design Specifications (2017 Eighth Edition).* <https://dot.ca.gov/programs/engineering-services/manuals/lrfd-ca-amendments-8th-edition> (Last accessed: January 28, 2021

Department of Transportation State of California. (2011). *California Amendments to the AASHTO LRFD Bridge Design Specifications (Fourth Edition).*

Executive Order No. 11988, 3 CFR, 42 FR 26951, p. 117 (1977). <https://www.fws.gov/r9esnepa/NEPA_Handbook/EO_11988.pdf> (Last accessed: January 28, 2021).

Federal Emergency Management Agency. (2010). *Flood Insurance Rate Map* for Yolo County, California and Incorporated Areas. Map Number 06113C580G Panel 580 of 785.

Federal Emergency Management Agency. (2010). *Flood Insurance Study* for Yolo County, California and Incorporated Areas. Flood Insurance Study Number 60119CV000B.

Federal Emergency Management Agency. (2006). National Training and Education – Emergency Management Institute. "Chapter 13: Regulatory and Design Standards for Reducing Losses." *Floodplain Management – An Integrated Approach.*

Federal Highway Administration. (1994). "Location and Hydraulic Design of Encroachment on Flood Plains." *Federal-Aid Policy Guide*. Title 23, Code of Federal Regulations, Part 650, Subpart A (23 CFR 650A December 7, 1994, Transmittal 12. <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0650a.htm>

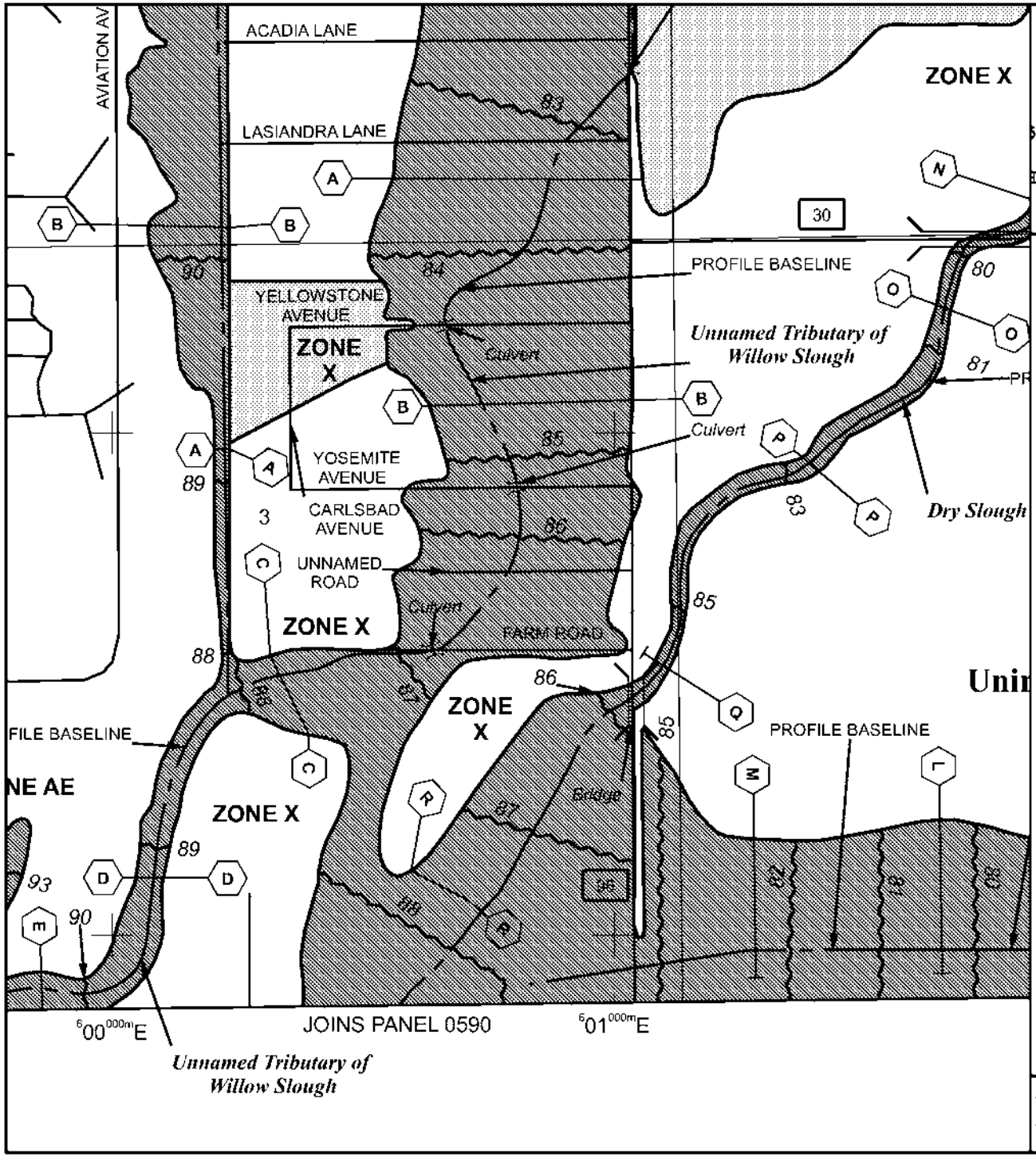
Federal Highway Administration. (1979). DOT Order 5650.2 - Floodplain Management and Protection. <http://www.fhwa.dot.gov/engineering/hydraulics/policymemo/order56502.pdf> (Last accessed: January 15, 2021)

United States Army Corps of Engineers - Hydrologic Engineering Center. (2016). River Analysis System. HEC-RAS. (Version 5.0.6). February 2016. Available from: http://www.hec.usace.army.mil/software/hec-ras/hecras-download.html.

United States, Federal Highway Administration, Department of Transportation. (2019). Title 23 Part 650. "Bridges, Structures, and Hydraulics," *Code of Federal Regulations*, U.S. Government Publishing Office. <https://www.govinfo.gov/content/pkg/CFR-2019-title23-vol1/pdf/CFR-2019-title23-vol1-part650.pdf> (Last accessed: January 29, 2021).

Appendix A Federal Emergency Management Agency Flood Insurance Rate Maps

This page intentionally left blank



MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0580G

FIRM

FLOOD INSURANCE RATE MAP

YOLO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 580 OF 785

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
YOLO COUNTY	060423	0580	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06113C0580G

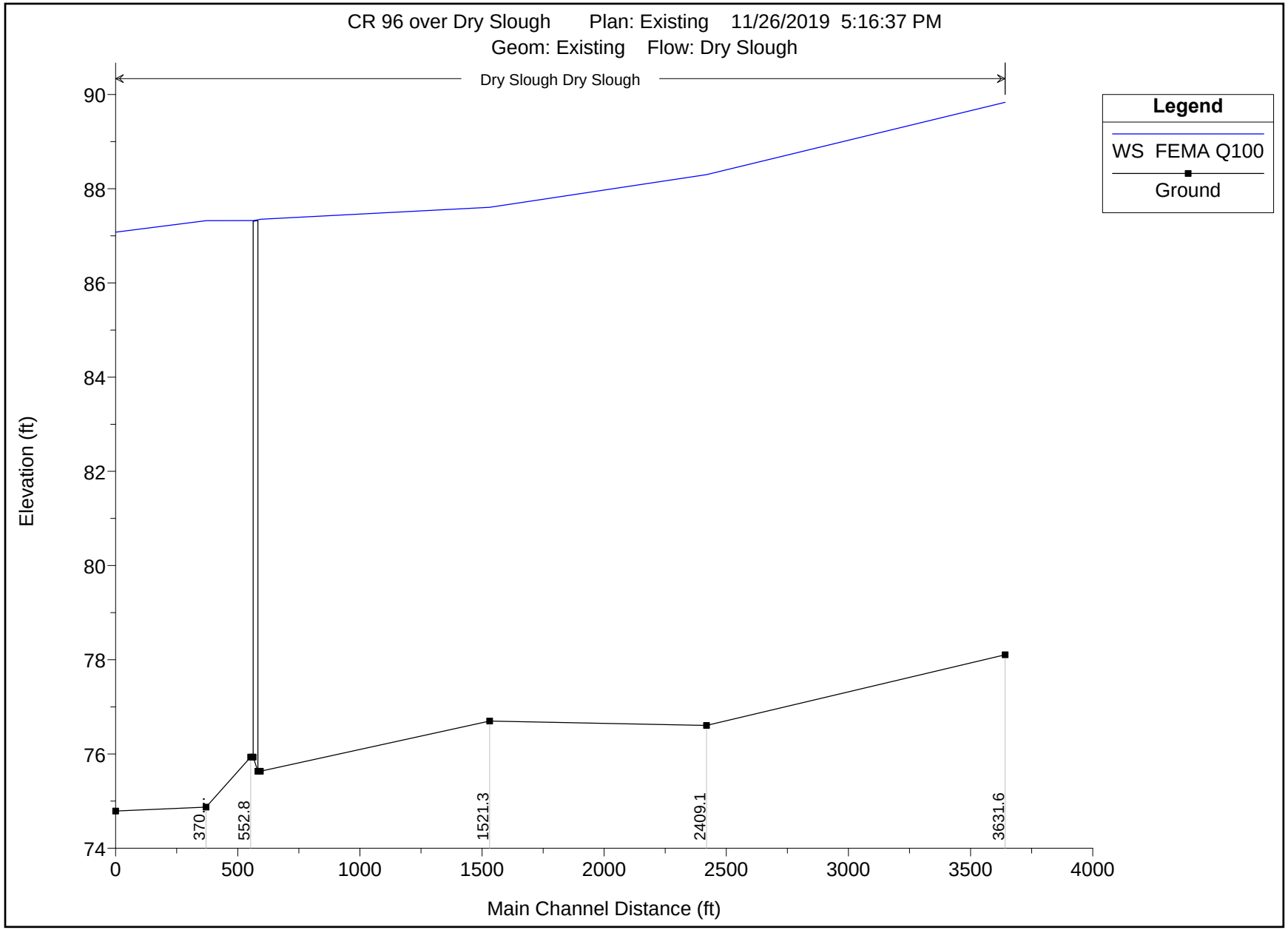
EFFECTIVE DATE
JUNE 18, 2010

Federal Emergency Management Agency

This page intentionally left blank

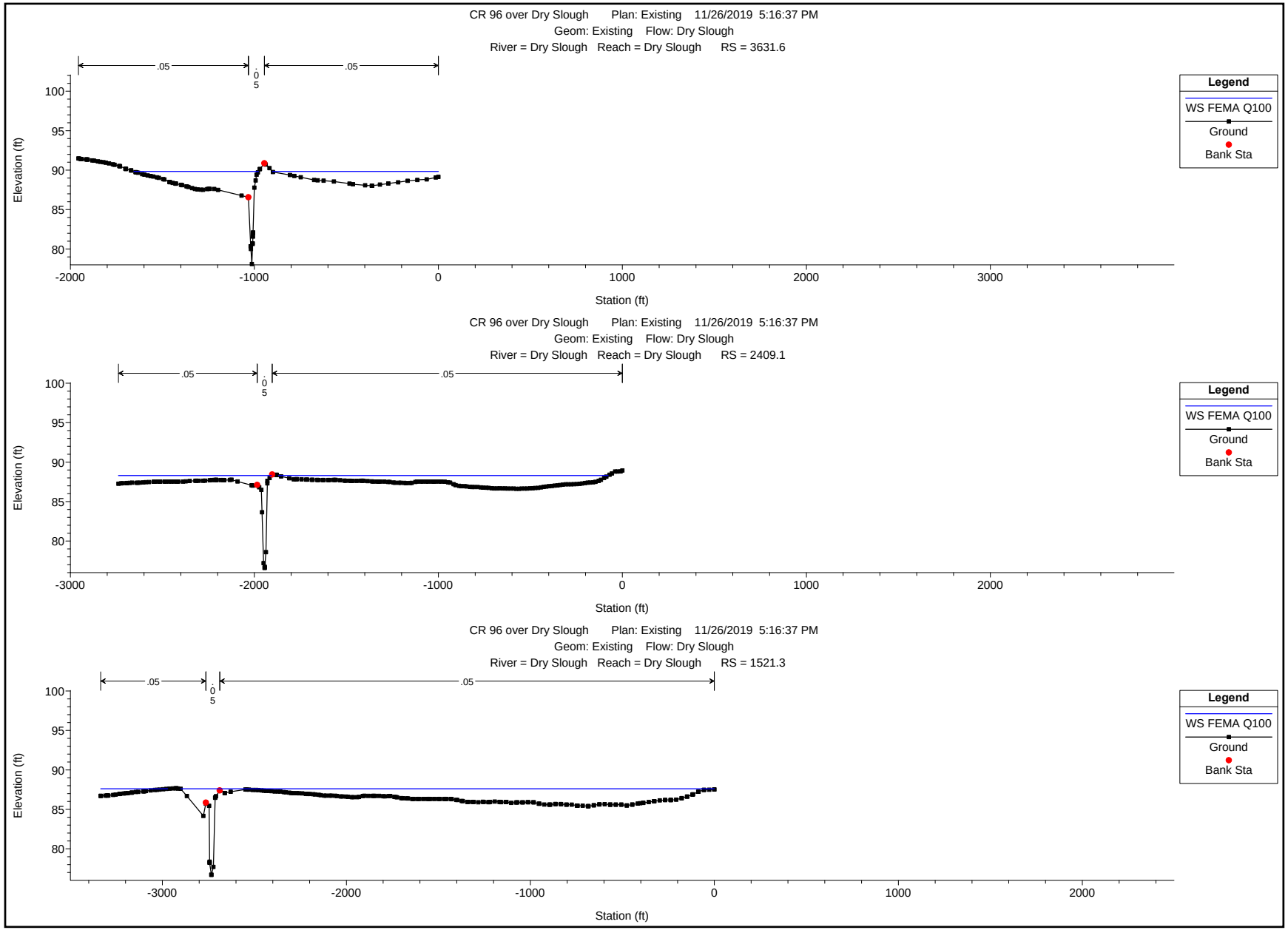
Appendix B HEC-RAS Results Output: Existing Condition

This page intentionally left blank

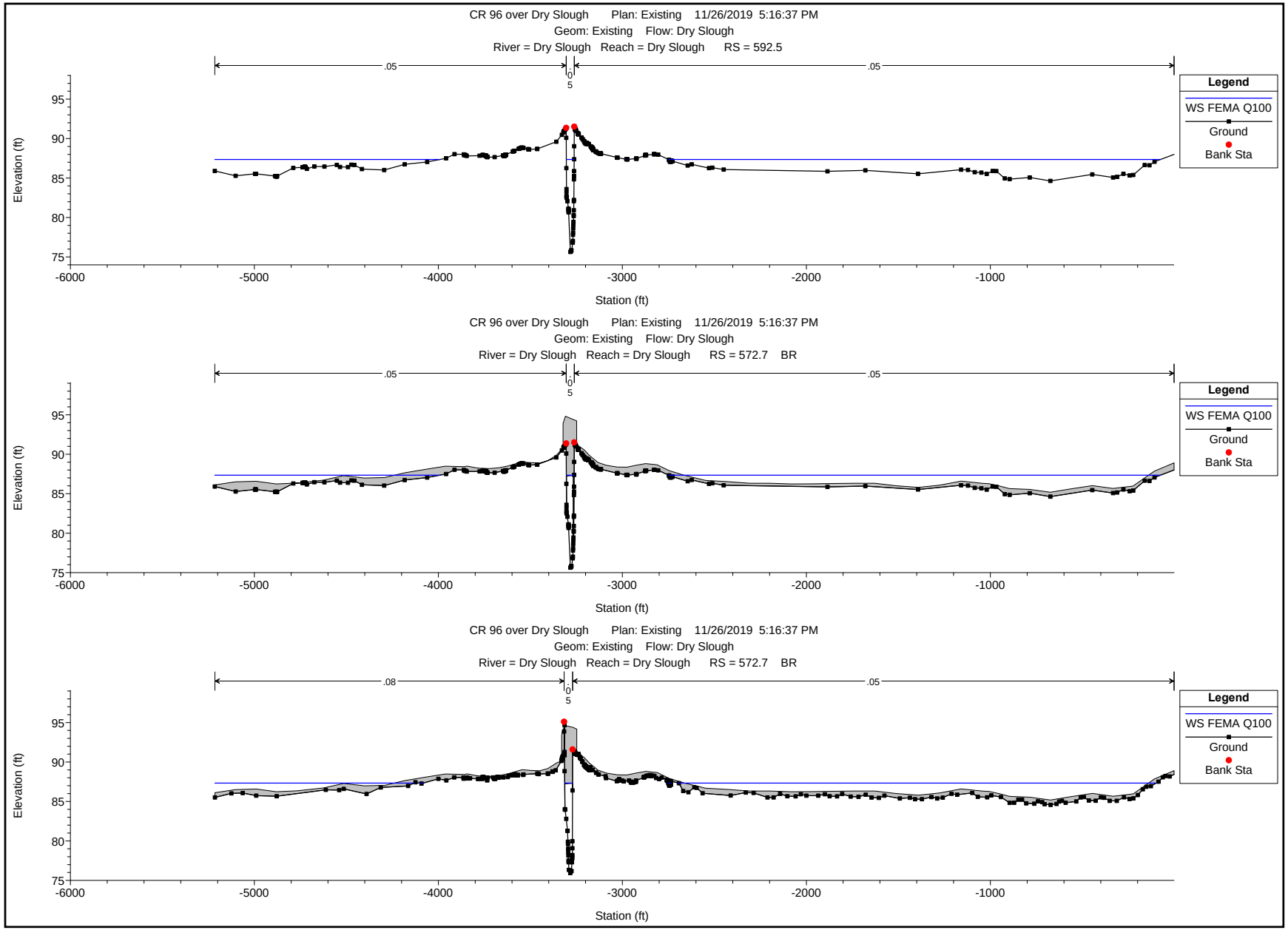

CR 96 over Dry Slough Plan: Existing 11/26/2019 5:16:37 PM
Geom: Existing Flow: Dry Slough
Dry Slough Dry Slough
Legend
WS FEMA Q100
Ground
Elevation (ft)
90
88
86
84
82
80
78
76
74
370
552.8
1521.3
2409.1
3631.6
0
500
1000
1500
2000
2500
3000
3500
4000
Main Channel Distance (ft)

HEC-RAS Plan: Existing River: Dry Slough Reach: Dry Slough Profile: FEMA Q100

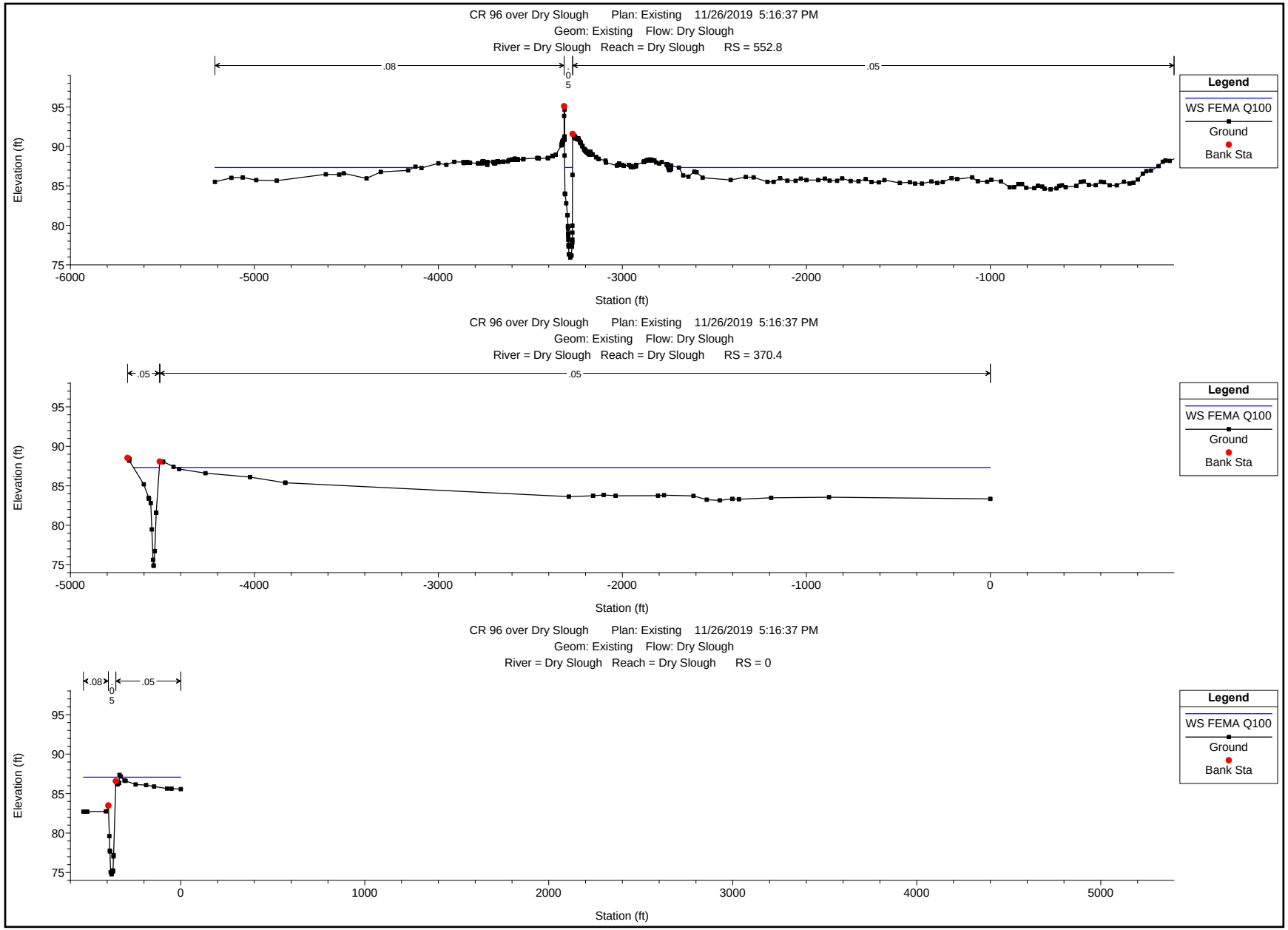
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Dry Slough	3631.6	FEMA Q100	3360.00	78.11	89.83		89.88	0.001066	2.58	2408.48	1579.50	0.21
Dry Slough	2409.1	FEMA Q100	3360.00	76.61	88.30	87.87	88.34	0.001505	2.71	2630.22	2622.16	0.24
Dry Slough	1521.3	FEMA Q100	3360.00	76.70	87.60		87.62	0.000497	1.65	4042.41	3265.29	0.14
Dry Slough	592.5	FEMA Q100	3360.00	75.63	87.35	86.02	87.36	0.000173	1.37	6028.27	3942.08	0.08
Dry Slough	572.7		Bridge									
Dry Slough	552.8	FEMA Q100	3360.00	75.94	87.32		87.33	0.000186	1.36	5980.84	3749.09	0.08
Dry Slough	370.4	FEMA Q100	3360.00	74.87	87.32		87.32	0.000014	0.26	14140.75	4570.55	0.02
Dry Slough	0	FEMA Q100	3360.00	74.79	87.08	84.50	87.28	0.001796	4.80	1298.88	517.57	0.29



1 in Horiz. = 772 ft 1 in Vert. = 18 ft



1 in Horiz. = 772 ft 1 in Vert. = 18 ft

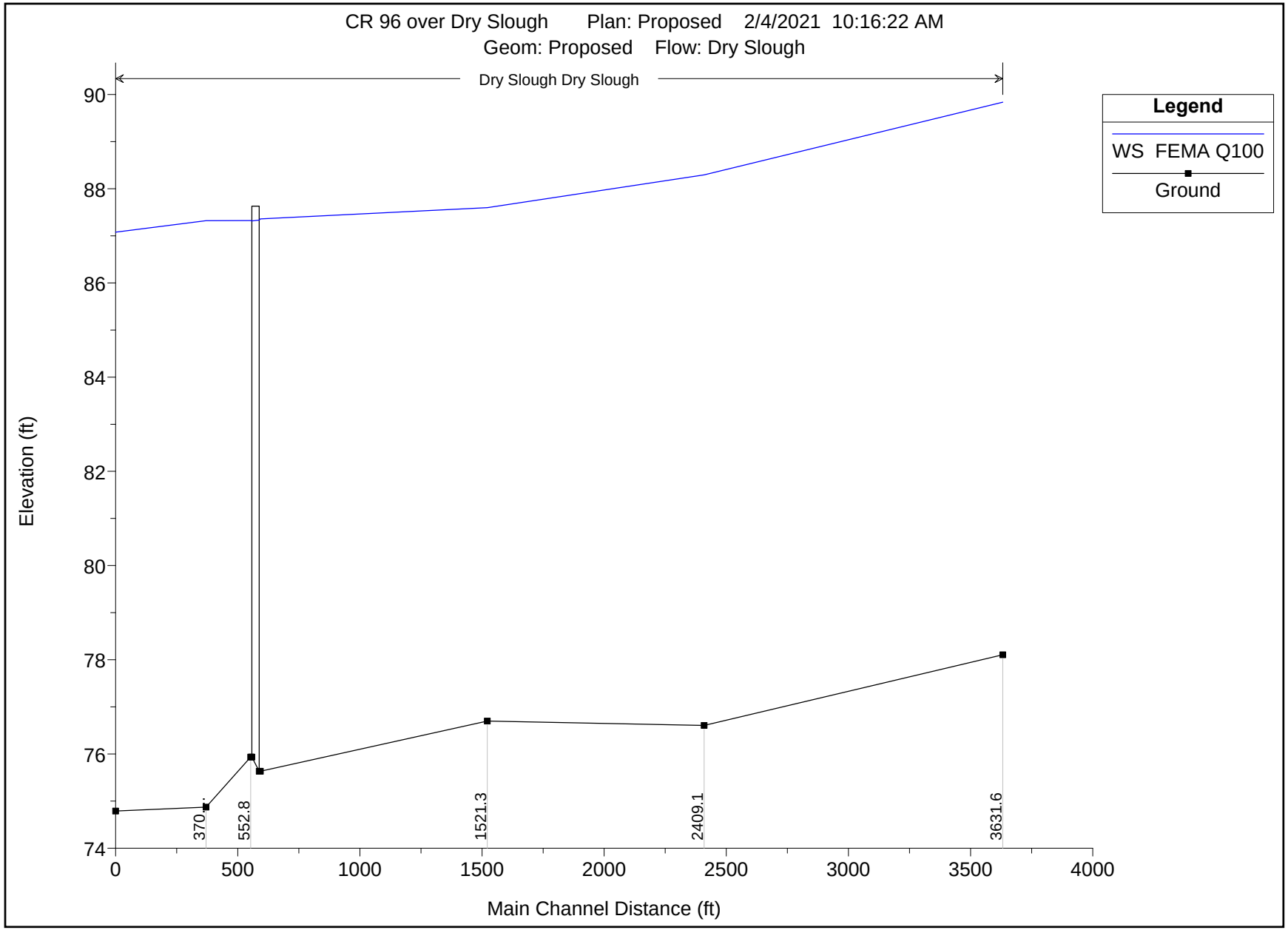


1 in Horiz. = 772 ft 1 in Vert. = 18 ft

This page intentionally left blank

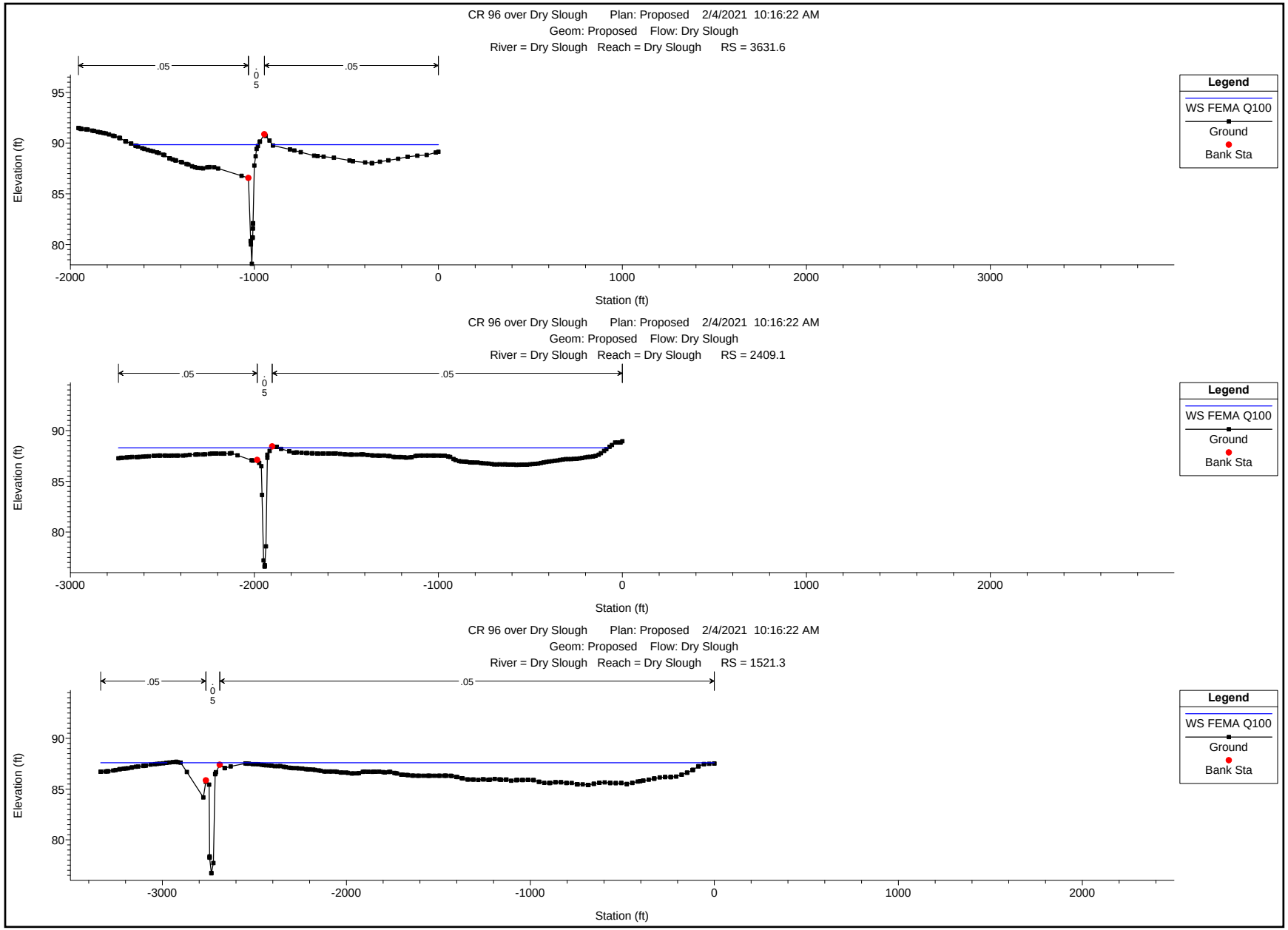
Appendix C HEC-RAS Results Output: Proposed

This page intentionally left blank

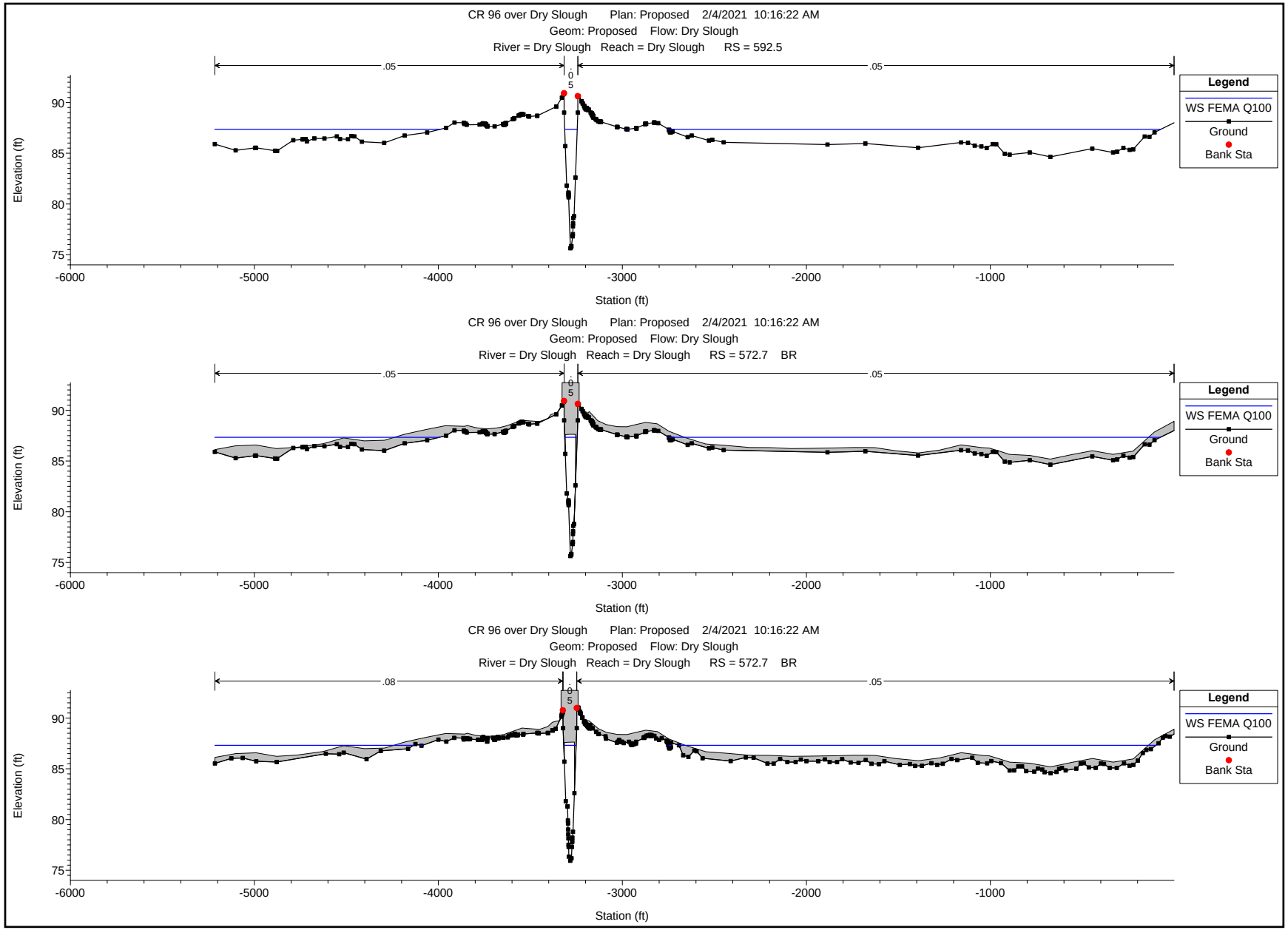

CR 96 over Dry Slough Plan: Proposed 2/4/2021 10:16:22 AM
Geom: Proposed Flow: Dry Slough
Dry Slough Dry Slough
Legend
WS FEMA Q100
Ground
Elevation (ft)
90
88
86
84
82
80
78
76
74
370
552.8
1521.3
2409.1
3631.6
0
500
1000
1500
2000
2500
3000
3500
4000
Main Channel Distance (ft)

HEC-RAS Plan: Proposed River: Dry Slough Reach: Dry Slough Profile: FEMA Q100

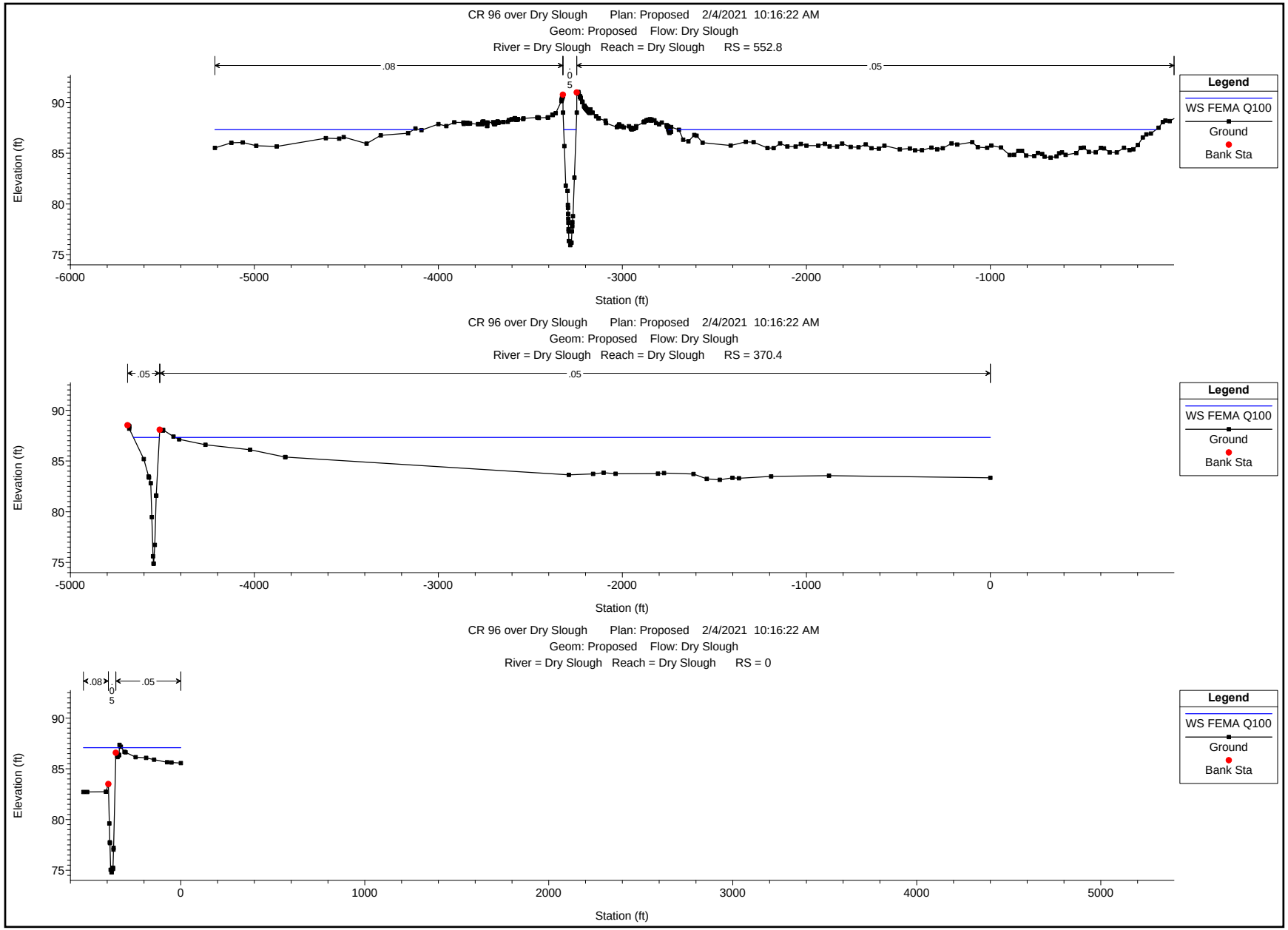
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Dry Slough	3631.6	FEMA Q100	3360.00	78.11	89.84		89.88	0.001063	2.57	2411.06	1579.79	0.21
Dry Slough	2409.1	FEMA Q100	3360.00	76.61	88.29	87.87	88.34	0.001521	2.72	2620.28	2621.30	0.24
Dry Slough	1521.3	FEMA Q100	3360.00	76.70	87.60		87.61	0.000506	1.67	4018.71	3261.51	0.14
Dry Slough	592.5	FEMA Q100	3360.00	75.63	87.36	85.84	87.37	0.000158	1.27	6170.81	3974.95	0.09
Dry Slough	572.7		Bridge									
Dry Slough	552.8	FEMA Q100	3360.00	75.94	87.32		87.33	0.000168	1.31	6099.30	3774.19	0.09
Dry Slough	370.4	FEMA Q100	3360.00	74.87	87.32		87.32	0.000014	0.26	14140.75	4570.55	0.02
Dry Slough	0	FEMA Q100	3360.00	74.79	87.08	84.50	87.28	0.001796	4.80	1298.88	517.57	0.29



1 in Horiz. = 772 ft 1 in Vert. = 14 ft



1 in Horiz. = 772 ft 1 in Vert. = 14 ft



1 in Horiz. = 772 ft 1 in Vert. = 14 ft

This page intentionally left blank

Appendix G

Water Quality Study Memorandum

1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

Memorandum

Date: **March 5, 2021**

To: **Julie Passalacqua, Victor Sherby - Mark Thomas**

From: **Analette Ochoa, Catherine Villarosa - WRECO**

Subject: **Water Quality Study Memorandum for the CR 96 Over Dry Slough Bridge**

1 GENERAL DESCRIPTION

1.1 Introduction

This memorandum summarizes the water quality requirements for the County Road (CR) 96 Over Dry Slough Bridge Project (Project).

1.2 Project Description

Yolo County proposes to replace the existing bridge on CR 96 crossing over Dry Slough with funding made available through the Federal Highway Administration (FHWA) Highway Bridge Program and administered by the California Department of Transportation (Caltrans). The bridge was determined to be functionally obsolete by Caltrans as recently as 2013 and currently has a sufficiency rating of 53.6.

