INITIAL STUDY, ENVIRONMENTAL CHECKLIST, AND MITIGATED NEGATIVE DECLARATION

for

County Road R over Glenn-Colusa Canal Bridge Replacement Project, Bridge No. 11C-0011, Federal Aid No. BRLO-5911(057)

December 2022

Lead Agency:

Glenn County
Public Works Agency
777 North Colusa Street, Willows, CA 95988

Prepared By:

Glenn County
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CONSULTATION AND COORDINATION

a. County of Glenn, Public Works Agency
b. California Department of Transportation, District 3
c. California Department of Fish and Wildlife
d. United States Fish and Wildlife Service
e. U.S. Department of Agriculture and Natural Resources Conservation
f. United States Army Corps of Engineers

SOURCES CITED

The following are also referenced where appropriate in the Environmental Checklist Form:

a. California Department of Transportation (CALTRANS), *California Scenic Highway Program*.
b. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Important Farmland In California*, 2022.
c. Northern Sacramento Valley Planning Area 2021 Triennial Air Quality Attainment Plan, December 2021.
d. Volume III, Glenn County Environmental Setting Technical Paper, Glenn County General Plan, 1993.
e. Glenn County General Plan EIR, June 1993.
f. Foundation Report, Replacement of County Road R Bridge over Glenn Colusa Irrigation District Canal, Caltrans Bridge No. 11C-0011 Glenn County, California, Willdan Geotechnical, October 15, 2019.
g. Design Hydraulic Study, County Road R Bridge at the Glenn-Colusa Canal, Bridge Number 11C0011, Glenn County, California, Avila & Associates, December 16, 2019.
h. Historic Property Survey Report for County Road R Glenn-Colusa Canal Bridge Replacement Project, Glenn County, California, Pacific Legacy, October 2020.
i. Archaeological Survey Report for County Road R over Glenn Colusa Canal Bridge Replacement Project, Glenn County, California, Pacific Legacy, October 2020.

j. Delineation of Waters of the United States, County Road R over Glenn-Colusa Canal Bridge Replacement Project, Stantec, March 13, 2018.
k. Biological Assessment County Road R (11C-0011) over Glenn-Colusa Canal Bridge Replacement Project, Glenn County, California, Stantec, April 2021.
l. Natural Environment Study, County Road R over Glenn-Colusa Canal Bridge (No. 11C-0011) Replacement Project, Glenn County, California, Stantec, February 2021.
m. Initial Site Assessment Transaction Screen Assessment, County Road R at Glenn Colusa Irrigation District (GCID) Canal Bridge Replacement, Willdan, March 30, 2021.
n. Secretary of the Interior's Standards (SOIS) Action Plan, County Road R Over Glenn-Colusa Canal Bridge (11C-0011) Replacement Project, Stantec, October 17, 2019.
o. County Road R over Glenn-Colusa Canal Bridge (No. 11C-0011) Replacement Project Farmland Impact Study, Stantec/Willdan, December 2022.

ABBREVIATIONS AND ACRONYMS

Agencies, Boards, Commissions, Districts:

CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CDWR	California Department of Water Resources
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
NAHC	Native American Heritage Commission
NSVAB	Northern Sacramento Valley Air Board
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Guidelines, Policies, Programs, Regulations:

CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CWA	Clean Water Act
ESA	Endangered Species Act
MBTA	Migratory Bird Treaty Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NPDES	National Pollution Discharge Elimination System
NRHP	National Registry of Historic Places

Miscellaneous:

APE	Area of Potential Effect
ASR	Archaeological Survey Report
BMPs	Best Management Practices
BSAs	Biological Study Areas
Cm	Centimeter
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
ESAs	Environmentally Sensitive Areas
FIRM	Flood Insurance Rate Map
GHG	Green House Gases
ISA	Initial Site Assessment Transaction Screen Assessment
MDBM	Mount Diablo Base and Meridian
MLD	Most Likely Descendant
NES	Natural Environmental Study
NOx	Nitrogen oxides
$PM_{10 / 2.5}$	Particulate Matter less than 10 / 2.5 Microns
ROG	Reactive Organic Gases
RSP	Rock Slope Protection

INITIAL STUDY, ENVIRONMENTAL CHECKLIST AND MITIGATED NEGATIVE DECLARATION

1. PROJECT DESCRIPTION

A. Project Title:	County Road R over Glenn-Colusa Canal Bridge Replacement Project, Bridge No. 11C-0011, Federal Aid No. BRLO-5911(057)
B. Lead Agency Name and Address:	Glenn County Public Works Agency 777 North Colusa Street, Willows, CA
C. Contact Person and Phone Number:	Donald Rust, Director, Public Works Agency (530) 934-6530
D. Project Location:	County Road R, approximately 0.35 miles north of County Road 39, Glenn County, CA Latitude: 39.5869, Longitude: -122.1169
E. Project Sponsor's Name and Address:	Glenn County Public Works Agency 777 North Colusa Street, Willows, CA
F. General Plan Designation:	Intensive Agriculture
G. Zoning:	Public Right of Way; AE-40 (Exclusive Agricultural Zone – 40 acre minimum); FS-80 (Farmland Security Zone, 80 acre minimum)
H. Surrounding Land Uses and Settings:	The project site is located in the County of Glenn (Figure 1) in an area that is currently developed with agricultural uses. The bridge site is located along County Road R approximately 0.35 miles north of County Road 39 (Figure 2). The existing bridge spans the Glenn-Colusa Irrigation District Canal in an area abutted on all sides (north and south, east and west) by agricultural uses.

LOCATION MAP

Figure 1
Regional Location Map

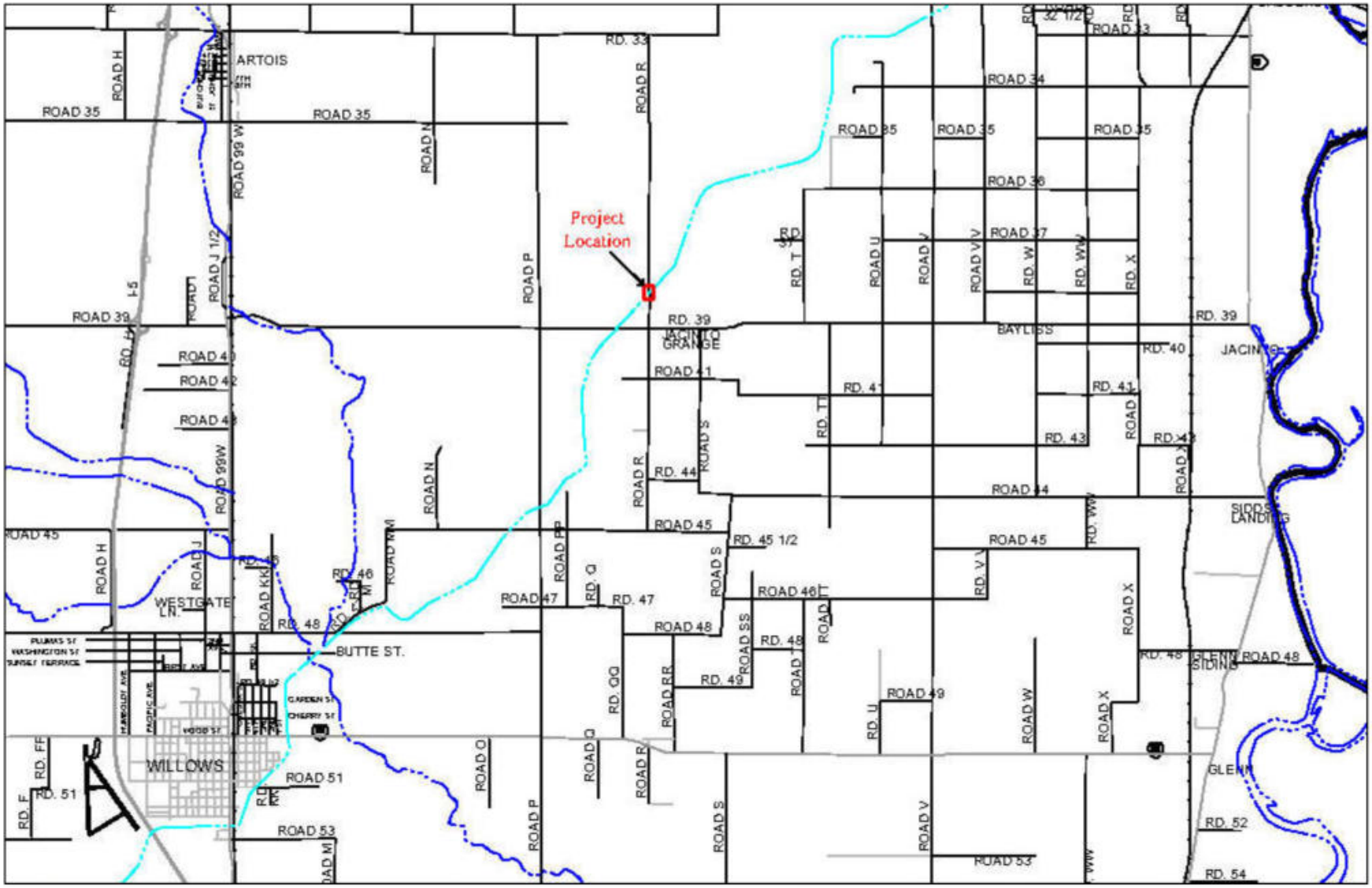


Figure 2
Project Location Map

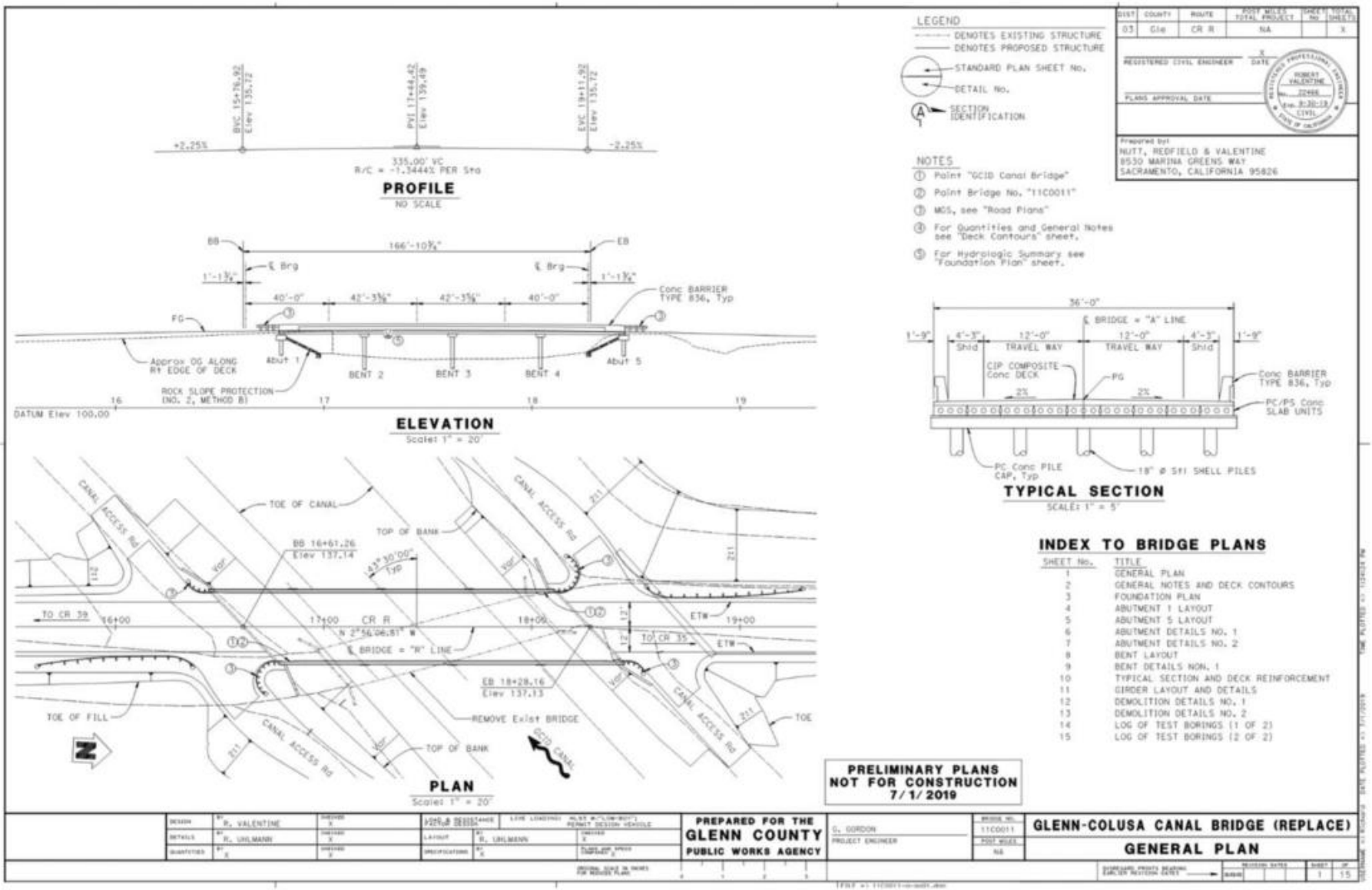


Figure 3
General Plan

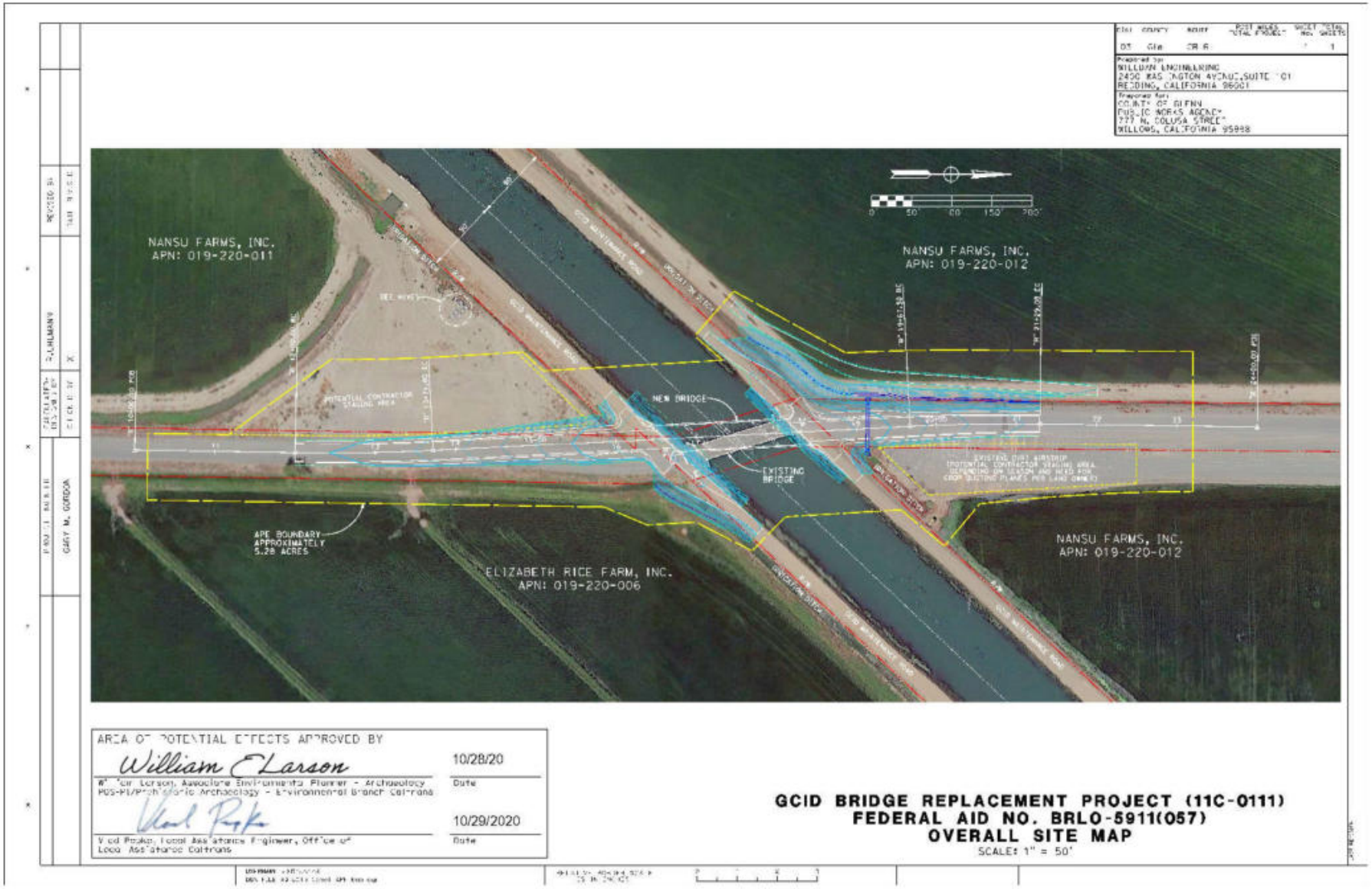


Figure 4
APE Map

I. DESCRIPTION OF PROJECT:

Project Funding

The County of Glenn (County) has received funding through the Federal Highway Bridge Program (HBP) to replace bridge number 11C-0011 on County Road R approximately 0.35 miles north of County Road 39. The funding for the design and construction of this structure is 100 percent financed through the HBP program with no match required of the County. At this point in time, the County has received approval for the expenditure of Preliminary Engineering (PE) funds to complete the design and permitting process in order to deliver a final bid package.