The Project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113. See Figure 1 for the Project Vicinity Map, Figure 2 for the Project Location Map, and Figure 3 for the Project Aerial Map. CR 96 is a rural local roadway that extends between Russell Boulevard on the south and CR 27 on the north. Within the Project vicinity, CR 96 is paved and has an approximate width of 20 feet. The bridge, with an Average Daily Traffic count of 216 vehicles, is bordered by agricultural and residential parcels. There are five driveways on the east side and four driveways on the west side of CR 96. There is a residential structure approximately 100 feet northwest of the bridge and an agricultural building approximately 60 feet southeast of the bridge. The posted speed limit along CR 96 within the Project vicinity is 45 miles per hour (mph).

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition with spalling and exposed rebar.

The proposed Project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes and 2-foot shoulders. The new bridge will be a 60-feet-long, single-span structure. The structure type will be a cast-in-place, post-

tensioned concrete slab. The roadway and bridge profile will be lowered slightly to smooth out the existing substandard vertical curve, while still providing clearance over the 100-year storm event.

Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments, and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Tree removal and removal of other vegetation along the slough will be necessary for the Project. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the Project. Although the traveled way and shoulders will remain within Yolo County's right-of-way, permanent acquisitions may be needed for the approach grading and utility relocation from three to four parcels. Temporary construction easements may be needed from up to seven parcels adjacent to the Project to facilitate driveway conforms, utility relocations, and allow construction access.

During construction, CR 96 will be closed to through traffic and a detour route made available. Vehicular traffic will be able to utilize CR 95, 31, and 29 as alternative routes. Construction is anticipated to begin in Spring 2023 and have a duration of approximately eight months.

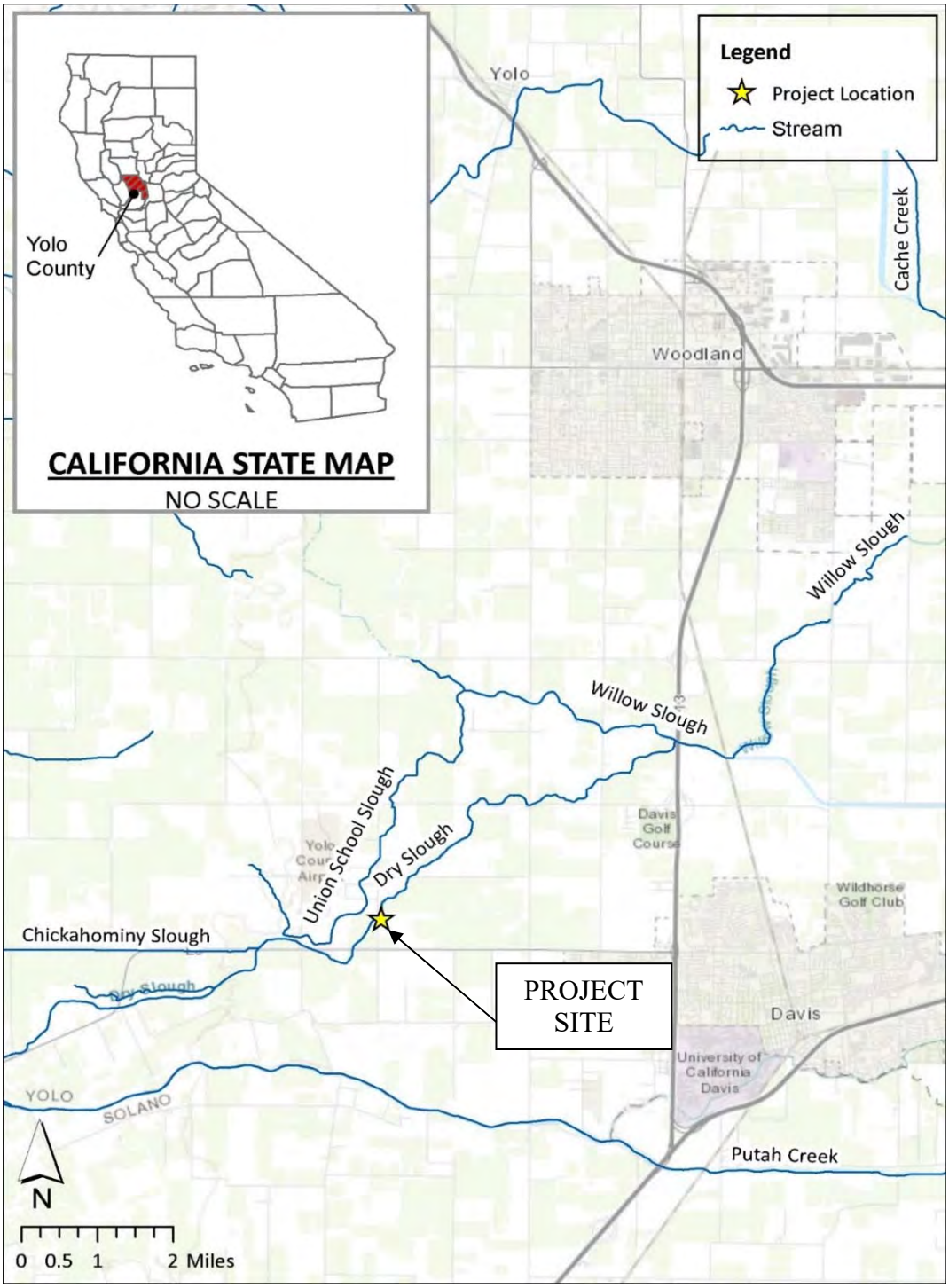


Figure 1. Project Vicinity Map

Source: United States Geological Survey (USGS), 2018

1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

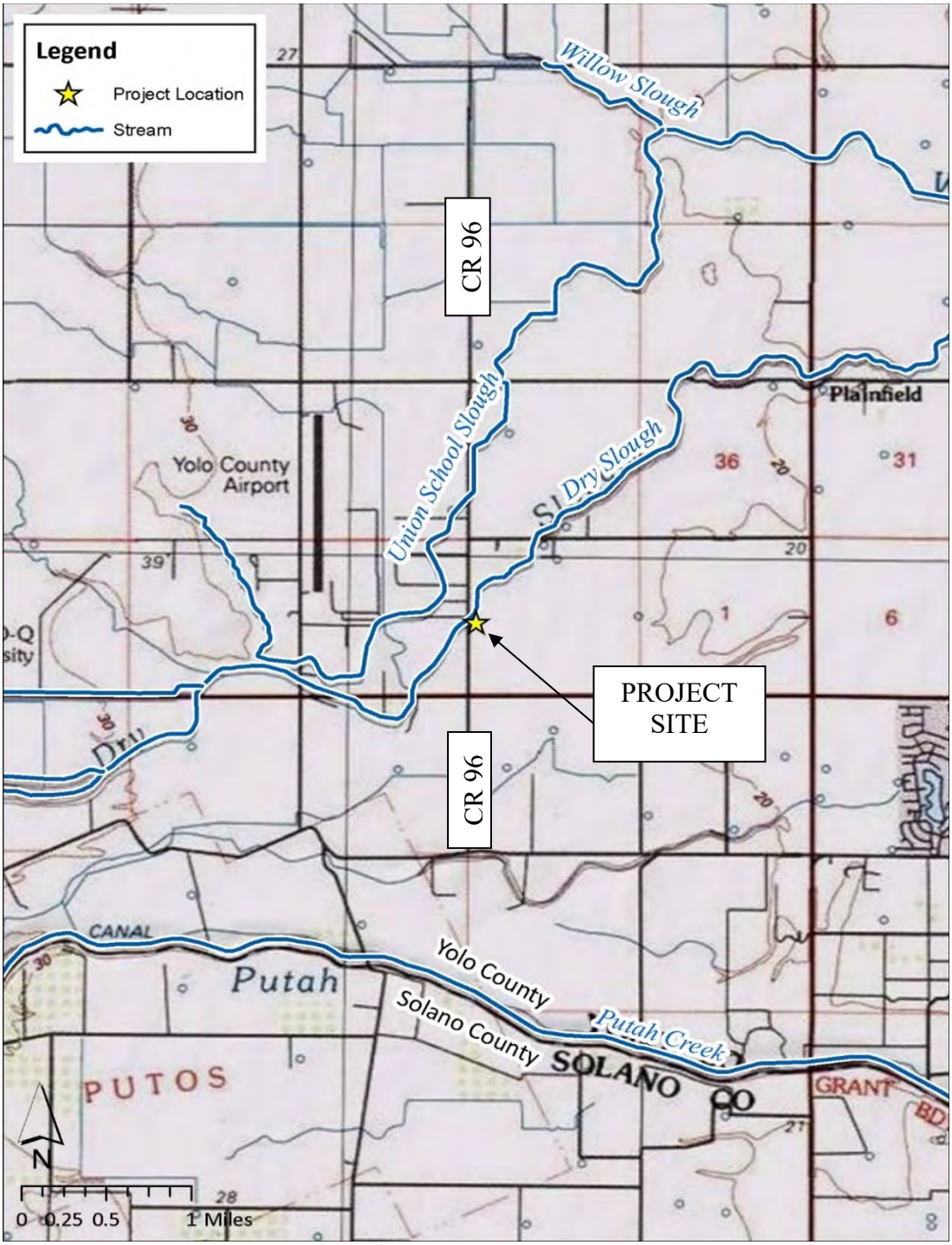


Figure 2. Project Location Map

Source: USGS, 2018

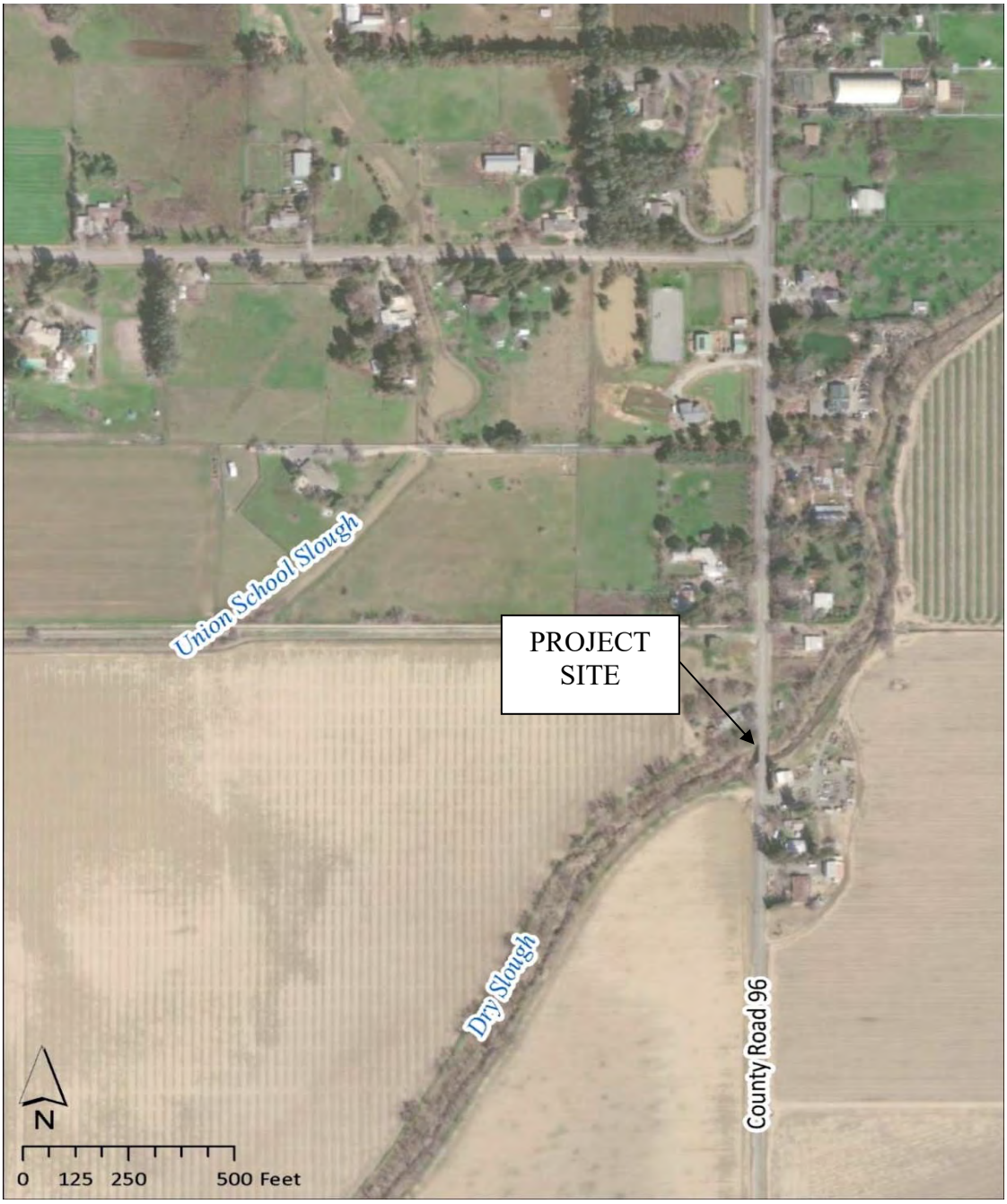


Figure 3. Project Aerial Map

Source: ESRI, 2019

2 ENVIRONMENTAL CONDITIONS

2.1 Topography

The Project area is relatively flat, sloping west to east towards Willow Slough. Along CR 96, the elevations in North American Vertical Datum of 1988 (NAVD 88) range between 80 to 90 feet (United States Geological Survey [USGS], 2018).

2.2 Climate

The Project area has a Mediterranean climate, characterized by mild, moist winters and hot, dry summers. According to the Western Regional Climate Center (2020), for the Woodland 1 WNW station in California, the average yearly rainfall is 18.50 inches with the most rainfall occurring between October to April. Between March 1906 to May 2016, the annual temperatures range from an average high temperature of 96.3 degrees Fahrenheit to an average low temperature of 37.6 degrees Fahrenheit. The highest temperatures occur between the months of June to September, and the lowest temperatures occur between December to May.

2.3 Soil Characteristics

According to the *Draft Foundation Report for County Road 96 Bridge Replacement over Dry Slough* (2020), prepared by Crawford and Associates Inc., the immediate vicinity of the Project site is underlain by Rincon silty clay loam with hydrologic soil group rating C. Group C soils are classified as having a slow infiltration rate and a slow rate of water transmission.

The soils that were encountered in test borings completed for the study showed earth materials encountered in the borings separated into three units considered significant to the proposed Project. Unit 1 soil is classified as loose to medium dense silty/clayey sand and poorly graded sand with silt. Unit 2 soil is classified as stiff to hard lean clay and medium dense to dense silt. Unit 3 soil is classified as dense to very dense silty sand, poorly graded sand, silt with sand, and poorly graded gravel.

2.4 Land Use

The U.S Census Bureau determined the population of Yolo County to be approximately 220,500 (2019). According to the Yolo County *2030 Countywide General Plan* (2009), the land around CR 96 crossing over Dry Slough within the Project limits consists of largely agricultural uses. Other larger acreage uses include: open space, public and quasi-public uses, and specific plan uses. (County of Yolo, 2009)

2.5 Watershed Hydrologic Units / Hydrologic Sub-Areas

According to the Yolo County *2030 Countywide General Plan Environmental Impact Report* (EIR) prepared by LSA Associates, Inc., within the unincorporated county, there are about 7,300 acres covered in surface water. The surface water in Yolo County drains from west to east and is eventually received by the Yolo Bypass. The four major watersheds located in Yolo County include: Sacramento River, Cache Creek, Putah Creek, and Willow Slough watersheds. Dry

Slough is a tributary of the Yolo Bypass and contains the same beneficial uses as listed in Section 3.3.3.

The Yolo Bypass carries flood flows generated by runoff from the Sacramento River watershed and their associated tributary watersheds. Cache Creek is a tributary of the Yolo Bypass, however flow in the creek reaches the Bypass during the wet years due to damming and diversion of the stream's waters.

2.6 Crossings

2.6.1 Receiving Waterbodies

Dry Slough is the receiving water body for the Project and flows east and northeast approximately 2 miles to the Project site, as shown in Figure 2.

2.6.2 Drinking Water Facilities

According to the *Yolo County Stormwater Management Program (SWMP) Planning Document* (2003), Yolo County relies on the cities of Davis and Woodland to satisfy some of its permit obligations. The City of Davis Public Works Department maintains the water supply systems.

3 PRELIMINARY WATER QUALITY ASSESSMENT

3.1 Regulatory Settings Federal

3.1.1 Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it several times.

In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit program. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge will comply with other provisions of the act (most frequently required in tandem with a Section 404 permit request. See below.).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. The U.S. Environmental Protection Agency (EPA) delegated to the California State Water Resources Control Board (SWRCB) the implementation and administration of the NPDES program in California. The SWRCB established nine Regional Water Quality Control Boards (RWQCB). The SWRCB enacts and enforces the Federal NPDES program and all water quality programs and regulations that cross Regional boundaries. The nine RWQCBs enact, administer and enforce all programs, including NPDES permitting, within their jurisdictional boundaries. Section 402(p) requires permits for discharges of stormwater from industrial, construction, and Municipal Separate Storm Sewer Systems (MS4).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S, including wetlands. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

3.2 State Laws and Requirements

3.2.1 Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters

of the State. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDR) and may be required even when the discharge is already permitted or exempt under the CWA.

3.2.2 State Waters Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

3.2.3 National Pollutant Discharge Elimination System Program

3.2.3.1 Construction General Permit (CGP)

CGP (NPDES No. CAS000002, SWRCB Order No. 2009-0009-DWQ, adopted on November 16, 2010) became effective on February 14, 2011 and was amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ. The permit regulates stormwater discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development.

The Project would not be required to adhere to the CGP, because the Project site does not disturb more than one acre or more of land.

3.2.3.2 Waste Discharge Requirements

If dewatering is required, then the Project would have to comply with the Central Valley Region's Order R5-2016-0076-01 NPDES No. CAG9950002 Waste Discharge Requirements Limited Threat Discharges to Surface Water. This permit discusses effluent limits that is allowed for volatile organic compounds (VOC), fuel compounds, and other wastes in extraction and treatment of polluted groundwater during dewatering activities.

3.2.3.3 Municipal Separate Storm Sewer System (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater dischargers, including MS4s. The U.S. EPA defines an MS4 as:

> any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying stormwater.

The Project lies within Yolo County's right-of-way. According to the Yolo County Boundary Map (Figure 4), the Project area is not within the incorporated cities of Yolo County, therefore

the Phase II permit would not apply to the Project as it adheres to Projects within any incorporated or urbanized areas.

The *Yolo County Stormwater Management Program (SWMP) Planning Document* (2003) provides guidance for addressing stormwater quality within the County's jurisdiction. The SWMP will address a wide variety of activities conducted in urbanized areas of the County that are sources of pollutants in stormwater. The construction activities element of the SWMP describes the controls to reduce the discharge of pollutants associated with construction activities. It will require construction sites to implement adequate water quality control measures by enforcing the implementation of the requirements through construction site inspections. Control measures address construction activities from the land development process to the completion of construction activities. The Project does not disturb more than one acre or more of land therefore these measures would not apply to the Project.

3.3 Regional and Local Requirements

3.3.1 Anticipated Permits

The Project may be required to obtain a Section 401 Certification from the Central Valley RWQCB and a Section 404 permit from the USACE since aquatic resources within the Project area would also potentially be regulated if work is to be anticipated in the water bodies. Work within waterways would require a Streambed Alteration Agreement (Fish and Game Code Section 1602) from the California Fish and Wildlife Services.

3.3.2 RWQCB Basin Plan

The Project is under the jurisdiction of the Central Valley RWQCB. The RWQCB implements the Region 5 *Central Valley Basin Plan (Basin Plan)* (2018) which states the goals and policies, beneficial uses, and water quality objectives that apply to water bodies through the Central Valley region, which includes the Project area. The Basin Plan has been adopted by the SWRCB, U.S EPA, and Office of Administrative Law.

1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

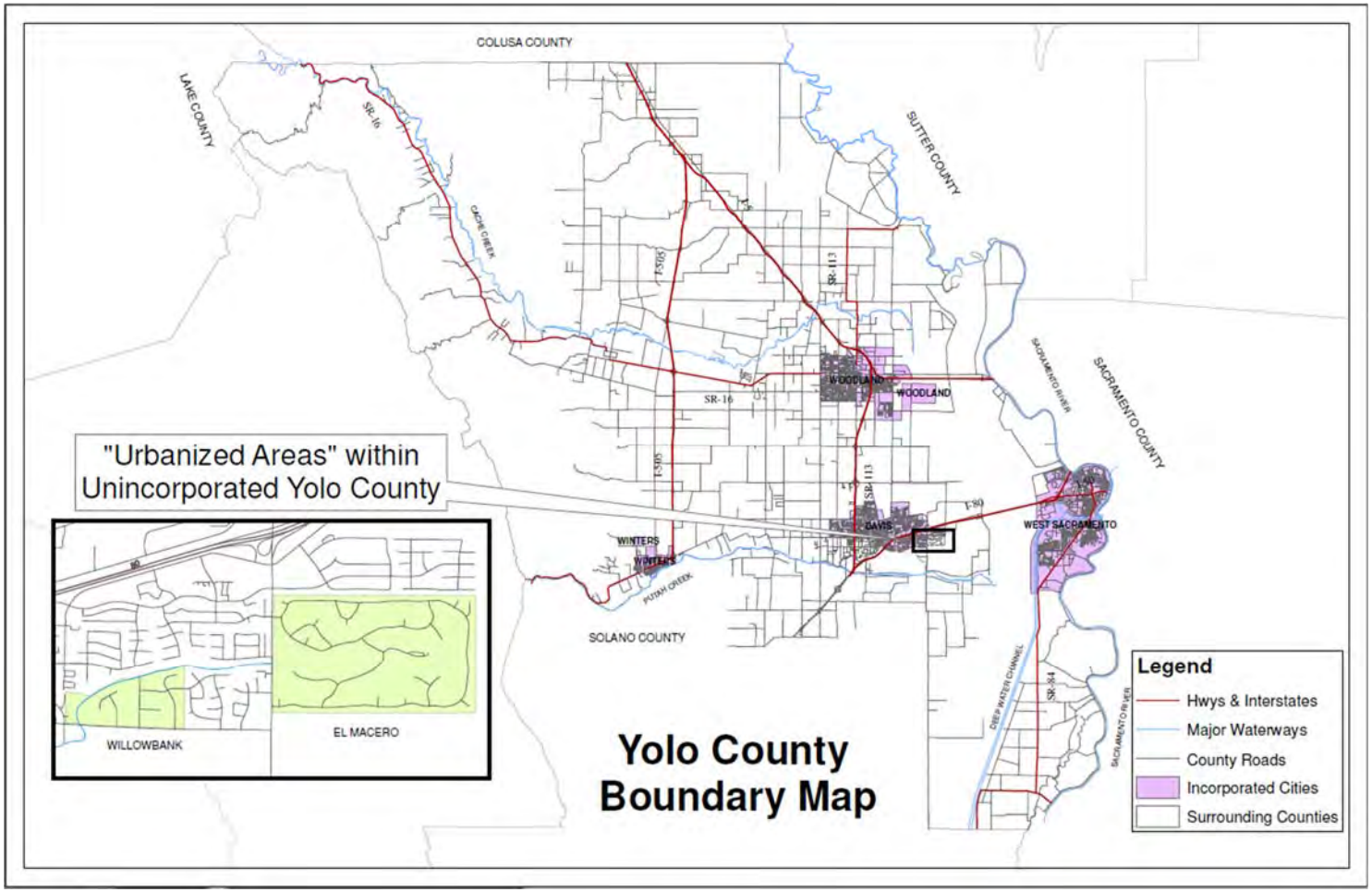


Figure 4. Yolo County Boundary Map

Source: Yolo County Planning and Public Works, 2013

3.3.3 Surface Water

Surface Water Quality Objectives/Standards and Beneficial Uses
Water quality objectives are numeric and narrative objectives used to define the appropriate levels of environmental quality, to protect beneficial uses, and to manage activities that can impact aquatic environments. The *Basin Plan* (2018) lists the following narrative and numeric water quality objectives for the region's surface waters: bacteria, biostimulatory substances, chemical constituents, cryptosporidium and giardia, color, dissolved oxygen, floating material, mercury, methylmercury, oil and grease, pesticides, pH, water temperature, toxicity, and turbidity.

Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning. The *Basin Plan* (2018) does not list any beneficial uses for Dry Slough which is a tributary to the Yolo Bypass. The Yolo Bypass does indicate beneficial uses in the Basin Plan (2018). As a tributary to the area, Dry Slough has the same beneficial uses shown in Table 1.

Table 1. Beneficial Uses

Beneficial use	Yolo Bypass
Agriculture Irrigation	E
Agriculture Stock Watering	E
Water Contact Recreation	E
Other Non-Water Contact Recreation	E
Warm Freshwater Habitat	E
Cold Freshwater Habitat	P
Warm Water Spawning	E
Wildlife Habitat	E

Source: Basin Plan, 2018

Notes:
- Beneficial uses include but are not limited to these uses
- E = Existing beneficial uses
- P = Potential beneficial uses

Water Quality Impairments and Total Maximum Daily Loads
The *2014/2016 California Integrated Report (Clean Water Act Section 303[d] List/305[b] Report)* (SWRCB, 2018) does not list the Yolo Bypass or Dry Slough for total maximum daily loads (TMDLs).

3.4 Groundwater Quality Objectives / Standards and Beneficials Uses

The Project is located within the Sacramento Valley Groundwater Basin Yolo Subbasin (5-21.67). Based on California's Groundwater Bulletin 118 (DWR, 2016), the Yolo Subbasin is located on the southern portion of the Sacramento Valley Basin primarily within Yolo County. It

is bounded on the east by the Sacramento River, on the west by the Coast Range, on the north by Cache Creek, and on the south by Putah Creek.

According to the Central Valley RWQCB Basin Plan (2018), the Sacramento Valley Groundwater Basin Yolo Subbasin is not listed as having beneficial uses for groundwater.

3.5 Environmental Consequences and Project Impacts

3.5.1 Project Impacts

The Project is anticipated to have a DSA of 0.30 acres and 0.57 acres of added impervious area. Because the Project does not lie within the incorporated cities of Yolo County, the Phase II permit would not apply to the Project. The Project also does not disturb more than one acre or more of land, therefore it would not adhere to the CGP. Because of these criteria, the Project may be exempt from treatment BMPs. Temporary best management practices (BMP) and Permanent Erosion Control BMPs are project features that will be proposed to address water quality impacts of the Project.

3.5.2 Temporary Impacts and Project Features

Disturbed soils can result in sediment laden flows and increase the potential for erosion. Generally, as the DSA increases, the potential for temporary water quality impacts also increases. Routinely used temporary BMPs are included to protect water quality. These include preservation of existing vegetation, temporary cover for soil stabilization, temporary fiber rolls, silt fence for sediment control, potential creek diversion, dewatering, and temporary construction entrances and exits.

3.5.3 Permanent Impacts and Project Features

Long-term impacts from the Project could result from fill placed in environmentally sensitive areas, potential increases to the velocity and volume of downstream flows due to added impervious areas, and sediment transported from erosion. Stormwater runoff from the study area can potentially carry pollutants into naturally flowing streams, as well as into adjacent jurisdictional biotic/aquatic areas.

Yolo County's SWMP (2003) establishes a program for requiring permanent stormwater BMPs for major development and redevelopment projects. The Project's goal is to require the installation of permanent water quality control measures during the development application approval process such as permanent erosion control on disturbed slopes. The design of the control measures would then be verified during the development application approval process.

3.6 Avoidance, Minimization, and/or Mitigation Measures

3.6.1 Water Resources

The goal of the Project is to avoid or minimize the impacts to creeks, streams, riparian habitats, wetlands, and Waters of the United States and State.

3.6.2 Temporary Dewatering Activities

According to the *Draft Foundation Report for County Road 96 Bridge Replacement over Dry Slough* (Crawford & Associates, Inc., 2020) construction dewatering is expected to be achievable during Dry Slough's dry season. A creek diversion may be needed during construction and all construction would be performed during the summer months per regulatory requirements and therefore the need for a diversion or dewatering would be minimized. If needed, the Project would have to obtain a dewatering permit and applicable non-stormwater BMPs would be required to manage the water quality levels in Dry Slough. The Central Valley Region's Order R5-2016-0076-01 NPDES No. CAG9950002 Waste Discharge Requirements Limited Threat Discharges to Surface Water discusses the permit for dewatering.

Dewatering would be achieved through diking/diversion of surface water and if present the use of sump pumps. The use of coarse, granular soils at the base of excavation would be expected to provide an appropriate working surface. During the winter and spring season, construction can expect a high-water surface level in the slough and may also encounter high groundwater levels that may require additional control.

4 REFERENCES

California Department of Water Resources (DWR). 2016. California Groundwater Bulletin 118 for the Sacramento Valley Groundwater Basin Yolo Subbasin. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/5_021_67_YoloSubbasin.pdf> (Last accessed: January 2021)

Central Valley Regional Water Quality Control Board. (2018). Water Quality Control Plan (Basin Plan) for the Central Valley Basin. Available at: <https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf> (Last accessed: January 2021)

County of Yolo. 2009. 2030 Countywide General Plan. <https://www.yolocounty.org/home/showpublisheddocument?id=14457> (Last Accessed: January 2021)

Crawford & Associates, Inc. 2020. Draft Foundation Report for County Road 96 Bridge Replacement over Dry Slough.

Environmental Systems Research Institute (ESRI) ArcGIS Online and data partners including USGS and 2007 National Geographic Society. US topo maps. <http://www.arcgis.com/home/item.html?id=99cd5fbd98934028802b4f797c4b1732> (Last accessed: January 2021).

Larry Walker Associates. Yolo County Stormwater Management Program (SWMP) Planning Document.https://www.yolocounty.org/home/showpublisheddocument?id=2567 (Last Accessed: January 2021)

LSA Associates, Inc. (2009) Yolo County 2030 Countywide General Plan EIR. IV. Setting, Impacts, and Mitigation Measures. K. Hydrology and Water Quality. <https://www.yolocounty.org/home/showdocument?id=9174> (Last Accessed: January 2021)

State Water Resources Control Board (2018). Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report). <https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml> (Last accessed: January 2021).

United States Census Bureau. 2019. QuickFacts for Yolo County, California. <https://www.census.gov/quickfacts/fact/table/yolocountycalifornia/PST045219> (Last accessed: January 2021).

United States Geological Survey. 2018. Topo Maps of the US. <https://viewer.nationalmap.gov/basic/?basemap=b1&category=histtopo,ustopo&title=Map%20View#/> (Last accessed: January 2021).

Western Regional Climate Center. Woodland, CA (049781) Period of Record Monthly Climate Summary <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9781> (Last accessed: January 2021)

Yolo County Planning and Public Works. 2013. Yolo County Boundary Map

Appendix H

Construction Noise Technical Memorandum

MEMORANDUM

To:	Thaleena Bhattal, Caltrans District 3 Associate Environmental Planner	Project No.:	SA-18139
Cc:	Mark Christison, Yolo County		
From:	Julie Passalacqua, Mark Thomas		
Date:	August 6, 2021		
RE:	**BRLO-5922(104) - Dry Slough Bridge Construction Noise Technical Memorandum**		

PURPOSE

The purpose of this construction noise technical memorandum is to demonstrate the noise generated from the construction of the County Road (CR) 96 over Dry Slough Replacement Project will result in less than significant impacts to the area residents.

PROJECT DESCRIPTION

Project Need

The existing bridge (Bridge No. 22C0127) has been given a sufficiency rating of 53.6 and has a status of functionally obsolete. The bridge has longitudinal shear cracking along the girders and evidence of water penetration though the deck. The bridge railing is in poor condition with spalling and exposed rebar. The bridge has been programmed for replacement in the Highway Bridge Program (HBP).

Existing Conditions

CR 96 is a rural local roadway that extends between Russell Boulevard on the south and CR 27 on the north. Within the bridge vicinity, CR 96 is paved and has an approximate width of 20 feet. The bridge, with an Average Daily Traffic count of 216 vehicles, is bordered by agricultural and residential parcels. The bridge, built in 1929, is a 44-foot-long single span reinforced concrete "T" girder.

Proposed Improvements

The proposed project will construct a new bridge along the same roadway alignment. The new structure will accommodate two 11-foot travel lanes and two-foot shoulders. The new bridge will be a 60 foot long single-span structure. The structure type will be a cast-in-place, post-tensioned concrete slab. The roadway and bridge profile will be lowered slightly to smooth out the existing substandard vertical curve, while still providing clearance over the 100-year storm event.

Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven steel pipe piles. Other temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated to complete activities within the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of roadway fill material, aggregate base, and hot mix asphalt pavement.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the project. Although the traveled way and shoulders will remain within the County's right of way, permanent acquisitions may be needed for the approach grading and utility relocation from three to four parcels. Temporary construction easements may be needed from up to seven parcels adjacent to the project to facilitate driveway conforms, utility relocations, and allow construction access.

CONSTRUCTION NOISE

Project construction would generate noise that could affect sensitive receptors within the project vicinity. The FHWA defines a noise sensitive receptor as a property where frequent outside human use occurs and where a lowered noise level would be beneficial.

The table below shows typical equipment noise levels for various construction equipment and activities, including measured sound levels at 50 feet from the source. Noise sources associated with the project construction would include excavation, construction truck traffic, and other noises typically associated with a construction site.

Construction Equipment Noise Levels

Construction Equipment	Maximum Noise Level dBA at 50 feet
Backhoe	78
Compactor (ground)	83
Compressor (air)	78
Concrete Mix Truck	79
Concrete Pump Truck	81
Crane	81
Dozer	82
Drill Rig Truck	79
Dump Truck	76
Excavator	81
Front End Loader	79
Generator	81
Paver	77
Pneumatic Tools	85
Pumps	81
Roller	80
Scraper	84

Source: FHWA Roadway Construction Noise Model User's Guide, 2006

There are several sensitive receptors bordering the project area. These include three residential properties located at 25540, 25599, and 25635 CR 96. These residences are located approximately 75 feet north, 250 feet south, and 350 feet south of the bridge, respectively.

Yolo County does not currently have a Noise Ordinance. The Caltrans Standard Specifications will govern the allowable level of noise. Section 14-8.02 titled "Noise Control" of the Standard Specifications

states "Control and monitor noise resulting from work activities. Do not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m."

EQUIPMENT NOISE CONTROL

To avoid substantial construction-period noise impacts to nearby sensitive receptors, the best practices listed below will be included during project construction. With implementation of these standard construction-period specifications, the project will not result in excessive construction-period noise effects.

1. Project-related noise-generating activities at, or adjacent to, the construction site shall comply with the Caltrans standard specifications section 14-8.02. "Control and monitor noise resulting from work activities. Do not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m."
2. All internal combustion engine driven equipment shall be equipped with the appropriate intake and exhaust mufflers, which are in good condition.
3. “Unnecessary” idling of internal combustion engines shall be strictly prohibited.
4. Avoid staging construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment as far as practical from existing noise receptors. Construct temporary barriers to screen noise generating equipment when located in areas adjoining noise-sensitive land uses.
5. “Quiet” air compressors and other stationary noise sources shall be used when applicable.
6. All construction traffic shall be routed to and from the project site via designated truck routes. Construction-related heavy truck traffic shall be prohibited in residential areas where feasible. Construction truck traffic shall be prohibited in the project vicinity during non-allowed hours.
7. The businesses, residents and schools in the project area shall be notified in writing by the County of the construction schedule.
8. The County shall designate a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint and implement reasonable measures to correct the problem. The contractor shall visibly post the telephone number for the disturbance coordinator at the construction site. The County shall include the telephone number in the notice sent to residents regarding the construction schedule.

Appendix I

Initial Site Assessment

INITIAL SITE ASSESSMENT

County Road 96 Bridge Replacement Over Dry Slough

Yolo County, California

Bridge No. 22C0127

Prepared By:

Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services

1100 Corporate Way, Suite 230
Sacramento, CA 95831

Project No. 18-474.2

May 17, 2021

Prepared For:

MARK THOMAS
701 University Ave, Suite 200
Sacramento, CA 95825

Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services
Sacramento | Modesto | Pleasanton | Rocklin | Ukiah

Corporate Office: 1100 Corporate Drive, Suite 230 | Sacramento, CA 95831 | (916) 455-4225
Modesto: 1165 Scenic Drive, Suite A | Modesto, CA 95350 | (209) 312-7668
Pleasanton: 6200 Stoneridge Mall Road, Suite 330 | Pleasanton, CA 94588 | (925) 401-3515
Rocklin: 4220 Rocklin Road, Suite 1 | Rocklin, CA 95677 | (916) 455-4225
Ukiah: 100 North Pine Street | Ukiah, CA 95482| (707) 240-4400

18-474.2
May 17, 2021

Julie Passalacqua, PE
Mark Thomas
701 University Avenue, Suite 200
Sacramento, CA 95825

Subject: **Initial Site Assessment**
County Road 96 Bridge Replacement over Dry Slough
Yolo County, California
Existing Bridge No. 22C0127

Dear Ms. Passalacqua:

Crawford & Associates, Inc. has prepared this Initial Site Assessment for the County Road 96 Bridge Replacement over Dry Slough Project in Yolo County, California. The purpose of this assessment is to identify and provide a preliminary assessment of the potential impacts from Recognized Environmental Conditions within the study area that may influence design and construction of the project.

We include an executive summary, property information, summary of a records review, reconnaissance observations, findings and recommendations, and limitations in this report.

We appreciate the opportunity to be on your team for the County Road 96 Bridge Replacement over Dry Slough Project. Please call us if you have questions or comments.

Sincerely,

CRAWFORD & ASSOCIATES, INC.

Stephen J. Carter
P.G. #5577
Senior Geologist

PROFESSIONAL GEOLOGIST
Stephen J. Carter
No. 5577
STATE OF CALIFORNIA

Reviewed by:

Chris Trumbull
G.E. #2494
Senior Project Manager

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER D. TRUMBULL
GE 2492
Exp. 6/30/21
GEOTECHNICAL
STATE OF CALIFORNIA

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

1 EXECUTIVE SUMMARY

Crawford & Associates, Inc. (CAInc) performed an Initial Site Assessment (ISA) for the County Road (CR) 96 Bridge Replacement over Dry Slough Project in Yolo County, California. The existing bridge is a reinforced concrete T-girder bridge, approximately 44-foot long and 20 feet wide. The proposed replacement bridge is anticipated to be a 60-foot long post-tensioned concrete slab located along the same roadway alignment.

The purpose of this ISA is to identify recognized soil or groundwater contamination and hazardous material issues that may affect the planned project improvements. Based on the records reviewed and a reconnaissance of the project site, CAInc makes the following observations:

- The project site was not identified in the database records reviewed.
- The database records searched and historical topographic maps reviewed did not identify Recognized Environmental Conditions (RECs) or historical RECs that have potentially impacted the project site.
- Historical aerial photographs indicate that properties in the immediate vicinity of the project site were utilized for residential and agriculture purposes from at least 1937.
- Asbestos-containing construction material (ACCM) was not identified at the bridge structure.
- Evidence of naturally occurring asbestos (NOA), including serpentine or ultramafic rock, was not observed at the project site.
- Soil samples were collected to evaluate concentrations of Aerially Deposited Lead (ADL); total lead concentrations in all soil samples were below the hazardous threshold.
- A reconnaissance of the project site identified conditions indicating the potential presence of RECs that might impact the project.
- White paint on the concrete bridge guard rails was observed. Lead in the bridge paint was found to be below the hazardous threshold.
- The project site is bounded by agriculture to the southwest.
- Yellow centerline striping was observed on the roadway pavement. Lead and cadmium were not present in the roadway paint at hazardous concentrations.
- Utility poles and electrical transformers are present within the project site.
- A former utility pole is located within the project site.

The proposed project will impact CR 96. The following general hazardous materials or environmental concerns are typical of similar projects and have been evaluated in this assessment. A detailed discussion is provided in Section 7 that considers the following:

- Asbestos Containing Construction Material
- Aerially Deposited Lead
- Lead-based Paint
- Agricultural Chemicals (Pesticides/Herbicides)
- Chemically Treated Wood
- Naturally Occurring Asbestos
- Petroleum Hydrocarbons
- Thermoplastic Traffic Striping

- Electrical Transformers

Based on the public records, historical aerial photographs, and historical topographic maps reviewed for this project, and the site reconnaissance performed on April 3, 2020, CAInc offers the following recommendations:

- Lead-based paint was identified on the bridge. Demolition of materials containing lead-based paint will need to adhere to the requirements described in Section 7.2.2. A lead compliance plan that protects workers and the environment from lead exposure will need to be prepared prior to implementation of demolition and construction activities. Painted bridge components will need to be removed, transported, and recycled or disposed of in a manner consistent with the lead compliance plan and applicable State and Federal law.
- CAInc recommends testing site soils where disturbance will occur southwest and northeast of the bridge for the following classes of biocides: organochlorine pesticides (EPA Method 8081), chlorinated herbicides (EPA Method 8151) and organophosphorus pesticides (EPA Method 8141) to determine whether these chemicals exist at concentrations that would present an exposure risk to construction workers. Testing should be performed prior to construction to include the most recent pesticide applications.
- The former utility pole located at the northeast corner of the bridge will need to be handled and disposed of as treated wood waste.