Project Area Characteristics

The proposed project is located near the unincorporated community of Artois. This location can be found on the *Glenn, California* 7.5-minute USGS quadrangle in Township 20N, Range 2W, Sections 17 and 18, MDBM. The County is proposing to replace the existing bridge on County Road R spanning the Glenn Colusa Irrigation District (GCID) Canal. The GCID canal delivers irrigation water on a southwesterly path through the County from its headworks/pump station on the Sacramento River in the northeast corner of the County. The existing County Road R Bridge, built in 1950, was closed to traffic on January 9, 2014, due to excessive corrosion of the steel shells on the piles. After temporary repairs were made to the bents, the bridge was reopened in June 2018. Due to the excessive corrosion, the bridge has been determined to be structurally deficient with a sufficiency rating of 37.9 and is eligible for replacement under the HBP. The purpose of the proposed project is to construct a bridge that provides a safe and dependable route for traffic crossing the GCID Canal.

Project Components

The proposed project would replace the existing, functionally obsolete and structurally deficient, bridge on a new alignment. The proposed bridge will be a 4-span, precast, prestressed voided slab bridge with a composite deck. It will accommodate 2 travel lanes with 4-ft shoulders, as shown in the attached General Plan (Figure 3). The superstructure will be supported on driven steel shell piles and spreadfooting abutments.

Construction Activities

The proposed project will generally involve vegetation removal; site clearing, preparation, and earthwork; utility relocation; demolition and removal of the existing bridge structure; construction of new bridge foundations, abutments, retaining structures, deck, and guardrails; realignment of a segment of County Road R and drainage ditches; applying pavement overlay; and hydroseeding disturbed areas, including the former roadway. The project will also improve safety by installing standard concrete barriers and approach guard railings. Vegetation removal will be necessary in the proposed location of the new bridge and along the new road alignment. Pile driving is anticipated for the new piles. Blasting is not expected as no subsurface rock was found in the original borings to a depth of 50 feet. Demolished materials will be removed and disposed of offsite at an appropriate facility. The roadway will be closed at the project site during construction and traffic will be detoured around the site on existing roadways for the duration of the project.

Temporary Water Diversion System

The Glenn-Colusa Canal is an unlined canal that flows most of the year, with the exception of approximately six weeks when the pumps are shut off in January and February to perform canal maintenance. During

periods where water is ponding but not flowing in the canal, a temporary diversion dam and piping may be used to divert canal water around the demolition area of the existing bridge and the excavation areas for the new bridge foundations. The diversion dam and piping will be temporarily installed in the canal bed approximately 100 to 150 feet northeast (upstream) of the existing bridge. The diversion dam will consist of a simple dam or device and will be about 75 to 80 feet long, extending between both banks of the canal. Flexible piping will likely be used to carry canal water through the instream work area. The piping will be sized to allow canal water to be directly channeled and conveyed through the work area with minimal impacts at the inlet and outlet locations of the diversion piping. The diversion device will be removed after the bridge work is complete when the irrigation district resumes normal canal flows after completion of their maintenance activities. The instream demolition work will take place during the period where the canal is not flowing. Construction within the canal will generally take place between January and February when the GCID Canal is not transporting water for agricultural purposes. Work performed in and around the Glenn-Colusa Canal (e.g., demolition, diversion dam, and abutment construction) will be scheduled during these off-peak months.

Temporary Construction Access and Staging

The existing County Road R alignment will be used for project access. Staging will occur along the road, where feasible, and may occur on adjacent private properties to the north and south of the existing bridge. The owner of the northeast and southwest parcels has offered areas on his private property for staging; however, staging on the northeast parcel could be impacted by a gravel airstrip immediately adjacent to the road used by crop dusters at certain times of the year.

Bridge Removal

The contractor will be required to submit a specific demolition and removal plan, but, in general, the process will follow these following steps: (a) when the irrigation district has lowered the water for maintenance, it is anticipated that a temporary water diversion system will be installed. (b) the existing bridge deck comprised of a corrugated steel deck filled with asphalt concrete and railing will be removed, most likely utilizing an excavator or backhoe. Once the deck and rail have been removed, the steel I-Beams resting on the reinforced concrete caps will be removed typically with a crane to salvage the beams for storage in the County's yard. After the I-Beams have been removed, the abutments, bent caps, and steel fluted piles would be removed from the top down to the foundation typically utilizing a hydraulic ram, (c) the roadway embankment at the abutments would be laid back on a slope of approximately 2:1 to prevent debris from falling into the channel; and, (d) the abutment spread footing foundations would be completely removed. The bent caps and pile extensions would be removed in the same manner with the pile extensions being removed to 3-feet below the channel bottom or completely if they interfere with the new piles.

Bridge Construction

The bridge has been designed so that it may be constructed either while the canal is drained or when flowing full.

The entire bridge will be completed in three primary phases. The first phase of construction would be the driving of the piles for each of the internal bents and the two end abutments. There are three internal supports and five piles would be driven at each bent support location. Six piles would be driven at each of the two end abutment locations. The piles will be driven to a depth of approximately 70-ft below the existing ground surface. The piles will be composed of a cast in place reinforced concrete filled steel shell piles.

After the piles have been driven, the abutments and wingwalls will be formed and poured. The new abutments will extend to a depth of approximately 2.5-ft below the existing ground surface and will generally be located near the existing top of bank. The piles driven in the initial step will provide the support for the abutments. Precast reinforced concrete bent caps will provide support for the bridge deck at each internal bent support location. They will be swung into position utilizing a crane located on the bank.

After the abutments and bents have been completed, the bridge deck will be constructed. The bridge deck will be composed of a composite cast-in-place concrete slab on top of precast prestressed voided slab units. First the precast slab units will be placed utilizing a crane. Once all deck units have been placed, the cast-in-place upper portion of the deck will be formed and poured. After the deck has sufficiently cured, concrete barrier guardrails will be installed on both sides of the bridge deck.

During and after construction, both temporary and permanent erosion control measures will be implemented in accordance with the Caltrans Structures Hydraulics and Erosion Control Standards.

Roadway Realignment

At the canal crossing there is a lateral shift in the roadway of approximately 45-feet from the south side of the canal to the north. This shift results in an abrupt 16° angle in the roadway approach at each end of the bridge. The County plans to realign the roadway approaches slightly west of the current bridge on the south side and slightly to the east of the current bridge on the north side. Approximately 800 feet of County Road R will be reconstructed: 400 feet to the south and 400 feet to the north of the new bridge. As part of this realignment, cut and fill will be required along with the new roadway, and an irrigation ditch may be relocated to follow the modified roadway.

Utility Relocation and Storm Water Drainage Improvements

While there are no overhead utilities within the project boundaries, there are underground utilities. AT&T has underground conduits along the east side of the roadway. Based upon information provided by AT&T, there may be both conduits under the canal just east of the crossing as well as the conduit located on the existing bridge. It is proposed to place the AT&T facility located on the existing bridge inside the new bridge.

Erosion Control Measures

Temporary and permanent erosion control measures would be placed along the roadway embankments as well any disturbed areas of the project site. Rock Slope Protection will be placed around the roadway embankments at the bridge in accordance with Caltrans' Structures Hydraulics and Erosion Control Standards. The Best Management Practices (BMP's) for erosion control will be utilized to reduce the potential for erosion control from runoff.

Right of Way

Permanent right of way acquisition is anticipated for the project due to roadway realignment.

Temporary Construction easements running the full length of the project out to the limits shown in the Area of Potential Effects (APE) map (Figure 4) on both sides of the roadway are anticipated. These limits are adequate to allow the contractor to utilize staging and access areas.

J. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQURIED (e.g., permits, financing approval, or participation agreement):

Various permits and approvals would be required in order to approve and implement the project. Other regulatory agencies and local jurisdictions would also require permits or approvals in order to carry out the project. These entitlements and permits are summarized below:

Agency	Permit/Action
Federal	
U.S. Army Corps of Engineers	Section 404 Nationwide Permit for the discharge of dredged or fill material into Waters of the U.S., their tributaries, and/or adjacent wetlands
State	
California Department of Fish and Wildlife	Section 1600 Streambed Alteration Agreement
California Regional Water Quality Control Board, Central Valley Region	Construction General Permit for ground disturbing activities; Section 401 Permit for discharge of storm water
Local	
County of Glenn, Public Works Agency	Project entitlement, supervision, maintenance

2. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below could be potentially affected by this project, but, due to the inclusion of specific mitigation measures, will result in impacts that are a "Less Than Significant with Mitigation Incorporated," as indicated by the environmental checklist on the following pages.