This report identifies RECs and general hazardous materials issues that may be present at the site, and provides recommendations for further investigation, as warranted. Additional research and assessment may provide more certainty on conditions to be encountered during demolition and construction.

2 INTRODUCTION

2.1 PURPOSE

The following report summarizes an ISA performed by CAInc for the County Road 96 Bridge Replacement over Dry Slough in Yolo County, California. This ISA was prepared for use by Yolo County for this specific project in accordance with the agreement between Mark Thomas and CAInc, dated July 20, 2018. The purpose of this ISA is to help identify potential or known hazardous materials and hazardous waste impacts that have the potential to impact the project site.

We use the term Recognized Environmental Condition consistent with ASTM E1527-13, which defines REC as:

> *"The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."*

2.2 PROJECT LOCATION

The project site is located within the southern region of Yolo County, between Interstate 505 and State Route 113, approximately 5.5 miles northwest of Davis, California. The bridge is located

on CR 96, ±2,300 feet north of its intersection with CR 31 and ±0.5 miles southeast of the Yolo County Airport. A portion of the Yolo County Airport property extends to the northwest corner of the project site with a southerly boundary at Dry Slough (APN 037-010-028). Bridge coordinates are approximately latitude 38.5679°N and longitude 121.8403°W. The project vicinity is shown on the Vicinity Map (Figure 1, in Appendix A). A project site plan is shown on Figure 2.

2.3 SCOPE OF SERVICES

CAInc completed the following tasks to prepare this ISA:

- Reviewed project data and coordinated with the design team.
- Reviewed available project documents and reports including the project description, Geometric Approval Drawing (dated 1/4/2019), Strip Map (undated), site plan (undated), site geology and groundwater data.
- Conducted a limited site reconnaissance to observe current land use and indications of potential contamination at the site, and to view publicly accessible portions of the adjacent properties.
- Initiated a search request with GeoSearch to review federal, state, and local regulatory agency databases to determine whether areas of environmental concern exist on or near the project site. Search distances ranged between ⅛ and one mile from the project site, depending on the database.
- Reviewed the following online databases for information associated with the project alignment and vicinity:
    - State Water Resources Control Board (SWRCB) GeoTracker website;
    - Department of Toxic Substances Control (DTSC) EnviroStor website;
    - Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System (SWIS) facility database; and
    - Department of Conservation, Geologic Energy Management Division (CalGEM) online mapping application, Well Finder.
- Reviewed historical aerial photographs, topographic maps, and soil maps of the site and surrounding properties for indications of site use and potential sources of contamination.
- Reviewed information for evidence of suspected or known contamination/hazardous materials issues (such as pesticide usage, railroad alignments, industrial parks, orchards, etc.).
- Arranged for a certified asbestos consultant (CAC) to visit the site and collect samples for asbestos analysis or reference, and to prepare a report of their findings.
- Screened soil from the project for lead to assess potential impact from ADL.
- Screened paint from the bridge and the yellow centerline striping for concentrations of heavy metals.
- Contacted the Yolo County Agriculture Department to discuss pesticide use in the project vicinity.

2.4 PROJECT DESCRIPTION

Yolo County proposes to replace the existing bridge on CR 96 crossing over Dry Slough. County Road 96 is a rural local roadway that extends between Russell Boulevard on the south and CR 27 on the north. Within the project vicinity, CR 96 is paved and has an approximate width of 20 feet.

The existing bridge (Bridge No. 22C0127) was constructed in 1929 and is approximately 44 feet long and 20 feet wide. The structure consists of single-span reinforced concrete T-girders. The bridge has longitudinal and shear cracking along the girders and evidence of water penetration through the deck. Additionally, the bridge railing is in poor condition with spalling and exposed rebar.

The proposed project will construct a new bridge along the same roadway alignment, accommodating two 11-foot wide travel lanes and two-foot wide shoulders. The new bridge is anticipated to be a single-span structure, approximately 60 feet long. The structure type is expected to consist of a cast-in-place, post-tensioned concrete slab. The roadway and bridge profile will be lowered slightly to smooth out the existing substandard vertical curve, while still providing clearance over the 100-year storm event.

Construction of the bridge will involve excavation for and construction of concrete abutments, founded on driven piles. The new abutments will be constructed behind the existing abutments and most of this work will occur outside of the waterway. Construction of the roadway approaches will involve the removal of existing pavement and placement of new roadway fill material, aggregate base, hot mix asphalt pavement, and installation of guard rail. Temporary work within Dry Slough includes removal of the existing structure, falsework erection and removal, and installation of scour countermeasures at the abutments. Temporary slough diversion is anticipated in order to complete activities within the waterway.

Relocation of overhead electrical and communication lines, including four utility poles, along the west side of CR 96 is anticipated as part of the project. Although the traveled way and shoulders will remain within the County's right of way, permanent acquisitions may be needed for the approach grading and utility relocation from three to four parcels. Temporary construction easements may be needed from up to seven parcels adjacent to the project to facilitate driveway conforms, utility relocations, and allow construction access.

The project site is ±800 feet long, and includes the proposed bridge, driveways to adjacent properties, and reconstruction of the approach roadway from ±350 feet north of the bridge to ±420 feet south of the bridge.

2.5 GEOLOGIC CONDITIONS

The proposed bridge site lies within the southern Sacramento Valley portion of the Central Valley geomorphic province. Recent geologic mapping from the California Geological Survey[1] (Figure 3 in Appendix A) indicates the immediate vicinity of the bridge site is underlain by early to late Pleistocene age alluvial deposits (identified as Qao3 on Figure 3) comprising alluvial fan, stream terrace, basin, and channel deposits; topography is gently rolling with little or no original alluvial surfaces preserved; moderately to deeply dissected. These materials have previously been mapped[2] as Quaternary age Modesto-Riverbank Formations, described as arkosic alluvium, sand with minor gravel, and silt. Other sediments in the general vicinity of the project site are mapped as Holocene-age basin deposits (fine grained sediments of late Holocene age with horizontal stratification deposited by standing or slow-moving water in topographic lows,

[1] Gutierrez, C. I., 2011, Preliminary geologic map of the Sacramento 30′ x 60′ quadrangle, California: California Geological Survey, scale 1:100,000.
[2] Wagner, D.L., C.W. Jennings, T.L. Bedrosian, and .J. Bortugno, 1981, Geologic map of the Sacramento Quadrangle, California: California Division of Mines and Geology, scale 1:250,000.

identified as Qhb in Figure 3) and Pliocene age Tehema Formation (poorly consolidated, non-marine, pale green, gray and tan siltstone, tuff, and pebble to cobble conglomerate, identified as Pth on Figure 3).

Soil conditions within the project alignment were evaluated using the USDA's Natural Resources Conservation Service Web Soil Survey (WSS)[3]. The WSS shows the immediate vicinity of the project site as being underlain by Rincon silty clay loam, derived from alluvial fans deposits. It is typically comprised of silty clay loam, silty clay, and clay from 0 to 72 inches in depth.

No faults are mapped in the immediate project site vicinity. Based on mapping from the US Geological Survey[4], the nearest Quaternary age faults include the Dunnigan Hills fault (last movement <130,000 years age) ±10.6 miles to the north, the Midland fault (last movement <1.6 million years) ±9.9 miles to the south, and the Great Valley thrust fault (last movement <1.6 million years) ±9.0 miles to the west-southwest. These and other Quaternary age faults in the area are shown on Figure 4 (Appendix A). The proposed bridge site is not mapped within an Alquist-Priolo Special Studies Zone[5].

Mapping by the California Department of Mines and Geology[6] does not show ultramafic rocks (rocks likely to contain naturally occurring asbestos) within a mile of the project site.

2.6 HYDROGEOLOGIC CONDITIONS

The project site is located within the Sacramento Valley groundwater basin (Yolo Subbasin). Based on the Department of Water Resources' Sustainable Groundwater Management Act Data Viewer[7], the groundwater elevation beneath the project site in fall 2019 was ±67 ft above mean sea level (±14 feet below ground surface [ft bgs]), with flow toward the west. In spring 2020, the groundwater elevation was ±65 ft above mean sea level (±15 ft bgs), with flow toward the west to west-southwest. The recent high groundwater elevation was measured in spring 2019 at ±77 ft above mean sea level (±4 ft bgs), and the recent low groundwater elevation was measured in spring 2015 at ±33 feet above mean sea level (±48 ft bgs).

According to the Federal Emergency Management Agency's flood insurance rate map 06113C0580G[8] dated June 18, 2010, Dry Slough, the bridge, and land south of the bridge are mapped in Zone AE, defined as a special flood hazard area subject to inundation by the 1% annual chance flood (100-year flood) where base flood elevations have been determined (86 feet). Land at the north end of the bridge are mapped as Zone X, defined as area determined to be outside the 0.2% annual chance floodplain.

[3] https://websoilsurvey.sc.egov.usda.gov/
[4] https://earthquake.usgs.gov/hazards/qfaults/
[5] http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps
[6] Churchill, R.K., and Hill, R.L., 2000, A generalized location guide for ultramafic rock in California–areas more likely to contain naturally occurring asbestos: California Division of Mines and Geology, Open-File Report 2000-19.
[7] https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels
[8] https://msc.fema.gov/portal/search#searchresultsanchor

3 LAND USE

3.1 CURRENT LAND USE

Lands adjacent to the project site are currently developed for residential and agricultural uses. Parcels immediately adjacent to the existing bridge are identified in Table 1; assessor parcel numbers (APNs) have been included on the Project Site Map (Figure 2 in Appendix A).

Table 1. Land Uses of Properties Contiguous to the Project Site

Location	APN[9]	Land Use
Northwest	037-010-028	Residential
Northeast	037-010-024	Equestrian
Southwest	037-010-028	Agriculture
Southeast	037-010-024 037-010-025	Residential; agricultural equipment storage

APN = Assessor's Parcel Number

3.2 HISTORICAL LAND USE

In general, properties in the vicinity of the project site have included a mix of agricultural and residential use from 1937 to present.

3.2.1 HISTORICAL AERIAL PHOTOGRAPHS

Aerial photographs were provided by GeoSearch for the years shown in Table 2. The photographs were reviewed for information about historical conditions and land use within the study area. The photos are described in chronological order below. The GeoSearch report (dated April 3, 2020) is included in Appendix B.

Table 2. Historical Aerial Photographs

Year	Source	Scale
1937	ASCS	1 in = 500 ft
1954	AMS	1 in = 500 ft
1957	ASCS	1 in = 500 ft
1964	ASCS	1 in = 1,320 ft
1968	USGS	1 in = 500 ft
1974	USGS	1 in = 500 ft
1984	USGS	1 in = 500 ft
1993	USGS	1 in = 500 ft
2003	USDA	1 in = 500 ft
2004	USDA	1 in = 500 ft
2005	USDA	1 in = 500 ft

[9] https://www.yolocounty.org/general-government/general-government-departments/general-services/geographic-information-system-gis/use-gis

Year	Source	Scale
2006	USDA	1 in = 500 ft
2009	USDA	1 in = 500 ft
2010	USDA	1 in = 500 ft
2012	USDA	1 in = 500 ft
2014	USDA	1 in = 500 ft
2016	USDA	1 in = 500 ft

1937 In the project vicinity, CR 96, Dry Slough and the bridge are evident. Dry Slough flows from the southwest to the northeast in its current configuration. Agricultural lands are depicted north and south of the project limits. What appears to be a residence and outbuildings is situated on a large parcel surrounded by trees northwest of the bridge (APN 037-010-28). There is no discernable development at the northeast corner of the bridge (037-030-002). Two structures are situated on undeveloped land southwest of the bridge (APN 037-010-28). There are no discernable driveways or other features around the two structures. A structure of unknown use is located southeast of the bridge surrounded by undeveloped land (APN 037-010-024). A clump of dense vegetation occupies the south bank of Dry Slough on the east side of the bridge. Beyond the immediate project vicinity, lands are under cultivation or appear undeveloped.

1954 Low quality photograph. No significant changes are detectable.

1957 Properties bordering the northern limits of the project site are developed with home sites; agricultural lands remain beyond the southern limits of the site. A rectangular structure of unknown use is located near the northwest corner of the bridge (APN 037-010-28). The triangle of land at the northeast corner of the bridge is also undeveloped. A residence is situated southeast of the bridge directly south of the existing building (APN 037-010-025). Southwest of the bridge is an open field, no longer containing structures (APN 037-010-28). Row crops are present in the far southwest corner of the project site (APN 037-010-023 and 037-010-25).

1964 Poorly focused photograph; no substantive changes from the 1957 photo are apparent.

1968 A third residential structure and landscaping are depicted bordering the southeast corner of the project site, on APN 037-010-025. Agriculture remains along the southwest boundary of the site.

1974 The original structure on APN 037-010-024 is no longer present. Agriculture continues to be depicted southwest of the project limits. No other substantive changes from the 1968 photo.

1984 Low quality photograph; an orchard appears to occupy a triangle of land northeast of the bridge. No other discernable changes from the 1974 photo.

1993 The fields on the west side of the project site, on both sides of the slough appear to be under cultivation with a road around the perimeter (APN 037-010-028). A narrow rectangular structure is depicted on this parcel ±250 feet northwest of the bridge. The orchard formerly occupying the triangle of property northeast of the bridge is no longer present; the property appears undeveloped.

2003 Low quality photo. Three additional structures are depicted north of the narrow rectangular structure identified in the 1993 photo (APN 037-010-028).

2004 Low quality photos; no discernable changes.

2005 Striping on CR 96 is evident. The three structures identified in the 2003 photo northwest of the project limits are no longer present. Trees have been removed and equipment and/or vehicles are scattered at the southeast corner of the bridge (APN 037-010-024). Further south, an accessory structure is evident southeast of the project limits, northeast of the residence (APN 037-010-025).

2006 Low quality photo; no discernable changes from the 2005 photo.

2009 The structure formerly located northwest of the project site is no longer present. A structure is depicted on the triangle of land at the northeast limits of the project site.

2010 - 2016 No substantive changes are evident from the 2009 photo. An agricultural field remains along the southwest limits of the project site on the south side of Dry Slough (APN -37-010-28). North of Dry Slough a field is offset from the project site by ±150 feet to the west by what appears to be a home site encircled with trees (adjacent to the northwest corner of the bridge) and vacant land north of the home site.

3.2.2 HISTORICAL TOPOGRAPHIC MAPS

Historical topographic maps were provided by GeoSearch for the years shown in Table 3, and are discussed in chronological order below. Maps were reviewed for significant changes in topography or property improvements. The GeoSearch report (dated April 2, 2020) is included in Appendix C.

Table 3. Historical Topographic Maps

Year	Quadrangle	Scale
1907	Woodland, CA	1 in = 5,208 ft
1915	Merritt, CA	1 in = 2,640 ft
1941	Woodland, CA	1 in = 5,208 ft
1952	Merritt, CA	1in = 2,000 ft
1953	Woodland, CA	1 in = 5,208 ft
1968 (Photorevision)	Merritt, CA	1in = 2,000 ft
1975 (Photorevision)	Merritt, CA	1 in = 2,000 ft
1981 (Photorevision)	Merritt, CA	1 in = 2,000 ft
1992	Merritt, CA	1 in = 2,000 ft
2012	Merritt, CA	1 in = 2,000 ft

1907 County Roads 96, 29, 30 and 31 and Dry Slough are depicted. One structure is depicted <400 feet west of the project site in the north side of Dry Slough. Topographic contours indicate the site is relatively flat. No other development is shown in the project vicinity.

1915 No substantive changes are indicated from the 1907 map. Elevation at the bridge is shown as 71 feet.

1941 The bridge is depicted across Dry Slough. A second structure is depicted on the north side of Dry Slough west of the bridge. A single structure is depicted near the southwest corner of the bridge and at the southeast corner of the bridge. Structures now occupy all but the northeast corners of the bridge.

1952 The airport is depicted ±0.5 miles northwest of the project site. One structure is depicted northwest of the bridge. Three structures are depicted southeast of the bridge. The structure previously shown southwest of the bridge is no longer evident. An oil tank is depicted ±2,200 feet south of the project site.

1953 Two structures are depicted on the southeast side of the bridge. No other structures are depicted in the project vicinity.

1968 Two new structures are depicted on the northwest side of the bridge near the bank of the slough. Two new structures are indicated 400 feet northwest of the bridge, and another new structure is depicted northeast of the bridge. Four structures are depicted on the southeast side of the bridge.

1975 An east-west trending unpaved road is depicted northwest of the project limits, connecting to the airport property. Additional roads northwest of the site indicate the development of a subdivision.

1981 No substantive changes from the 1975 map.

1992 Several structures are no longer shown on the map, including three structures northwest of the bridge and one on the southeast side of the bridge.

2012 No human-made features beside streets are shown on this map; the configuration matches current conditions.

4 DATABASE SEARCH AND RECORDS REVIEW

4.1 DATABASE SEARCH

Databases and site lists maintained by environmental regulatory agencies were searched for properties within the study area to identify sites with known releases of hazardous materials or petroleum products, and sites with the potential for such releases. Each of the following databases and site lists was searched for sites within the ASTM standard search radius relative to the project site. Refer to the GeoSearch Radius Report (dated April 2, 2020) in Appendix E for descriptions of the databases and lists searched, and the dates they were last updated.

4.2 SUMMARY OF RECORDS SEARCH

The following records were identified in the GeoSearch Radius Report within one mile of the project site:

- **Map ID #1.** The Yolo County Airport was identified in a number of databases reviewed by Geosearch. The airport facility is located ±0.5 miles northwest of the project site, however a portion of the airport property extends into the northwest corner of the project site with a southerly boundary at Dry Slough (APN 037-010-028). Refer to the Radius Report (Map ID

#1) included in Appendix D for map and additional information. The airport property is identified in the following databases: Enforcement and Compliance History Information, Facility Registry System, Formerly Used Defense Sites (FUDS), Leaking Underground Storage Tanks, Military Cleanup Sites, Resource Conservation & Recovery Act-Generator (RCRANGR09), and Yolo County Leaking Storage Tanks (YCLST).

During World War II, the Federal Government acquired the airport property for use as an alternate flight strip. Facility improvements included a runway, taxiways, two aircraft fueling areas, an operations area, control tower, bomb storage area, and housing area. Munitions were stored at this facility, but no munitions have been identified subsequent to base closure[10]. Archival documents indicate the bomb storage area was situated ±1,250 feet northwest of the bridge[11]. The environmental investigation was closed as of May 2, 2014 after receiving concurrence with the finding of No Department of Defense Actions Indicated for the FUDS facility from DTSC and the Regional Water Quality Control Board (RWQCB). Due to the distance between the munitions storage area and the project site and the closed status of the facility, the FUDS facility is unlikely to have impacted the project site.

In 1982, an earthen pond utilized for wastewater containment from the Curtis paint stripping operation was found to contain methylene chloride and phenols. The pond was filled in using embankment soils in 1988. In addition to the Curtis Pond, in 1990 the Central Valley RWQCB identified rinse water flowing from a gravel crop duster loading area into a drainage ditch in the western portion of the airport property. Soil samples collected from 1980 to 1985 contained several pesticides, including endosulfan, parathion, chlorpyrifos and toxaphene. Both facilities are situated in the central portion of the airport property on the west side of the runway, over one mile northwest of the bridge. Underground fuel storage tanks, fuel stands, and piping have been removed, and the associated environmental assessment was completed in 2016. A workplan to investigate potential soil and groundwater impacts from Curtis Pond and the crop duster loading area was accepted by the RWQCB in 2019[12]. Due to a distance of over a mile between this facility and the project site, the Curtis Pond and the crop duster storage area sites are unlikely to have impacted the project site.

- **Map ID #2.** The Beoshanz property (Yolo County File #HM 443), located at 25635 CR 96, is located ±100 feet from the southwest corner of the project site, and is identified in the YCLST database. Chlordane, a pesticide used for the treatment of termites, was applied inside the residence; an investigation determined that levels were below PRG. No further action was required; the case was closed. Because the application occurred indoors and the case is closed, this case is unlikely to have impacted the project site.
- **Map ID#3.** Garrett Landscape Construction, located at 25361 CR 96, ±600 feet north of the project site is identified in the RCRANGR09 database. CAInc found no records of environmental cases associated with this facility. The site is identified as a non-generator of hazardous waste, and is unlikely to have impacted the site.
- **Map ID#4.** Washburn Agricultural Services, located at CR 31 (Covell Road) and CR 96, ±1,800 feet south of the project site, is identified in the GeoTracker Cleanup Sites (CLEANUPSITES) database. Operations included herbicide handling, bagged herbicide sales, and equipment washing at the wash pad, with wash water draining to a ditch

[10] U.S. Army Corps of Engineers, correspondence with DTSC, November 29, 2012.
[11] U.S. Army Corps of Engineers, Defense Environmental Restoration Program for formerly Used Defense Sites Ordnance and Explosive Waste Chemical Warfare Materials Archives Search Report Findings for Yolo County Airport Formerly Winters-Davis Flight Strip, March 1995.
[12] https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SLT5S5733506

alongside CR 31. Soil samples collected in 1980 by the Yolo County Agricultural Commissioner's Office from the drainage ditch and 500 feet from the drainage ditch (direction not indicated) contained atrazine, Karmex, DDT and other agricultural chemicals. Several wells in the vicinity were found to contain low levels of atrazine, with Washburn considered to be a potential contributor. In 1995, RWQCB staff concluded that current management practices should not pose a threat to groundwater quality, and identified the facility as low priority. Upon case review by RWQCB in 2019, the case was designated as an Information Item[13]. Based on the determination of the RWQCB, and the distance of over 1,800 feet between the Washburn facility and the project site, it is unlikely that the Washburn facility has impacted the project site.

4.2.1 ADDITIONAL DATABASE SEARCHES

On May 28, 2020, CAInc reviewed the State of California's GeoTracker[14], EnviroStor[15], and SWIS[16] websites to identify additional facilities that might have recently been added since GeoSearch updated their databases (database version dates are listed in the Radius Report, Appendix D).

- **J & K Aerial Applicators** (L10009716245), located on the east side of the Yolo County Airport, is identified in the GeoTracker database as a land disposal site. The case status is identified as open[17]. There is limited facility history available. The case summary identifies Yolo Dusters and Growers Air Service also operating at this location.[18] Tanks were cleaned (emptied) by spraying residual pesticides (2, 4-D) along the taxiway, a common practice for crop dusters. This same case summary mentions the paint stripping operation, suggesting this is a duplicate record. A phone call and email to RWQCB has not been returned. Due to the distance between this facility and the project site of approximately one mile, further investigation into this case does not appear warranted.

No additional facilities were identified within one mile of the project site.

CAInc reviewed the State of California's Well Finder website[19] (May 28, 2020) to identify gas, petroleum or geothermal wells in the vicinity. The project site is located within the Dry Slough Gas Field (abandoned). The following wells were located within ±0.5 miles of the project site:

- ChevronTexaco Exploration & Production Company dry gas well (plugged) is located ±1,500 feet east of the project site (APN 037-010-023).
- ChevronTexaco Exploration & Production Company dry hole (plugged) is located ±2,000 feet southwest of the project site (APN 037-010-028).
- Royale Energy, Inc. gas well (plugged) is located ±2,200 feet south-southeast of the project site (APN 037-080-005).
- Aspen Exploration Corporation dry gas well (plugged) is located ±2,500 west-northwest of the project site (APN 037-010-028).

[13] Rader, Geoffrey, P.E., Water Resources Control Engineer, Site Cleanup Section, Central Valley Regional Water Quality Control Board, Case File Memo, January 15, 2019.
[14] http://geotracker.waterboards.ca.gov
[15] https://www.envirostor.dtsc.ca.gov/
[16] https://www2.calrecycle.ca.gov/SWFacilities/Directory/
[17] https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=L10009716245
[18] https://geotracker.waterboards.ca.gov/case_summary?global_id=SLT5S5733506
[19] https://maps.conservation.ca.gov/doggr/wellfinder/

No operating or abandoned wells were identified within one mile of the project site.

4.2.2 UNLOCATED FACILITIES

GeoSearch identified the following records that could not be mapped due to limited or incomplete address information:

- **J & K Aerial Applicators**, E. side Yolo Co. Airport. Identified on the CLEAUNUPSITES database (ID #SLT5S7533505 and #L10009716245), the Spills, Leaks, Investigation & Cleanup Recovery Listing database (SLIC) (ID #SLT5S7533505), and the Waste Management Unit Database System (ID #5A570301N01). This facility is described in Section 4.2.1.
- **Yold Aviation Inc., CR 29 and 95, Yold Cou**. (Note the probable spelling errors in the facility name and location). Identified in the Historic Underground Storage Tank database (ID #0002D4BC). Appears to be the same as Yolo Dusters, which GeoTracker reports operated at the J & K Aerial Applicators facility at the Yolo County Airport. CAInc reviewed the YCDEH online document database and found a report prepared by YCDEH that identified three underground storage tanks (UST) removed from the airport in 1990, one under the name Yolo Aviation, Inc.[20] According to the report, "These are the only known tanks at the Yolo Co Airport. Tanks one and three date back to the Air Force. Tank two was installed by Yolo Aviation. All were removed - all in good conditions and no apparent soil or groundwater contamination."
- **Yolo County International Airport**, located on 510 acres, CR 24, Woodland. Identified in the SLIC database (ID #5-SLIC-601). This record appears to be related to the airport cases described above.

All of the unlocated facilities appear to be associated with the Yolo County Airport. The 500-acre airport property is comprised of a north-south runway on the west side of the property with buildings and other infrastructure located along the east side of the runway. The airport property continues east with approximately 600 feet of undeveloped land between the developed airport facility and adjacent properties to the east. The project site is located well over 0.5 miles east of the developed portion of the airport property where facilities such as crop dusting operations and USTs would likely have been located. It is unlikely these facilities have impacted the project site.

4.3 INTERVIEWS

Because the site is bounded by active and historic agricultural lands, CAInc contacted the Yolo County Department of Agriculture by telephone and by email on May 7, 2020, to inquire about pesticide application in the project vicinity. On May 8, 2020, Jack Dewit, Deputy Agricultural Commissioner, responded with pesticide use reports on adjacent properties for the most recent twelve months. Eighteen different pesticides were reportedly applied in the project vicinity over a one-year period between May 8, 2019 and May 8, 2020[21]. California began requiring full reporting of agricultural pesticide use in 1990[22], however early reporting was minimal and incomplete[17].

[20] Yolo County Heath Services Agency, Environmental Health, Underground Storage Tanks Comprehensive Facility Report, July 01, 1992.
[21] Dewit, Jack, Deputy Agricultural Commissioner and Sealer, Yolo County Agricultural Commissioner, May 8, 2020.
[22] http://www.cdpr.ca.gov/docs/pur/purmain.htm

Due to a lack of complete historic pesticide use records, the types of chemicals that have been applied to adjacent agricultural lands are unknown. Soil testing would be required to ascertain whether pesticide concentrations are found in site soils as a result of drift or overspray from adjacent lands. Agricultural chemicals are discussed in greater detail in Section 7.2.4.

5 SITE RECONNAISSANCE

A reconnaissance of the project site was performed on April 3, 2020, by Mr. Steve Carter. The reconnaissance consisted of a walking and driving traverse along CR 96 in the vicinity of the existing bridge, and included visual observations of the roadway, properties adjacent the project site, and conditions on, under, and adjacent to the existing bridge. These observations were intended to identify the land uses and activities at the project site and on adjacent properties, and identify the presence, or likely presence, of hazardous substances or petroleum products at the project site and on adjacent properties. During site reconnaissance, the following conditions were noted:

- Two-lane (22-feet wide), single-span, concrete bridge, with concrete abutments, wing walls, and guard rails, and an asphalt-paved deck.
- White paint on the guard rails was observed to be powdery.
- Approach roads on both sides of the bridge are paved, with yellow centerline striping but no fog lines.
- No approach guard rails were observed.
- Reflector signs mounted on metal posts were present at the right abutment on both approaches.
- Water was present in Dry Slough, flowing southwest to northeast.
- Vegetation adjacent to the slough, bridge, and approach roads appeared verdant and healthy.
- Properties adjacent to the slough and bridge are utilized for agriculture and residential uses.
- Southwest corner (APN 037-010-028) –agriculture (field or row crops).
- Southeast corner (APN 037-010-024) – 25599 CR 96; residential, with outbuilding and agriculture equipment. Aboveground tank observed ±150 feet east of east of CR 96, property owner said was not used, had never been operated at site.
- Northwest (APN 037-010-028) – 25540 CR 96, residential.
- Northeast (037-010-024) – equestrian.
- Overhead electrical and telecommunications wires run along the west side of CR 96. Pole-mounted transformers were observed ±55, ±200, and ±425 feet south, and ±175 and ±500 feet north of the bridge. These transformers appeared in good repair, with no staining observed on the equipment, pole, or adjacent ground surface.
- What appeared to be a former utility pole stump was observed adjacent to the wing wall at the northeast corner of the bridge.

<u>General Observations</u>

During the reconnaissance CAInc did not observe evidence of:

- Aboveground irrigation manifolds or indications of agricultural chemical storage or mixing
- Aboveground or underground storage tanks, except as mentioned above
- Stockpiled soil

- Staining of the ground surface
- Automotive batteries
- Medical or drug lab waste
- Mining activity
- Rock outcrops
- Serpentine, ultramafic rocks, or evidence of naturally-occurring asbestos
- Faulting, springs or seeps
- Ponds, lagoons, or standing water (except flowing water in canal)
- Drums or hazardous materials storage containers
- Unusual or suspicious odors

Observations made during the site reconnaissance generally support the research and background data. Photographs from the site reconnaissance are provided in Appendix E.

6 ENVIRONMENTAL ANALYSIS

6.1 ASBESTOS CONTAINING CONSTRUCTION MATERIAL (ACCM)

CAInc contracted with National Analytical Laboratory, Inc. (NAL) to inspect the bridge for the presence of asbestos containing construction material (ACCM). This inspection was performed on April 16, 2020. A copy of the NAL report is included as Appendix F.

According to the NAL report, the asbestos inspection was performed by a certified asbestos consultant, in conformance with the Environmental Protection Agency's (EPA) Asbestos Containing Building Materials In-School Rule; CFR 763.85. During the inspection, six bulk samples were collected for later analysis by ESML Analytical, Inc. NAL reported that asbestos was not detected in any of the six samples analyzed. The bridge inspection and analytical results indicate that no asbestos is present in the area that is being removed.

6.2 AERIALLY DEPOSITED LEAD (ADL)

Soil samples were collected on April 3, 2020 by CAInc. Soil samples were collected adjacent to each of the four corners of the bridge (ADL1 through ADL4) to assess if use of the bridge during the period of leaded gasoline use had impacted soil adjacent to the road with hazardous concentrations of ADL. Sample locations are presented on Figure 2 in Appendix A.

At each of the ADL sample locations, discrete samples were collected from 0 to 6 inches, 12 to 18 inches, and 24 to 30 inches bgs. A hand auger was used to advance a shallow boring at each sample location; samples from the selected intervals were collected from the hand auger. Soil from each sampled interval was homogenized in the field then placed into a plastic bag which was sealed with a plastic wire tie. The boreholes were backfilled with cuttings and adjacent native material after sampling at each location to return the excavation to approximately original grade.

To prevent incidental and cross contamination, all sampling equipment (hand auger and hand tools) was washed with a weak detergent bath and rinsed with clean, potable water before moving to a new sample location. Wash and rinse water from the cleaning process was disposed of at the site away from drainage inlets or known environmentally sensitive areas.

Following collection, each sample was labeled, and then transported under chain-of-custody (COC) documentation to BC Laboratories, Inc. (ELAP Certification #1186) for analysis. Prior to analysis, each of the ADL samples was again homogenized at the lab.

6.2.1 HAZARDOUS WASTE CLASSIFICATION CRITERIA

Regulatory criteria to classify a waste as "California hazardous" for handling and disposal purposes are contained in the California Code of regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as "Resource, Conservation and Recovery Act (RCRA) hazardous" are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), §261.

For a waste containing lead, the waste is classified as "California hazardous" when: (1) the total lead content exceeds 1,000 milligrams per kilogram (mg/kg), the Total Threshold Limit Concentration (TTLC); or (2) the soluble lead content exceeds 5.0 milligrams per liter (mg/l), the Soluble Threshold Limit Concentration (STLC) based on the Waste Extraction Test (WET). A waste has the potential of exceeding the STLC when the waste's total lead content is greater than or equal to ten times the STLC value, since the WET uses a 1:10 dilution ratio. When the total lead concentration is greater than or equal to 50 mg/kg (ten times the STLC, and assuming that 100 percent of the total lead is soluble), soluble lead analysis is performed.

A material is classified as "RCRA hazardous" when the soluble lead content exceeds the Federal Regulatory Level based on the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP value for lead is also 5.0 mg/l. The WET and TCLP methodologies are similar; the WET method uses a citric acid extractant applied for 48 hours, whereas the TCLP uses an acetic acid extractant applied for 18 hours.

The above regulatory criteria are based on toxicity. Wastes may also be classified as hazardous based on other criteria such as ignitability, corrosivity, and reactivity. For the purposes of ADL investigations, toxicity and corrosivity (e.g., chemical concentrations and soil pH values, respectively) are the primary factors considered for waste classification. Waste that is classified as either "California hazardous" or "RCRA hazardous" requires management as a hazardous waste and disposal at an appropriately permitted disposal facility.

6.2.2 ANALYTICAL LABORATORY RESULTS

Analytical results for lead analyses are summarized below in Table 4. Laboratory reports and COC documentation are included in Appendix G. Refer to the laboratory reports for reporting limits and analytical methods.

Table 4. Summary of ADL Analytical Data

Sample Location	Sample Depth (in)	Total Lead (mg/kg)	pH
ADL1A	0 - 6	34	- - -
ADL1B	12 - 18	7.0	- - -
ADL1C	24 - 30	3.1	- - -
ADL2A	0 - 6	30	- - -
ADL2B	12 - 18	12	7.18
ADL2C	24 - 30	5.1	- - -

ADL3A	0 - 6	14	- - -
ADL3B	12 - 18	12	- - -
ADL3C	24 - 30	3.2	- - -
ADL4A	0 - 6	24	- - -
ADL4B	12 - 18	3.5	- - -
ADL4C	24 - 30	3.2	- - -
Hazardous limits		1,000	≤2 or ≥12.5

mg/kg = milligrams per kilogram - - - = Sample not analyzed

Total lead concentrations in all soil samples ranged from 3.2 to 34 mg/kg, below the 50 mg/kg threshold requiring additional analysis. These data indicate that lead is not present in soil adjacent to the bridge at concentrations that exceed the hazardous threshold.

6.3 LEAD-BASED PAINT

White paint on the bridge guard rails was observed to be powdery. A sample of the bridge paint (BR1) and the yellow roadway striping paint (RD1) were collected by CAInc on April 3, 2020, from the guard rail at the northeast corner of the bridge to assess the lead content in the paint. Sample BR1 was collected using a stainless-steel putty knife and rock hammer; sample RD1 was collected using a rock hammer. The samples were placed in a new resealable plastic bags, labeled, and transported under chain of custody documentation to BCL. CAInc returned to the site on April 15, 2020, to collect additional sample from location BR1 to perform the soluble lead analyses.

6.3.1 ANALYTICAL LABORATORY RESULTS

Analytical results summarized below in Table 5. Laboratory reports and COC documentation are included in Appendix G. Refer to the laboratory reports for reporting limits and analytical methods.

Table 5. Summary of Paint Sample Analytical Data

Sample Location	Total Lead (mg/kg)	Total Cadmium (mg/kg)	Soluble Lead (WET) (mg/L)
BR1	290	1.8 (J)	1.2
RD1	20	<2.5	- - -
Hazardous limits	1,000	100	5.0

mg/kg = milligrams per kilogram - - - = Sample not analyzed
WET = Waste Extraction Test J = estimated value
TCLP = Threshold Limit Concentration Procedure

A total lead concentration of 290 mg/kg was reported for bridge paint sample BR1; the soluble lead concentration in this sample was reported at 1.2 mg/l, below the hazardous waste threshold. TCLP analysis of the bridge paint sample BR1 was not performed due to insufficient sample volume. The total lead concentration in road paint sample RD1 was reported at 20 mg/kg, below the threshold requiring additional analysis. Further analysis of the bridge paint and roadway paint for lead does not appear warranted.

Cadmium was reported in bridge paint sample RD1 at an estimated concentration of 1.8 mg/kg. Cadmium was not present in the roadway paint sample. Further analysis of the paint samples for cadmium is not warranted.

7 FINDINGS

The purpose of this report is to identify recognized soil or groundwater contamination or hazardous material issues that could impact the project. The assessment identified the following potential hazardous materials issues that should be considered in the planning of project improvements.

7.1 POTENTIAL HAZARDOUS MATERIALS SITES

Based on the records search and site reconnaissance described above, CAInc makes the following observations.

- The project site was not identified in the database records reviewed. The records review found the nearest environmental case to be located ±1,250 feet from the project site, and that case is closed.
- The database records, aerial photographs, and historical topographic maps search did not identify any RECs or historical RECs that have potentially impacted the project site.
- Reconnaissance did not identify any other suspect sites in the project site vicinity.

7.2 GENERAL HAZARDOUS MATERIALS ISSUES

7.2.1 ASBESTOS CONTAINING CONSTRUCTION MATERIAL (ACCM)

There is a potential for asbestos to be present in concrete used for transportation structures (bridge piers, footings, abutments, decks, sidewalks). ACCM, as defined in the California Code of Regulations, Title 8, Section 1529 of the Construction Safety Orders, may also be present in construction materials such as bridge joint seals, bearing pads, shims, deck drains or other less obvious materials such as pipe conduits for utilities.

Under the federal asbestos National Emissions Standards for Hazardous Air Pollutants regulations (NESHAP, 40 CFR Part 61, Subpart M), a Certified Asbestos Consultant (CAC) must make definitive conclusions regarding the presence of ACCM. Prior to demolition or reconstruction, existing structures are required to have an asbestos survey completed to determine the appropriate method of handling and disposal of demolition debris. Written notification to the Air Quality Management District of demolition or renovation operations on structures is required at least 10 business days prior to conducting the work, regardless of the presence or absence of asbestos in the bridge materials.

A bridge inspection was completed by NAL on April 16, 2020. According to the NAL report, ACCM was not identified in the bridge components. An Asbestos Demolition and Renovation Notification Form for submittal to the Yolo-Solano Air Quality Management District is included in Appendix F.

7.2.2 AERIALLY DEPOSITED LEAD (ADL)

Generally, ADL may be an issue on roads which have historically experienced significant traffic volume, particularly where vehicles would be stopping and idling, i.e., at a stop sign or a high congestion area. Leaded gasoline was used from the 1920s through the 1980s. ADL is also a concern in areas adjacent to structures where paint containing lead was used.

Soil samples from the vicinity of the existing bridge were evaluated for total lead. Concentrations in these samples ranged from 3.2 to 34 mg/kg, below the hazardous waste threshold. Further analysis of the soil at the project site does not appear warranted. Soil excavated at the site may

be reused at the site without restriction. Additional sampling and analysis may be required for off-site disposal. Handling of soils containing lead, even at non-hazardous concentrations, must be included in the lead management plan.

7.2.3 LEAD-BASED PAINT

Transportation structures are often painted, and this paint has the potential to contain lead at concentrations that may require abatement or special handling. If lead is identified at concentrations above threshold limits, painted surfaces must be disposed of in accordance with Caltrans 2018 Standard Specification Section 14-11.13, Disturbance of Existing Paint Systems on Bridges, and Caltrans 2018 Standard Special Provision 14-11.13. The presence, or likely presence, of lead in the project site requires preparation of a Lead Compliance Plan (Caltrans 2018 Standard Specifications section 7-1.02K(6)(j)(ii), Lead Compliance Plan, and Caltrans 2018 Standard Special Provision 7-1.02K(6)(j)(iii)), and a Health & Safety Plan for workers in accordance with Cal OSHA Title 8, Section 1532.1.

CAInc collected a sample (BP1) of the powdery white paint on the concrete guard railing. Total lead was reported in this sample at a concentration of 290 mg/kg; the soluble lead concentration in this sample was 1.2 mg/l, below the hazardous waste threshold. Caltrans 2018 Standard Specification Section 14-11.13, Disturbance of Existing Paint Systems on Bridges, and Caltrans 2018 Standard Special Provision 14-11.13 will apply to demolition of this bridge.

7.2.4 AGRICULTURAL CHEMICALS

The earliest known pesticides were based on naturally occurring chemicals. Those that persisted in the environment contained metals, such as lead arsenate commonly used in orchards from the 1800s until the 1940s. The second generation of pesticides was introduced during World Wars I and II, originating from chemicals and technologies developed for warfare and later applied to farms. This generation of pesticides largely included synthetic carbon-based (organic) compounds, and included organochlorines and organophosphates. The first important organochlorine pesticide (OCP) was DDT, discovered in 1939, and subsequently found to persist in the environment for decades. DDT was banned for agricultural purposes in 1974, and the elimination of the remaining persistent OCPs soon followed. Agricultural pesticides used today have shorter half-lives than their predecessors. Pesticide residue is most commonly found in areas of chemical storage, mixing and disposal, and where pesticide application equipment was cleaned. Pesticides may also accumulate in surface water features such as drainage ditches and swales[23,24].