☐ Aesthetics	☐ Agriculture / Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3. DIRECTOR DETERMINATION:

On the basis of this initial evaluation:

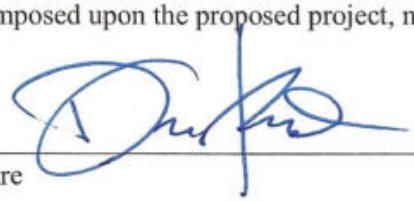
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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 revisions in the project have been made by or agreed to by the project proponent. 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 proposed 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 proposed 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

12.20.22

Date

Donald Rust

Printed Name

Glenn County Public Works Agency

For

4. EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. 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, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project- specific screening analysis).
2. 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.
3. Once the lead agency has 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 are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analyses Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. 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 significance

ENVIRONMENTAL CHECKLIST

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
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 nonurbanized 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?	☐	☐	☐	☒

DISCUSSION:

I(a). Less Than Significant Impact. The proposed project involves the construction of a new bridge and the demolition of the existing bridge across the GCID canal along County Road R. The proposed project will not change regulations or policies (or their implementation) relative to aesthetic/visual resources. Project construction will not change the established visual character and planned future use of the surrounding area as similar components (i.e. bridge) already exist at the location. Placement of the new bridge will not interfere with the views of scenic vistas from the adjacent residence and public right-of-way. Additionally, the replacement structure at the GCID Canal will follow the general aesthetic guideline established by Caltrans. Although the rural setting and geography of Glenn County and its surrounding area have created a number of scenic vistas and corridors, the proposed project only includes bridge replacement, roadway, and approach rehabilitation along the existing roadway alignments for improved safety and will not have a substantial adverse effect on a scenic vista.

I(b). No Impact. There are no designated resources within a state scenic highway in the project area. Furthermore, there are no officially recognized scenic roadways in Glenn County. The proposed project would not result in a significant change to the appearance of the existing roadway, nor would it eliminate access to scenic views or alter the landscapes surrounding the project site.

I(c). No Impact. The proposed project will not substantially degrade the existing visual character or quality of the site and its surroundings. The project would not create structures with a substantial vertical presence. Temporary visual impacts may occur during construction activities, when heavy equipment and

construction materials will be present within the project area. Neither the function nor the general appearance of the surrounding area would be substantially modified by the proposed project.

I(d). No Impact. The improvements associated with this project do not include the installation of lighting or reflective surfaces that could contribute to substantial sources of light or glare. Additionally, construction will not occur during the nighttime hours.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE 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:				
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?	☐	☐	☒	☐

DISCUSSION:

II(a-b). Less Than Significant Impact. Project implementation would permanently convert 0.502 acre of Prime Farmland that is currently in cultivation or directly supports adjacent agricultural infrastructures (i.e., unimproved access roads, ancillary ditches, and uncultivated buffers). These permanent impacts would result from the placement of cut and fill on the southeast, southwest, and northwest sides of the new bridge and new road alignment; the westerly extension of the new south bridge abutment; and minor encroachment of the new bridge structure on land also on the southwest end of the new bridge.

The permanent conversion of 0.502 acre of Prime Farmland in Glenn County would be minor (<0.0001%) relative to the total acreage of Prime Farmland across the county (158,117 acres) (California Department of Conservation 2016). Removal of portions of the realigned segment of the existing road would allow opportunity to restore vegetation consistent with the adjacent uses (e.g., agricultural ditch/rice paddy buffer).

Contractor staging would be in established graveled roadside pullouts on the southwest and northeast sides of the bridge. Temporary use of these areas for equipment and materials staging would not require any additional conversion of designated Prime Farmlands beyond that which has been previously converted independent of the project.

Prime Farmlands north and southwest of the bridge are currently under a Williamson Act contract. New cut and fill for the new northern bridge approach would encroach slightly onto adjacent agricultural crop land. The amount of land needed for the new ROW is minimal, resulting in the permanent conversion of approximately 0.334 acre of Williamson Act Land out of a total of 1.306 acres within the project area boundaries. The remainder of Williamson Act lands affected by project construction have been previously converted to other uses including graveled roadside pullouts, agricultural access roads, and roadside agricultural ditches.

Pavement associated with the old roadway would be removed, and the disturbed area would be restored to match adjacent conditions. Although the restored areas are unlikely to be used for agricultural crop production due to small size and their proximity to roads and ditches, they would contribute to form agricultural field buffers. Such land uses would be consistent with the intent of the Williamson Act, which is to preserve agricultural and open space land uses. The new road alignment would not conflict with the agricultural zoning of the land in the project vicinity. For all of these reasons, these impacts would be less than significant.

No indirect conversion of farmland is anticipated as a result of project implementation; adjacent farmland would continue to be managed for existing uses. A Farmland Impact study and Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) has been prepared for the project (Appendix A). A preliminary land evaluation and corridor assessment criteria score of 86 (Total Site Assessment Points out of 260 possible points) indicates that the project would have minimal impact on prime farmland.

II(c). Less Than Significant Impact. The proposed project would not conflict with existing zoning for, or cause the rezoning of forestland (as defined in Public Resources Code §1220(g)), timberland (as defined in Public Resources Code §4526), or Timberland Production (as defined in Government Code §51104(g)), because the project site and the surrounding area does not contain forest land. The proposed project is located in a non-forested region of the northern portion of California's Central Valley.

II(d). Less Than Significant Impact. The proposed project would not cause the rezoning or loss of forestland or timberland to non-forest use due to its location. The project is located within the northern portion of California's Central Valley and does not contain forest land.

II(e). Less Than Significant 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.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. 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:				
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?	☐	☐	☒	☐

DISCUSSION:

Pursuant to the California Clean Air Act of 1988, a Draft Air Quality Attainment Plan for the Northern Sacramento Valley Air Basin (NSVAB) was adopted (Technical Advisory Committee [TAC] to the Northern Sacramento Valley Air Basin 1991). The Attainment Plan has since been updated triennially (the 2021 Triennial Air Quality Attainment Plan [TAQAP] is the latest) and is designed to achieve a reduction in basin-wide emissions and proposes control measures to be adopted to achieve mandatory reduction.

Air quality standards are based on provisions of the federal and State Clean Air Acts. In addition, the Glenn County Air Pollution Control District (GCAPCD) is responsible for the planning and maintenance/attainment of these standards at the local level. In 2018 Glenn County was designated as an attainment area by the State. According to the 2021 TAQAP, "there were no days where the site exceeded the 8-hour standard or the 1-hour standard between 2018 and 2020". Probable sources of pollutants in Glenn County include agricultural burning of field crops and orchard waste, cultivating and harvesting of crops, driving on unpaved roads, and transport of pollutants from the Sacramento metropolitan area.

III(a). Less Than Significant Impact With Mitigation Incorporated. The proposed project is the replacement of an existing bridge. It does not involve the construction of new expanded facilities. The proposed project will be required to comply with all applicable rules, regulations, and control measures including permitting, prohibitions, and limits to emissions that work to reduce air pollution throughout California. Therefore, it will not conflict with or obstruct implementation of any air quality plans in Glenn County. The proposed project would not create a source of new vehicle traffic, such as a new housing development or commercial uses, and thus there would be no added vehicle trips to the existing roadway network, and no long-term air quality impacts. The proposed project is located within the NSVAB and the jurisdiction of GCAPCD. Construction activities may result in ground disturbance due to vegetation removal and placement of bridge components. To comply with Caltrans Standard Specifications, the County shall comply with all Best Available Mitigation Measures (BAMMs), as described in Mitigation Measure MM-1, for the control of construction related particulate emissions.

III(b). Less Than Significant With Mitigation Incorporated. Bridges and roadways are conduits that enable vehicular traffic to move from one point to another. The project involves replacement of an existing bridge, and does not generate new traffic, thereby generating more emissions, as would new development (i.e., residential or commercial land uses).

Implementation of the proposed project would result in the generation of short-term construction-related air pollutant emissions. Diesel fumes may be noticeable near the site; however, diesel fumes will be a short-term effect. All equipment must comply with California emissions standards and Caltrans Standard Specifications. Exhaust emissions from construction equipment would contain reactive organic gases (ROG), nitrogen oxides (NOx), carbon monoxide (CO) and particulate matter less than 10 microns in diameter (PM10). Particulate matter less than 10 microns emissions would also result from windblown dust (fugitive dust) generated during construction activities.

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. Each of the above impacts are temporary, local, and construction related.

Because the project is receiving funding from the Highway Bridge Program, the project must comply with Caltrans Standard Specifications (Section 14-9.02, Air Pollution Control and Section 10.-5, Dust Control), therefore, the contractor is required to comply with other local jurisdiction rules, regulations, ordinances, and statutes.

The incorporation of Mitigation Measure MM-1 would reduce impacts associated with PM10 to a less than significant level. Air quality mitigation measures are consistent with the requirements of Glenn County General Plan, the GCAPCD, and Caltrans Standard Specifications for pollution and dust control.

III(c). Less Than Significant Impact. There are two residences in the area to the project. Both residential dwellings are over 1,000 ft. from the project site. Project activities consist of removal of the current structure and replacement with a new bridge structure as well as roadway approach work. There are no schools, hospitals, or other sensitive receptors in the area and no substantial pollutant concentrations are anticipated to occur. Temporary construction activities would result in particulate emissions in an area designated as attainment. However, implementation of BAMM's and the incorporation of Mitigation Measure MM-1 would minimize fugitive dust to the maximum extent possible.

III(d). Less Than Significant Impact. Other than construction activities (diesel odors may be noticeable near the construction site), no long-term odor producing activities would result from the project. Therefore, the proposed project would not result in less than significant objectionable odor impacts.

MITIGATION:

MITIGATION MEASURE MM-1: Air Quality

To comply with the Glenn County Air Pollution Control District's (GAPCD) regulations (section 76 visible emissions), the County shall comply with all Best Available Mitigation Measures (BAMMs) for the control of construction related particulate emissions. The contractor shall submit an Air Quality Attainment Plan to the County for approval. The approved plan shall include all applicable BAMMs as specified by GCAPCD's Standard Construction Phase Mitigation Measures, including but not limited to the following:

1. Haul trucks must be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
2. Construction equipment exhaust emissions shall not exceed GCAPCD Section 76 Visible Emissions (40 percent opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall act to repair the equipment within 72 hours or remove the equipment from service.
3. The area disturbed by demolition, clearing, grading, earth moving, or excavation operations shall be minimized at all times.
4. Suspend grading or earth moving activities when wind speeds exceed 20 mph.
5. Minimize unnecessary idling time to 5 minutes.
6. Water shall be applied as needed to prevent fugitive dust impacts offsite.
7. All onsite vehicles should be limited to a speed of 15mph on unpaved roads.

MITIGATION MONITORING MM-1: Public Works staff shall ensure the construction documents incorporate Best Available Mitigation Measures and the development of an Air Quality Attainment Plan. Public Works (with GCAPCD) staff will ensure that construction, grading, and erosion control operations are conducted in accordance with GCAPCD standards.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or 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?	☐	☐	☐	☒

DISCUSSION:

A Natural Environment Study (NES) was prepared by Stantec Consulting Services, Inc. (Stantec) in February 2021 (Appendix B). The purpose of the NES is to document the current endangered, threatened, sensitive and rare species, and their critical habitats that occur in the biological survey area (BSA) of the project. The BSA is an approximately 5.52 acre corridor along County Road R. This Area encompasses all areas that would be subject to ground disturbance (e.g., construction, staging). Primary references consulted include species lists and information gathered using the United States Fish and Wildlife Service

(USFWS) Information, Planning, and Conservation System (IPaC), California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. A Draft Delineation of Waters of the United States was also prepared for the project in March 2018 by Stantec (Appendix C). The surveys involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the United States Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory 1987) and other current regulations, manuals and interpretations of jurisdiction currently in effect. Additionally, in April 2021 Stantec prepared a Biological Assessment (BA) in order to determine to what extent the proposed project may affect federally threatened, endangered, or proposed species (Appendix D).

The project site contains the habitat types of agriculture (rice), barren/ruderal, and riverine. The riverine habitat is associated with the GCID canal which traverses the project site. Rice is found on the agricultural fields of the four corners of the project site. Barren habitats are comprised of the existing roadway, and gravel road shoulders.

There is no National Marine Fisheries Service (NMFS) or USFWS designated Critical Habitat in or near the project site.

IV(a). Less Than Significant with Mitigation Incorporated. Four special-status animal species were determined to have the potential to use habitat in the BSA or immediate vicinity. These species include: western pond turtle (Emys maramorata), western burrowing owl (Athene cunicularia), giant garter snake (Thamnophis gigas), and tricolored blackbird (Agelaius tricolor). None of these species were incidentally observed in the BSA during the site visits.

A discussion of the regulatory status, habitat requirements, potential for occurrence, potential Project related impacts, avoidance and minimization measures, and cumulative effects for each species determined to have the potential to use habitat in the BSA or immediate vicinity is provided below. With implementation of the avoidance and minimization measures presented below, the Project is not expected to adversely affect any special-status animal species.

Western Pond Turtle

Western pond turtle is designated as a species of special concern by the CDFW. This species is found in a wide range of aquatic habitats with emergent structure for basking and feeding. Western pond turtles also use adjacent upland sites for nesting, often travelling great distances over land to reach suitable nesting sites.

Survey Results

Habitat for western pond turtle within the BSA is marginal. Emergent structures and open banks for basking are limited. Western pond turtle was not observed during the site visit on November 30, 2017. Nesting habitat is not plentiful within the BSA; however, more abundant nesting habitat occurs north and south of the BSA. There are no CNDDB occurrences of western pond turtle within 5 miles of the BSA.

Project Impacts

Because Project implementation will involve modification of the Glenn-Colusa canal, the Project has the potential for limited short-term impacts on western pond turtle. Potential adverse impacts on western pond turtle during construction include stress, injury, or mortality to individuals or their nests resulting from: site access by vehicles and equipment; excavation activities; temporary loss of habitat and movement corridors; work area dewatering; sedimentation and turbidity resulting from work within the channel of the Glenn-Colusa canal.

Western Burrowing Owl

The western burrowing owl is designated as a species of special concern by CDFW. This species prefers open grasslands and ruderal habitats with barren or low growing vegetation. Burrowing owls use mammal burrows or other suitable underground cavities and/or crevices to nest and roost. Burrows must be of sufficient size (at least 3 to 4 inches across) to be utilized by this species. Burrows created by ground squirrels are typically preferred. Burrowing owls forage primarily for insects and often use fence posts or other erect structures to perch and hunt (CDFW 2012).

Survey Results

Ground squirrel burrows that could be utilized as habitat are scattered throughout the BSA. Foraging habitat is present in and around the BSA. No burrowing owls or owl sign (white wash, feathers, pellets, etc.) were observed during the site visit. There are no CNDDB records for burrowing owl within a 5-mile radius of the BSA.

Project Impacts

The Project could result in temporary loss of habitat and displacement due to Project activities affecting potential burrow sites. Direct disturbance from construction activities, such as operation of vehicles, heavy equipment operation, and earth moving operations around burrows could result in stress, injury, or mortality to individuals or destruction of their burrows.

Tricolored Blackbird and Migratory Birds and Raptors

Tricolored blackbird is listed as a threatened species under the California Endangered Species Act (CESA). Tricolored blackbirds are colonial, forming the largest colonies of any North American passerine bird. Thousands of birds may occur at a single site. Breeding typically occurs from mid-April through July with nests built in dense vegetation such as cattails (Typha sp.), tules (Scirpus sp.), willow thickets, and blackberry (Rubus sp.). The average clutch size is 3–4 eggs and two clutches may be produced per year. Tricolored blackbirds forage on insects, cultivated grains, seeds, and fruits, depending on the season (Beedy and Hamilton 1999).

All migratory birds and their nests are protected from take under the federal Migratory Bird Treaty Act (MBTA). All raptor species, including relatively common species and their nests, are protected from take according to California Fish and Game Code (CFGC).

Survey Results

No tricolored blackbird, migratory bird, or raptor nests were observed in the BSA during the field visit on November 30, 2017. However, the annual grassland, barren, and irrigation ditches in and adjacent to the BSA provide suitable nesting habitat for a variety of migratory birds, including songbirds. The bridge and the weir structure along the canal to the west of the BSA may provide suitable nesting habitat for cliff swallows.

Project Impacts

If migratory bird or raptor species are nesting in or adjacent to the BSA, construction disturbance during the breeding season could result in the loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.

Giant Garter Snake

Giant garter snake is listed as a threatened species by the CDFW and USFWS. This species is found in a wide range of aquatic habitats with emergent structure for basking and feeding. Giant garter snakes also use adjacent upland sites for nesting and hibernation. The species is generally considered active from May

1 to September 30. The period from October 1 to April 30, is considered the snakes' hibernation period and they are typically in underground burrows during this time.

Survey Results

No giant garter snakes were observed in the BSA during the field visit on November 30, 2017. However, the irrigation ditches and irrigation canal in and adjacent to the BSA provide suitable aquatic habitat. Upland burrows were identified throughout the BSA that could be used by giant garter snakes for nesting and hibernation.

Project Impacts

Direct effects on GGS may occur when ground-disturbing activities result in the disturbance of potential aquatic and upland habitats within the action area. Minimal permanent habitat impacts will occur because the Project will largely be limited to existing paved surfaces (i.e., County Road R). Approximately 0.129 acre of potential aquatic habitat (i.e., vegetated ditches and rice field/managed wetlands) will be permanently affected by the placement of RSP and road re-alignment. Approximately 0.552 acre of aquatic habitat will be temporarily affected by placement of the cofferdams, dewatering, and work within the channel of the canal. The Project will also permanently affect approximately 0.08 acre and temporarily affect 0.97 acre of potential upland refugia habitat. Construction activities that would temporarily disturb potential GGS habitat include: (1) vegetation clearing, grading, and grubbing of the action area for site preparation; (2) the placement and removal of temporary fill for the temporary access ramp into the canal; and (3) the mobilization/staging of heavy equipment in potential habitat. If giant garter snake is present during construction, potential direct effects could include mortality, increased risk of predation, and increased stress resulting from removal of hibernacula while snakes are present; temporary reduction in available aquatic habitat and prey base as a result of dewatering and other construction disturbance; displacement from the area due to the presence of people and equipment; obstruction of movement corridors due to the presence of people and equipment in the canal channel and on the banks; and crushing, dismemberment, and other injuries resulting from contact with vehicles and other construction equipment.