Based on aerial photographs dating back to 1937, the property adjacent to the southwest project limits (APN 037-010-028) has been utilized for agriculture at least since that time, and continues to be actively cultivated. The photographs indicate an orchard was present immediately northeast of the bridge sometime between 1974 and 1993. While no evidence of agricultural chemical mixing or storage was observed on the adjacent properties, it is possible that chemical applications could have resulted in drift or overspray that affected the project site and areas that will be utilized for the driveway reconstructions.

7.2.5 CHEMICALLY TREATED WOOD

[23] *Interim Guidance for Sampling Agricultural Properties (Third Revision)*, California Department of Toxic Substances Control, California Environmental Protection Agency, August 7, 2008.
[24] *Guidance for Evaluating Residual Pesticides on Lands Formerly Used for Agricultural Production*, Oregon Department of Environmental Quality, January 2006 (updated June 2019).

Chemically treated wood must be handled as treated wood waste (TWW) and disposed of as hazardous waste. Section 66261.9.5 of DTSC regulations provide alternative management standards (AMS) for treated wood waste. SSP 14-11.14 for TWW is based on AMS regulations. This special standard provision directs the contractor to follow the AMS, including providing training to all personnel that may come in contact with TWW. Training must include, at a minimum, safe handling; sorting and segregating; storage; labeling (including date); and proper disposal methods. Relocation of treated wood utility poles is generally the responsibility of the utility owner.

What appeared to be a former utility pole was observed at the northeast corner of the bridge, and will likely be impacted by bridge replacement; this will need to be handled and disposed of as treated wood waste. No other treated wood was observed at the site. If treated wood is encountered during demolition activities, it will need to be handled as described above.

7.2.6 NATURALLY OCCURRING ASBESTOS (NOA)

The geologic mapping reviewed as part of this study does not indicate ultramafic rocks or rocks suspected to contain NOA are present within the study area. CAInc did not observe rock outcrops or rock fragments that are suspected to contain NOA during site reconnaissance. Although NOA can be associated with faults, no mapped faults are depicted within the study area. The potential for NOA in the study area is considered low and no further study with respect to NOA is warranted.

7.2.7 PETROLEUM HYDROCARBONS

An aboveground fuel storage tank, was observed on APN 037-010-024, but the property owner indicated this tank was not in use, and had not been used at this property. Aboveground storage tanks, barrels, or evidence of underground storage tanks were not observed on other properties adjacent to the bridge. Further evaluation of petroleum hydrocarbons is not warranted.

7.2.8 THERMOPLASTIC TRAFFIC STRIPING

Thermoplastic traffic striping may contain heavy metals, including lead and cadmium, at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations, and may produce toxic fumes when heated. Consequently, the traffic striping within the project area should be tested to determine whether hazardous concentrations of heavy metals are present. If the volume of striping material to be removed by grinding or planing is anticipated to be small, it could be assumed to be hazardous waste and disposed of accordingly, at a Class 1 disposal facility. If painted paving material is removed and recycled, testing for heavy metals would not be required.

Lead and cadmium were not present in the roadway paint at hazardous concentrations. If project plans call for the yellow centerline striping to be removed by planing or grinding, the waste material would not need to be handled as hazardous waste. SSP 84-9.03C requires a lead compliance plan even if lead is present at non-hazardous concentrations. Painted pavement materials that are removed and recycled without grinding or planing would not be required to be handled as hazardous waste.

7.2.9 TRANSFORMERS

Polychlorinated biphenyls (PCBs) were used as transformer oil in the United States until 1979 when manufacturing was banned due to concerns about the toxicity of PCBs. Although no longer

commercially produced domestically, PCBs may be present in products and materials, including electrical transformers, produced prior to 1979.

Pole-mounted transformers were observed both north and south of the bridge. Evidence of impact from leaking transformers was not observed during site reconnaissance. Identification and remediation of old transformers is the responsibility of the utility owner.

7.2.10 UNKNOWN HAZARDOUS CONDITIONS

In case unknown hazardous conditions are encountered during construction activities, the Caltrans Unknown Hazards Procedure provided in Appendix H should be followed.

7.3 SUMMARY OF FINDINGS

Review of available public records, historical aerial photographs, and historical topographic maps, and a site reconnaissance conducted on April 15, 2020, CAInc makes the following findings related to hazardous materials within or adjacent to the project site:

- The records search and review of aerial photographs and topographic maps did not identify potential impacts to the project site.
- Asbestos or ACCM were not identified on the bridge.
- Lead concentrations in soil are below the hazardous waste threshold. Soil may be reused at the site without restriction.
- Lead-based paint was identified on the bridge, but lead concentrations were below the hazardous waste threshold.
- Chemical applications on agricultural lands adjacent to the project site could have resulted in drift or overspray that affected site soils in areas that will be utilized for project construction and driveway reconstruction.
- A former utility pole stump was observed at the northeast corner of the bridge (likely chemically treated wood).
- There were no indications of NOA at the site.
- Lead and cadmium concentrations in traffic striping were below the hazardous threshold.
- Transformers were identified adjacent to the project site both north and south of the bridge. No indications of transformer failure were observed.

8 RECOMMENDATIONS

Based on the public records, historical aerial photographs, and historical topographic maps reviewed for this project, and the site reconnaissance performed on April 3, 2020, CAInc makes the following recommendations:

- Lead-based paint was identified on bridge the bridge. Demolition of materials containing lead-based paint will need to adhere to the requirements described in Section 7.2.2. A lead compliance plan that protects workers and the environment from lead exposure will need to be prepared prior to implementation of demolition and construction activities. Painted bridge components will need to be removed, transported, and recycled or disposed of in a manner consistent with the lead compliance plan and applicable State and Federal law.
- CAInc recommends testing site soils where disturbance will occur southwest of the project site and northeast of the bridge for the following classes of biocides: organochlorine pesticides (EPA Method 8081), chlorinated herbicides (EPA Method 8151) and organophosphorus pesticides (EPA Method 8141) to determine whether these chemicals

exist at concentrations that would present an exposure risk to construction workers. Testing should be performed prior to construction to include the most recent pesticide applications.

- The former utility pole located at the northeast corner of the bridge will need to be handled and disposed of as treated wood waste.

9 LIMITATIONS

This report summarizes the findings and opinions of CAInc, with regard to the potential for the presence of contamination/hazardous materials within the project area at concentrations likely to warrant mitigation under current statutes and guidelines. Findings and opinions within this report are based on information obtained on given dates, or provided by specified individuals, through record reviews, site review, and related activities. CAInc's information is only as good as the information provided by these sources. Site conditions may change after documented observations have been made. A warrant or guarantee cannot be made that hazardous materials do not exist at the site. To further help reduce risk, an extensive invasive exploration could be completed prior to project implementation.

This report was prepared for the specific use of Mark Thomas and their agents for this project and applies only to the area identified as the project site. CAInc is not responsible for interpretations by others of data presented in this report. This report does not represent a legal opinion. No warranty is expressed or implied. Conclusions in this report are based on professional judgment and experience. Work for this assessment was performed in accordance with generally accepted standards of practice in northern California at the time of the assessment.

The scope of this investigation did not include determining the presence of radon. Identifying endangered species, geologic hazards, archeological sites, or ecologically sensitive areas are also beyond the scope of this report.

The governmental records summary within this report is derived from public records, which are updated on a continual basis. For this reason, it is not advisable to use this information to base a decision after 180 days of the issue date of this report. Conditions at the site can and will change over time. Please contact CAInc to revise this report to reflect new information.

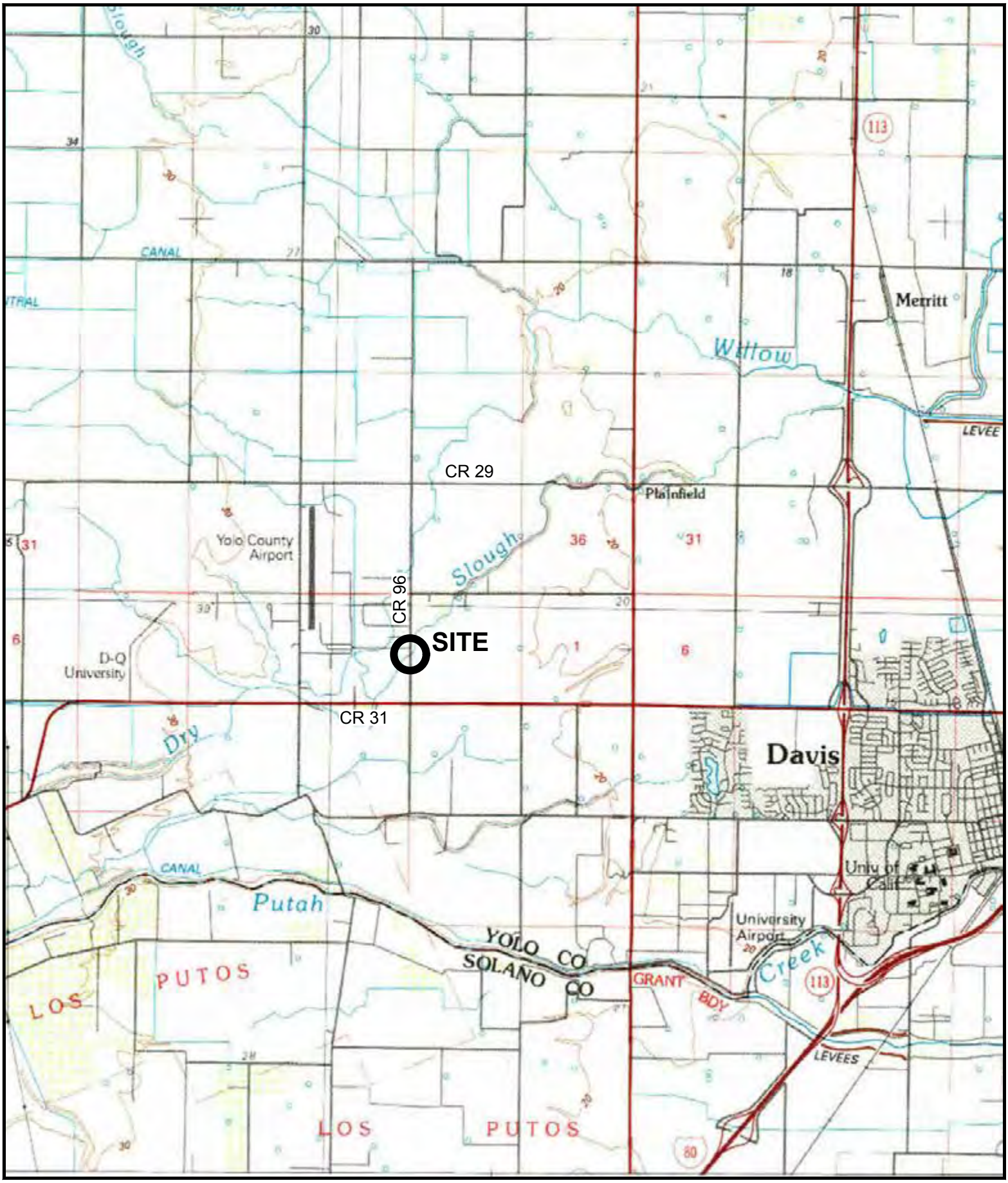
APPENDIX A

Figure 1. Vicinity Map

Figure 2. Sample Location Map

Figure 3. Geology Map

Figure 4. Fault Map



North

Source: Sacramento, California. 19994 Edition. 1:100,000. USGS, 1994.

Crawford & Associates Inc.
Geotechnical Engineering, Design and Construction Services
Taber
Since 1964
1100 Corporate Way
Suite 230
Sacramento, CA 95831
(916) 455-4225

CR 96 OVER DRY SLOUGH

YOLO COUNTY, CA

Figure 1
Vicinity Map

Proj. No: 18-474.2
Scale: 1"=6,000'
Date: 2/20/19

North

Source:
Basemap: AutoCAD Civil3D Geolocation tool, using Bing Maps

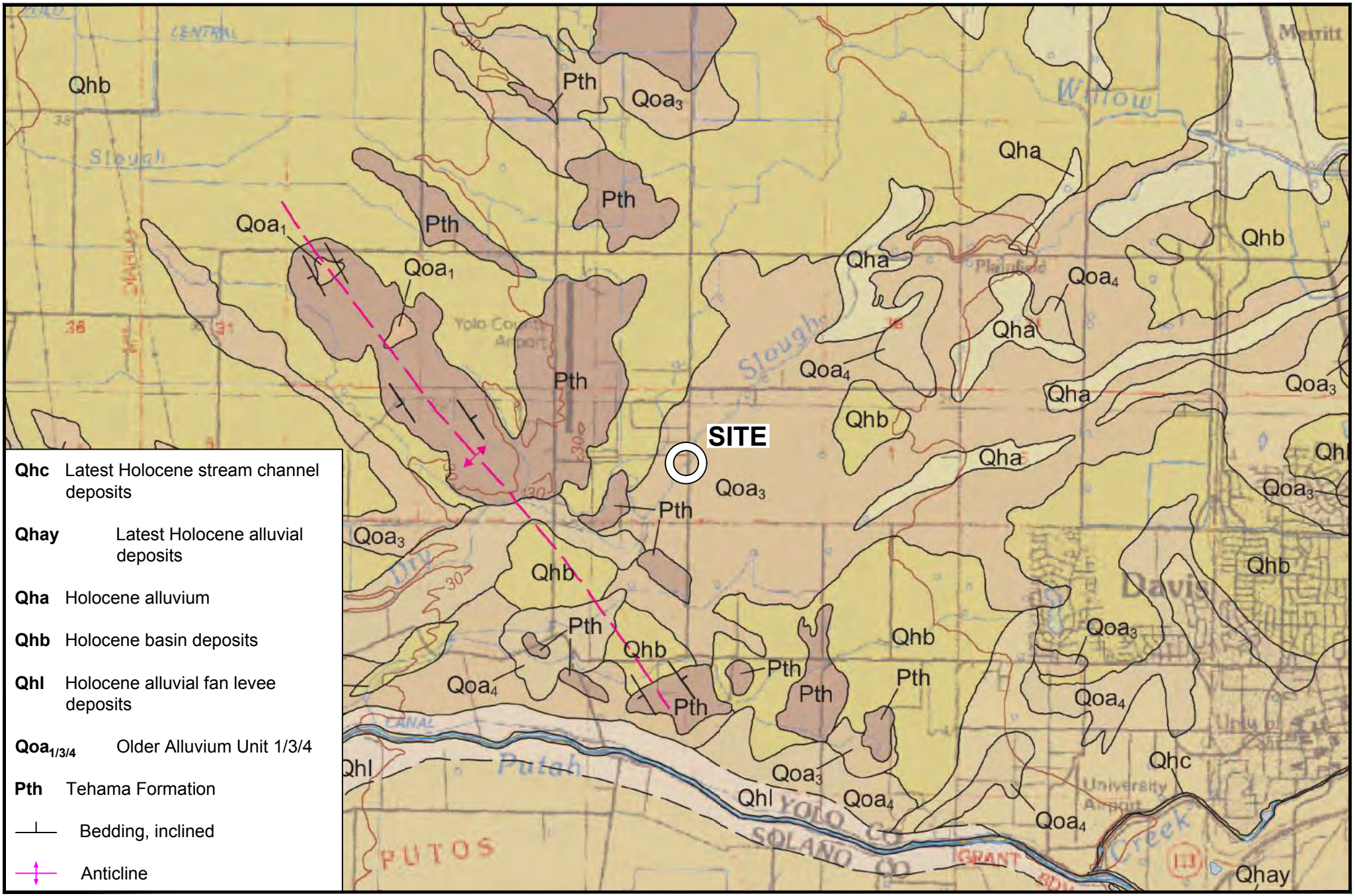
Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services
Taber
Since 1954
1100 Corporate Way
Suite 230
Sacramento, CA 95831
(916) 455-4225

CR 96 OVER DRY SLOUGH

YOLO COUNTY, CA

Figure 2
Sample Location Map

Proj. No: 18-474.2
Scale: 1"=50'
Date: 7/10/20



North

Source: Carlos I. Gutierrez. Preliminary Geologic Map of the Sacramento 30' x 60' Quadrangle, California. 1:100,000. California: California Geologic Survey, 2011.

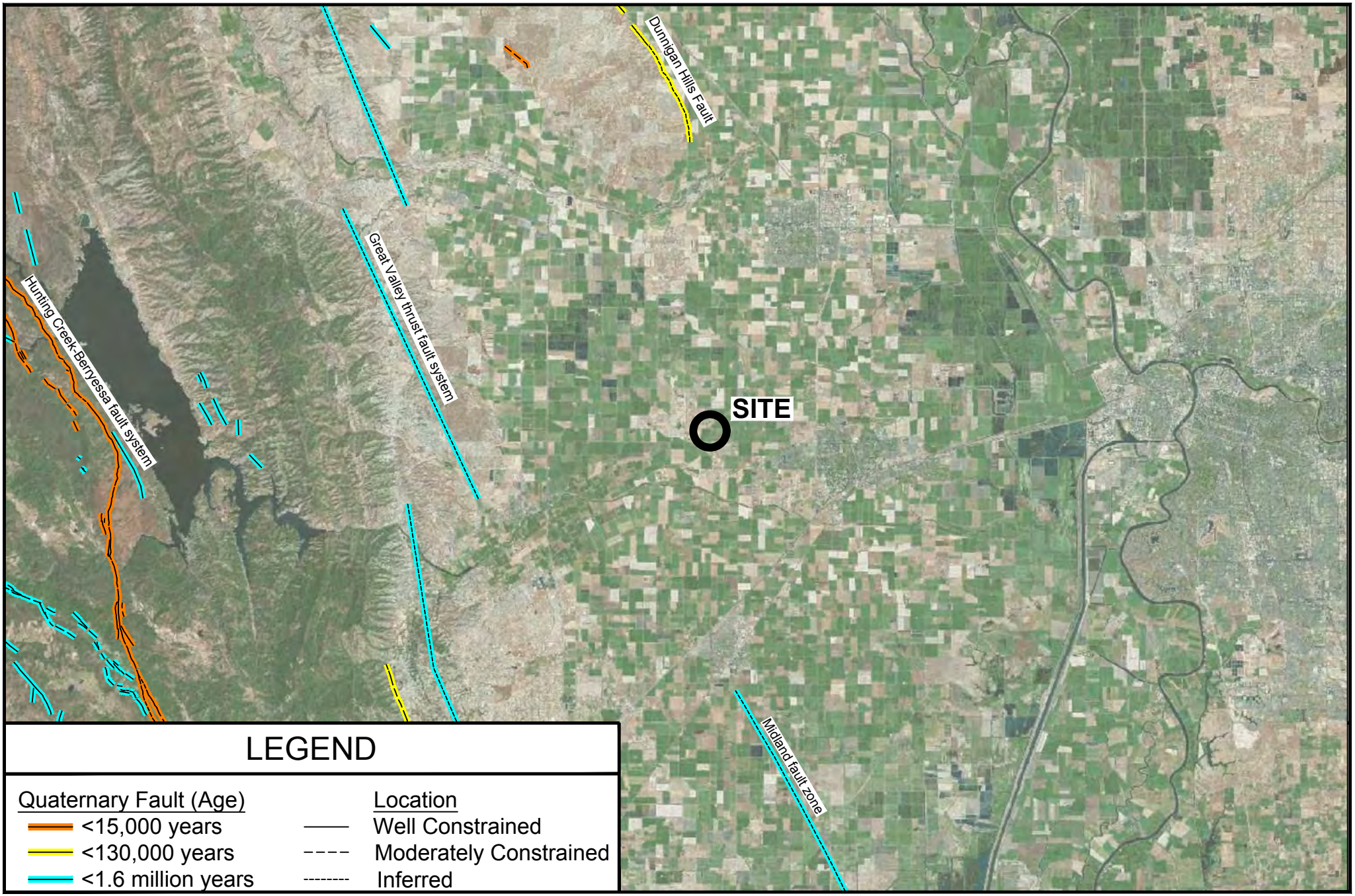
Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services
Taber Since 1954
1100 Corporate Way
Suite 230
Sacramento, CA 95831
(916) 455-4225

CR 96 OVER DRY SLOUGH

YOLO COUNTY, CA

Figure 3
Geology Map

Proj. No:	18-474.2
Scale:	1"=5,000'
Date:	9/11/19



North

Sources:
Bassemap: AutoCAD Civil3D Geolocation tool, using Bing Maps

Faut data: USGS GIS data

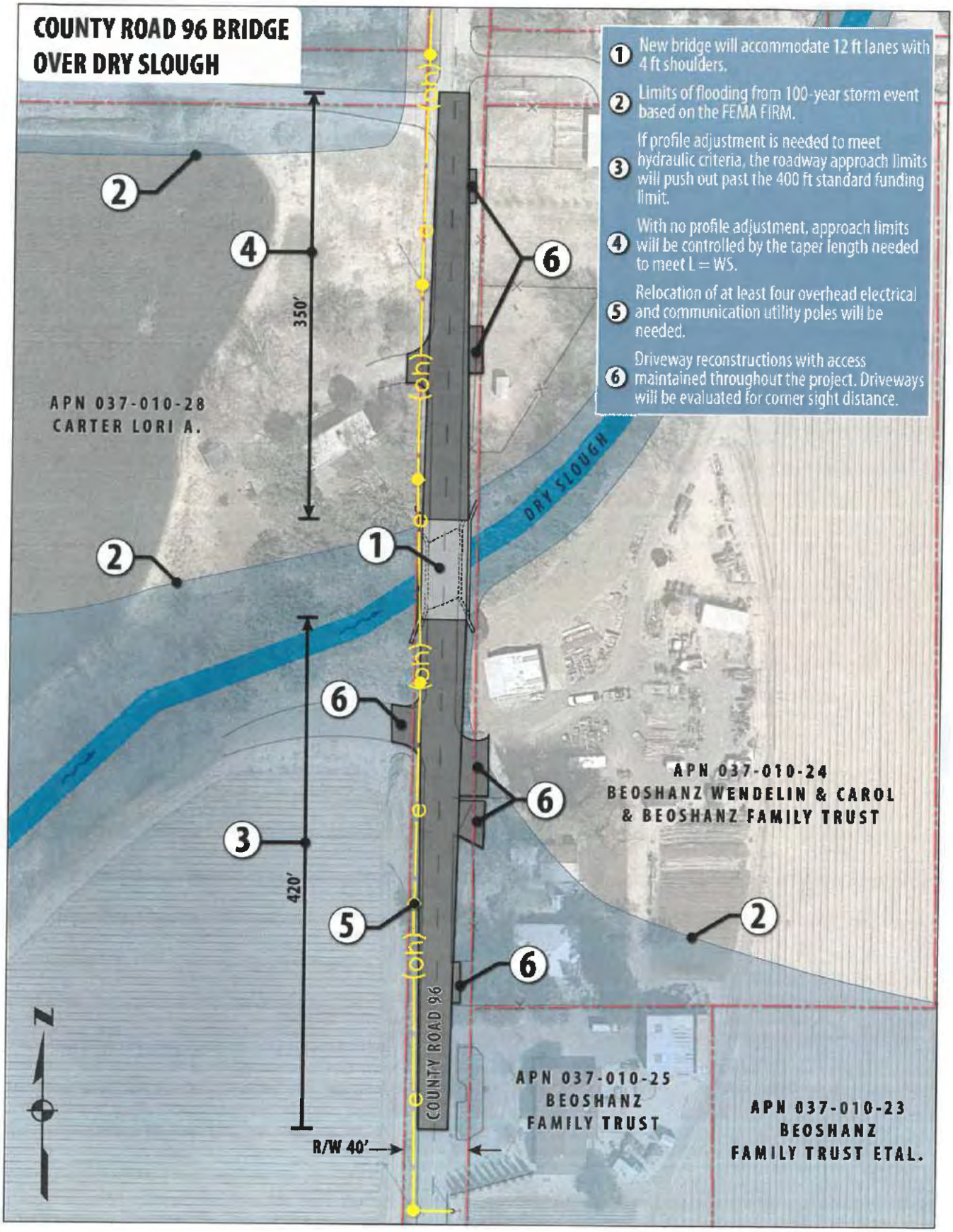
Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services
Taber Since 1954
1100 Corporate Way
Suite 230
Sacramento, CA 95831
(916) 455-4225

CR 96 OVER DRY SLOUGH

YOLO COUNTY, CA

Figure 4
Fault Activity Map

Proj. No: 18-474.2
Scale: 1"=25,000'
Date: 2/20/19


COUNTY ROAD 96 BRIDGE
OVER DRY SLOUGH
1 New bridge will accommodate 12 ft lanes with 4 ft shoulders.
2 Limits of flooding from 100-year storm event based on the FEMA FIRM.
3 If profile adjustment is needed to meet hydraulic criteria, the roadway approach limits will push out past the 400 ft standard funding limit.
4 With no profile adjustment, approach limits will be controlled by the taper length needed to meet L = WS.
5 Relocation of at least four overhead electrical and communication utility poles will be needed.
6 Driveway reconstructions with access maintained throughout the project. Driveways will be evaluated for corner sight distance.
APN 037-010-28
CARTER LORI A.
350'
420'
DRY SLOUGH
APN 037-010-24
BEOSHANZ WENDELIN & CAROL
& BEOSHANZ FAMILY TRUST
COUNTY ROAD 96
APN 037-010-25
BEOSHANZ
FAMILY TRUST
APN 037-010-23
BEOSHANZ
FAMILY TRUST ETAL.
R/W 40'
N

APPENDIX B

GeoSearch Historical Aerial Photographs

Order Number: 144395
Date: April 3, 2020

Historical Aerial Photographs

NEW: *GeoLens by Geosearch*

Target Property:

CR 96 over Dry Slough

Yolo County, California

Prepared For:

Crawford & Associates

Order #: 144395
Job #: 346838
Project #: 18-474.2
Date: 4/3/2020

Target Property Summary

CR 96 over Dry Slough

Yolo County , California

USGS Quadrangle: ***Merritt***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-121.840489000, 38.566706000), (-121.840209000, 38.566704000), (-121.840148000, 38.568899000), (-121.840479000, 38.568886000)

Aerial Research Summary

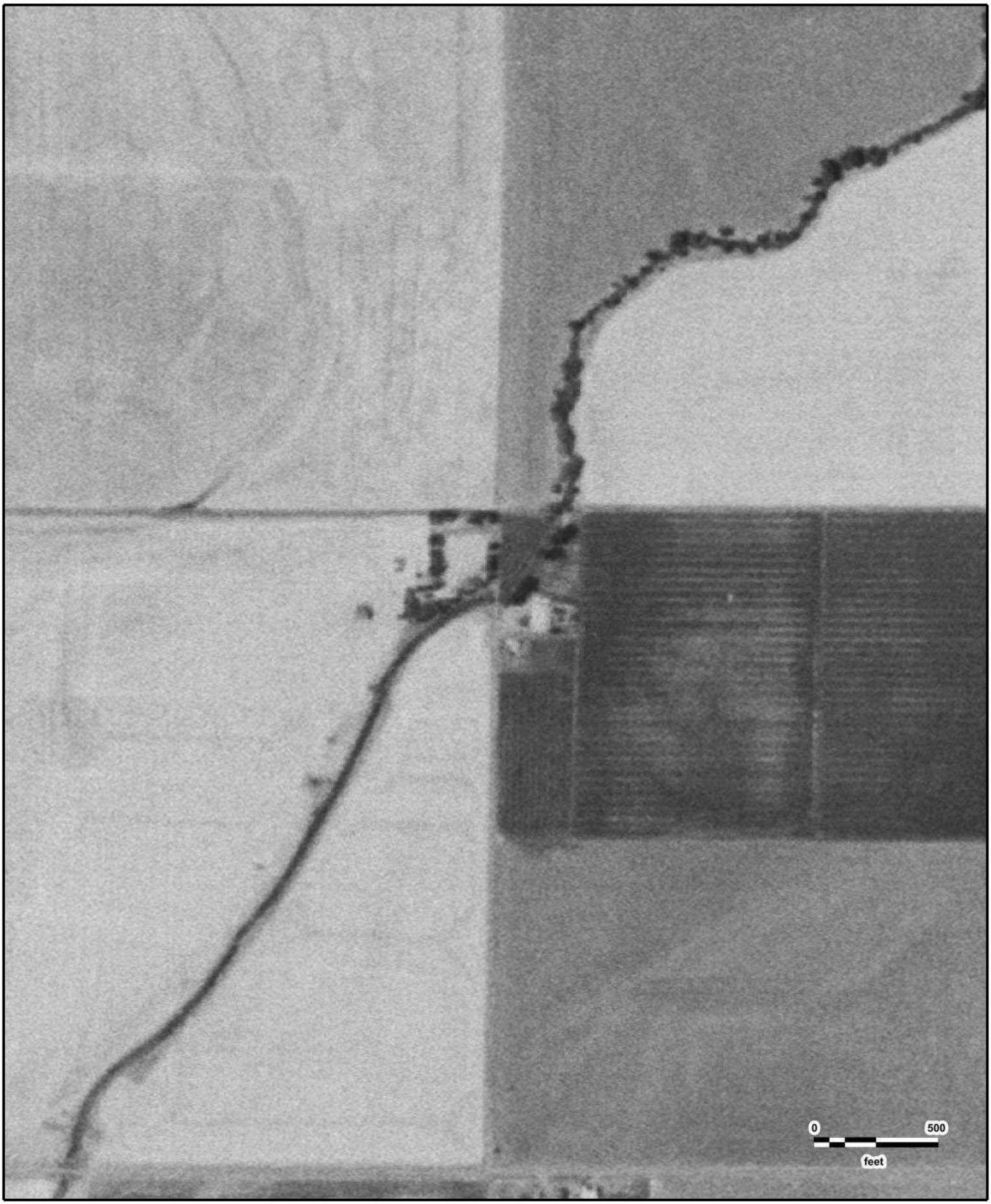
Date	Source	Scale	Frame
2016	USDA	1" = 500'	N/A
2014	USDA	1" = 500'	N/A
2012	USDA	1" = 500'	N/A
2010	USDA	1" = 500'	N/A
2009	USDA	1" = 500'	N/A
2006	USDA	1" = 500'	N/A
2005	USDA	1" = 500'	N/A
2004	USDA	1" = 500'	N/A
2003	USDA	1" = 500'	N/A
06/12/1993	USGS	1" = 500'	N/A
06/08/1984	USGS	1" = 500'	127-15
07/11/1974	USGS	1" = 500'	11-47
05/28/1968	USGS	1" = 500'	6-89
06/18/1964	ASCS	1" = 1320'	PI-6
08/01/1957	ASCS	1" = 500'	47-6
08/03/1954	AMS	1" = 500'	1979
08/28/1937	ASCS	1" = 500'	61-82

N
W E
S

CR 96 over Dry Slough
ASCS
08/28/1937

GeoSearch

JOB #: 346838 - 04/03/2020



N
W E
S

CR 96 over Dry Slough
AMS
08/03/1954

GeoSearch

JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
ASCS
08/01/1957

GeoSearch

JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
ASCS
06/18/1964

GeoSearch

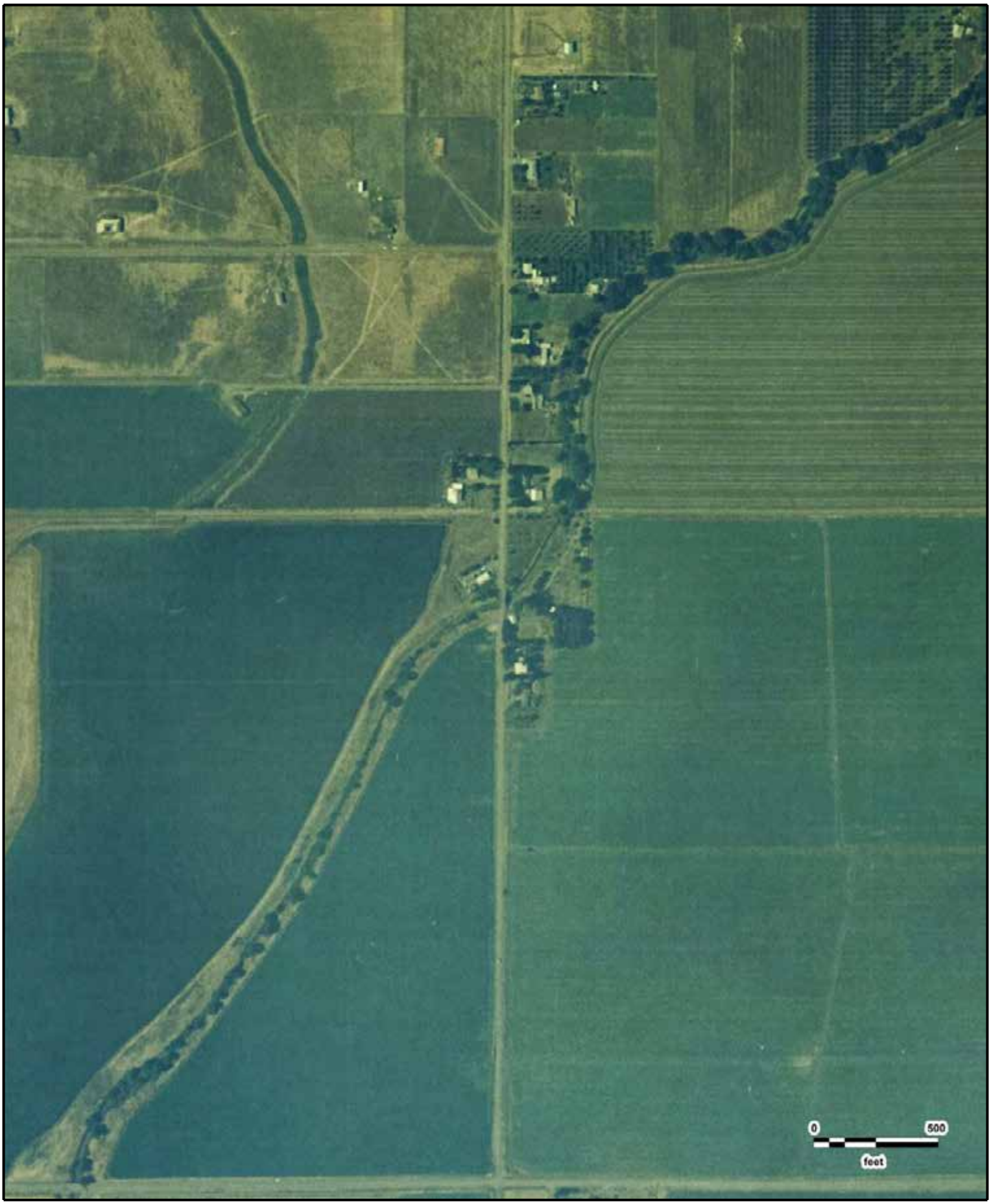
JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USGS
05/28/1968

GeoSearch

JOB #: 346838 - 04/03/2020



N
W E
S

CR 96 over Dry Slough
USGS
07/11/1974

GeoSearch

JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USGS
06/08/1984

GeoSearch

JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USGS
06/12/1993

GeoSearch

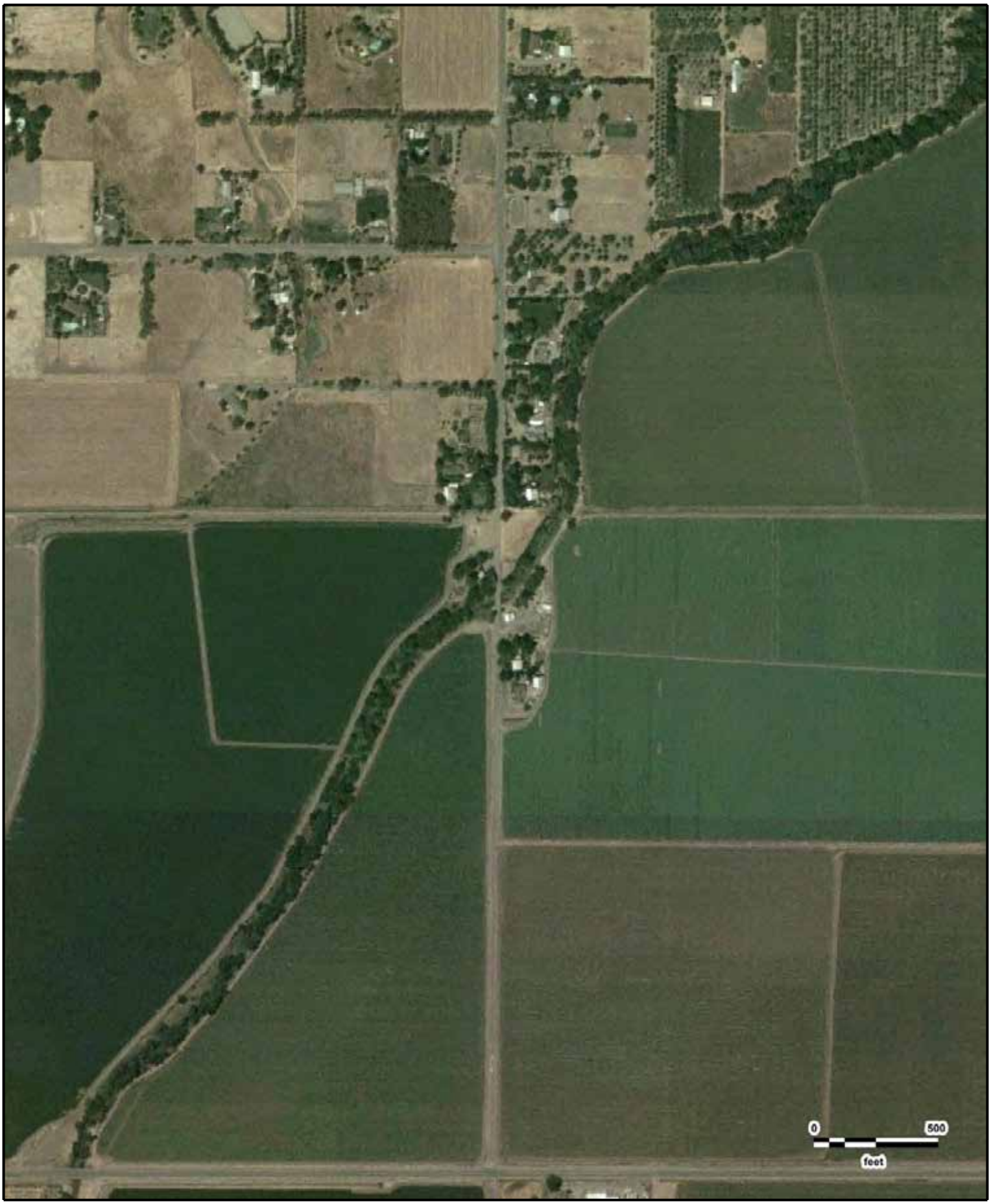
JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USDA
2003