IV(b). Less Than Significant Impact. No Sensitive Natural Communities (SNC) as identified by the CDFW or riparian habitat has been mapped within the BSA. Additionally, there is no Critical Habitat as designated by the USFWS, within or adjacent to the project site. The project's impact would be less than significant.

IV(c). Less Than Significant with Mitigation Incorporated. Stantec conducted a delineation of potential waters of the U.S. within the BSA on November 30, 2017 (Appendix C). A total of 1.697 acre (1,931 linear feet) of potential waters of the United States was delineated. Potential waters of the United States occur as irrigation canal (0.657 acre, 260 linear feet) vegetated ditch (0.424 acre), and rice field/managed wetland (0.616 acre).

If the Project results in the loss of ≥ 0.10 acre of wetlands, compensatory mitigation in the form of credits from a Corps-approved mitigation bank, payment into a Corps in-lieu fee fund, or other mitigation approved by the Corps will be provided.

With implementation of the avoidance and minimization measures, the Project would not result in cumulatively considerable adverse effects on waters of the United States.

IV(d). Less Than Significant Impact. As discussed, the proposed projects would replace the existing bridge over GCID canal with new a bridge. The proposed project could interfere incrementally with localized wildlife movement. The BSA is likely utilized by wildlife for foraging, breeding, and movement

within the BSA and to open space areas nearby; however, the bridge crossings currently interrupts connectivity east and west of the County Road R. Moreover, County Road R is an existing roadway, and the bridge replacements would not create new restrictions on wildlife movement, nor would they affect wildlife access to existing open space areas and wildlife corridors. There are no wildlife nursery sites in or adjacent to the BSA, therefore impacts would be less than significant.

IV(e). No Impact. The Glenn County General Plan includes policies and programs to promote the protection of biological resources areas within the County's jurisdiction. However, the County Code does not include specific ordinances protecting biological resources, and the proposed project would have no related impacts.

IV(f). No Impact. The project site is located in an active agricultural area of Glenn County and is not within a proposed, approved, or adopted conservation plan. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and would have no related impact.

MITIGATION:

MITIGATION MEASURE MM-2: Western Pond Turtle

The following measures will be required in order to avoid and minimize potential impacts to western pond turtle:

- The dewatered work area and disturbance to in-channel habitat shall be kept to the minimum area necessary to perform work.
- Operation of equipment and placement of materials within the banks or channel of the Glenn-Colusa canal shall be conducted slowly and deliberately. When first entering the banks or the channel each day, a designated individual shall walk the work area ahead of the equipment to alert any western pond turtles and allow them to move from the work area.
- If western pond turtles are encountered during construction, work activity in the immediate vicinity will cease until any turtles have left the work area.
- Prior to initiation of construction activities, workers shall participate in environmental awareness training provided by a qualified biologist. The training shall instruct workers regarding: (1) how to identify the turtle; (2) the habitats used by the turtle; (3) the potential for turtle egg clutches (i.e., nest sites) to be discovered during vegetation clearing; and (4) what to do if a turtle or suspected egg clutch is encountered during construction activities.

MITIGATION MONITORING MM-2.: Public Works staff will require final copies of the pre-construction surveys for western pond turtle, no less than 2 days prior to the commencement of construction. Should the species occur on the project site, a qualified biologist shall be retained on-site during ground-disturbance.

MITIGATION MEASURE MM-3: Burrowing Owl

The following measures will be required in order to avoid and minimize potential impacts to burrowing owl:

- A minimum of one pre-construction survey for occupied burrowing owl burrows within 300 feet of the BSA will be conducted by a qualified biologist within 15 days prior to the initiation of construction activities, regardless of the timing of construction. If any occupied burrows are identified, appropriate conservation measures (as determined by a qualified biologist) will be

implemented. No disturbance will occur within 150 feet of occupied burrows during the non-breeding season (September 1–January 31) or within 250 feet during the breeding season (February 1–August 31). These measures may also include establishing a construction free buffer zone around the active nest site in coordination with the CDFW, biological monitoring of the active nest site, and delaying construction activities in the vicinity of the active nest site until the young have fledged.

MITIGATION MONITORING MM-3.: Public Works staff will confirm project initiation timing and/or require final copies of the pre-construction surveys for burrowing owl, no less than 2 days prior to the commencement of construction. Should the species occur on the project site, a qualified biologist shall be retained on-site during ground-disturbance.

MITIGATION MEASURE MM-4: Tri-Colored Blackbird and Migratory Birds and Raptors
Annual grassland, barren, and irrigation ditches in and adjacent to the BSA provide suitable nesting habitat for a variety of migratory birds, including songbirds. The bridge and the weir structure along the canal to the west of the BSA may provide suitable nesting habitat for cliff swallows. To avoid impacts to avian threatened species (i.e. tricolored blackbird) or avian species protected under the MBTA and the CFGC, the following avoidance and minimization measures are required.

- Vegetation removal, grading, and other construction activities shall be scheduled to avoid the breeding season for nesting raptors and other special-status birds (i.e., February 15 through August 31) to the extent practicable. If construction occurs outside of the breeding season, no further mitigation is necessary. If the breeding season cannot be completely avoided, then the following mitigation measure will be implemented.
- If construction is to occur during the breeding season, a qualified biologist will conduct pre-construction surveys for nesting migratory birds and raptors within the BSA and a 250-foot buffer around the BSA. The survey will be conducted no more than 15 days prior to the initiation of construction, to ensure no active nests will be disturbed.
- If an active nest is found, appropriate conservation measures (as determined by a qualified biologist) shall be implemented. These may include but are not limited to: a construction-free buffer will be established around the active nest site; biological monitoring of the active nest site; and delaying construction activities in the vicinity of the active nest site until the young have fledged (based on field verification by a qualified biologist). If nesting tricolored blackbirds are observed, CDFW shall be consulted to determine requirements for CESA compliance.

MITIGATION MONITORING MM-4.: Public Works staff will confirm project initiation timing and/or require final copies of the pre-construction surveys for tri-colored blackbird, no less than 2 days prior to the commencement of construction. Should the species occur on the project site, a qualified biologist shall be retained on-site during vegetation or ground disturbance.

MITIGATION MEASURE MM-5: Giant Garter Snake
Initial construction and the installation of exclusion fencing will be initiated during the active period of GGS; therefore, GGS individuals are expected to avoid harm's way during initial vegetation removal and ground-disturbing activities. Construction activities will continue as temperatures decrease and GGS enter their dormant season. With the installation of exclusion fencing during the GGS active season and the continuation of construction activities throughout the GGS inactive season, GGS individuals will not be expected to move into the project area. Avoidance and minimization measures will also be implemented to minimize the potential for take. To ensure no direct take of GGS occur due to the proposed project, the following avoidance and minimization measures will be implemented.

Avoidance and Minimization Efforts

The following requirements will avoid and minimize impacts to this species:

- Construction personnel shall participate in a USFWS- and CDFW-approved worker environmental awareness program. Under this program, workers shall be informed about the potential presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the ESA. Prior to construction activities, a qualified biologist approved by the USFWS and CDFW shall instruct all construction personnel about: (1) the life history of the giant garter snake; (2) the importance of irrigation canals, marshes/wetland, and seasonally flooded areas, such as rice fields, to the giant garter snake; and (3) the terms and conditions of the biological opinion.
- Within 24 hours prior to commencement of construction activities, the site shall be inspected by a qualified biologist who is approved by the USFWS and CDFW. The biologist will provide the USFWS and CDFW with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities.
- Vegetation clearing will be limited to the minimum area necessary.
- If water will be obtained from any suitable giant garter snake aquatic habitat, intake hoses will be screened with mesh no larger than ¼ inch.
- Tightly woven fiber netting (mesh size less than 0.25 inch), coconut coir matting, or similar material will be used for erosion control or other purposes. Plastic monofilament or wire mesh in the straw waddles or erosion control mats will not be used. Only erosion control materials (blankets, roles, mats, etc.) with natural coir fibers or other netting approved by the USFWS and CDFW will be used. The edge of the material will be buried in the ground to prevent giant garter snakes from entering underneath the material.
- All Project personnel will look beneath parked vehicles and equipment for snakes prior to their movement.
- To compensate for the permanent loss of 0.209 acre of giant garter snake habitat (0.129 acre of aquatic habitat and 0.08 acre of upland habitat), the County will purchase 0.627 acre (a 3:1 ratio) of giant garter snake credits at a USFWS- and CDFW-approved conservation bank.
- Prior to any Project activities that could incidentally take giant garter snake, the County will provide CDFW with written documentation that the County has allocated sufficient funds, acceptable to and approved by CDFW, in the Expenditure Authorization for the Project to ensure implementation of all measures to minimize and fully mitigate the incidental take of giant garter snake resulting from construction of the Project. The documentation provided by the County will identify specific minimization and mitigation components and the costs associated with each component.
- If work must be performed during the giant garter snake dormant period, (i.e., between October 2 and April 30), the County will implement the following protective measures:
    - A full-time USFWS- and CDFW-approved biological monitor will be onsite for the duration of any ground-disturbing activities (e.g., vegetation clearing, grubbing, grading, and other earth-moving activities) after October 1. If a snake is encountered during construction activities, the monitoring biologist shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities shall be allowed to move away from construction activities on their own. The Project shall be re-inspected whenever a lapse in construction activity of two weeks or greater has occurred.