GeoSearch

JOB #: 346838 - 04/03/2020



N
W E
S

CR 96 over Dry Slough
USDA
2004

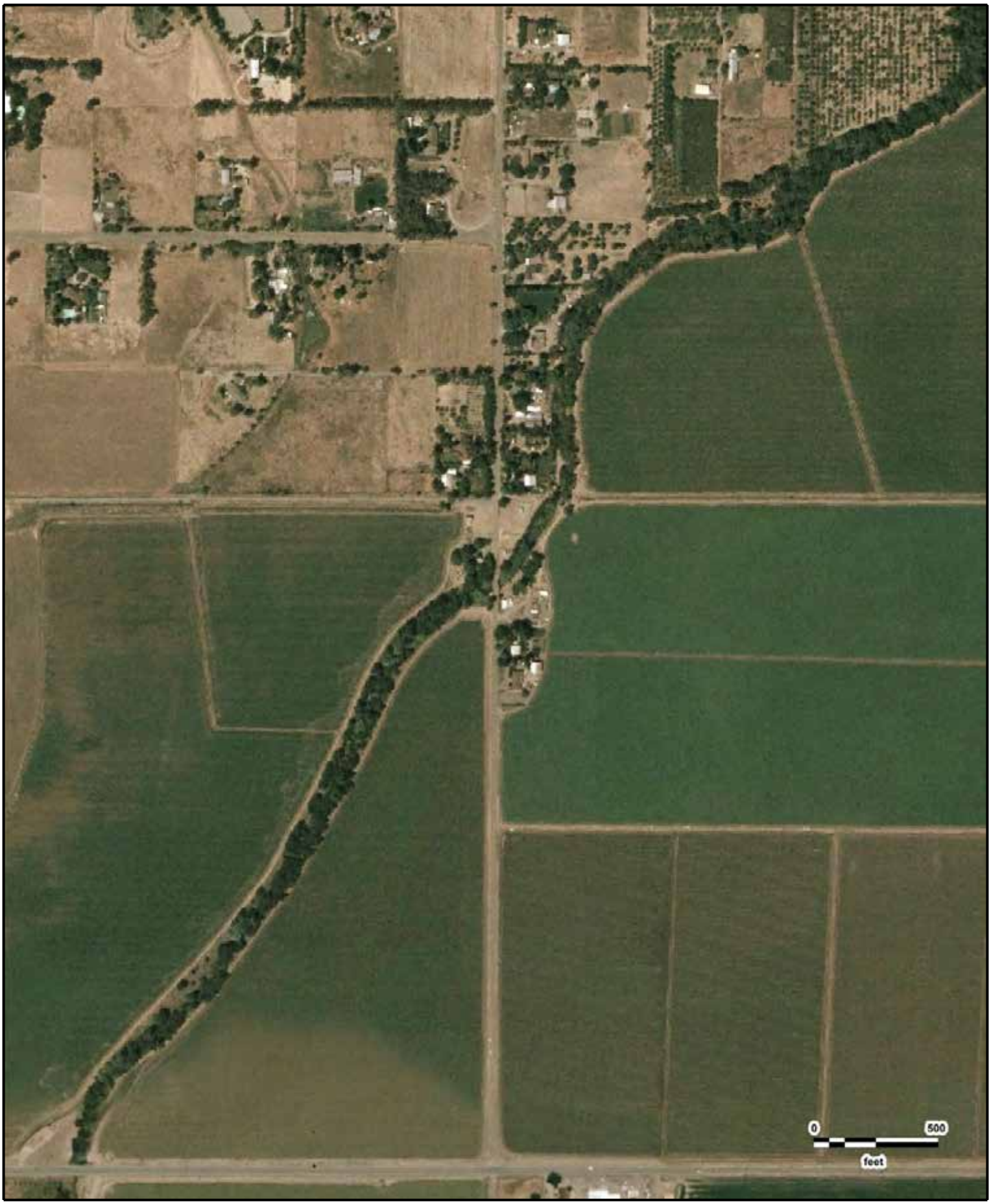
GeoSearch

JOB #: 346838 - 04/03/2020

CR 96 over Dry Slough
USDA
2005

GeoSearch

JOB #: 346838 - 04/03/2020



N
W E
S

CR 96 over Dry Slough
USDA
2006

GeoSearch

JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USDA
2009

GeoSearch

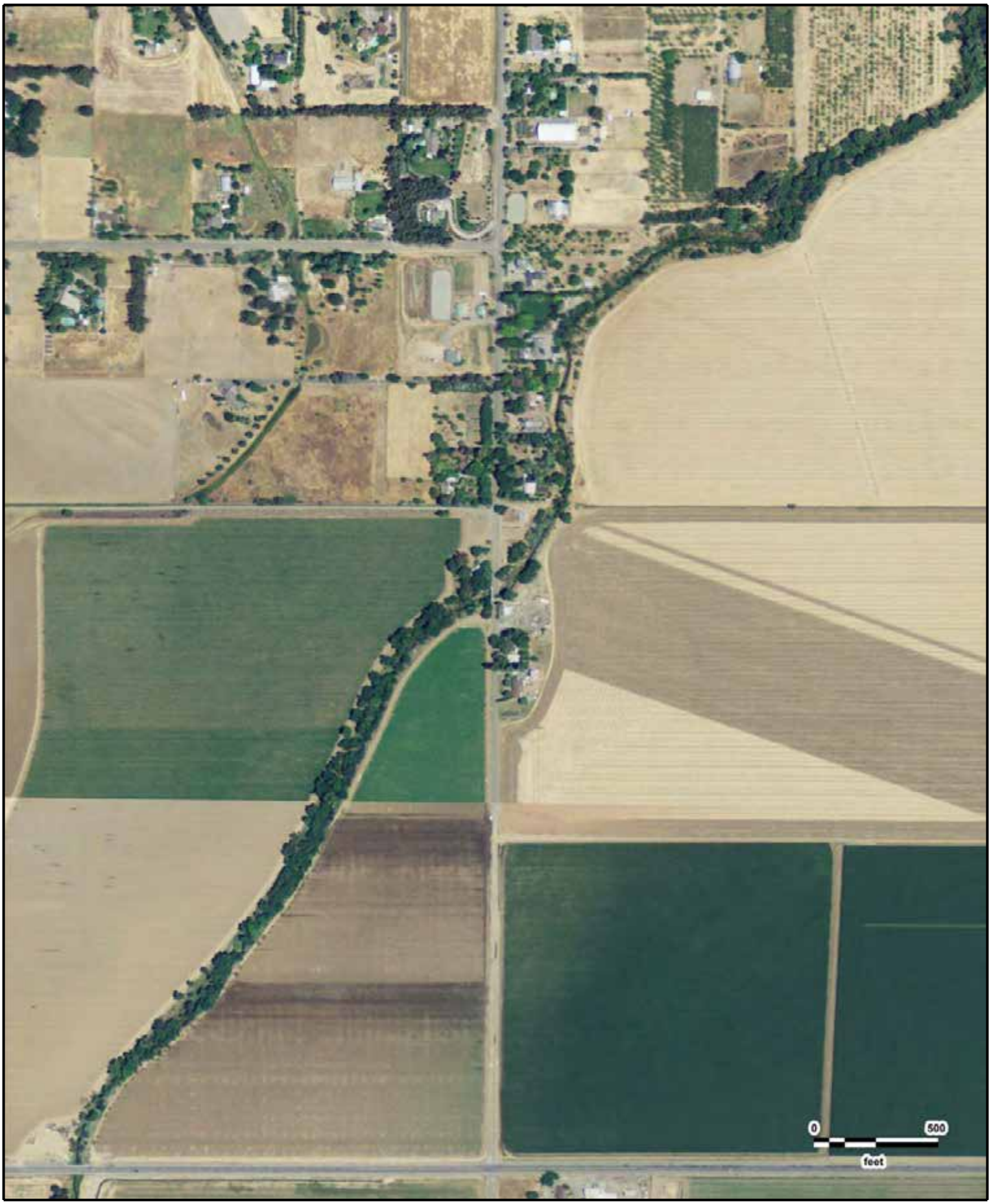
JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USDA
2010

GeoSearch

JOB #: 346838 - 04/03/2020



N
W E
S

CR 96 over Dry Slough
USDA
2012

GeoSearch

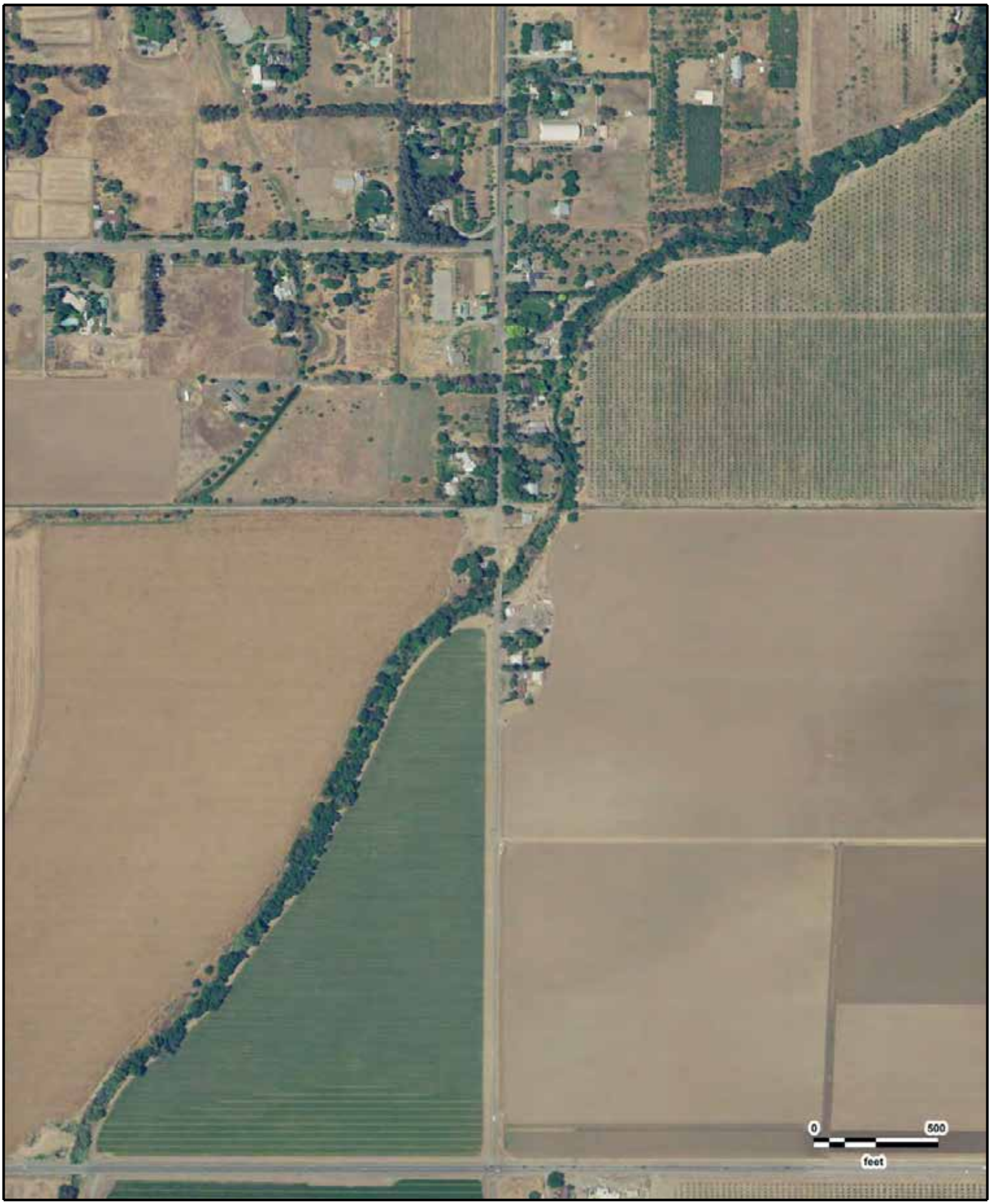
JOB #: 346838 - 04/03/2020

N
W E
S

CR 96 over Dry Slough
USDA
2014

GeoSearch

JOB #: 346838 - 04/03/2020



N
W E
S

CR 96 over Dry Slough
USDA
2016

GeoSearch

JOB #: 346838 - 04/03/2020

APPENDIX C

GeoSearch Historical Topographic Maps

Order Number: 144395
Date: April 2, 2020

Historical Topographic Maps

NEW: *GeoLens by Geosearch*

Target Property:

CR 96 over Dry Slough

Yolo County, California

Prepared For:

Crawford & Associates

Order #: 144395
Job #: 346837
Project #: 18-474.2
Date: 4/2/2020

Target Property Summary

CR 96 over Dry Slough

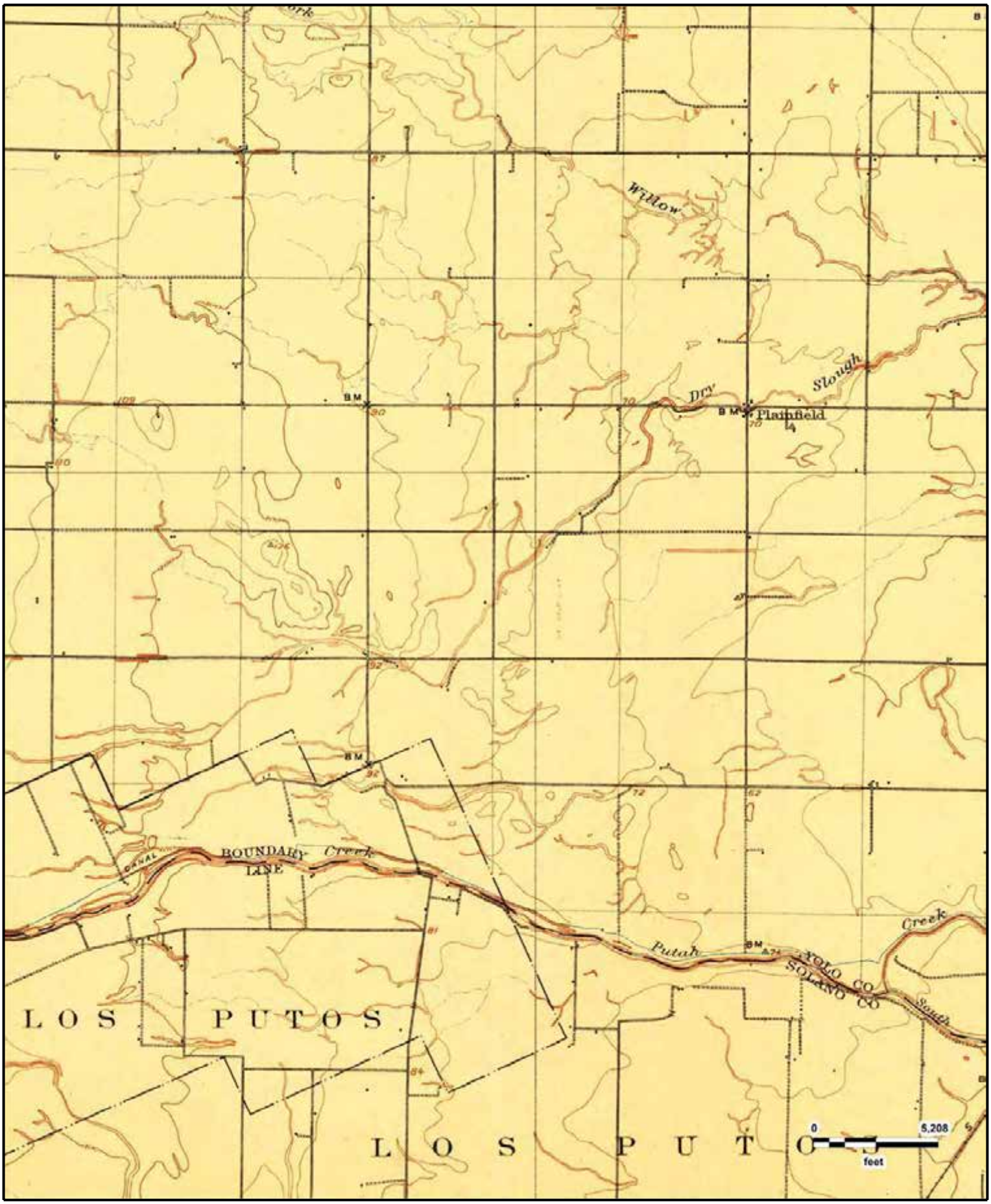
Yolo County, California

USGS Quadrangle: ***Merritt***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-121.840489000, 38.566706000), (-121.840209000, 38.566704000), (-121.840148000, 38.568899000), (-121.840479000, 38.568886000)

Topographic Map Summary

Date	Quadrangle	Scale
2012	**MERRITT, CA**	**1" = 2000'**
1992	**MERRITT, CA**	**1" = 2000'**
1952 PHOTOREVISED 1981	**MERRITT, CA**	**1" = 2000'**
1952 PHOTOREVISED 1975	**MERRITT, CA**	**1" = 2000'**
1952 PHOTOREVISED 1968	**MERRITT, CA**	**1" = 2000'**
1953	**WOODLAND, CA**	**1" = 5208'**
1952	**MERRITT, CA**	**1" = 2000'**
1941	**WOODLAND, CA**	**1" = 5208'**
1915	**MERRITT, CA**	**1" = 2640'**
1907	**WOODLAND, CA**	**1" = 5208'**

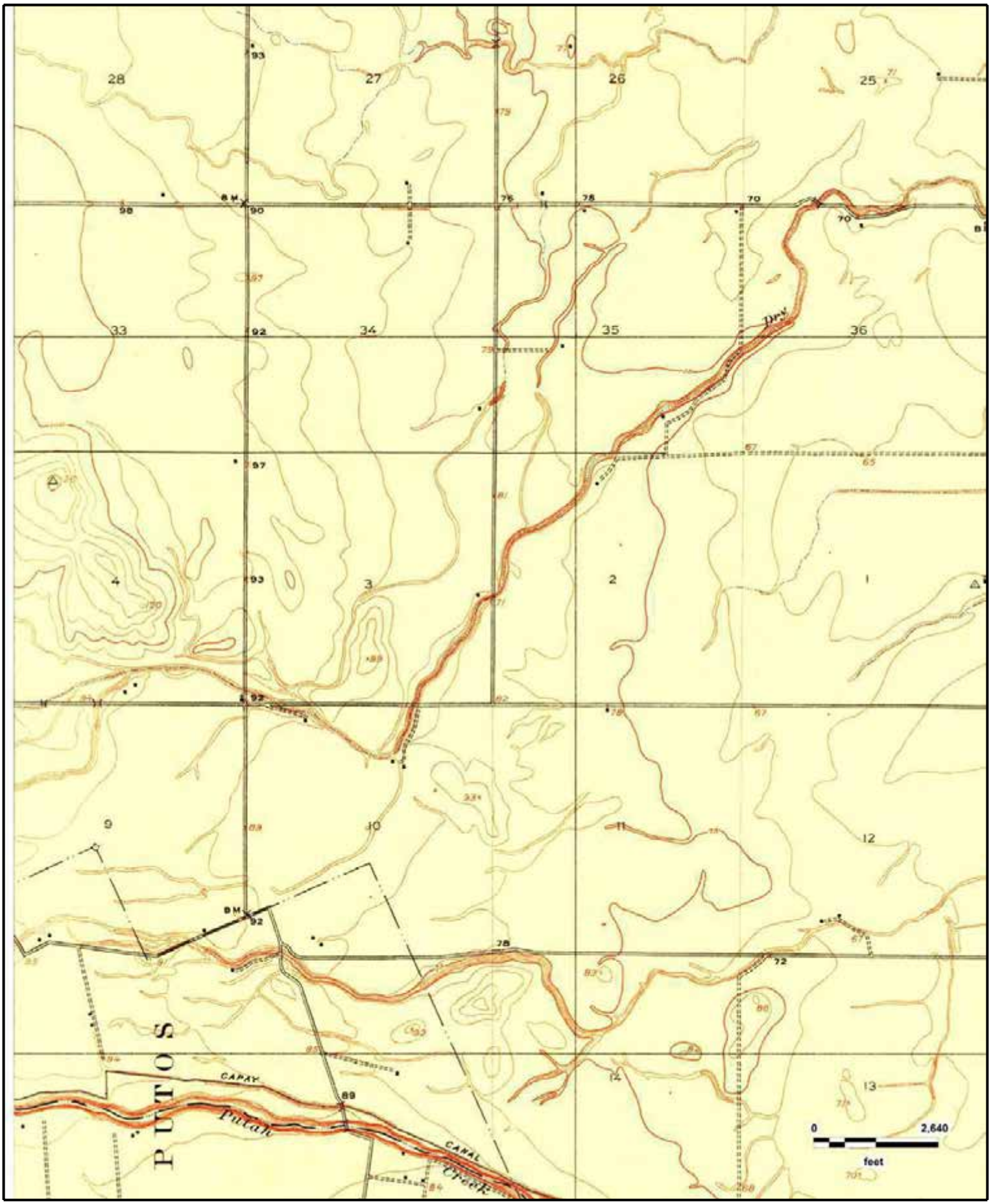


N
W E
S

CR 96 over Dry Slough
WOODLAND, CA (1907)

GeoSearch

JOB #: 346837 - 04/02/2020

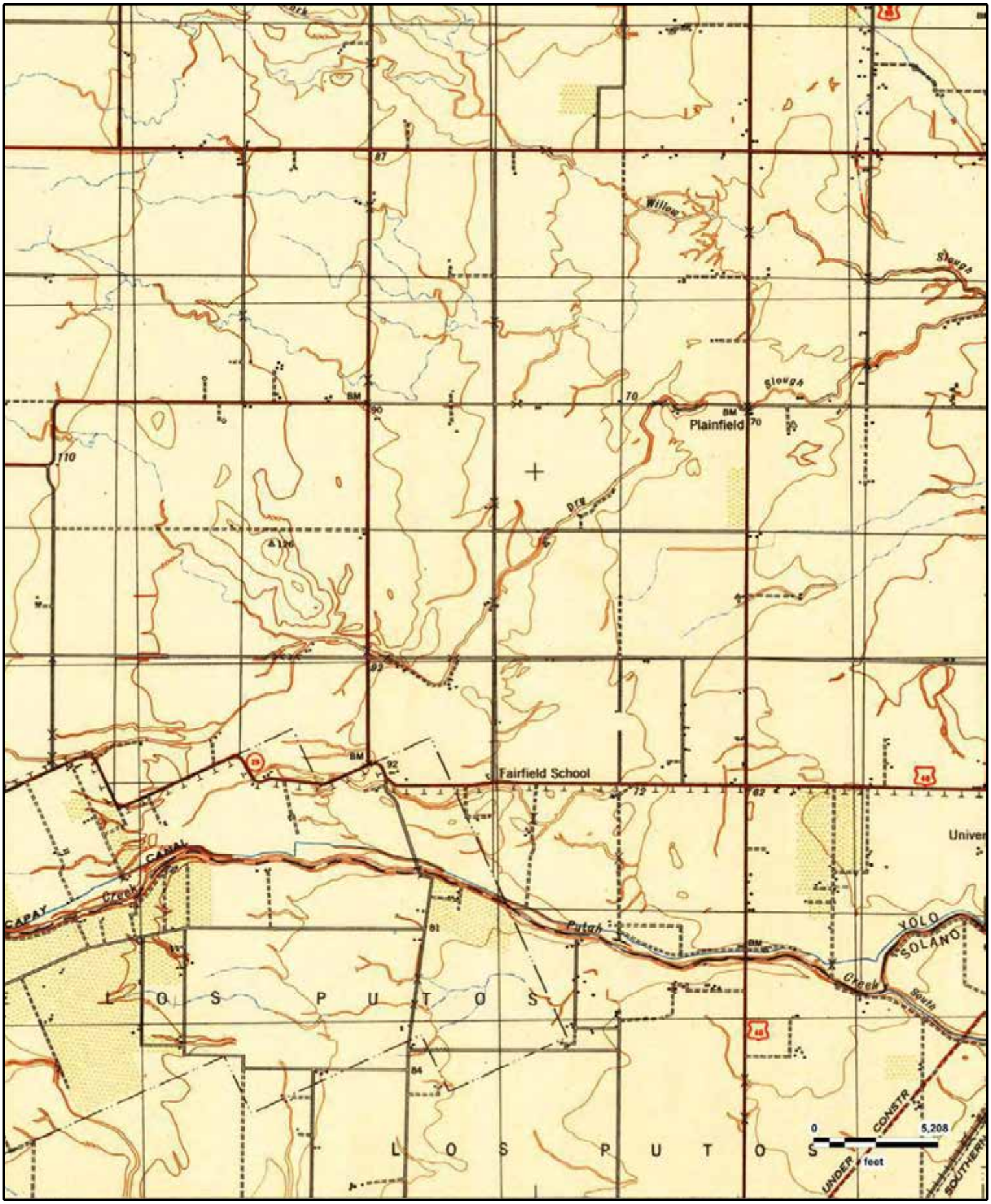


N
W E
S

CR 96 over Dry Slough
MERRITT, CA (1915)

GeoSearch

JOB #: 346837 - 04/02/2020

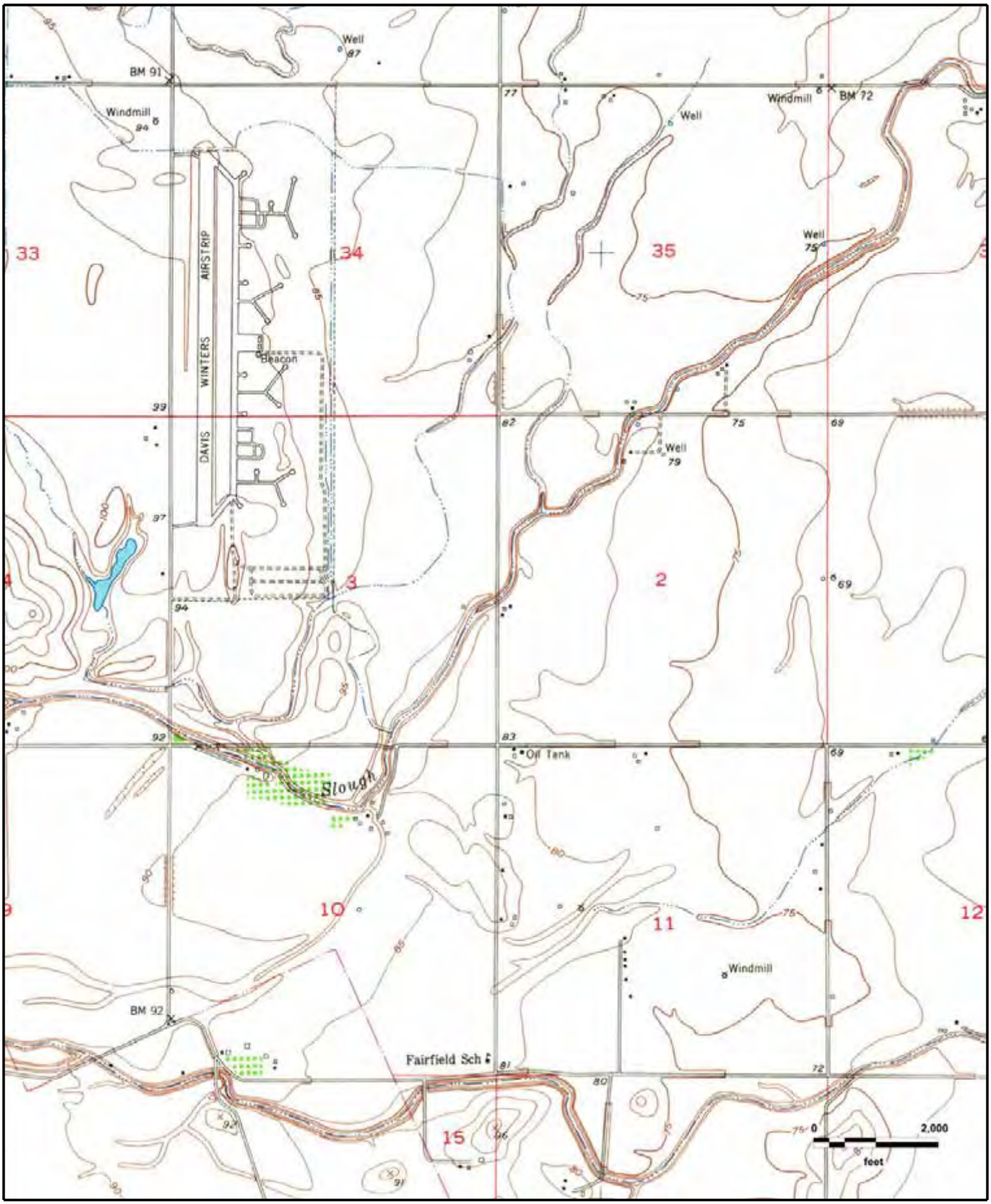


N
W E
S

CR 96 over Dry Slough
WOODLAND, CA (1941)

GeoSearch

JOB #: 346837 - 04/02/2020

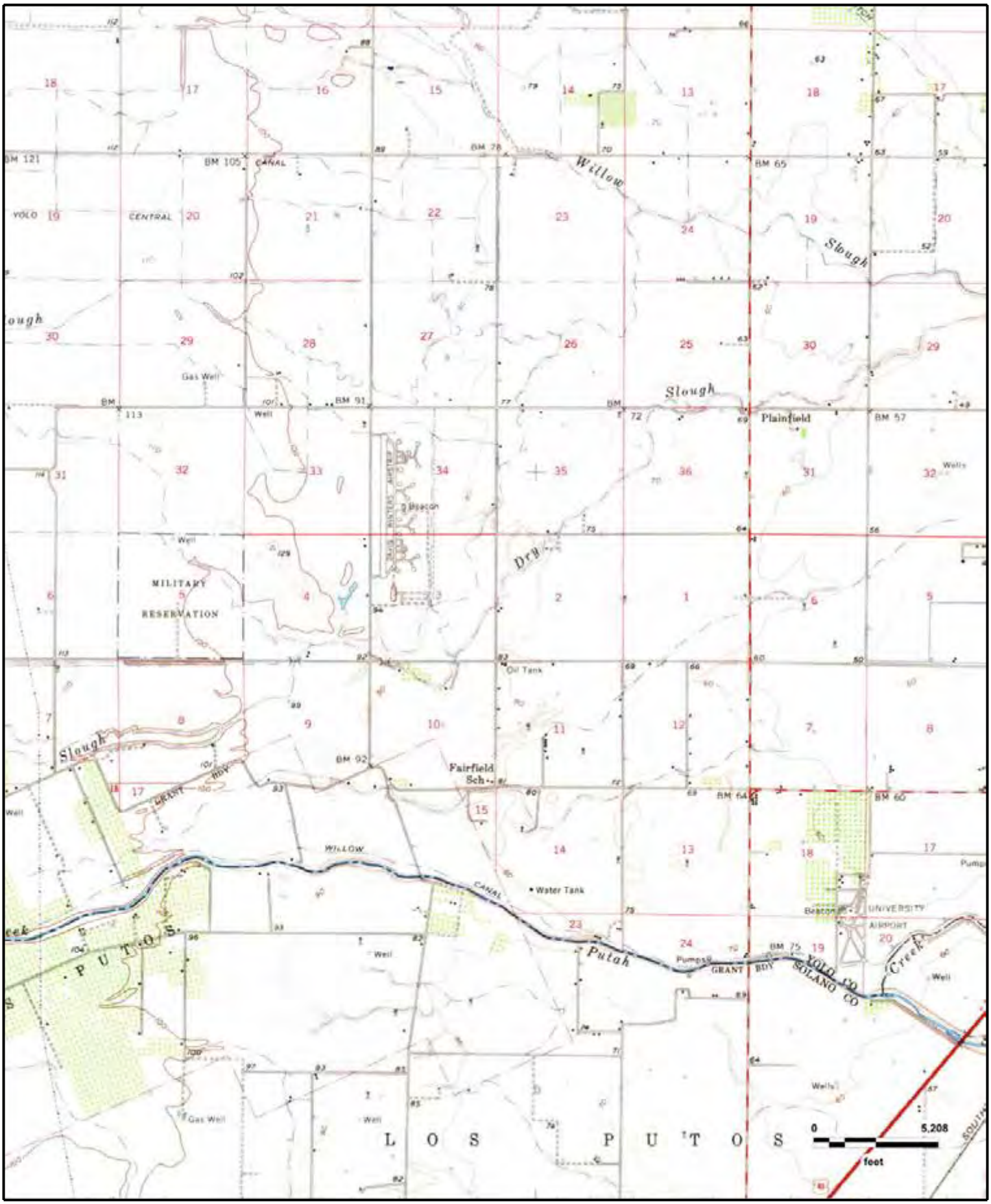


N
W E
S

CR 96 over Dry Slough
MERRITT, CA (1952)

GeoSearch

JOB #: 346837 - 04/02/2020

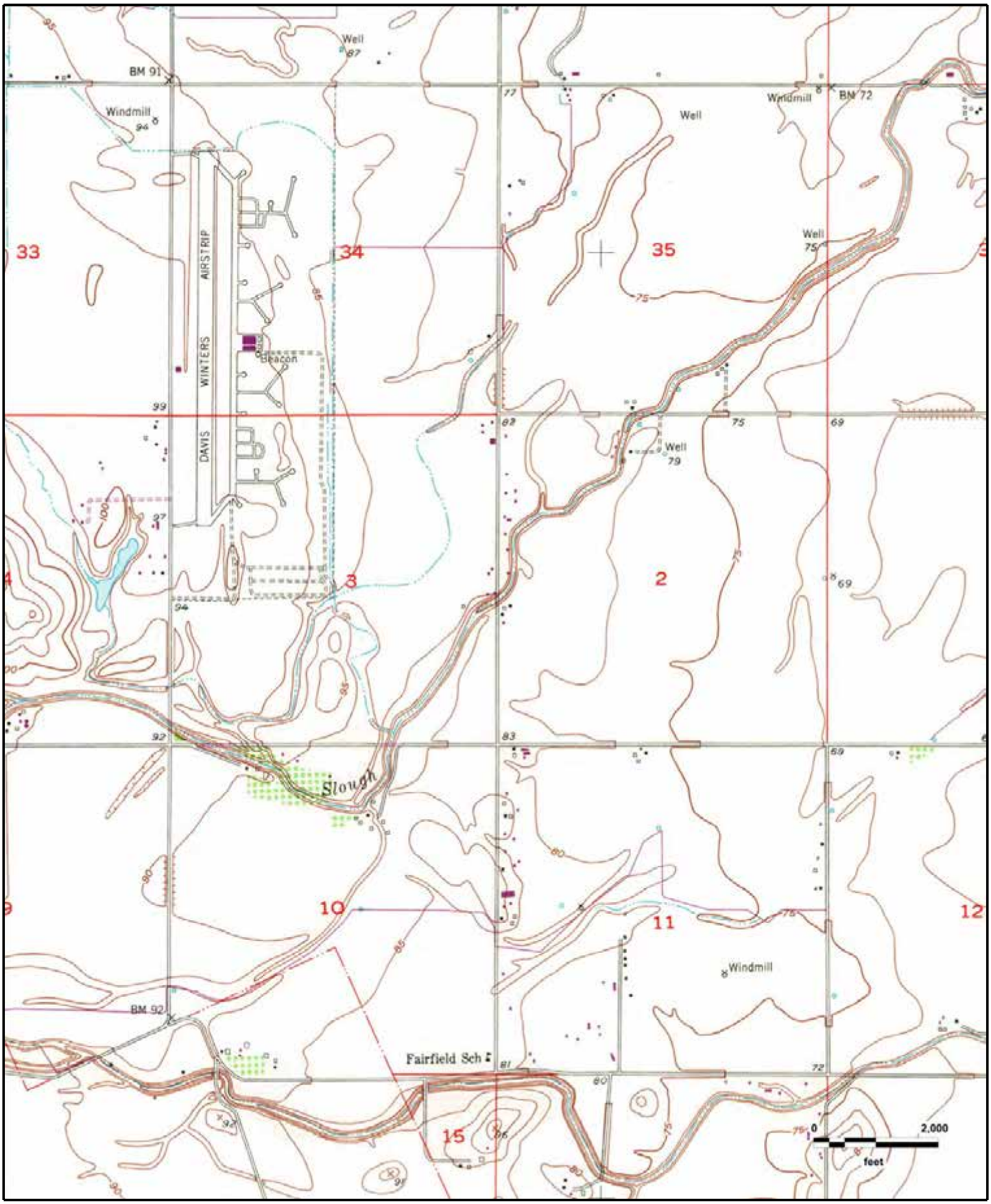


N
W E
S

CR 96 over Dry Slough
WOODLAND, CA (1953)

GeoSearch

JOB #: 346837 - 04/02/2020

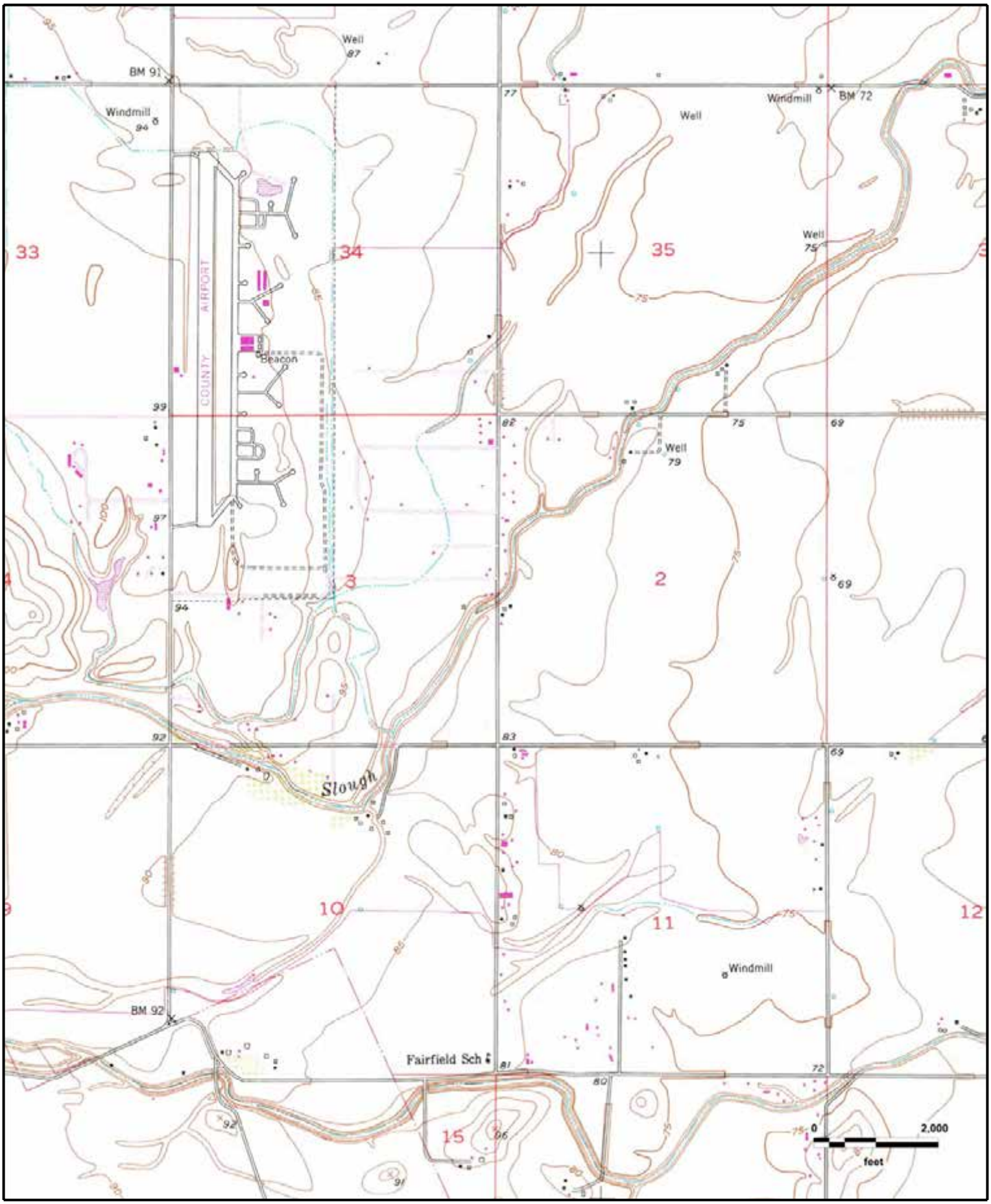


N
W E
S

CR 96 over Dry Slough
MERRITT, CA (1968)

GeoSearch

JOB #: 346837 - 04/02/2020

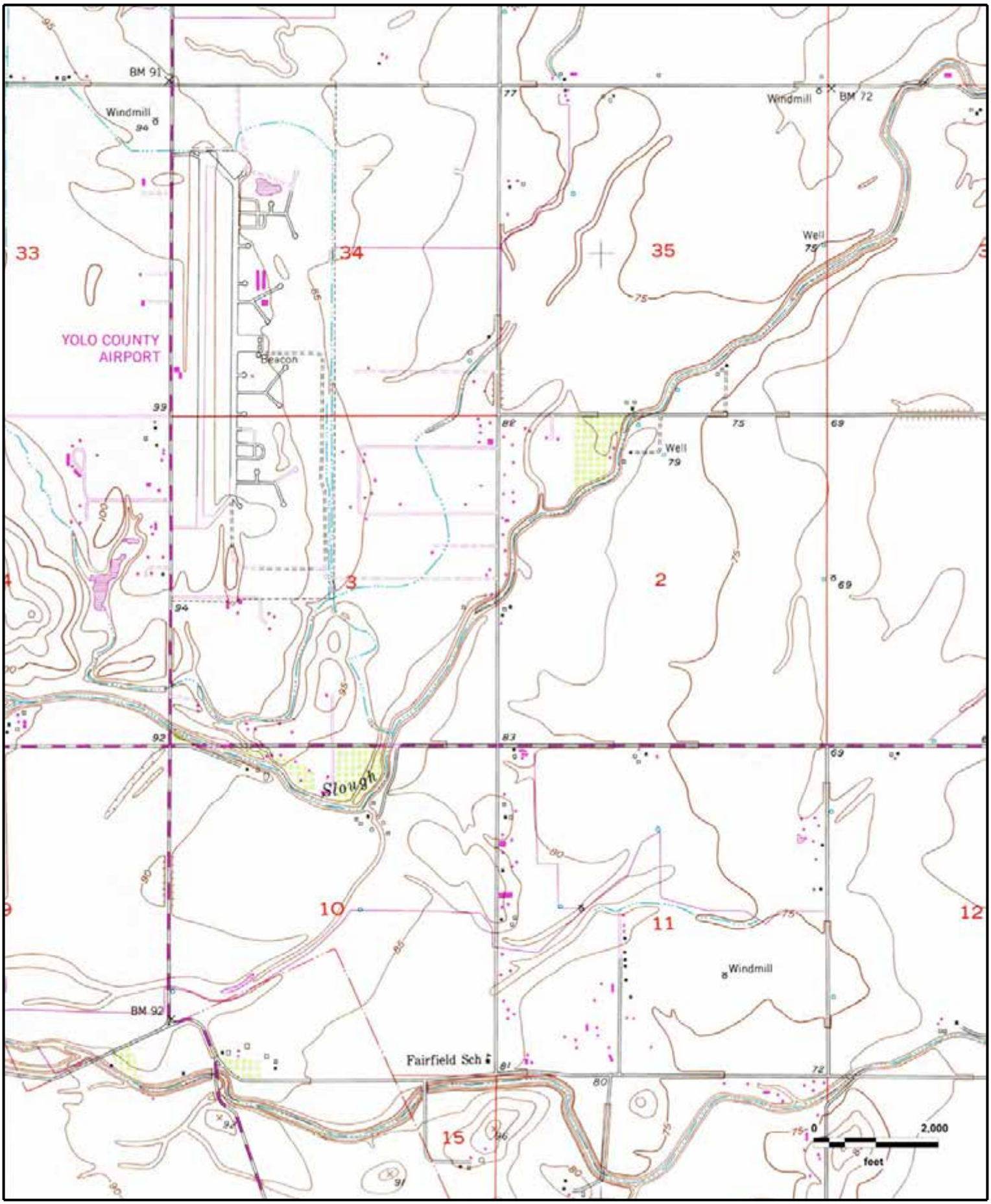


N
W E
S

CR 96 over Dry Slough
MERRITT, CA (1975)