- All vegetation within 200 feet of aquatic habitat will be cleared prior to the giant garter snake hibernation period (i.e., vegetation clearing must be completed by October 1 for any work occurring between October 2 and April 30).
- A fencing plan will be prepared and provided to the USFWS and CDFW for comments prior to the start of construction. The exclusion and construction barrier fencing will be installed during the active period for giant garter snakes (May 1–October 1) to reduce the potential for injury and mortality during this activity. Exclusion fencing will be installed before ground-disturbing activities begin.
- The County will prepare a giant garter snake relocation plan in the event that a snake is injured or trapped during construction. The plan will outline the biological monitor qualifications and responsibilities, and the steps to be taken if a giant garter snake is encountered during construction. The plan will identify the names and contact information for one or more USFWS- and CDFW-approved biologists that will be responsible for handling snakes. The location (if known) where trapped giant garter snakes would be relocated to will be included in the plan or the plan will specify that trapped individuals will be relocated to the nearest suitable habitat that is outside of the construction area. The plan will describe the steps that will be taken in the notification process and documentation required for submission to the USFWS and CDFW. The plan will be approved by the USFWS and CDFW.

Compensatory Mitigation

The project will permanently and temporarily impact upland and aquatic GGS habitat. To mitigate permanent and temporary impacts to GGS habitat the following is required:

- Permanent loss of GGS habitat will be compensated by purchasing creation credits at the Colusa Basin Conservation Bank or at another USFWS and CDFW approved conservation bank with a service area that accommodates the project location. Credits shall be purchased prior to the start of construction. The County will purchase 0.627 acre (a 3:1 ratio) of giant garter snake credits.
- Temporary disturbance to snake habitat shall be restored to pre-project conditions within 1 year of completion of construction.
    - Restoration and monitoring shall follow the USFWS Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat (1997). If restoration is unsuccessful, as determined by the USFWS, consultation will be reinitiated.

MITIGATION MONITORING MM-5.: Public Works staff shall ensure the incorporation of avoidance and minimization measures into the plans. Public Works staff shall document the final purchase of required mitigation credits, or other method of compensatory mitigation documenting relief thereof, prior to commencement of construction activities.

MITIGATION MEASURE MM-6: Regulatory Permits

Prior to commencing construction, the County shall have available the final copies of the permits and authorizations required by the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), California Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and the Central Valley Flood Protection Board (CVFPB) or copies of relevant correspondence documenting that no permit is required, as applicable.

MITIGATION MONITORING MM-6.: Public Works staff will require final copies of the required permits or letters documenting relief thereof, prior to the commencement of construction.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
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 dedicated cemeteries?	☐	☐	☐	☒

DISCUSSION:

V(a). Less Than Significant With Mitigation Incorporated. As described in the Secretary of the Interior's Standards (SOIS) Action Plan, developed by Pacific Legacy (2019), only one potential property was located within the APE: the subject segment of the Glenn-Colusa Canal (Appendix D). For the purposes of this project, the property is considered historically significant under Criterion A for its potential related to the development of agricultural practices in the region. As planned, the replacement of the existing, structurally deficient bridge will have minimal effects on the overall integrity of the subject canal segment. Work will be limited to the existing bridge location; however, the slight realignment and straightening of the new bridge will likely affect some sections of the canal outside of the footprint of the existing bridge. The APE contains approximately 100 linear feet of the 65-mile long main canal. As outlined in the SOIS Action Plan, post-construction restoration activities will restore the canal to its pre-construction condition, resulting in no permanent adverse effects on the canal. Therefore, implementation of Mitigation Measures MM-7 will mitigate potential impacts to a less than significant impact.

V(b). No Impact. An Archeological Survey Report (ASR) and a Historical Property Survey Report (HPSR) was prepared in October 2020 by Pacific Legacy for the Project (Appendix E). In general, the APE appears to be heavily graded and affected by the construction of the existing GCID canal, as well as ongoing agricultural activities within and immediately adjacent to the APE. The archival research, consultation with the Native American community, and the archaeological survey conducted and summarized in the ASR, did not identify any prehistoric or historic-era cultural sites, features, or artifacts within or immediately adjacent to the APE. In addition, no potentially sensitive landforms or soil deposits possibly indicative of early Native American or historic activities were noted as a result of Pacific Legacy's research.

V(c). No Impact. No known human remains are known to exist on the project site, and the project site is not designated nor has it been designated for use as a cemetery. As with any project, if human remains are discovered in the course of project construction, the County Coroner would be contacted and provisions of State CEQA Guidelines Section 15064.5 would be followed. Given the low potential for human remains on-site, impacts would be less than significant and no further study of this issue is required.

MITIGATION:

MITIGATION MEASURE MM-7: Cultural Resources

As outlined in the SOIS Action Plan, prepared by Stantec (2019), the following measures are recommended in order to avoid and minimize potential impacts to historic properties:

- All work will be outlined in a final project scope package, which will be reviewed by all parties prior to initiation of work
- The Project Architectural Historian (PAH) will be notified at least three weeks prior to the start of construction activities to allow for the preparation and scheduling of any required preconstruction activities (e.g., pre-construction tailboard to discuss SOIS).
- The work area will be thoroughly documented through photographs prior to construction to serve as a baseline for future restoration activities. This will be conducted by the PAH and Project Engineering Team, or appropriate representatives. The PAH will notify the CalTrans Architectural Historian (CAH) upon completion of this task.
- All documentation prepared will be submitted to all parties as a field report to be kept on file.
- The PAH will participate in the pre-construction meeting to reiterate the historic nature of the canal, the importance of the SOIS, and the procedures for any changes to the proposed scope of work. This will be reiterated to the construction personnel prior to construction. The PAH will notify the CAH upon completion of this task.
- Weekly tailgate meetings during construction activities will be held and the importance of the SOIS will be reiterated to all construction personnel. The importance of notifying appropriate parties of any major scope of work changes to assess potential adverse effects related to the SOIS will be emphasized.
- The PAH will be notified immediately if the proposed scope of work departs from what is documented in this study to ensure that the new activities are compliant with the SOIS. The PAH will notify the CAH of scope changes and consult to assess potential adverse effects.
- In the event of large scope of work changes, the CAH will consult with the Caltrans Cultural Studies Office to discuss the revised scope of work and determine whether the finding of no adverse effects with standard conditions SOIS remains valid. If the finding is no longer valid, the CAH will notify the PAH of the need for additional studies.
- Following completion of the new bridge, the County will restore the subject work area at the canal banks using in-kind materials to restore the canal to its pre-construction condition.
- Following all construction and restoration activities, the PAH shall conduct the final inspection of the subject area and overall condition of the canal. The PAH will notify the CAH upon completion of this task.
- The PAH will document the post-restoration conditions and prepare a final field report outlining the final inspection and adherence to the SOIS, which will be submitted to all parties for their files. The report will include a completed and initiated copy of this form.

*MITIGATION MONITORING MM-*7.: The County is responsible for ensuring the construction activities do not extend beyond the APE. The County's Project Architectural Historian will be responsible for monitoring construction and inspecting the completed project once all construction and restoration activities have been completed by the responsible parties. Upon completion of each task in the SOIS Action Plan, the County's Project Architectural Historian will notify the Caltrans Principal Architectural Historian.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
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?	☐	☐	☐	☒

DISCUSSION:

VI(a). No Impact. The proposed project will not result in any potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Construction energy consumption would largely occur from fuel consumption by heavy equipment during demolition of the existing bridge and subsequent bridge construction, transportation of materials to and from the site, and construction worker trips to and from the project site. Energy consumption during construction related activities would vary substantially depending on the level of activities, length of construction period, construction operations, type of equipment used, and number of personnel present. Despite this variability, the overall scope of construction is moderate and would be completed within one construction season. The proposed project is the installation of a new safer bridge with improved roadway approaches, as such, it will not use any energy resources during operation.