GeoSearch

JOB #: 346837 - 04/02/2020

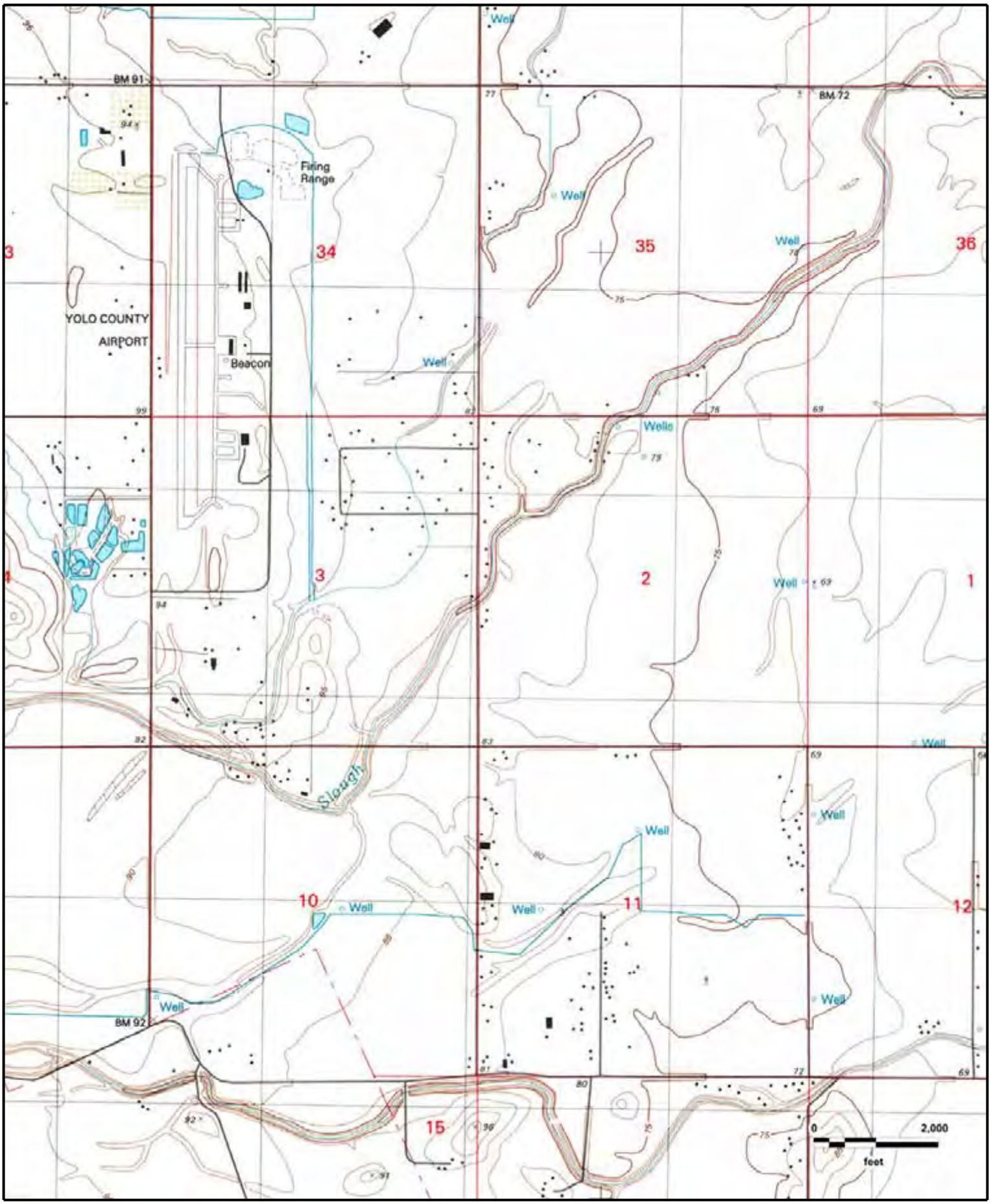


N
W E
S

CR 96 over Dry Slough
MERRITT, CA (1981)

GeoSearch

JOB #: 346837 - 04/02/2020

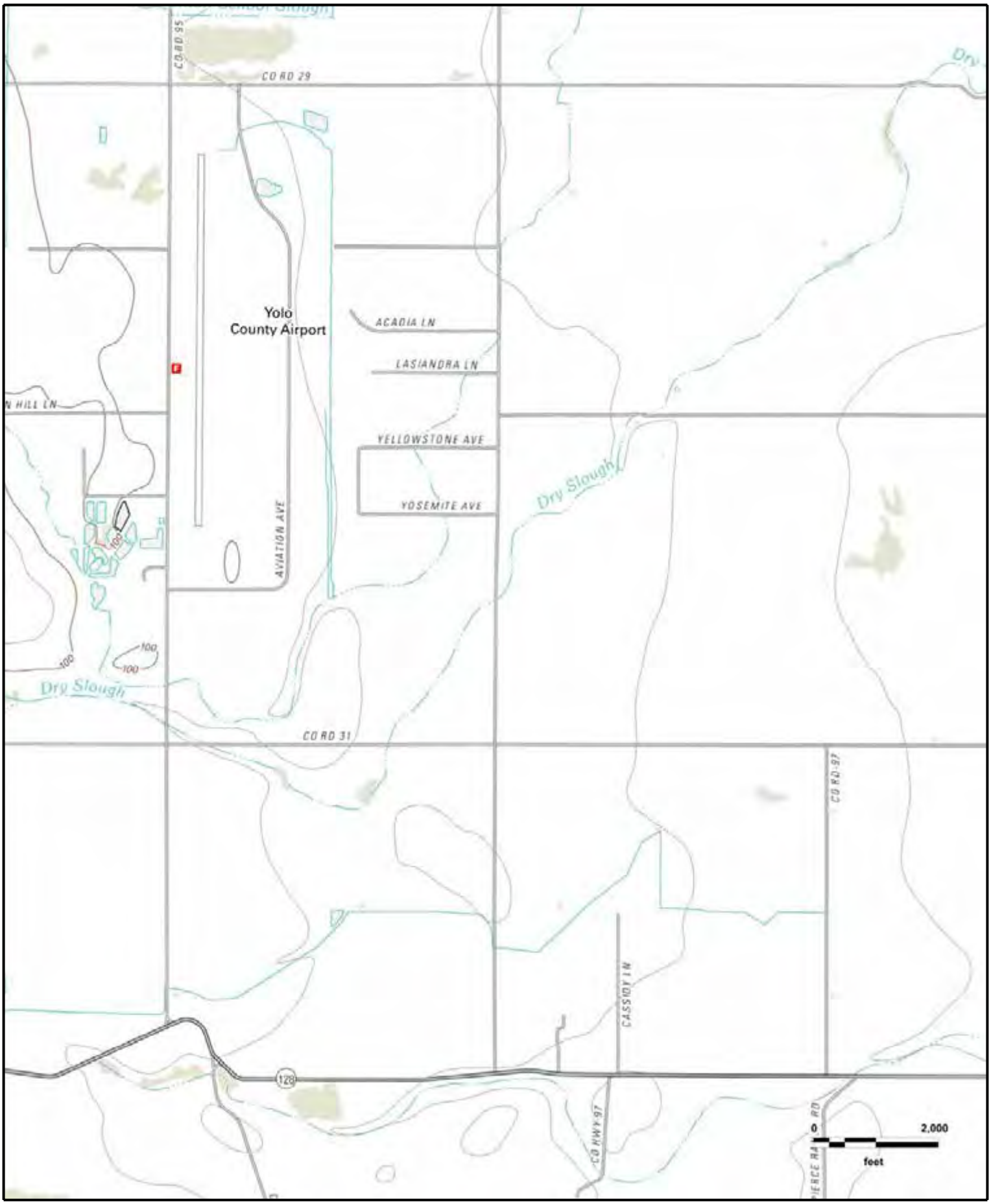


N
W E
S

CR 96 over Dry Slough
MERRITT, CA (1992)

GeoSearch

JOB #: 346837 - 04/02/2020



N
W E
S

CR 96 over Dry Slough
MERRITT, CA (2012)

GeoSearch

JOB #: 346837 - 04/02/2020

APPENDIX D

GeoSearch Radius Report

Order Number: 144395
Date: April 2, 2020

Radius Report

GeoLens by GeoSearch

Target Property:

CR 96 over Dry Slough
Yolo County, California

Prepared For:

Crawford & Associates

Order #: 144395
Job #: 346836
Project #: 18-474.2
Date: 04/02/2020

Table of Contents

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR ï¿½312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR ï¿½312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

The information provided in this report was obtained from a variety of public sources. GeoSearch cannot ensure and makes no warranty or representation as to the accuracy, reliability, quality, errors occurring from data conversion or the customer's interpretation of this report. This report was made by GeoSearch for exclusive use by its clients only. Therefore, this report may not contain sufficient information for other purposes or parties. GeoSearch and its partners, employees, officers And independent contractors cannot be held liable For actual, incidental, consequential, special or exemplary damages suffered by a customer resulting directly or indirectly from any information provided by GeoSearch.

Target Property Summary

Target Property Information

CR 96 over Dry Slough
Yolo County, California

Coordinates
Area centroid (-121.84033, 38.5678290)
86 feet above sea level

USGS Quadrangle
Merritt, CA

Geographic Coverage Information

County/Parish: Yolo (CA)
ZipCode(s):
Davis CA: 95616
Woodland CA: 95695

Database Summary

FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSCA	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR09	1	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON-GENERATOR	RCRANGR09	1	0	0.1250
BROWNFIELDS MANAGEMENT SYSTEM	BF	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	RCRAT	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	SEMS	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	SEMSARCH	0	0	0.5000
NATIONAL PRIORITIES LIST	NPL	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	RCRASUBC	0	0	1.0000

SUB-TOTAL		2	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	AIRSAFS	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	BRS	0	0	TP/AP
CERCLIS LIENS	SFLIENS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR09	2	0	TP/AP
FACILITY REGISTRY SYSTEM	FRSCA	3	0	TP/AP

Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR09	0	0	TP/AP
HAZARDOUS WASTE COMPLIANCE DOCKET FACILITIES	HWCD	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	ICISNPDES	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	MLTS	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR09	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	PADS	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR09	0	0	TP/AP
SEMS LIEN ON PROPERTY	SEMSLIENS	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	SSTS	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	TP/AP
TOXICS RELEASE INVENTORY	TRI	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	ALTFUELS	0	0	0.2500
FEMA OWNED STORAGE TANKS	FEMAUST	0	0	0.2500
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	MSHA	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	MRDS	0	0	0.2500
OPEN DUMP INVENTORY	ODI	0	0	0.5000
SURFACE MINING CONTROL AND RECLAMATION ACT SITES	SMCRA	0	0	0.5000
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	USUMTRCA	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMER MILITARY NIKE MISSILE SITES	NMS	0	0	1.0000
FORMERLY USED DEFENSE SITES	FUDS	1	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	FUSRAP	0	0	1.0000
RECORD OF DECISION SYSTEM	RODS	0	0	1.0000

SUB-TOTAL		6	0	

Database Summary

STATE (CA) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
DTSC DEED RESTRICTIONS	DTSCDR	0	0	TP/AP
ABOVE GROUND STORAGE TANKS	ABST	0	0	0.2500
ABOVEGROUND STORAGE TANKS PRIOR TO JANUARY 2008	AST2007	0	0	0.2500
HISTORICAL UNDERGROUND STORAGE TANKS	HISTUST	0	1	0.2500
STATEWIDE ENVIRONMENTAL EVALUATION AND PLANNING SYSTEM	SWEEPS	0	0	0.2500
UNDERGROUND STORAGE TANKS	USTCUPA	0	0	0.2500
BROWNFIELD SITES	BF	0	0	0.5000
CALSITES DATABASE	CALSITES	0	0	0.5000
GEOTRACKER CLEANUP SITES	CLEANUPSITES	1	2	0.5000
LEAKING UNDERGROUND STORAGE TANKS	LUST	1	0	0.5000
SOLID WASTE INFORMATION SYSTEM SITES	SWIS	0	0	0.5000
VOLUNTARY CLEANUP PROGRAM	VCP	0	0	0.5000
ENVIROSTOR CLEANUP SITES	ENVIROSTOR	0	0	1.0000
ENVIROSTOR PERMITTED AND CORRECTIVE ACTION SITES	ENVIROSTORPCA	0	0	1.0000

SUB-TOTAL		2	3	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CALIFORNIA HAZARDOUS MATERIAL INCIDENT REPORT SYSTEM	CHMIRS	0	0	TP/AP
CLANDESTINE DRUG LABS	CDL	0	0	TP/AP
EMISSIONS INVENTORY DATA	EMI	0	0	TP/AP
HAZARDOUS WASTE TANNER SUMMARY	HWTS	0	0	TP/AP
LAND DISPOSAL SITES	LDS	0	0	TP/AP
MILITARY CLEANUP SITES	MCS	1	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM FACILITIES	NPDES	0	0	TP/AP
RECORDED ENVIRONMENTAL CLEANUP LIENS	LIENS	0	0	TP/AP
CALIFORNIA MEDICAL WASTE MANAGEMENT PROGRAM FACILITY LIST	MWMP	0	0	0.2500
DTSC REGISTERED HAZARDOUS WASTE TRANSPORTERS	DTSCHWT	0	0	0.2500
DRY CLEANER FACILITIES	CLEANER	0	0	0.2500
MINES LISTING	MINES	0	0	0.2500

Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
SPILLS, LEAKS, INVESTIGATION & CLEANUP RECOVERY LISTING	SLIC	0	2	0.2500
CORTESE LIST	CORTESE	0	0	0.5000
EXPEDITED REMOVAL ACTION PROGRAM SITES	ERAP	0	0	0.5000
HISTORICAL CORTESE LIST	HISTCORTESE	0	0	0.5000
LISTING OF CERTIFIED DROPOFF, COLLECTION, AND COMMUNITY SERVICE PROGRAMS	DROP	0	0	0.5000
LISTING OF CERTIFIED PROCESSORS	PROC	0	0	0.5000
NO FURTHER ACTION DETERMINATION	NFA	0	0	0.5000
RECYCLING CENTERS	SWRCY	0	0	0.5000
REFERRED TO ANOTHER LOCAL OR STATE AGENCY	REF	0	0	0.5000
SITES NEEDING FURTHER EVALUATION	NFE	0	0	0.5000
WASTE MANAGEMENT UNIT DATABASE	WMUDS	0	1	0.5000
TOXIC PITS CLEANUP ACT SITES	TOXPITS	0	0	1.0000
SUB-TOTAL		1	3	

Database Summary

LOCAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
YOLO COUNTY UNDERGROUND STORAGE TANKS	YCUST	0	0	0.2500
YOLO COUNTY LEAKING STORAGE TANKS	YCLST	2	0	0.5000

SUB-TOTAL		2	0	

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR09	0	0	0.2500
ILLEGAL DUMP SITES ON THE TORRES MARTINEZ RESERVATION	TORRESDUMPSITES	0	0	0.5000
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR09	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	1.0000
SUB-TOTAL		0	0	

TOTAL		13	6	

Database Radius Summary

FEDERAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
ECHOR09	0.0200	2	NS	NS	NS	NS	NS	2
ERNSCA	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
FRSCA	0.0200	3	NS	NS	NS	NS	NS	3
HMIRSR09	0.0200	0	NS	NS	NS	NS	NS	0
HWCD	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR09	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR09	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR09	**0.1250**	**1**	**0**	**NS**	**NS**	**NS**	**NS**	**1**
RCRANGR09	**0.1250**	**0**	**1**	**NS**	**NS**	**NS**	**NS**	**1**
ALTFUELS	0.2500	0	0	0	NS	NS	NS	0
FEMAUST	0.2500	0	0	0	NS	NS	NS	0
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
DNPL	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
NLRRCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODI	0.5000	0	0	0	0	NS	NS	0

Database Radius Summary

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
RCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMSARCH	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SMCRA	0.5000	0	0	0	0	NS	NS	0
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	1	0	0	0	0	NS	1
FUSRAP	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
NMS	1.0000	0	0	0	0	0	NS	0
NPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
PNPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRASUBC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RODS	1.0000	0	0	0	0	0	NS	0

SUB-TOTAL		7	1	0	0	0	0	8

STATE (CA) LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
CDL	0.0200	0	NS	NS	NS	NS	NS	0
CHMIRS	0.0200	0	NS	NS	NS	NS	NS	0
DTSCDR	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
EMI	0.0200	0	NS	NS	NS	NS	NS	0
HWTS	0.0200	0	NS	NS	NS	NS	NS	0
LDS	0.0200	0	NS	NS	NS	NS	NS	0
LIENS	0.0200	0	NS	NS	NS	NS	NS	0
MCS	0.0200	1	NS	NS	NS	NS	NS	1
NPDES	0.0200	0	NS	NS	NS	NS	NS	0
ABST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
AST2007	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
CLEANER	0.2500	0	0	0	NS	NS	NS	0
DTSCHWT	0.2500	0	0	0	NS	NS	NS	0
HISTUST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
MINES	0.2500	0	0	0	NS	NS	NS	0
MWMP	0.2500	0	0	0	NS	NS	NS	0
SLIC	0.2500	0	0	0	NS	NS	NS	0
SWEEPS	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
USTCUPA	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
BF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
CALSITES	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
CLEANUPSITES	**0.5000**	**0**	**0**	**0**	**1**	**NS**	**NS**	**1**
CORTESE	0.5000	0	0	0	0	NS	NS	0
DROP	0.5000	0	0	0	0	NS	NS	0
ERAP	0.5000	0	0	0	0	NS	NS	0
HISTCORTESE	0.5000	0	0	0	0	NS	NS	0
LUST	**0.5000**	**1**	**0**	**0**	**0**	**NS**	**NS**	**1**
NFA	0.5000	0	0	0	0	NS	NS	0
NFE	0.5000	0	0	0	0	NS	NS	0
PROC	0.5000	0	0	0	0	NS	NS	0
REF	0.5000	0	0	0	0	NS	NS	0
SWIS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SWRCY	0.5000	0	0	0	0	NS	NS	0
VCP	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
WMUDS	0.5000	0	0	0	0	NS	NS	0

Database Radius Summary

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
ENVIROSTOR	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
ENVIROSTORPCA	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
TOXPITS	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		2	0	0	1	0	0	3

Database Radius Summary

LOCAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
YCUST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
YCLST	**0.5000**	**2**	**0**	**0**	**0**	**NS**	**NS**	**2**
SUB-TOTAL		2	0	0	0	0	0	2

Database Radius Summary

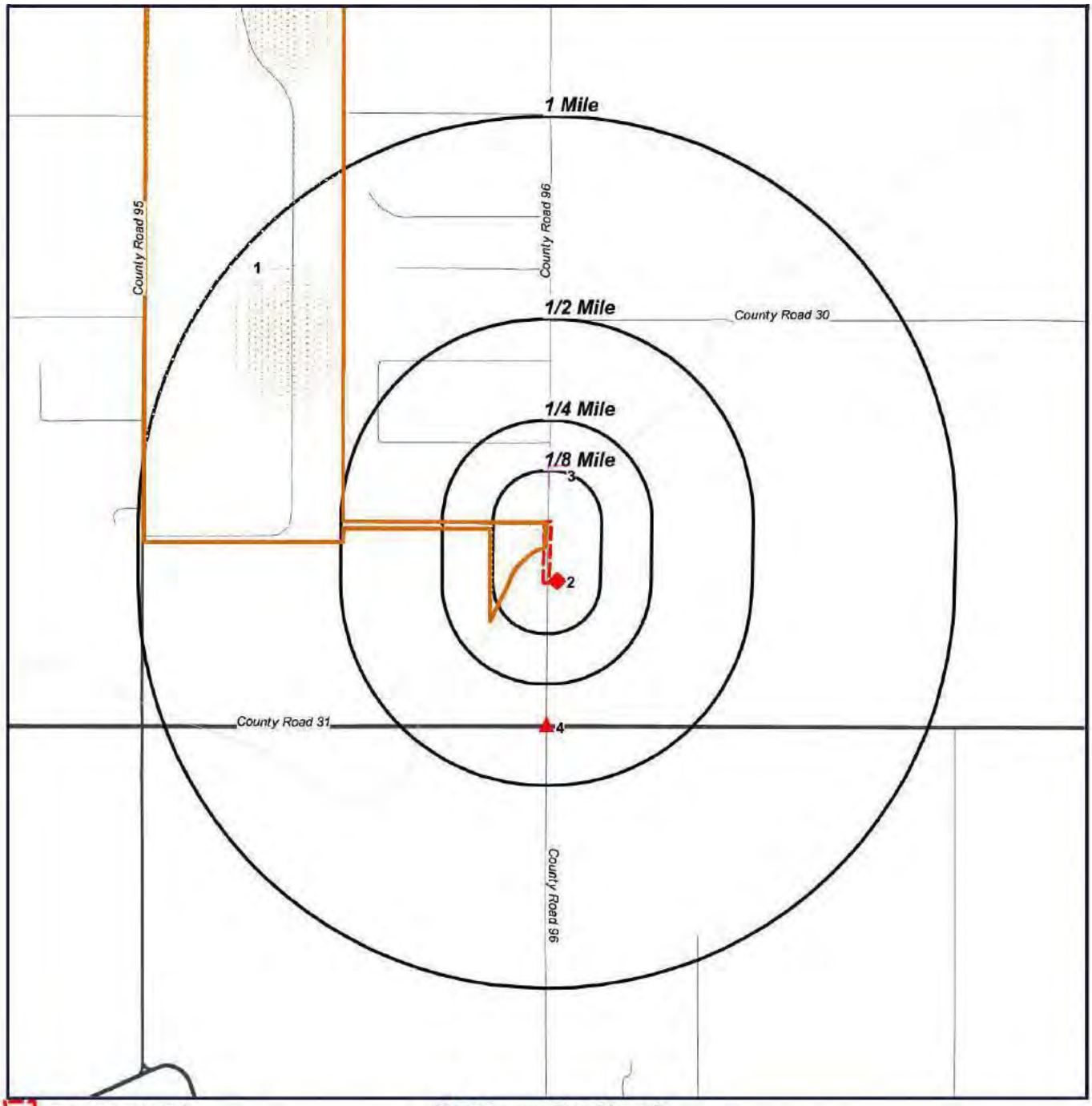
TRIBAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR09	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
LUSTR09	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODINDIAN	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
TORRESDUMPSITES	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0
TOTAL		11	1	0	1	0	0	13

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Radius Map 1



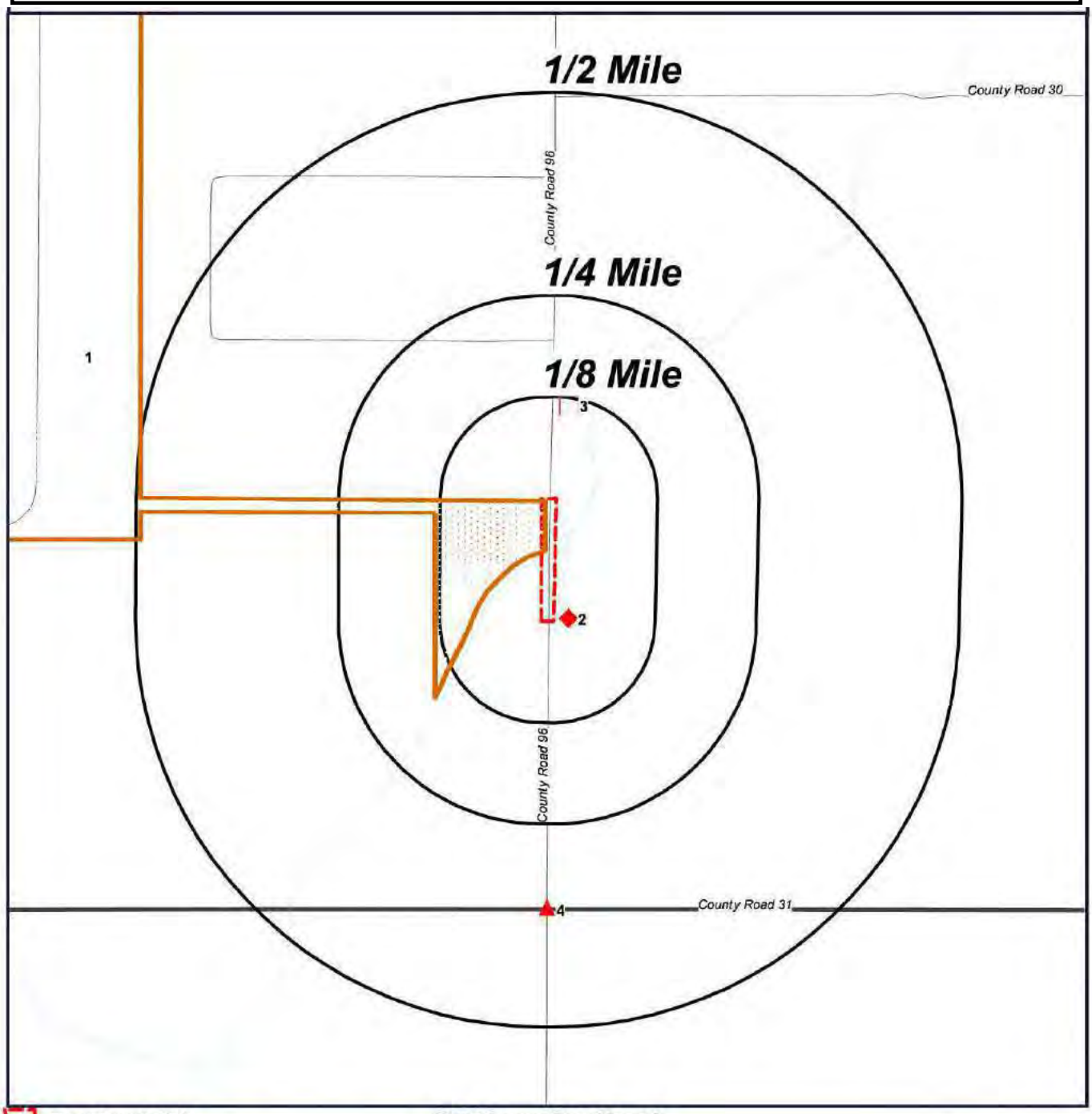
Target Property (TP)
LUST
FUDS
FRSCA
RCRAGR09
ECHOR09
MCS
YCLST
YCLST
RCRANGR09
CLEANUPSITES

CR 96 over Dry Slough
County, California

N
W
E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

Radius Map 2



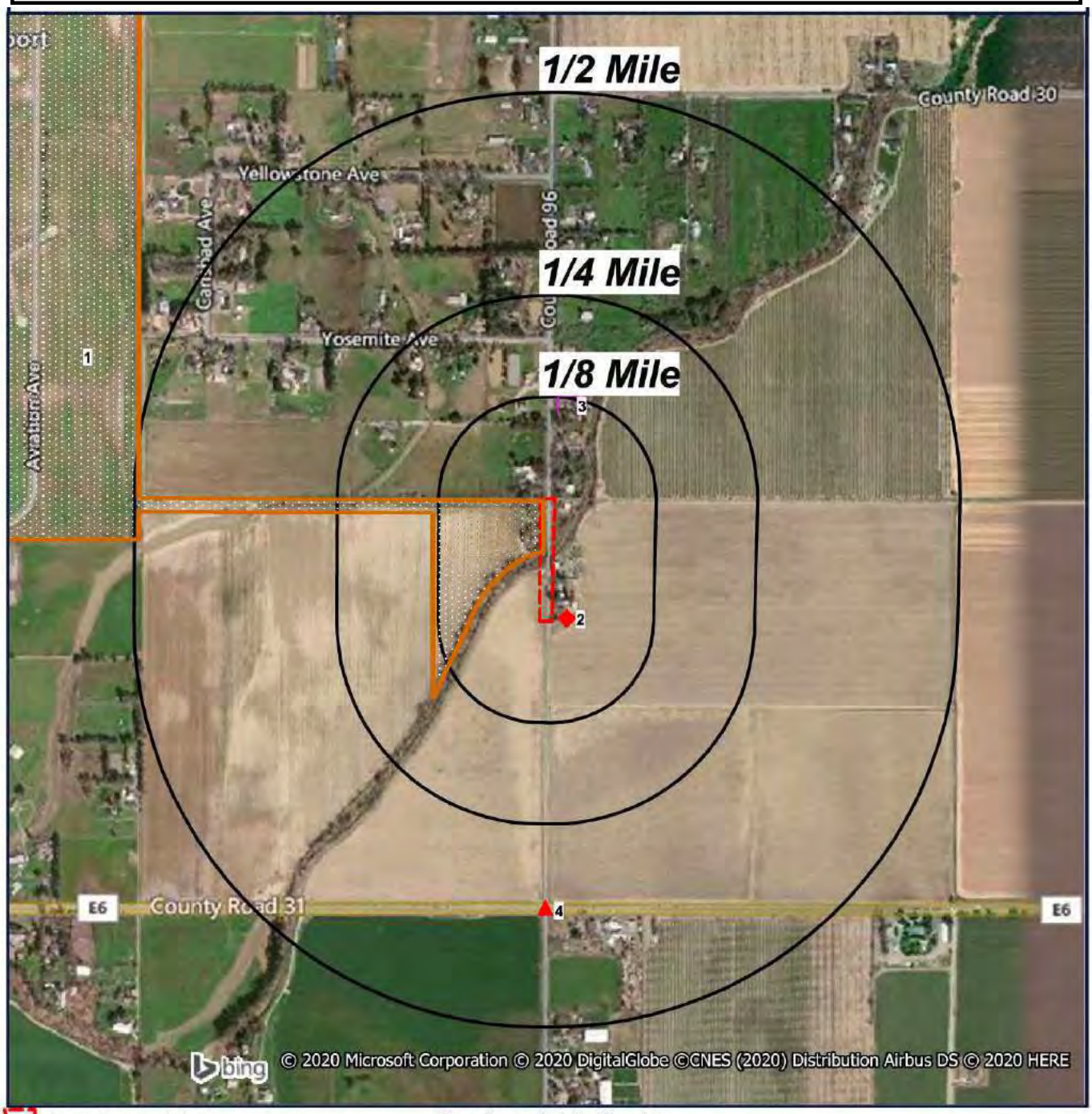
Target Property (TP)
LUST
FUDS
FRSCA
RCRAGR09
ECHOR09
MCS
YCLST
YCLST
RCRANGR09
CLEANUPSITES

CR 96 over Dry Slough
County, California

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

Ortho Map



Target Property (TP)
LUST
FUDS
FRSCA
RCRAGR09
ECHOR09
MCS
YCLST
YCLST
RCRANGR09
CLEANUPSITES

Quadrangle(s): Merritt
CR 96 over Dry Slough
County, California

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

Topographic Map

Target Property (TP)

Quadrangle(s): Merritt
Source: USGS,
03/08/2012
CR 96 over Dry Slough
County, California

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
1	ECHOR09	110008270824	Higher (88 ft.)	TP	CURTIS & ASSOCIATES	YOLO COUNTY AIRPORT, DAVIS, CA 95616	20
1	ECHOR09	110049594541	Higher (88 ft.)	TP	YOLO CO AIRPORT	CA	21
1	FRSCA	110008270824	Higher (88 ft.)	TP	CURTIS & ASSOCIATES	YOLO COUNTY AIRPORT, DAVIS, CA 95616	22
1	FRSCA	110049594541	Higher (88 ft.)	TP	YOLO CO AIRPORT	CA	23
1	FRSCA	110065435318	Higher (88 ft.)	TP	YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT	DAVIS, CA 95616	24
1	FUDS	J09CA0094	Higher (88 ft.)	TP	YOLO COUNTY AIRPORT	YOLO COUNTY, DAVIS, CA 95616	25
1	***LUST***	***T0611391245LUST***	***Higher (88 ft.)***	***TP***	***YOLO COUNTY INTERNATIONAL AIRPORT***	***CA***	***29***
1	MCS	T0611391245MCS	Higher (88 ft.)	TP	YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT	DAVIS, CA	31
1	***RCRAGR09***	***CAD981631948***	***Higher (88 ft.)***	***TP***	***CURTIS & ASSOCIATES***	***YOLO COUNTY AIRPORT, DAVIS, CA 95616***	***33***
1	***YCLST***	***3683889206***	***Higher (88 ft.)***	***TP***	***YOLO CO AIRPORT - ARMY CORPS***	***CR 29 & CR 29, DAVIS, CA***	***34***
2	***YCLST***	***1584793941***	***Equal (86 ft.)***	***0.018 mi. E (95 ft.)***	***BEOSHANZ PROPERTY***	***25635 CR 96, DAVIS, CA***	***35***
3	***RCRANGR09***	***CAL000348001***	***Higher (88 ft.)***	***0.115 mi. N (607 ft.)***	***GARRETT LANDSCAPE CONSTRUCTION***	***25361 COUNTY ROAD 96, DAVIS, CA 95616***	***36***
4	***CLEANUPSITES***	***SLT5S5693502***	***Lower (82 ft.)***	***0.355 mi. S (1874 ft.)***	***WASHBURN AGRICULTURAL SERVICES***	***CR 31 (COVELL RD) & CR 96, DAVIS, CA 95616***	***38***

Site Summary By Database

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address
4	***CLEANUPSITES***	***SLT5S5693502***	***Lower (82 ft.)***	***0.355 mi. S (1874 ft.)***	***WASHBURN AGRICULTURAL SERVICES***	***CR 31 (COVELL RD) & CR 96, DAVIS, CA 95616***
1	ECHOR09	110008270824	Higher (88 ft.)	TP	CURTIS & ASSOCIATES	YOLO COUNTY AIRPORT, DAVIS, CA 95616
1	ECHOR09	110049594541	Higher (88 ft.)	TP	YOLO CO AIRPORT	CA
1	FRSCA	110008270824	Higher (88 ft.)	TP	CURTIS & ASSOCIATES	YOLO COUNTY AIRPORT, DAVIS, CA 95616
1	FRSCA	110049594541	Higher (88 ft.)	TP	YOLO CO AIRPORT	CA
1	FRSCA	110065435318	Higher (88 ft.)	TP	YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT	DAVIS, CA 95616
1	FUDS	J09CA0094	Higher (88 ft.)	TP	YOLO COUNTY AIRPORT	YOLO COUNTY, DAVIS, CA 95616
1	***LUST***	***T0611391245LUST***	***Higher (88 ft.)***	***TP***	***YOLO COUNTY INTERNATIONAL AIRPORT***	***CA***
1	MCS	T0611391245MCS	Higher (88 ft.)	TP	YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT	DAVIS, CA
1	***RCRAGR09***	***CAD981631948***	***Higher (88 ft.)***	***TP***	***CURTIS & ASSOCIATES***	***YOLO COUNTY AIRPORT, DAVIS, CA 95616***
3	***RCRANGR09***	***CAL000348001***	***Higher (88 ft.)***	***0.115 mi. N (607 ft.)***	***GARRETT LANDSCAPE CONSTRUCTION***	***25361 COUNTY ROAD 96, DAVIS, CA 95616***
1	***YCLST***	***3683889206***	***Higher (88 ft.)***	***TP***	***YOLO CO AIRPORT - ARMY CORPS***	***CR 29 & CR 29, DAVIS, CA***
2	***YCLST***	***1584793941***	***Equal (86 ft.)***	***0.018 mi. E (95 ft.)***	***BEOSHANZ PROPERTY***	***25635 CR 96, DAVIS, CA***

Enforcement and Compliance History Information (ECHOR09)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **110008270824**
REGISTRY ID: **110008270824**
NAME: **CURTIS & ASSOCIATES**
ADDRESS: **YOLO COUNTY AIRPORT**
DAVIS, CA 95616
COUNTY: **YOLO**
FACILITY LINK: *Facility Detail Report*

Back to Report Summary

Enforcement and Compliance History Information (ECHOR09)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **110049594541**
REGISTRY ID: **110049594541**
NAME: **YOLO CO AIRPORT**
ADDRESS: **NO STREET REPORTED**
NOT REPORTED, CA
COUNTY: **YOLO**
FACILITY LINK: *Facility Detail Report*

Back to Report Summary

Facility Registry System (FRSCA)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: **110008270824**

NAME: **CURTIS & ASSOCIATES**

LOCATION ADDRESS: **YOLO COUNTY AIRPORT**
DAVIS, CA 95616

COUNTY: **YOLO**

EPA REGION: **09**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

CURTIS & ASSOCIATES

PROGRAM/S LISTED FOR THIS FACILITY

RCRAINFO - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Facility Registry System (FRSCA)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: **110049594541**

NAME: **YOLO CO AIRPORT**

LOCATION ADDRESS: **NO STREET REPORTED**
NOT REPORTED, CA

COUNTY: **YOLO**

EPA REGION: **09**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

YOLO CO AIRPORT

PROGRAM/S LISTED FOR THIS FACILITY

SFDW - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Facility Registry System (FRSCA)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

REGISTRY ID: **110065435318**

NAME: **YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT**

LOCATION ADDRESS: **NO STREET REPORTED**
DAVIS, CA 95616

COUNTY: **YOLO**

EPA REGION: **09**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT

PROGRAM/S LISTED FOR THIS FACILITY

CA-ENVIROVIEW - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Formerly Used Defense Sites (FUDS)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

Geosearch Id: **J09CA0094**
FUDS NUMBER: **J09CA0094**
PROPERTY NAME: **YOLO COUNTY AIRPORT**
ADDRESS: **YOLO COUNTY**
DAVIS, CA 95616
COUNTY: **YOLO**

FACILITY DETAIL(S)

FUDS PROPERTY POINT DATA
FFID: **CA99799F530000**
PROPERTY ID: **NOT REPORTED**
PROJECT ID: **NOT REPORTED**
ENV SITE ID: **NOT REPORTED**
SITE ID: **NOT REPORTED**
MRA ID: **NOT REPORTED**
PROJECT NUMBER: **NOT REPORTED**
PROJECT NAME: **NOT REPORTED**
PROGRAM: **NOT REPORTED**
CATEGORY: **NOT REPORTED**
STATUS: **PROPERTIES WITH ALL PROJECTS AT SITE CLOSEOUT**
FED LAND TYPE: **NOT REPORTED**
FED LAND NAME: **NOT REPORTED**
FED LAND AGENCY: **NOT REPORTED**
SITE CLOSEOUT DATE: **NOT REPORTED**
REMEDY IN PLACE DATE: **NOT REPORTED**
RESPONSE COMPLETE DATE: **NOT REPORTED**
NPL STATUS CODE: **NOT LISTED**
CURRENT OWNER: **LOCAL GOVERNMENT; PRIVATE SECTOR**
ELIGIBILITY: **ELIGIBLE**
HAS PROJECTS: **YES**
FISCAL YEAR: **2018**
EPA REGION: **09**
CONGRESSIONAL DISTRICT: **03**
DISTRICT RESPONSIBLE FOR THE FUDS PROPERTY: **SACRAMENTO DISTRICT (SPK)**
IS THE PROPERTY HAS ANY CLEANUP UNDER THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP): **NOT REPORTED**
ACREAGE: **NOT REPORTED**
DESCRIPTION: **NOT REPORTED**
HISTORY: **NOT REPORTED**
EMS MAP LINK: CLICK HERE

FUDS PROPERTY POLYGON DATA
FFID: **CA99799F530000**
PROPERTY ID: **NOT REPORTED**

PROJECT ID: **NOT REPORTED**
ENV SITE ID: **NOT REPORTED**
SITE ID: **NOT REPORTED**
MRA ID: **NOT REPORTED**
PROJECT NUMBER: **NOT REPORTED**
PROJECT NAME: **NOT REPORTED**
PROGRAM: **NOT REPORTED**
CATEGORY: **NOT REPORTED**
STATUS: **PROPERTIES WITH ALL PROJECTS AT SITE CLOSEOUT**
FED LAND TYPE: **NOT REPORTED**
FED LAND NAME: **NOT REPORTED**
FED LAND AGENCY: **NOT REPORTED**
SITE CLOSEOUT DATE: **NOT REPORTED**
REMEDY IN PLACE DATE: **NOT REPORTED**
RESPONSE COMPLETE DATE: **NOT REPORTED**
NPL STATUS CODE: **NOT LISTED**
CURRENT OWNER: **LOCAL GOVERNMENT; PRIVATE SECTOR**
ELIGIBILITY: **ELIGIBLE**
HAS PROJECTS: **YES**
FISCAL YEAR: **2018**
EPA REGION: **9**
CONGRESSIONAL DISTRICT: **3**
DISTRICT RESPONSIBLE FOR THE FUDS PROPERTY: **SACRAMENTO DISTRICT (SPK)**
IS THE PROPERTY HAS ANY CLEANUP UNDER THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP): **Y**
ACREAGE: **NOT REPORTED**
DESCRIPTION: **THE 510.15-ACRE SITE IS APPROXIMATELY EIGHT MILES NORTHWEST OF DOWNTOWN DAVIS IN YOLO COUNTY, CALIFORNIA. THE 495.98-ACRE PORTION OF THE SITE IS CURRENTLY OWNED BY THE COUNTY OF YOLO AND UTILIZED AS THE YOLO COUNTY AIRPORT. THE 14.17-ACRE PORTION OF THE SITE IS OWNED BY ST. MARY'S COLLEGE AND USED FOR AGRICULTURE.**
HISTORY: **BETWEEN 1942 AND 1943, THE U.S. ACQUIRED 308.57 ACRES BY DECLARATION OF TAKING AND 201.58 ACRES BY TRANSFER FOR USE AS A FLIGHT STRIP TO PROVIDE ALTERNATE BASING FOR B-25 AIRCRAFT NORMALLY BASED AT MCCLELLAN AIR FORCE BASE. IN 1946, THE USE PERMIT FOR 201.58 ACRES WAS RELINQUISHED TO THE PUBLIC ROADS ADMINISTRATION (PRA), AND THE REMAINING 308.57 ACRES WERE TRANSFERRED TO THE WAR ASSETS ADMINISTRATION (WAA). IN 1948, THE WAA TRANSFERRED 294.40 ACRES AND 201.58 ACRES FROM THE PRA TO YOLO COUNTY FOR AN AIRPORT. THE REMAINING 14.17 ACRES REVERTED TO ORIGINAL OWNERSHIP. THERE ARE 16 KNOWN LOCATIONS FOR ORDNANCE STORAGE FACILITIES. UNDERGROUND PIPING AND CONNECTED FILL STANDS AND FUELING PIT BOXES NEED TO BE REMOVED. THIS PROPERTY IS KNOWN OR SUSPECTED TO CONTAIN MILITARY MUNITIONS AND EXPLOSIVES OF CONCERN (E.G., UNEXPLODED ORDNANCE) AND THEREFORE MAY PRESENT AN EXPLOSIVE HAZARD.**
EMS MAP LINK: CLICK HERE

FUDS PROJECT POINT DATA
FFID: **CA99799F530000**
PROPERTY ID: **57762**
PROJECT ID: **01**
ENV SITE ID: **01OEW**
SITE ID: **NOT REPORTED**

MRA ID: **NOT REPORTED**
PROJECT NUMBER: **NOT REPORTED**
PROJECT NAME: **OEW**
PROGRAM: **MMRP**
CATEGORY: **MMRP**
STATUS: **RESPONSE COMPLETE AND SITE CLOSEOUT**
FED LAND TYPE: **NOT REPORTED**
FED LAND NAME: **NOT REPORTED**
FED LAND AGENCY: **NOT REPORTED**
SITE CLOSEOUT DATE: **2013-03-01**
REMEDY IN PLACE DATE: **2008-11-01**
RESPONSE COMPLETE DATE: **2008-11-01**
NPL STATUS CODE: **NOT REPORTED**
CURRENT OWNER: **NOT REPORTED**
ELIGIBILITY: **NOT REPORTED**
HAS PROJECTS: **NOT REPORTED**
FISCAL YEAR: **NOT REPORTED**
EPA REGION: **NOT REPORTED**
CONGRESSIONAL DISTRICT: **NOT REPORTED**
DISTRICT RESPONSIBLE FOR THE FUDS PROPERTY: **NOT REPORTED**
IS THE PROPERTY HAS ANY CLEANUP UNDER THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP): **NOT REPORTED**
ACREAGE: **16**
DESCRIPTION: **NOT REPORTED**
HISTORY: **NOT REPORTED**
EMS MAP LINK: CLICK HERE

FUDS PROJECT POINT DATA
FFID: **CA99799F530000**
PROPERTY ID: **57762**
PROJECT ID: **02**
ENV SITE ID: **02CON/HTRW**
SITE ID: **NOT REPORTED**
MRA ID: **NOT REPORTED**
PROJECT NUMBER: **NOT REPORTED**
PROJECT NAME: **CON/HTRW**
PROGRAM: **IRP**
CATEGORY: **CON/HTRW**
STATUS: **RESPONSE COMPLETE AND SITE CLOSEOUT**
FED LAND TYPE: **NOT REPORTED**
FED LAND NAME: **NOT REPORTED**
FED LAND AGENCY: **NOT REPORTED**
SITE CLOSEOUT DATE: **2013-09-01**
REMEDY IN PLACE DATE: **2013-09-01**
RESPONSE COMPLETE DATE: **2013-09-01**
NPL STATUS CODE: **NOT REPORTED**
CURRENT OWNER: **NOT REPORTED**

ELIGIBILITY: **NOT REPORTED**
HAS PROJECTS: **NOT REPORTED**
FISCAL YEAR: **NOT REPORTED**
EPA REGION: **NOT REPORTED**
CONGRESSIONAL DISTRICT: **NOT REPORTED**
DISTRICT RESPONSIBLE FOR THE FUDS PROPERTY: **NOT REPORTED**
IS THE PROPERTY HAS ANY CLEANUP UNDER THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP): **NOT REPORTED**
ACREAGE: **NOT REPORTED**
DESCRIPTION: **NOT REPORTED**
HISTORY: **NOT REPORTED**
EMS MAP LINK: CLICK HERE

FUDS PROJECT POINT DATA
FFID: **CA99799F530000**
PROPERTY ID: **57762**
PROJECT ID: **03**
ENV SITE ID: **03HTRW**
SITE ID: **NOT REPORTED**
MRA ID: **NOT REPORTED**
PROJECT NUMBER: **NOT REPORTED**
PROJECT NAME: **HTRW**
PROGRAM: **IRP**
CATEGORY: **HTRW**
STATUS: **RESPONSE COMPLETE AND SITE CLOSEOUT**
FED LAND TYPE: **NOT REPORTED**
FED LAND NAME: **NOT REPORTED**
FED LAND AGENCY: **NOT REPORTED**
SITE CLOSEOUT DATE: **2016-03-01**
REMEDY IN PLACE DATE: **2016-03-01**
RESPONSE COMPLETE DATE: **2016-03-01**
NPL STATUS CODE: **NOT REPORTED**
CURRENT OWNER: **NOT REPORTED**
ELIGIBILITY: **NOT REPORTED**
HAS PROJECTS: **NOT REPORTED**
FISCAL YEAR: **NOT REPORTED**
EPA REGION: **NOT REPORTED**
CONGRESSIONAL DISTRICT: **NOT REPORTED**
DISTRICT RESPONSIBLE FOR THE FUDS PROPERTY: **NOT REPORTED**
IS THE PROPERTY HAS ANY CLEANUP UNDER THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP): **NOT REPORTED**
ACREAGE: **NOT REPORTED**
DESCRIPTION: **NOT REPORTED**
HISTORY: **NOT REPORTED**
EMS MAP LINK: CLICK HERE

Back to Report Summary

Leaking Underground Storage Tanks (LUST)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

GLOBAL ID: **T0611391245**
URL LINK: CLICK HERE
BUSINESS NAME: **YOLO COUNTY INTERNATIONAL AIRPORT**
ADDRESS: **NOT REPORTED**
NOT REPORTED, CA
COUNTY: **YOLO**

FACILITY DETAILS

NO DETAIL(S) INFORMATION REPORTED

HISTORICAL FACILITY DETAILS

SITE INFORMATION

ID#: **T0611391245** REGIONAL CASE #: **N/A** LOCAL CASE #: **100572**
RESPONSIBLE PARTY:: **GERRY VINCENT**
FACILITY OPERATOR: **NOT REPORTED**

CASE INFORMATION

CASE TYPE: **NOT REPORTED**
CASE WAS REPORTED: **NOT REPORTED**
CASE ENTERED INTO SYSTEM: **NOT REPORTED**
CASE WAS REVIEWED: **NOT REPORTED**
CASE WAS CLOSED: **NOT REPORTED**
ENFORCEMENT TYPE: **NOT REPORTED**
ENFORCEMENT BEGAN: **NOT REPORTED**
FUNDING TYPE: **NOT REPORTED**
REGIONAL BOARD RESPONSIBLE FOR CASE: **NOT REPORTED**
PROGRAM FOR THE CASE: **DOD - DEPARTMENT OF DEFENSE PROGRAM**
INTERIM FOR THE CASE: **NOT REPORTED**
CURRENT STATUS: **NOT REPORTED**
LEAD AGENCY: **LOCAL AGENCY LEAD** LOCAL AGENCY: **NOT REPORTED**
MTBE CLASSIFICATION: **NOT REPORTED**
MAXIMUM MTBE CONCENTRATION WAS FOUND: **NOT REPORTED**
MAXIMUM GROUNDWATER CONCENTRATION OF MTBE: **NOT REPORTED**
MAXIMUM SOIL CONCENTRATION OF MTBE: **NOT REPORTED**
NUMBER OF MTBE ANALYTICAL RESULTS: **0** MTBE TESTED: **NOT REQUIRED**
NUMBER OF GASOLINE ANALYTICAL RESULTS: **0**
CASE SUMMARY: **NOT REPORTED**

LEAKING TANK INFORMATION

HOW THE CASE/LEAK WAS DISCOVERED: **NOT REPORTED**
DATE LEAK WAS DISCOVERED: **NOT REPORTED**
HOW THE CASE/LEAK WAS STOPPED: **NOT REPORTED**
LEAK WAS STOPPED: **NOT REPORTED**
CAUSE OF LEAK: **NOT REPORTED**
SOURCE OF LEAK: **NOT REPORTED**
LEAK CONFIRMATION: **NOT REPORTED**
SUBSTANCE/S RELEASED: **NOT REPORTED**
QUANTITY OF SUBSTANCE RELEASED: **NOT REPORTED**

SITE ASSESSMENT AND REMEDIAL ACTION INFORMATION

PRELIMINARY SITE ASSESSEMENT WORKPLAN SUBMITTED: **NOT REPORTED**
PRELIMINARY SITE ASSESSEMENT UNDERWAY: **NOT REPORTED**

REMEDIAL ACTION UNDERWAY: **NOT REPORTED**
POLUTION CHARACTERIZATION: **NOT REPORTED**
REMEDIATION PLAN: **NOT REPORTED**
VERIFICATION MONITORING UNDERWAY: **NOT REPORTED**
CLEANUP FUND ID: **NOT REPORTED**
PRIORITY: **NOT REPORTED**
ABATEMENT METHOD: **NOT REPORTED**

ADDITIONAL INFORMATION

WATER SYSTEM ID #: **NOT REPORTED**
WATER WELL ID #: **NOT REPORTED**
WATER SYSTEM FOR THE NEAREST PUBLIC DRINKING WATER WELL: **NOT REPORTED**
WELL NAME FOR THE NEAREST DRINKING WATER WELL: **NOT REPORTED**
DISTANCE TO NEAREST DRINKING WATER WELL: **0**
GROUNDWATER BASIN: **NOT REPORTED**
BENEFICIAL USE: **NOT REPORTED**

Back to Report Summary

Military Cleanup Sites (MCS)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

GLOBAL ID: **T0611391245**
URL LINK: CLICK HERE
BUSINESS NAME: **YOLO COUNTY AIRPORT - YOLO COUNTY INTERNATIONAL AIRPORT**
ADDRESS: **NOT REPORTED**
DAVIS, CA
COUNTY: **YOLO**

FACILITY DETAILS

CASE TYPE: **MILITARY CLEANUP SITE**
CASE NUMBER: **N/A**
STATUS: **3/12/2013**
POTENTIAL CONTAMINATION:
AVIATION
POTENTIAL MEDIA AFFECTED:
NOT REPORTED
SITE HISTORY:
THE FOLLOWING WAS COPIED FROM THE USACE FUDS WEB SITE ON 9-6-12 THIS SITE WAS USED AS A FLIGHT STRIP TO PROVIDE ALTERNATE BASING FOR B25 AIRCRAFT NORMALLY LOCATED AT MCCLELLAN AIR FORCE BASE. SITE IMPROVEMENTS INCLUDED A RUNWAY, TAXIWAYS, TWO AIRCRAFT FUELING AREAS, AN OPERATIONS AREA, CONTROL TOWER, BOMB STORAGE AREA, AND HOUSING AREA. SITE WAS CLOSED ON 12 MARCH 2013 (SEE UPLOADED NDAI AND CONCURRENCE LETTER FOR DETAILS).

REGULATORY ACTIVITIES

TYPE OF ACTION:	DATE:	ACTION:
RESPONSE	**08/16/2018**	**CORRESPONDENCE**
RESPONSE	**02/08/2013**	**REQUEST FOR CLOSURE**
ENFORCEMENT	**09/06/2012**	**FILE REVIEW**
ENFORCEMENT	**09/21/2011**	**FILE REVIEW**
ENFORCEMENT	**12/10/2010**	**FILE REVIEW**
ENFORCEMENT	**08/19/2010**	**FILE REVIEW**
ENFORCEMENT	**06/08/2009**	**FILE REVIEW**

STATUS HISTORY

STATUS:	DATE:
COMPLETED - CASE CLOSED	**03/12/2013**
OPEN - INACTIVE	**05/17/2010**
OPEN	**12/04/2008**
OPEN - CASE BEGIN DATE	**12/04/2008**

CONTACT DETAILS

ORGANIZATION: **CENTRAL VALLEY RWQCB (REGION 5S)**
ADDRESS: **11020 SUN CENTER DRIVE #200**
CITY: **RANCHO CORDOVA**
CONTACT NAME: **MARCUS PIERCE**
CONTACT TYPE: **REGIONAL BOARD CASEWORKER**
CONTACT PHONE: **NOT REPORTED**

EMAIL: **MPIERCE@WATERBOARDS.CA.GOV**

Back to Report Summary

Resource Conservation & Recovery Act - Generator (RCRAGR09)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

EPA ID#: **CAD981631948**
NAME: **CURTIS & ASSOCIATES**
ADDRESS: **YOLO COUNTY AIRPORT**
DAVIS, CA 95616
CONTACT NAME: **NOT REPORTED**
CONTACT ADDRESS: **PO BOX 924**
WOODLAND CA 95695
CONTACT PHONE: **NOT REPORTED**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **09/01/1996**

OWNER TYPE: **NOT REPORTED**
OWNER NAME: **NOT REPORTED**
OPERATOR TYPE: **PRIVATE**
OPERATOR NAME: **NOT REQUIRED**

CERTIFICATION **- NO CERTIFICATION REPORTED -**

INDUSTRY CLASSIFICATION (NAICS) **- NO NAICS INFORMATION REPORTED -**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **06/27/2002**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
USED OIL TRANSFER FACILITY: **NO**

UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**
USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS **- NO EVALUATIONS REPORTED -**
VIOLATIONS **- NO VIOLATIONS REPORTED -**
ENFORCEMENTS **- NO ENFORCEMENTS REPORTED -**

HAZARDOUS WASTE

- NO HAZARDOUS WASTE INFORMATION REPORTED -

UNIVERSAL WASTE **- NO UNIVERSAL WASTE REPORTED -**

CORRECTIVE ACTION AREA **- NO CORRECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT

NO CORRECTIVE ACTION EVENT(S) REPORTED

Back to Report Summary

Yolo County Leaking Storage Tanks (YCLST)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 88 ft. (Higher than TP)

Back to Report Summary

Yolo County Leaking Storage Tanks (YCLST)

MAP ID# 2

Distance from Property: 0.018 mi. (95 ft.) E
Elevation: 86 ft. (Equal to TP)

Back to Report Summary

Resource Conservation & Recovery Act - Non-Generator (RCRANGR09)

MAP ID# 3

Distance from Property: 0.115 mi. (607 ft.) N
Elevation: 88 ft. (Higher than TP)

FACILITY INFORMATION

EPA ID#: **CAL000348001**
NAME: **GARRETT LANDSCAPE CONSTRUCTION**
ADDRESS: **25361 COUNTY ROAD 96**
DAVIS, CA 95616-9435
CONTACT NAME: **DAN GARRETT**
CONTACT ADDRESS: **25361 COUNTY ROAD 96**
DAVIS CA 95616-9435
CONTACT PHONE: **530-753-7541**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **11/16/2009**

OWNER TYPE: **OTHER**
OWNER NAME: **DAN GARRETT**
OPERATOR TYPE: **OTHER**
OPERATOR NAME: **DAN GARRETT**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
DTSC HQ	**CA-DTSC**	**09/05/2018**

INDUSTRY CLASSIFICATION (NAICS)
56291 - REMEDIATION SERVICES

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **NON-GENERATOR** LAST UPDATED DATE: **09/05/2018**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **YES**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
USED OIL TRANSFER FACILITY: **NO**

UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **YES**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**
USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS **- NO EVALUATIONS REPORTED -**
VIOLATIONS **- NO VIOLATIONS REPORTED -**
ENFORCEMENTS **- NO ENFORCEMENTS REPORTED -**

HAZARDOUS WASTE

- NO HAZARDOUS WASTE INFORMATION REPORTED -
UNIVERSAL WASTE **- NO UNIVERSAL WASTE REPORTED -**
CORRECTIVE ACTION AREA **- NO CORRECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT

Resource Conservation & Recovery Act - Non-Generator (RCRANGR09)

NO CORRECTIVE ACTION EVENT(S) REPORTED

Back to Report Summary

MAP ID# 4

Distance from Property: 0.355 mi. (1,874 ft.) S
Elevation: 82 ft. (Lower than TP)

FACILITY INFORMATION

GLOBAL ID: **SLT5S5693502**
URL LINK: CLICK HERE
BUSINESS NAME: **WASHBURN AGRICULTURAL SERVICES**
ADDRESS: **CR 31 (COVELL RD) & CR 96**
DAVIS, CA 95616
COUNTY: **YOLO**

FACILITY DETAILS

CASE TYPE: **NON-CASE INFORMATION**
CASE NUMBER: **SLT5S569**
STATUS: **INFORMATIONAL ITEM 1/15/2019**
POTENTIAL CONTAMINATION:
OTHER SOLVENT OR NON-PETROLEUM HYDROCARBON, OTHER INSECTICIDES / PESTICIDE / FUMIGANTS / HERBICIDES
POTENTIAL MEDIA AFFECTED:
UNDER INVESTIGATION
DISADVANTAGED COMMUNITY:
NO
SEVERELY DISADVANTAGED COMMUNITY:
NO
SITE HISTORY:
FERTILIZER/PESTICIDE FILE SUMMARY 1986 - WASHPAD (NOT USED MUCH) DRAINS TO DITCH. DITCH SOIL ON ROAD 31 AT 2 FT DEPTH CONTAINED 290 MG/KG ATRAZINE, 280 MG/KG KARMEX. SURFACE SOIL 825 MG/KG ATRAZINE, 705 MG/KG KARMEX, 22 MG/KG DDT IN 1995. SITE TYPE CHANGED TO NON-CASE INFORMATION FOLLOWING 15 JANUARY 2019 INACTIVE CASE REVIEW. SEE "DOCUMENTS / DATA" TAB FOR INACTIVE CASE REVIEW FILE.

REGULATORY ACTIVITIES

TYPE OF ACTION:	DATE:	ACTION:
OTHER	**01/01/50**	**LEAK REPORTED**
ENFORCEMENT	**01/15/2019**	**FILE REVIEW**
ENFORCEMENT	**10/08/2018**	**STAFF LETTER**
ENFORCEMENT	**05/03/1995**	**STAFF LETTER**
RESPONSE	**04/21/1995**	**CORRESPONDENCE**
RESPONSE	**01/30/1991**	**OTHER REPORT / DOCUMENT**
ENFORCEMENT	**12/28/1990**	**STAFF LETTER**
ENFORCEMENT	**12/05/1990**	**SITE VISIT / INSPECTION / SAMPLING**
RESPONSE	**02/15/1989**	**OTHER REPORT / DOCUMENT**
ENFORCEMENT	**12/08/1987**	**TECHNICAL CORRESPONDENCE / ASSISTANCE / OTHER**
RESPONSE	**10/20/1987**	**OTHER REPORT / DOCUMENT**
ENFORCEMENT	**03/18/1985**	**TECHNICAL CORRESPONDENCE / ASSISTANCE / OTHER**
ENFORCEMENT	**02/04/1983**	**TECHNICAL CORRESPONDENCE / ASSISTANCE / OTHER**
OTHER	**01/02/1965**	**LEAK REPORTED**

STATUS HISTORY

STATUS:	DATE:
INFORMATIONAL ITEM	**01/15/2019**

STATUS:	DATE:
OPEN - INACTIVE	**01/02/1973**
OPEN - CASE BEGIN DATE	**01/01/1973**
OPEN - SITE ASSESSMENT	**01/01/1973**

CONTACT DETAILS

ORGANIZATION: **CENTRAL VALLEY RWQCB (REGION 5S)**
ADDRESS: **11020 SUN CENTER DRIVE #200**
CITY: **RANCHO CORDOVA**
CONTACT NAME: **ZZZ**
CONTACT TYPE: **REGIONAL BOARD CASEWORKER**
CONTACT PHONE: **NOT REPORTED**
EMAIL: **INFO5@WATERBOARDS.CA.GOV**

Back to Report Summary

Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

Database Name	Site ID#	Site Name	Address	City/State/Zip/County
CLEANUPSITES	SLT5S7533505	J & K AERIAL APPLICATORS	E. SIDE YOLO CO. AIRPORT	WOODLAND 95695 Yolo
CLEANUPSITES	L10009716245	J & K AERIAL APPLICATORS	E. SIDE YOLO CO. AIRPORT	WOODLAND 95695 Yolo
HISTUST	0002D4BC	YOLD AVIATION INC	NONE COUNTY ROAD 29 AND 95 YOLD COU	WOODLAND 95695 Yolo
SLIC	SLT5S7533505	J & K AERIAL APPLICATORS	E. SIDE YOLO CO. AIRPORT	WOODLAND 95695 Yolo
SLIC	5-SLIC -601	YOLO COUNTY INTERNATIONAL AIRPORT (WOODLAND AIRPORT)	510 ACRES, COUNTY ROAD 24	WOODLAND
WMUDS	5A570301N01	J & K AERIAL APPLICATORS	E. SIDE YOLO CO. AIRPORT	WOODLAND 95695 Yolo

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/15

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 11/26/19

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 02/26/20

This database includes site locations where Engineering and/or Institutional Controls have been identified as part

of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. The data displays remedy component information for Superfund decision documents issued in fiscal years 1982-2017, and it includes final and deleted NPL sites as well as sites with a Superfund Alternative Approach (SAA) agreement in place. The only sites included that are not on the NPL, proposed for NPL, or removed from proposed NPL, are those with an SAA Agreement in place. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR09 Enforcement and Compliance History Information

VERSION DATE: 10/27/19

The U.S. Environmental Protection Agency's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSCA Emergency Response Notification System

VERSION DATE: 10/06/19

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSCA Facility Registry System

VERSION DATE: 10/09/19

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR09 Hazardous Materials Incident Reporting System

VERSION DATE: 11/20/19

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

HWCD Hazardous Waste Compliance Docket Facilities

VERSION DATE: 04/29/19

This list of the Federal Agency Hazardous Waste Compliance Docket Facilities is maintained by the United States Environmental Protection Agency (EPA). According to the EPA, Section 120(c) of CERCLA requires EPA to establish a listing, known as the Federal Facility Hazardous Waste Compliance Docket (Docket), of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste. Thus, the Docket identifies all Federal facilities that must be evaluated to determine whether they pose a risk to human health and the environment and it makes this information available to the public. In order for the Docket to remain current and accurate it requires periodic updating.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 09/21/19

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 09/22/19

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. This database is provided by the U.S. Environmental Protection Agency.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements. Disclaimer: Due to agency regulations and policies, this database contains applicant/licensee location information which may or may not be related to the physical location per MLTS site.

NPDESR09 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from the U.S. Environmental Protection Agency (EPA) from December 2002 through April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

PADS PCB Activity Database System

VERSION DATE: 10/09/19

PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of Polychlorinated Biphenyls (PCB) who are required to notify the U.S. Environmental Protection Agency of such activities.

PCSR09 Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC RCRA Sites with Controls

VERSION DATE: 02/21/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS SEMS Lien on Property

VERSION DATE: 10/18/19

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of

Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete. Please refer to the SEMSLIENS database as source of current data.

SSTS Section Seven Tracking System

VERSION DATE: 02/01/17

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/17

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/16

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and

importer site.

RCRAGR09 Resource Conservation & Recovery Act - Generator

VERSION DATE: 12/30/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA Region 9 includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

RCRANGR09 Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 12/30/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 9 includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

ALTFUELS Alternative Fueling Stations

VERSION DATE: 09/24/19

Nationwide list of alternative fueling stations made available by the U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Bio-diesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS Integrated Compliance Information System Drycleaners

VERSION DATE: 09/21/19

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The U.S. Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments. The following Primary SIC Codes are included in this data: 7211, 7212, 7213, 7215, 7216, 7217, 7218, and/or 7219; the following Primary NAICS Codes are included in this data: 812320, 812331, and/or 812332.

MRDS Mineral Resource Data System

VERSION DATE: 03/15/16

MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA Mine Safety and Health Administration Master Index File

VERSION DATE: 09/20/19

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF Brownfields Management System

VERSION DATE: 10/15/19

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 01/27/20

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 12/30/19

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 12/30/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

SEMS Superfund Enterprise Management System

VERSION DATE: 01/27/20

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 01/27/20

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System Archived Site Inventory (List 8R Archived) replaced the CERCLIS NFRAP reporting system in 2015. This listing reflects sites at which the EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program.

SMCRA Surface Mining Control and Reclamation Act Sites

VERSION DATE: 11/26/19

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

USUMTRCA Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 12/01/14

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS Formerly Used Defense Sites

VERSION DATE: 12/31/18

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to

insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 12/30/19

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NMS Former Military Nike Missile Sites

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL National Priorities List

VERSION DATE: 01/27/20

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 01/27/20

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 12/30/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 12/30/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

RODS Record of Decision System

VERSION DATE: 01/27/20

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

CDL Clandestine Drug Labs

VERSION DATE: 12/31/18

The California Department of Toxic Substance Control (DTSC) maintains this listing of illegal drug laboratories. DTSC maintains a limited cost-tracking database to manage and pay appropriate contractor invoices for removal costs. The data source is an expenditure report with the contractors' invoice information and the reported removal action locations. The reported location information may or may not include the actual location of the illegal drug lab for several reasons. First, DTSC receives the location information verbally from law enforcement or local environmental health officials in the initial request for emergency support. Second, DTSC does not verify the information received and does not perform "data cleaning" or other measures to ensure data quality. Third, the location information may not be the actual location of an illegal drug lab or any hazardous substance release to the environment. The initial report may have provided the location of the nearest identifiable address to an illegal drug lab or mobile lab or abandonment of illegal drug lab wastes, or a nearby meeting location for the contractor. Please note the DTSC does not guarantee the accuracy of the address or location information or the condition of the location listed. The listing of an address or location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the address or location either requires or does not require additional cleanup work or mitigation action.

CHMIRS California Hazardous Material Incident Report System

VERSION DATE: 12/24/19

The California Hazardous Material Incident Report System list is maintained by the California Governor's Office of Emergency Services (OES). This list contains all spills called in to the California OES Warning Center for a specific year since 1993.

DTSCDR DTSC Deed Restrictions

VERSION DATE: 12/25/19

The California Department of Toxic Substances Control (DTSC) maintains this listi of sites with deed restrictions. According to the DTSC, restricted land use indicates whether the site or area within the site has an environmental restriction recorded and/or other institutional control preventing certain types of land use or activities. The land use restrictions listed under the site management requirements are only an abbreviated summary of the land use restrictions, and may not encompass all restrictions and notification requirements placed on a property. For complete land use restriction information please contact the DTSC to review associated Land Use Restriction documents.

EMI Emissions Inventory Data

VERSION DATE: 12/31/17

This list of Emissions Inventory Data is maintained by the California Environmental Protection Agency California Environmental Agency Air Resources Board. This list includes criteria pollutant data and toxic data. Please note gas stations, print shops, autobody shops, and dry cleaners are not included in this list.

HWTS Hazardous Waste Tanner Summary

VERSION DATE: 12/31/17

The Hazardous Waste Tanner Summary is maintained by the California Department of Toxic Substances Control (DTSC). This list includes data extracted from the copies of hazardous waste manifests received each year by the DTSC.

LDS Land Disposal Sites

VERSION DATE: 01/02/20

This list of Land Disposal sites (Landfills) is a subset of the GeoTracker Cleanup Sites database, maintained by the California State Water Resources Control Board. Sites are queried from GeoTracker by case type = Land Disposal Site.

LIENS Recorded Environmental Cleanup Liens

VERSION DATE: 11/18/19

The California Department of Toxic Substance Control (DTSC) maintains this list of liens placed upon real properties. A lien is utilized by the DTSC to obtain reimbursement from responsible parties for costs associated with the remediation of contaminated properties.

MCS Military Cleanup Sites

VERSION DATE: 01/02/20

This list of Military sites is a subset of the GeoTracker Cleanup Sites database maintained by the California State Water Resources Control Board. Sites are queried from GeoTracker by case type = Military Cleanup Sites. This list includes : Military UST sites; Military Privatized sites; and Military Cleanup sites (formerly known as DoD non UST).

NPDES National Pollutant Discharge Elimination System Facilities

VERSION DATE: 02/19/20

This list of active, historical, and terminated National Pollutant Discharge Elimination System Facilities permits is maintained by the California Environmental Protection Agency State Water Resources Control Board. This data includes storm water general permit enrollees that are active or have been active within the past three years. Please note there can be multiple listings for a single permit due to multiple dischargers, multiple facilities, and/or multiple address listings. Please use the Regulatory Measure ID to identify duplicates, as this is a unique identifier for each permit.

ABST Above Ground Storage Tanks

VERSION DATE: 03/02/20

This database, provided by the California Environmental Protection Agency's (CalEPA) Regulated Site Portal, contains aboveground petroleum storage tank facilities originating from the California Environmental Reporting System (CERS). These facilities store petroleum in aboveground storage tanks with oversight by local agencies. As of January 1, 2008, Assembly Bill No. 1130 of the Aboveground Petroleum Storage Act (APSA) authorized the Certified Unified Program Agencies to implement and administer the requirements of the APSA. CalEPA Data Disclaimer: Information displayed in the portal is collected from separate agency databases and displayed unaltered. Information that is considered confidential, trade secret, or is otherwise protected by the agency that manages the database is not loaded into the portal. For more detail about information displayed in the portal, please visit the data source sites. Please refer to AST2007 database for aboveground storage tank information obtained from the California State Water Resources Control Board prior to 2008 APSA requirements.

AST2007 Aboveground Storage Tanks Prior to January 2008

VERSION DATE: 12/01/07

This database contains aboveground storage tank facilities registered with the California State Water Resources Control Board (SWRCB) between 2007 and 2003. Since 2006, tanks were required to contain a minimum (even as cumulative) of 1320 gallons to be in the program. As of January 1, 2008, the SWRCB no longer maintains a list of registered aboveground storage tanks, due to effective Assembly Bill No. 1130 (Laird) of the Aboveground Petroleum Storage Act (APSA). This Bill authorized the Certified Unified Program Agencies to implement and administer the requirements of the APSA. Please refer to ABST database as a current source for aboveground petroleum storage tank data.

CLEANER Dry Cleaner Facilities

VERSION DATE: 06/13/19

This list of dry cleaners is maintained by the California Department of Toxic Substances Control (DTSC). Data is extracted from the DTSC Hazardous Waste Tracking System. This list includes dry cleaner facilities that have registered EPA identification numbers. These facilities are categorized by SIC codes (7211, 7212, 7213, 7215, 7216, 7217, 7218, 7219). This database may also include facilities other than dry cleaners who also register with these same NAICS Codes. Not all companies report their NAICS/SIC Codes to the DTSC, therefore this database may exclude registered dry cleaner facilities with incomplete classification information.

DTSCHWT DTSC Registered Hazardous Waste Transporters

VERSION DATE: 01/26/20

The California Department of Toxic Substances Control maintains this list of Registered Hazardous Waste Transporters.

HISTUST Historical Underground Storage Tanks

VERSION DATE: 12/31/87

The Hazardous Substance Storage Container Database is a historical list of Underground Storage Tank sites,

compiled from tank survey and registration information collected at one time between 1984 and 1987 by the State Water Resources Control Board. The hazardous substances stored within these tanks includes, but not restricted to, petroleum products, industrial solvents, and other materials.

MINES Mines Listing

VERSION DATE: 01/20/20

This list includes mine site locations extracted from the Mines Online database, maintained by the California Department of Conservation. Mines Online (MOL) is an interactive web map designed with GIS features that provide information such as the mine name, mine status, commodity sold, location, and other mine specific data. Please note: Mine location information is provided to assist experts in determining the location of mine operators in accordance with California Civil Code section 1103.4 and reflects information reported by mine operators in annual reports provided under Public Resources Code section 2207. While the Division of Mine Reclamation (DMR) attempts to populate MOL with accurate location information, the DMR cannot guarantee the accuracy of operator reported location information.

MWMP California Medical Waste Management Program Facility List

VERSION DATE: 10/04/19

This list of Medical Waste Management Program Facilities is maintained by the California Department of Public Health. The Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA). The MWMP permits and inspects all medical waste off-site treatment facilities, medical waste transporters, and medical waste transfer stations. This list contains transporters, treatment, and transfer facilities.

SLIC Spills, Leaks, Investigation & Cleanup Recovery Listing

VERSION DATE: 02/12/20

This list of Spills, Leaks, Investigation & Cleanup Recovery sites is maintained by the California Regional Water Quality Control Board (RWQCB). This list all "non-federally owned" sites that are regulated under the State Water Resources Control Board's Site Cleanup Program and/or similar programs conducted by each of the nine Regional Water Quality Control Boards. Cleanup Program Sites are also commonly referred to as "Site Cleanup Program sites". Cleanup Program Sites are varied and include but are not limited to pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, RCRA/CERCLA cleanups, and some brownfields. Unauthorized releases detected at Cleanup Program Sites are highly variable and include but are not limited to hydrocarbon solvents, pesticides, perchlorate, nitrate, heavy metals, and petroleum constituents, to name a few.

SWEEPS Statewide Environmental Evaluation and Planning System

VERSION DATE: 10/01/94

The Statewide Environmental Evaluation and Planning System (SWEEPS) contains a historical listing of active and inactive underground storage tank locations from the State Water Resources Control Board. The hazardous substances stored within these tanks includes, but not restricted to, petroleum products, industrial solvents, and other materials. Refer to CUPA listing for source of current data.

USTCUPA Underground Storage Tanks

VERSION DATE: 01/15/20

The California State Water Resources Control Board maintains this list of permitted underground storage tanks. Permitted Underground Storage Tank (UST) Facilities includes facilities at which the owner or operator has been issued a permit to operate one or more USTs by the local permitting agency. Permitted UST Facilities are imported weekly from the California Environmental Reporting System (CERS).

BF Brownfield Sites

VERSION DATE: 02/18/20

This database of Brownfield Memorandum of Agreement (MOA) sites is maintained by the California Environmental Protection Agency. The California Department of Toxic Substances Control (CTSC), the State Water Resources Control Board, and the Regional Water Quality Control Boards (RWQCBs) agreed to a Brownfield Memorandum of Agreement (MOA). The MOA limits the oversight of a brownfields site to one agency, establishes procedures and guidelines for identifying the lead agency, calls for a single uniform site assessment procedure, requires all cleanups to address the requirements of the agencies, defines roles and responsibilities, provides for ample opportunity for public involvement, commits agencies to review time frames, and commits agencies to coordinate and communicate on brownfields issues. The Brownfield MOA site list is obtained from the State Water Resources Control Board GeoTracker online database. This list contains both open and completed sites.

CALSITES CALSITES Database

VERSION DATE: 05/01/04

This historical database was maintained by the Department of Toxic Substance Control for more than a decade. CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. In 2006, DTSC introduced EnviroStor as the latest Brownfields site database.

CLEANUPSITES GeoTracker Cleanup Sites

VERSION DATE: 01/02/20

This list of GeoTracker Cleanup Sites is maintained by the California State Water Resources Control Board. The database contains contaminated sites that impact groundwater or have the potential to impact ground water, including sites that require cleanup, such as Leaking Underground Storage Tank Sites, Department of Defense Sites, and Cleanup Program Sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including: Irrigated Lands, Oil and Gas production, operating Permitted USTs, and Land Disposal Sites. GeoTracker portals retrieve records and view integrated data sets from multiple State Water

Board programs and other agencies.

CORTESE Cortese List

VERSION DATE: 01/13/20

This list of hazardous waste and substances sites (Cortese List) is maintained by the California Department of Toxic Substances Control (DTSC). DTSC's Brownfields and Environmental Restoration Program (Cleanup Program) EnviroStor database provides DTSC's component of Cortese List data by identifying Annual Workplan (now referred to State Response and/or Federal Superfund), and Backlog sites listed under Health and Safety Code section 25356. In addition, DTSC's Cortese List includes Certified with Operation and Maintenance sites. The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). Because this statute was enacted over twenty years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases, the information to be included in the Cortese List does not exist.

DROP Listing of Certified Dropoff, Collection, and Community Service Programs

VERSION DATE: 12/29/19

This list of Certified Dropoff, Collection, and Community Service Programs (non-buyback) operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

ERAP Expedited Removal Action Program Sites

VERSION DATE: 01/09/20

This list of Expedited Removal Action Program Sites is a subset of the EnviroStor database, maintained by the California Department of the Toxic Substance Control. Sites are queried from Envirostor by site type = State Response ERAP.

HISTCORTESE Historical Cortese List

VERSION DATE: 11/02/02

This historical listing includes hazardous waste and substances sites designated by the State Water Resources Control Board, the Integrated Waste Board, and the Department of Toxic Substance Control. The Cortese List was utilized by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. See CACORTESE for an updated version of this database.

LUST Leaking Underground Storage Tanks

VERSION DATE: 01/02/20

This list of leaking underground storage tanks is a subset of the GeoTracker Cleanup Sites database maintained

by the California State Water Resources Control Board. Sites are queried from GeoTracker by case type = LUST Cleanup Site.

NFA No Further Action Determination

VERSION DATE: 09/09/19

This list of No Further Action (NFA) sites is maintained by the California Department of Toxic Substances Control. NFA identifies sites where a Phase I Environmental Assessment was completed and resulted in a no action required determination. Please refer to ENVIROSTOR for current No Further Action sites.

NFE Sites Needing Further Evaluation

VERSION DATE: 03/03/20

This list of Inactive - Needs Evaluation sites is maintained by the California Department of Toxic Substances Control. These are unconfirmed contaminated properties that need further assessment. This data is queried from the Department of Toxic Substances Control Evirostor online database.

PROC Listing of Certified Processors

VERSION DATE: 02/03/20

This list of Certified Processors that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

REF Referred to Another Local or State Agency

VERSION DATE: 03/06/20

This Referred to Another Local or State Agency list, maintained by the California Department of Toxic Substances Control (DTSC), contains properties where contamination has not been confirmed and which were determined as not requiring direct Department of Toxic Substance Control Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency. This data is extracted from the DTSC Envirostor online database and is queried by Status = "Refer state and local agencies".

SWIS Solid Waste Information System Sites

VERSION DATE: 12/30/19

This list of Solid Waste Information System Sites is extracted from the Solid Waste Information System (SWIS) database, maintained by the California Department of Resources Recycling and Recovery. The SWIS database includes information on solid waste facilities, operations, and disposal sites located in California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

SWRCY Recycling Centers

VERSION DATE: 02/05/20

This list of Certified Recycling Centers that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

VCP Voluntary Cleanup Program

VERSION DATE: 01/09/20

This list of Voluntary Cleanup Sites is a subset of the Envirostor database maintained by the California Department of Toxic Substance Control. Sites are queried from Envirostor by site type = Voluntary Cleanup.

WMUDS Waste Management Unit Database

VERSION DATE: 01/01/00

The Waste Management Unit Database System tracks and inventories waste management units. CCR Title 27 contains criteria stating that Waste Management Units are classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. Water Code Section 13273.1 requires that operators submit a water quality solid waste assessment test (SWAT) report to address leak status. The WMUDS was last updated by the State Water Resources control board in 2000.

ENVIROSTOR EnviroStor Cleanup Sites

VERSION DATE: 01/09/20

This list of Envirostor Cleanup Sites is maintained by the California Department of Toxic Substances Control (DTSC). DTSC has developed the EnviroStor database system to evaluate and track sites with confirmed or potential contamination and sites where further investigation may be necessary. This EnviroStor database of cleanup sites contains the following: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

ENVIROSTORPCA EnviroStor Permitted and Corrective Action Sites

VERSION DATE: 01/16/20

The California Department of Toxic Substance Control maintains this list of Hazardous Waste sites in their Envirostor online database. This list contains: 1) data pertaining to the Hazardous Waste Sites tracked in Envirostor; 2) the completed activities for Hazardous Waste Units; 3) the completed activities for Hazardous Waste Units undergoing closure; 4) completed maintenance activities; 5) the various "aliases" for a project (Some examples are: alt project name, alt address, EPA ID, etc.).

TOXPITS Toxic Pits Cleanup Act Sites

VERSION DATE: 07/01/95

Toxic Pits are sites with possible contamination of hazardous substances where cleanup is necessary. This listing is no longer updated by the State Water Resources Control Board.

YCUST Yolo County Underground Storage Tanks

VERSION DATE: 10/31/19

This list of active and inactive underground storage tanks in Yolo County is maintained by the Yolo County Environmental Health Department. The Yolo County Environmental Health Department regulates the construction, operation, repair and removal of underground storage tank systems throughout Yolo County.

YCLST Yolo County Leaking Storage Tanks

VERSION DATE: 04/16/08

This list of Leaking Underground Storage Tanks in Yolo County is maintained by the Yolo County Environmental Health Division and the Central Valley Regional Water Quality Control Board. Data from April 2008 was maintained by Yolo County Environmental Health Department and is still available for review, but leaky storage tanks have since been transferred to the State Water Resources Control Board's GeoTracker database system. Please refer to the State CLEANUPSITES and State LUST databases as source of current data for Yolo County Leaking USTs.

USTR09 Underground Storage Tanks On Tribal Lands

VERSION DATE: 10/04/19

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

LUSTR09 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 10/04/19

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

TORRESDUMPSITES Illegal Dump Sites on the Torres Martinez Reservation

VERSION DATE: 10/29/07

This listing of illegal dump site locations on the Torres Martinez Reservation is maintained by the United States Environmental Protection Agency, Region IX. These dump sites contain unlawfully discarded household waste such as landscaping and wood wastes with no known soil or groundwater contamination. A majority of the sites have already been cleaned up through the collaborative efforts of the EPA, The California Integrated Waste Management Board and the Torres Martinez Tribe.

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

APPENDIX E

Site Photographs

Photo 1. View toward the north.

Photo 2. View toward the north.

Photo 3. Paint, western guardrail.

Photo 4. Viewed from the northeast corner of the bridge.

Photo 5. Property at northeast corner of bridge (APN 037-010-024). Former utility pole in foreground.

Photo 6. Residential property at northwest corner of bridge, 25540 CR 96 (APN 037-010-028).

Photo 7. Residential property at southeast corner of bridge, 25599 CR 96 (APN 037-010-024).

Photo 8. Property at southwest corner of bridge (APN 037-010-028).

APPENDIX F

National Analytical Laboratory, Inc. Report
Date: April 16, 2020

Asbestos Bridge Inspection/Survey

Bridge Replacement over Dry Slough
38.5679°N,121.8403°W

County Road 96
Yolo County, CA

Presented to:

Julie Price

Crawford & Associates
1165 Scenic Drive, Suite B
Modesto, CA 95350

Inspection Date:

April 16, 2020

Conducted by:

Roland Plumb
Certified Asbestos Consultant

National Analytical Laboratories, Inc.
2201 Francisco Dr. Ste.140-261
El Dorado Hills, CA 95762
Office: (916) 361-0555 | Fax: (916) 361-0540
E-Mail: NAL1@NAL1.com | Web Page: www.NAL1.com

April 22, 2020

Julie Price
Crawford & Associates
1165 Scenic Drive, Suite B
Modesto, CA 95350

RE: Asbestos Bridge Inspection/Survey –
Bridge Replacement: over Dry Slough
38.5679°N, 121.8403°W
County Road 96
Yolo County, CA

Dear Ms. Price,

This report is in regards to the asbestos bridge inspection conducted at the above location. Of the six (6) suspected asbestos containing samples collected, none (0) were found to contain asbestos. Roland Plumb, Certified Asbestos Consultant for National Analytical Laboratories, Inc. (N.A.L.), conducted the inspection on April 20, 2020.

SUMMARY OF FINDINGS -

The bridge inspection and analytical results indicate that no Asbestos is present in the area that is being renovated.

ASBESTOS INSPECTION –

The inspection was completed according to the EPA's Asbestos Containing Building Materials (ACBM) In-Schools Rule; 40 CFR 763.85 (Inspection and Re-Inspection). Currently, EPA regulations classify ACBM as materials containing more than 1-percent (1%) of asbestos. Cal-OSHA currently regulates asbestos to 1/10th of 1% (0.1%) and requires that a certified asbestos worker conduct this work.

Upon completion of the visual inspection, the suspect asbestos bulk sample materials were collected in accordance with EPA and Cal-OSHA protocol. They were placed into new, airtight, plastic bags, sealed, and identified with unique identification numbers. The bulk samples were transported to the laboratory under the chain of custody protocol for analysis.

Although minor destructive sampling was conducted during the site visit, in the event that demolition work reveals any unforeseen suspect materials or if any future renovation work is to be conducted in other areas at the site; the contractor shall cease all work and contact the contractor for further testing.

EMSL Analytical, Inc. (EMSL) in Carle Place, New York, analyzed the bulk suspect asbestos containing samples utilizing the Polarized Light Microscopy (PLM) Method. National Voluntary Laboratory Accreditation Program (NVLAP) Certification #10148-10 and California Environmental Laboratory Accreditation Program (CAELAP) Certification #2339, certifies EMSL.

The location and results from this sampling are as follows:

Sample ID#	Material	Location	Results
96-01	White Coating	South West Corner (~400 sf)	None Detected
96-02	White Coating	North East Corner	None Detected
96-03	White Coating	South East Cornier	None Detected
96-04	Concrete	East Side, Rail System, Multi Hit Composite	None Detected
96-05	Concrete	North West Side, Abutment System, Multi Hit Composite	None Detected
96-06	Concrete	East Side, Under Bridge Beam Support System, Multi Hit Composite	None Detected

Sf=Square Feet

ASBESTOS CONCLUSION -

No asbestos was detected in the above listed samples/materials, therefore, the contractor, his employees and/or his sub-contractors, can complete their work, in the specific areas tested, without any health or safety concerns in regards to the exposure of airborne asbestos fibers.

Included at the end of this report are the laboratory analytical results, chain of custody form(s) and site map. If you have any questions regarding this report or if we can be of further assistance, please contact our office.

Conducted, reviewed and submitted by:

Roland Plumb
Certified Asbestos Consultant
DOSH# 18-6416

EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

http://www.EMSL.com / carleplacelab@emsl.com

EMSL Order: 062006474
Customer ID: NAL51
Customer PO:
Project ID:

Attention: Paula Lee
National Analytical Laboratories (NAL)
2201 Francisco Dr.
Ste. 140-261
El Dorado Hills, CA 95762

Phone: (916) 361-0555
Fax: (916) 361-0540
Received Date: 04/17/2020 9:55 AM
Analysis Date: 04/17/2020
Collected Date: 04/16/2020

Project: County Road 96 CR 96): Bridge Replacement over Dry Slough, Yolo County, KS 10371, Login #42748

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
96-01 *062006474-0001*	South West Corner - White Coating	Gray/White Non-Fibrous Heterogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
96-02 *062006474-0002*	North East Corner - White Coating	Gray/White Non-Fibrous Heterogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
96-03 *062006474-0003*	South East Corner - White Coating	Gray/White Non-Fibrous Heterogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected

Analyst(s)
Steve Jusczuk (3)

Daniel Clarke, Asbestos Laboratory Manager
or Other Approved Signatory

Initial report from: 04/17/2020 14:55:48

OrderID: 062006474

NAL LOG-IN RECORD

Login # 42748

Ph: 916.361.0555 Fax: 916.361.0540

National Analytical Laboratories, Inc.

Job Site/Job #:

Client#-Lot#	4734 / 55
Crawford & Associates	
Phone Number	
FAX Number	
Contact	Julie Price
E-Mail Address	

County Road 96 (CR 96):
Bridge Replacement over Dry Slough, Yolo County

KS 10371

Date	4/14/2020
Sampling Date:	4/16/2020
Sampling Time	12:00:00 PM
Type Of Work:	PLM-BI
No. of Samples	3
Turnaround:	6 hours

Num.	Sample ID#	Location/Description
1	96-01	South West Corner / White Coating
2	96-02	North East Corner / White Coating
3	96-03	South East Cornier / White Coating

*IF RESULTS ARE LESS THAN 1%, PLEASE 400 POINT COUNT

062006474

RECEIVED
EMSL ANALYTICAL, INC.
CARLE PLACE, NY
20 APR 17 AM 9:55

Chain of Custody Information

Released By Signature	Date/ Time	Received By Signature	Date/ Time	
R Plumb	4/16/20	Michele DeVoto	4/17/20	Due: 955 AM
Released By Signature	Date/ Time	Received By Signature	Date/ Time	At:

4/17/20 2^24

EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

http://www.EMSL.com / carleplacelab@emsl.com

EMSL Order: 062006520
Customer ID: NAL51
Customer PO:
Project ID:

Attention: Paula Lee
National Analytical Laboratories (NAL)
2201 Francisco Dr.
Ste. 140-261
El Dorado Hills, CA 95762

Phone: (916) 361-0555
Fax: (916) 361-0540
Received Date: 04/21/2020 10:20 AM
Analysis Date: 04/21/2020
Collected Date: 04/16/2020

Project: County Road 96 (CR 96): Bridge Replacement over Dry Slough, Yolo County

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
96-04 *062006520-0001*	East Side/Side Rail Concrete	Gray Non-Fibrous Homogeneous	1% Cellulose	49% Quartz 30% Ca Carbonate 20% Gypsum	None Detected
96-05 *062006520-0002*	North West Side/Abutment Concrete	Gray Non-Fibrous Homogeneous	2% Cellulose	55% Quartz 32% Ca Carbonate 10% Gypsum 1% Non-fibrous (Other)	None Detected
96-06 *062006520-0003*	East Side/Beam Under Bridge Concrete	Gray Non-Fibrous Homogeneous	5% Cellulose	53% Quartz 19% Ca Carbonate 23% Gypsum	None Detected

Analyst(s)
Omatie Ramrattan-Scarallo (3)

Daniel Clarke, Asbestos Laboratory Manager
or Other Approved Signatory

Initial report from: 04/21/2020 13:45:55

OrderID: 062006520

N·A·L ENVIRONMENTAL TESTING & CONSULTING

NAL LOG-IN RECORD

Login # 42748

Ph: 916.361.0555 Fx: 916.361.0540

National Analytical Laboratories, Inc.

Job Site/Job #:

County Road 96 (CR 96):
Bridge Replacement over Dry Slough, Yolo County

KS 10371

Client#-Lot#	4734 / 55
Crawford & Associates	
Phone Number	
FAX Number	
Contact	Julie Price
E-Mail Address	

Date	4/14/2020
Sampling Date:	4/16/2020
Sampling Time	12:00:00 PM
Type Of Work:	PLM-BI
No. of Samples	6
Turnaround:	6 hours

Num.	Sample ID#	Location/Description
1	96-04	East Side / Side Rail Concrete
2	96-05	North West Side / Abutment Concrete
3	96-06	East Side / Beam Under Bridge Concrete

*IF RESULTS ARE LESS THAN 1%, PLEASE 400 POINT COUNT (OR)

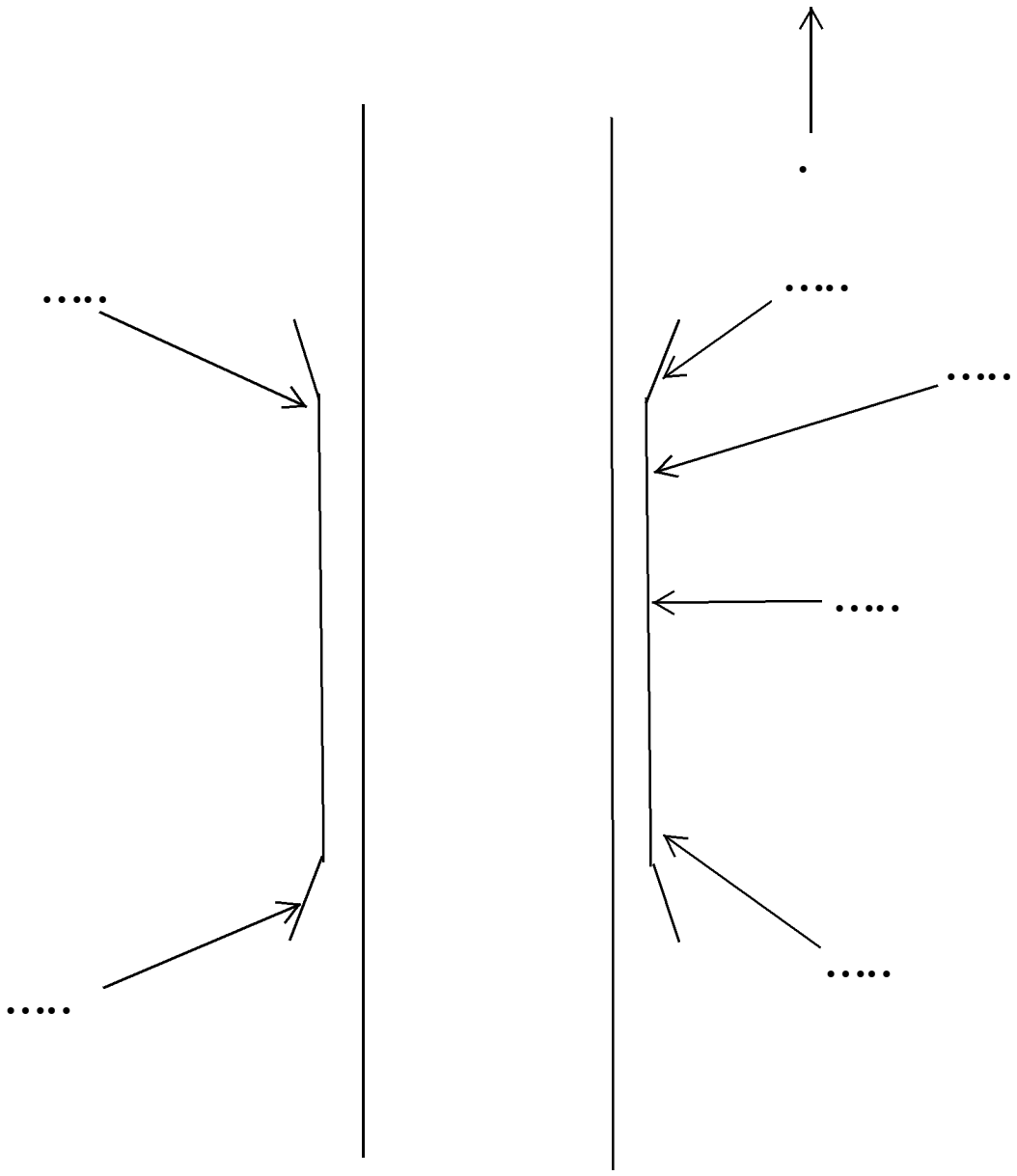
RECEIVED
EMSL-ANALYTICAL, INC.
CARLE PLACE, NY
20 APR 21 AM 10: 20

062006520

Chain of Custody Information

Released By Signature	Date/ Time	Received By Signature	Date/ Time	
R Plumb	4/20/20	4-21-2020		Due: 0200
Released By Signature	Date/ Time	Received By Signature	Date/ Time	At:

4/21/20



ASBESTOS SAMPLE LOCATION MAP	**Site Name:** Co. Rd. 96 Bridge over Dry Slough	**Project #:** 10371	
Survey Date: 04/16/20	**Site Address:**	**Scale:** Not to scale	
Area: Bridge	Latitude 38.5679'N Longitude 121.8403'W	Layout and sample locations are approximated. **Legend:** - Non-ACCM Samples + ACCM Samples	N·A·L

Yolo-Solano Air Quality Management District
1947 Galileo Court, Suite 103; Davis, CA 95618

ASBESTOS DEMOLITION AND RENOVATION NOTIFICATION FORM

District Assigned Notification #

SEND WITH CHECK, MONEY ORDER TO THE ADDRESS LISTED ABOVE, OR PAY BY CREDIT CARD AT YSAQMD.ORG/PAYMENTS. If paying by credit card (service fees apply) you may send completed form to payments@ysaqmd.org or fax to (530) 757-3670. If a 10 working day wait period applies, the wait period does not begin until both payment confirmation and the notification form is received by the District. Fee table is included in the instructions.

1. APPLICATION TYPE
Check the type of project

[X] Renovation (10 working day waiting period)
[ ] Demolition (10 working day waiting period
[ ] Emergency Renovation (see below)
[ ] Emergency/Ordered Demolition (see below)
[ ] Demolition: Fire Training Exercise

Check if this a revised notification: [ ] Original Notification. No.: _____ Date Submitted: _____

2. OWNER INFORMATION

Name _____

Address _____ City, State, Zip _____

Contact Name _____ Phone _____ Email _____

3. CONTRACTOR INFORMATION

Name _____ Building Permit No. _____

Address _____ City, State, Zip _____

Contact Name _____ Phone _____ Email _____

4. FACILITY INFORMATION

Facility/Structure Name Bridge No. of Floors ____

Description Bridge Replacement

Address ± latitude 38.5679°N and longitude 121.8403°W City _____ Zip ____

Site Contact _____ Phone _____ Email _____

5. CERTIFIED ASBESTOS CONSULTANT (CAC) PERFORMING SURVEY

Name Ron Plumb DOSH No. 18-6416

Address 2201 Francisco Drive, Suite 140-261 City, State, Zip El Dorado Hills, CA 95672

Contact Name Terrena Tilford Phone (916) 361-0555 Email terrena@nai1.com

6. ASBESTOS ABATEMENT CONTRACTOR INFORMATION

Name _____ DOSH No. _____

Address _____ City, State, Zip _____

Contact Name _____ Phone _____ Email _____

7. PROJECT INFORMATION

Is asbestos present? YES ____ NO ____ If so, a copy of your survey must be attached to this form.

Abatement Dates _____ to _____ Factor in the 10 working day waiting period.

Renovation/Demolition Dates _____ to _____ Factor in the 10 working day waiting period.

RACM To Be Removed | Describe and include the amount

_____

Removal Method

_____

Non-RACM To Be Removed | Describe and include the amount

Category I _____

Category II _____

Removal Method

_____

_____

8. WASTE DISPOSAL INFORMATION

Transporter Name _____

Address _____ City, State, Zip _____

EPA ID No. _____ Phone _____

Disposal Site _____ Phone _____

Address _____ City, State, Zip _____

9. EMERGENCY RENOVATION OR DEMOLITION

Complete only if seeking waiting period waiver due to emergency.

Describe the emergency: _____

_____

_____

Emergency Date _____ Time _____

10. ORDERED DEMOLITION

Complete only if seeking waiting period waiver due to an ordered demolition.

Agency ordering demolition: _____ Date of Order _____

Contact Name _____ Title _____ Phone _____

11. I certify that an individual trained in the provisions of this Regulation (40 CFR Part 61, Subpart M) and familiar with District Rule 9.9 will be on site during the abatement process associated with this demolition/renovation notification, and evidence that the required training has been accomplished by this person will be available for inspection during normal business hours. If paying by credit card signed application may be transmitted by facsimile (fax) or electronic mail (email), and any such signature shall have the same legal effect as an original.

_____ _____

Signature of Owner/Contractor Date

12. MUST BE SIGNED

I certify that the above information is correct. If paying by credit card signed application may be transmitted by facsimile (fax) or electronic mail (email), and any such signature shall have the same legal effect as an original.

_____ _____

Signature of Owner/Contractor Date

13. The District will provide notification on the start of the 10-day waiting period, if applicable.

How do you prefer to be notified? EMAIL ___ FAX ___ TO: _____

Email address or fax number

DISTRICT USE ONLY:

Payment Amt. _____ (check, credit card) Your Initials_____

_____ Notes:_____

Project No._____ Date Approved_____ Initials_____

Date Notified Applicant (10-day)_____ Initials_____/Entered Database___Initials___Scan___Initials

APPENDIX G

BC Laboratories, Inc. Report
Date: May 11, 2020

Date of Report: 05/11/2020

Steve Carter

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Client Project:	18-474.2 CR96 at Dry Slough
BCL Project:	Soil Samples
BCL Work Order:	2011510
Invoice ID:	B379638

Enclosed are the results of analyses for samples received by the laboratory on 4/17/2020. If you have any questions concerning this report, please feel free to contact me.

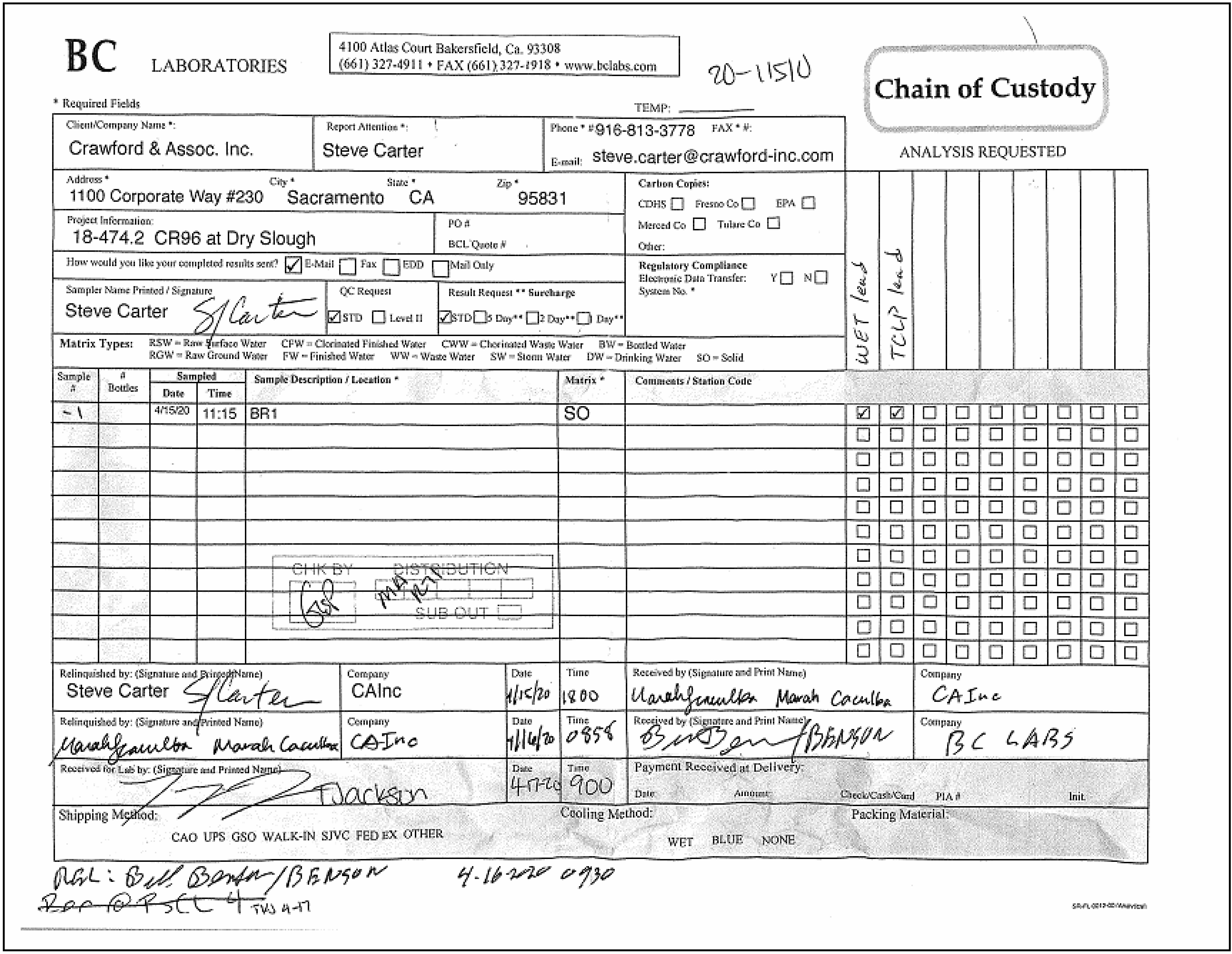
Sincerely,

Contact Person: Felicia Johnson
Client Service Rep

Stuart Buttram
Technical Director

Table of Contents

Chain of Custody and Cooler Receipt Form for 2011510 Page 1 of 2



BC LABORATORIES

4100 Atlas Court Bakersfield, Ca. 93308
(661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

20-1510

Chain of Custody

* Required Fields

TEMP: ____

Client/Company Name *: Crawford & Assoc. Inc.	Report Attention *: Steve Carter	Phone * #: 916-813-3778 FAX * #: E-mail: steve.carter@crawford-inc.com

Address *: 1100 Corporate Way #230 City *: Sacramento State *: CA Zip *: 95831

Project Information: 18-474.2 CR96 at Dry Slough

PO #:

BCL Quote #:

Carbon Copies: CDHS ☐ Fresno Co ☐ EPA ☐ Merced Co ☐ Tulare Co ☐ Other:

How would you like your completed results sent? ☑ E-Mail ☐ Fax ☐ EDD ☐ Mail Only

Regulatory Compliance Electronic Data Transfer: Y ☐ N ☐ System No. *

Sampler Name Printed / Signature: Steve Carter S Carter

QC Request: ☑ STD ☐ Level II

Result Request ** Surcharge: ☑ STD ☐ 5 Day** ☐ 2 Day** ☐ 1 Day**

Matrix Types: RSW = Raw Surface Water CFW = Clorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

ANALYSIS REQUESTED

Sample #	# Bottles	Sampled Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	WET lead	TCLP lead							
-1		4/15/20	11:15	BR1	SO		☑	☑	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐	☐	☐	☐

CHK BY: CSP DISTRIBUTION: MA
SUB OUT ☐

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
Steve Carter S Carter	CAInc	4/15/20	1800	Marah Caculba	CAInc
Marah Caculba	CAInc	4/16/20	0858	Bill Benson / BENSON	BC LABS

Received for Lab by: (Signature and Printed Name)	Date	Time	Payment Received at Delivery:
T Jackson	4-17-20	900	Date: Amount: Check/Cash/Card PIA # Init.

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER

Cooling Method: WET BLUE NONE

Packing Material:

RGL: Bill Benson/BENSON 4-16-2020 0930
~~Rec @ PSC~~ 4 TWJ 4-17

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.
Report ID: 1001027940 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 3 of 10

Chain of Custody and Cooler Receipt Form for 2011510 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 20-11510

SHIPPING INFORMATION: Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐ BC Lab Field Service ☐ Other ☒ (Specify) GLS

SHIPPING CONTAINER: Ice Chest ☒ None ☐ Box ☐ Other ☐ (Specify)

FREE LIQUID: YES ☐ NO ☐ W / S

Refrigerant: Ice ☐ Blue Ice ☐ None ☒ Other ☐ Comments: NO ICE

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: .97 Container: glass Thermometer ID: 274 Date/Time 4-17-20 0900

Temperature: (A) 19.1 °C / (C) 18.9 °C 4/17/20 Analyst Init TKJ

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr+6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR	A									
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: JM Date/Time: 4/17/20 1900

A = Actual / C = Corrected

Rev 21 05/23/2016

Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831	**Reported:** 05/11/2020 10:45 Project: Soil Samples Project Number: 18-474.2 CR96 at Dry Slough Project Manager: Steve Carter

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2011510-01	**COC Number:**	---	**Receive Date:**	04/17/2020 09:00
	Project Number:	---	**Sampling Date:**	04/15/2020 11:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	BR1	**Lab Matrix:**	Solids
	Sampled By:	---	**Sample Type:**	Soil

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/11/2020 10:45
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

WET Test (STLC)

BCL Sample ID: 2011510-01 | **Client Sample Name:** BR1, 4/15/2020 11:15:00AM

Constituent	Result	Units	PQL	MDL	Method	STLC Limits	Lab Quals	Run #
Lead	**1.2**	**mg/L**	**0.50**	**0.16**	**EPA-6010B**	5.0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/22/20 09:30	04/22/20 19:15	KDF	PE-OP4	1	B076141	EPA 3005A

Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831	**Reported:** 05/11/2020 10:45 Project: Soil Samples Project Number: 18-474.2 CR96 at Dry Slough Project Manager: Steve Carter

WET Test (STLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B076141						
Lead	B076141-BLK1	ND	mg/L	0.50	0.16	

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/11/2020 10:45
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

WET Test (STLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B076141										
Lead	B076141-BS1	LCS	18.391	20.000	mg/L	92.0		85 - 115		

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/11/2020 10:45
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

WET Test (STLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B076141	Used client sample: N										
Lead	DUP	2010437-03	ND	ND		mg/L			20		
	MS	2010437-03	ND	17.833	20.408	mg/L		87.4		75 - 125	
	MSD	2010437-03	ND	19.192	20.408	mg/L	7.3	94.0	20	75 - 125	

Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831	**Reported:** 05/11/2020 10:45 Project: Soil Samples Project Number: 18-474.2 CR96 at Dry Slough Project Manager: Steve Carter

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit

Date of Report: 05/19/2020

Steve Carter

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Client Project:	18-474.2 CR96 at Dry Slough
BCL Project:	Soil Samples
BCL Work Order:	2010067
Invoice ID:	B377089, B380369

Enclosed are the results of analyses for samples received by the laboratory on 4/7/2020. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1001021646

Sincerely,

Contact Person: Felicia Johnson
Client Service Rep

Stuart Buttram
Technical Director

Table of Contents

BC LABORATORIES

4100 Atlas Court Bakersfield, Ca. 93308
(661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Chain of Custody

* Required Fields 20-10067

TEMP: _____

Client/Company Name *: Crawford & Assoc. Inc.

Report Attention *: Steve Carter

Phone * #: 916-813-3778 FAX * #:

E-mail: steve.carter@crawford-inc.com

Address *: 1100 Corporate Way #230 City *: Sacramento State *: CA Zip *: 95831

Project Information: 18-474.2 CR96 at Dry Slough

PO #

BCL Quote #

How would you like your completed results sent? ☑ E-Mail ☐ Fax ☐ EDD ☐ Mail Only

Sampler Name Printed / Signature: SCarter

QC Request: ☑ STD ☐ Level II

Result Request ** Surcharge: ☑ STD ☐ 5 Day** ☐ 2 Day** ☐ 1 Day**

Carbon Copies: CDHS ☐ Fresno Co ☐ EPA ☐ Merced Co ☐ Tulare Co ☐ Other:

Regulatory Compliance: Electronic Data Transfer: Y ☐ N ☐ System No. *

Matrix Types: RSW = Raw Surface Water, RGW = Raw Ground Water, CFW = Clorinated Finished Water, FW = Finished Water, CWW = Chorinated Waste Water, WW = Waste Water, BW = Bottled Water, SW = Storm Water, DW = Drinking Water, SO = Solid

ANALYSIS REQUESTED

Sample #	# Bottles	Sampled Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	Total Lead	pH
-1		4/3/20		ADL1A	SO	Homogonize each sample before testing	✓	
-2		4/3/20		ADL1B	SO		✓	
-3		4/3/20		ADL1C	SO		✓	
-4		4/3/20		ADL2A	SO		✓	
-5		4/3/20		ADL2B	SO		✓	✓
-6		4/3/20		ALD2C	SO		✓	
-7		4/3/20		ALD3A	SO		✓	
-8		4/3/20		ADL3B	SO		✓	
-9		4/3/20		ADL3C	SO		✓	
-10		4/3/20		ADL4A	SO		✓	
-11		4/3/20		ADL4B	SO		✓	

CHK BY: SC

DISTRIBUTION: MAN / SUB OUT

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
SCarter	CAInc	4/4/20	1530	Marah Scantlin	CA Inc
Marah Scantlin	CAInc	4/6/20	9:00	Bill Benson/Benson	BC LABS

Received for Lab by: (Signature and Printed Name)	Date	Time	Payment Received at Delivery:
Kristin Gamba	4/7	0915	Date: Amount: Check/Cash/Card PIA # Inst.

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER

Cooling Method: WET BLUE NONE

Packing Material:

REL: Bill Benson/BENSON | BC LABS | 4-6-2020 | 0930

SR-FL-2013-05-Waiver-Wet

BC LABORATORIES

4100 Atlas Court Bakersfield, Ca. 93308
(661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Chain of Custody

* Required Fields 20-10067

TEMP: _____

Client/Company Name *: Crawford & Assoc. Inc.

Report Attention *: Steve Carter

Phone * #: 916-813-3778 FAX * #:

E-mail: steve.carter@crawford-inc.com

Address *: 1100 Corporate Way #230 City *: Sacramento State *: CA Zip *: 95831

Project Information: 18-474.1 CR96 at Dry Slough

PO #

BCL Quote #

How would you like your completed results sent? ☑ E-Mail ☐ Fax ☐ EDD ☐ Mail Only

Sampler Name Printed / Signature: S Carter

QC Request: ☑ STD ☐ Level II

Result Request ** Surcharge: ☑ STD ☐ 5 Day** ☐ 2 Day** ☐ 1 Day**

Carbon Copies: CDHS ☐ Fresno Co ☐ EPA ☐ Merced Co ☐ Tulare Co ☐ Other:

Regulatory Compliance: Electronic Data Transfer: Y ☐ N ☐ System No. *

Matrix Types: RSW = Raw Surface Water, RGW = Raw Ground Water, CFW = Clorinated Finished Water, FW = Finished Water, CWW = Chorinated Waste Water, WW = Waste Water, BW = Bottled Water, SW = Storm Water, DW = Drinking Water, SO = Solid

ANALYSIS REQUESTED

Sample #	# Bottles	Sampled Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	Total lead	Total Cadmium
-12		4/3/20		ADL4C	SO	Homogonize before testing	✓	
-13		4/3/20		RD1	SO		✓	
-14		4/3/20		BR1	SO		✓	✓

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
S Carter	CAInc	4/4/20	1530	Marah Gaulon	CAInc
Marah Gaulon	CAInc.	4/6/20	9:00	Bill Benson / BENSON	BC LABS

Received for Lab by: (Signature and Printed Name): Kristin Gaulon — Date: 4/7 — Time: 0905

Payment Received at Delivery: Date: Amount: Check/Cash/Card: PIA #: Init.

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER

Cooling Method: WET BLUE NONE

Packing Material:

REL: Bill Benson / BENSON | BCLABS | 4-6-2020 | 0930

BR-FL-8012-00-Revision

Chain of Custody and Cooler Receipt Form for 2010067 Page 3 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 2

Submission #: 20-10067

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☑ (Specify) gso

SHIPPING CONTAINER
Ice Chest ☐ None ☐ Box ☑
Other ☐ (Specify)

FREE LIQUID
YES ☐ NO ☐
W / S

Refrigerant: Ice ☐ Blue Ice ☐ None ☑ Other ☐ Comments: No ice

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Ziplock Thermometer ID: 274
Temperature: (A) 12.7 °C / (C) 12.7 °C

Date/Time 4/7/20
Analyst Init 0905

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr6+										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG	A	A	A	A	A	A	A	A	A	A
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: Date/Time: 4/7/20 1016
A = Actual / C = Corrected

Rev 21 05/23/2016
IS\AWPDocWordPerfect\LAB_DOCS\FORMS\SAMPECiev 200

Chain of Custody and Cooler Receipt Form for 2010067 Page 4 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 20-10067

SHIPPING INFORMATION: Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐ BC Lab Field Service ☐ Other ☑ (Specify) gso

SHIPPING CONTAINER: Ice Chest ☐ None ☐ Box ☑ Other ☐ (Specify)

FREE LIQUID: YES ☐ NO ☐ W / S

Refrigerant: Ice ☐ Blue Ice ☐ None ☑ Other ☐ Comments: No ice

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Ziplock Thermometer ID: 274 Temperature: (A) 12.7 °C / (C) 12.7 °C

Date/Time 4/7/20 Analyst Init CKG 0905

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{6+}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
4oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
4oz / 16oz / 32oz AMBER										
4oz / 16oz / 32oz JAR										
SOIL SLEEVE										
VOB VIAL										
PLASTIC BAG	A	A	A	A						
KEVLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: Date/Time: 4/7/20 1016

A = Actual / C = Corrected

Rev 21 05/23/2016

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2010067-01	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL1A	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-02	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL1B	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-03	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL1C	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-04	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL2A	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-05	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL2B	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-06	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL2C	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-07	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL3A	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2010067-08	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL3B	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-09	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL3C	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-10	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL4A	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-11	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL4B	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-12	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	ADL4C	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-13	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	RD1	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil
2010067-14	**COC Number:**	---	**Receive Date:**	04/07/2020 09:05
	Project Number:	---	**Sampling Date:**	04/03/2020 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	BR1	**Lab Matrix:**	Solids
	Sampled By:	Steve Carter	**Sample Type:**	Soil

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-01 | **Client Sample Name:** ADL1A, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**34**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:03	JCC	PE-OP4	1	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-02 | **Client Sample Name:** ADL1B, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**7.0**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:12	JCC	PE-OP4	1	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-03 | **Client Sample Name:** ADL1C, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**3.1**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:14	JCC	PE-OP4	0.962	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-04 | **Client Sample Name:** ADL2A, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**30**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:15	JCC	PE-OP4	1	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Chemical Analysis

BCL Sample ID: 2010067-05 | **Client Sample Name:** ADL2B, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	**7.18**	**pH Units**	**0.05**	**0.05**	**EPA-9045D**	ND	**pH1:1**	1
pH Measurement Temperature	**21.1**	**C**	**0.1**	**0.1**	**EPA-9045D**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-9045D	04/13/20 12:00	04/13/20 12:00	RT1	MANUAL	1	B075265	EPA 9045

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-05 | **Client Sample Name:** ADL2B, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**12**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:16	JCC	PE-OP4	0.952	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-06 | **Client Sample Name:** ADL2C, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**5.1**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:17	JCC	PE-OP4	0.962	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-07 | **Client Sample Name:** ADL3A, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**14**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:18	JCC	PE-OP4	0.990	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-08 | **Client Sample Name:** ADL3B, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**12**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:19	JCC	PE-OP4	0.935	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-09 | **Client Sample Name:** ADL3C, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**3.2**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:23	JCC	PE-OP4	1	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-10 | **Client Sample Name:** ADL4A, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**24**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:24	JCC	PE-OP4	0.990	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-11 | **Client Sample Name:** ADL4B, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**3.5**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:26	JCC	PE-OP4	0.980	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-12 | **Client Sample Name:** ADL4C, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Lead	**3.2**	**mg/kg**	**2.5**	**0.28**	**EPA-6010B**	1000		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:27	JCC	PE-OP4	0.935	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-13 | **Client Sample Name:** RD1, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Cadmium	ND	mg/kg	2.5	0.26	EPA-6010B	100	A07	1
Lead	**20**	**mg/kg**	**12**	**1.4**	**EPA-6010B**	1000	**A07**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:28	JCC	PE-OP4	4.854	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

BCL Sample ID: 2010067-14 | **Client Sample Name:** BR1, 4/3/2020 12:00:00AM, Steve Carter

Constituent	Result	Units	PQL	MDL	Method	TTLC Limits	Lab Quals	Run #
Cadmium	**1.8**	**mg/kg**	**2.5**	**0.26**	**EPA-6010B**	100	**J,A07**	1
Lead	**290**	**mg/kg**	**12**	**1.4**	**EPA-6010B**	1000	**A07**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-6010B	04/08/20 07:15	04/08/20 14:29	JCC	PE-OP4	4.717	B074856	EPA 3050B

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Chemical Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B075265						
pH	B075265-BLK1	ND	pH Units	0.05	0.05	
pH Measurement Temperature	B075265-BLK1	ND	C	0.1	0.1	

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Chemical Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B075265										
pH	B075265-BS1	LCS	4.0320	4.0000	pH Units	101		95 - 105		

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Chemical Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B075265	Used client sample: Y - Description: ADL2B, 04/03/2020 00:00										
pH	DUP	2010067-05	7.1790	7.1940		pH Units	0.2		20		

Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831	**Reported:** 05/19/2020 15:50 Project: Soil Samples Project Number: 18-474.2 CR96 at Dry Slough Project Manager: Steve Carter

Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B074856						
Cadmium	B074856-BLK1	ND	mg/kg	0.50	0.052	
Lead	B074856-BLK1	ND	mg/kg	2.5	0.28	

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B074856										
Cadmium	B074856-BS1	LCS	9.1454	10.000	mg/kg	91.5		75 - 125		
Lead	B074856-BS1	LCS	94.408	100.00	mg/kg	94.4		75 - 125		

Crawford & Associates, Inc.
1100 Corporate Way, Suite 230
Sacramento, CA 95831

Reported: 05/19/2020 15:50
Project: Soil Samples
Project Number: 18-474.2 CR96 at Dry Slough
Project Manager: Steve Carter

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B074856	Used client sample: Y - Description: ADL1A, 04/03/2020 00:00										
Cadmium	DUP	2010067-01	0.21898	0.23232		mg/kg	5.9		20		J
	MS	2010067-01	0.21898	8.2523	10.000	mg/kg		80.3		75 - 125	
	MSD	2010067-01	0.21898	8.3890	10.000	mg/kg	1.6	81.7	20	75 - 125	
Lead	DUP	2010067-01	33.894	36.880		mg/kg	8.4		20		
	MS	2010067-01	33.894	109.46	100.00	mg/kg		75.6		75 - 125	
	MSD	2010067-01	33.894	110.43	100.00	mg/kg	0.9	76.5	20	75 - 125	

Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831	**Reported:** 05/19/2020 15:50 Project: Soil Samples Project Number: 18-474.2 CR96 at Dry Slough Project Manager: Steve Carter

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A07	Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
pH1:1	pH result reported on a 1:1 dilution of sample

APPENDIX H

Caltrans Unknown Hazards Procedure

Figure 7-1.1. Unknown Hazards Procedure