VI(b). No Impact. Many of the state and federal regulations regarding energy efficiency focus on increasing building efficiency and renewable energy generation, as well as reducing water consumption and vehicle miles traveled. The proposed project includes conservation measures to meet or exceed the regulatory requirements including limiting idling time of heavy equipment during construction activities. The project will comply with Glenn County and Caltrans standards regarding engine efficiency and limiting idling time during project construction.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
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 off-site 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 waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

DISCUSSION:

VII(a)(i-iv). Less Than Significant Impact. The site is not within an Alquist-Priolo Earthquake fault zone and is not within an aftershock epicenter region. There are no known active faults in Glenn County. The closest active fault is the Cleveland Hill fault zone, located approximately 36 miles east-southeast of the project site near Lake Oroville. Like most of Central California, the site can be expected to be

subjected to seismic ground shaking at some future time. However, active faults are quite distant from the project site and ground shaking due to a seismic event is expected to have a lower intensity at the project site. As the project appears to be located such that the probability of significant ground shaking is low, and because the project does not propose the addition of significant structures that would be at risk to seismic activity, potential geologic impacts would be less than significant.

Liquefaction is a phenomenon where loose, saturated, and granular soils lose their inherent shear strength due to excess water pressure that builds up during repeated movement from seismic activity. Factors that contribute to the potential for liquefaction include a low relative density of granular materials, a shallow groundwater table, and a long duration and high acceleration of seismic shaking. Liquefaction usually results in horizontal and vertical movements from lateral spreading of liquefied materials and post-earthquake settlement of liquefied materials. Liquefaction potential is greatest where the groundwater level is shallow, and submerged loose, fine sands occur within a depth of approximately 50 feet or less. According to Section 3.3.1 of Environmental Setting Technical Paper, Glenn County General Plan, Volume III, Glenn County is in a relatively inactive seismic area. During the past 100 years, the County has experienced only minor earthquakes within its boundaries and secondary impacts from earthquakes centered out of the area. The United States Geologic Survey (USGS) and California Geologic Survey (CGS) produced a Seismic Shaking Hazards in California map (revised 2016), which depicts the ground motion that has a two percent potential of occurring in the next fifty years. The project site is rated as 10%–20% on a scale of 0%–100%. Additionally, no earthquakes greater than a magnitude 5.5 have occurred in Glenn County in over 200 years (CGS Map 49, California Earthquakes, 1800-2000). These two facts, and the relatively flat slope of the project site, create a less than significant impact regarding risk of damage from earthquakes. Under existing regulations, all future structures will incorporate The American Association of State Highway and Transportation Officials (AASHTO), Seismic Design Category (SDC), and Memo to Designers (MTD) standards into the design and construction that are designed to minimize potential impacts associated with strong ground-shaking during an earthquake.

The potential for landslides on the project site is considered remote due to the lack of significant topography on the project site and on the surrounding parcels. Therefore, the project would result in a Less Than Significant Impact.

VII(b). Less Than Significant Impact. The project is the replacement of a structurally deficient bridge within Glenn County. Project activities at Bridge 11C-0011 include vegetation removal, removal of existing bridge structure, the installation/construction of the new single-span, precast bridge structure, and construction of roadway approaches on both side of the new structure. During construction the project would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the Construction General Permit. Specific erosion control and surface water protection methods would be implemented within the project site, such as straw wattles and silt fencing, covering materials and dumpsters, storing fuel and other potentially hazardous materials away from the canal, and the use of erosion control seeding. These control measures are standard in the construction industry and are commonly utilized to minimize soil erosion and water quality degradation. The project will have a less than significant impact on loss of top soil or soil erosion.

VII(c). No Impact. No major earthquakes have been recorded within Glenn County. The project will not expose people or structures to potential substantial adverse effects due to rupture or a known earthquake fault, seismic ground shaking, seismic-related ground failure including liquefaction. The project will not result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. The project site would not be subject to landslide free zone due to its relative flat topography and gently sloping hills.

VII(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 American Society for Testing and Materials (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. 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. 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.

VII(e). No Impact. No septic tanks, sewer or alternative wastewater disposal systems are proposed for the subject property. The project will result in no impact relative to policies governing sewer service control.

VII(f). Less Than Significant with Mitigation Incorporated. The project is not anticipated to cause a substantial adverse change in the significance, directly or indirectly destroy a unique paleontological resource or site, geological feature, or unique geological feature. Due to the developed character of the site, the potential to encounter surface-level paleontological resources is considered low. However, there is the potential for accidental discovery of paleontological resources. In the event that resources are inadvertently discovered, implementation of Mitigation Measure MM-8 discussed in section XVIII, would reduce impacts to a less-than-significant level. Therefore, impacts would be considered less than significant with mitigation incorporated.

MITIGATION: Mitigation Measure MM-8. (Tribal Cultural Resources)

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
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?	☐	☐	☒	☐

DISCUSSION:

VII(a). Less Than Significant With Mitigation Incorporated. It is anticipated that bridge replacement activities would generate short-term temporary Greenhouse Gas (GHG) emissions associated with construction equipment. Examples of sources for construction related GHGs are equipment fossil fuel combustion, material transportation, and purchased electricity. This is considered a less than significant impact with mitigation incorporated. See the Mitigation Measure MM-1 discussed in Section III, Air Quality, minimize and reduce temporary emissions associated with the construction activities.

VII(b). Less Than Significant Impact. Due to the temporary nature of impacts resulting from construction activities on a relatively small bridge replacement project, the project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This is considered a less than significant impact.

MITIGATION: Mitigation Measure MM-1 (Air Quality)

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
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 § 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?	☐	☐	☐	☒

DISCUSSION:

An Initial Site Assessment Transaction Screen Assessment (ISA) was completed for the project by Willdan Engineering for the bridge in 2021. The purpose of the assessment is to evaluate whether there is evidence of a recognized environmental condition (REC) that may have impacted or could potentially impact the environment resulting from project activities. The assessment for the bridge included research of site history, review of information provided by regulatory databases, observed site conditions, and discussions with owners, local officials, or regulatory personnel regarding past site activities and history.

According to the ISA prepared for the project there are no recognized environmental conditions within the project area.

IX(a). Less Than Significant Impact. The proposed project would not involve the routine transport, use, or disposal of hazardous materials, and would not result in such impact. Construction activities associated with the project would include refueling and minor onsite maintenance of construction equipment, which could lead to minor fuel or oil spills. 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.

IX(b). Less Than Significant Impact. The proposed project would not result in new land uses when compared to existing conditions. The project would not construct dwellings, occupy structures, or result in land uses that could generate or emit hazardous materials. Project activities are not anticipated to result in a release of hazardous materials into the environment, or to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions as stated previously the use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, state, and local laws including CalOSHA requirements.

IX(c). No Impact. The proposed project does not involve any emission or handling of any hazardous materials, substances, or waste within one-quarter mile of an existing school. No existing or proposed school facilities are located within one-quarter mile radius of the project site. As stated previously, the use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, state, and local laws including CalOSHA requirements.

IX(d). No Impact. The project is not included on a list of sites containing hazardous materials, and would not result in a significant hazard to the public or to the environment. The project site is not included on the Cortese list compiled pursuant to Government Code Section 65962.5. As part of the ISA, An Envirostor and Geotracker database search was performed and did not identify any potential sites of concern within a one-mile radius of the project.

IX(e). Less Than Significant Impact. The project site is not located in an airport land use plan nor in the vicinity of a public airport. The nearest public airport, Willows-Glenn County Airport is located approximately 7 miles to the southwest of the project site. A private gravel airstrip immediately adjacent to County Road R, north of the project site is used by crop dusters seasonally. During the construction phase, access to the southern portion of the airstrip nearest the project site would be restricted through applicable roadway closure and detour standards. Additionally, the Project construction activities would be coordinated with the users of the private airstrip to avoid safety hazards posed to residents and workers. Therefore, the hazards related to noise, and airport or aircraft accidents is considered less than significant.

IX(f). Less Than Significant Impact. There will be a temporary detour to provide circulation around the project site which will result in an approximate 5 mile detour. 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.

IX(g). No Impact. The project does not involve the construction of significant structures that would be considered residential in nature, and thus would not expose people or associated structures to risk of loss, injury or death involving wildland fires. The project is the replacement of a structurally deficient bridge. The new bridge would improve emergency access to the area.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
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 a 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 offsite;	☐	☐	☒	☐
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?	☐	☐	☐	☒

DISCUSSION:

X(a). Less Than Significant With Mitigation Incorporated. As identified in Section IV of this document (Mitigation Measure MM-6), the project will obtain all appropriate regulatory permits including certification from a RWQCB per Section 401 Water Quality Certification of the Clean Water Act prior to construction activities. A Section 401 permit is contingent on sufficient evidence that a project would not pose a threat to water quality or quantity leaving the proposed project's site. Additionally, the project would be required to prepare a SWPPP and implement all applicable erosion

control BMPs, which include: the installation of straw wattles, and silt fencing to prevent silt/sediment from entering the waterways, and re-seeding of disturbed upland areas post construction. As described in the Air Quality Section III of this document, the project will be required to adhere BAMMs standard mitigation measures for fugitive dust control, Mitigation Measure MM-1 (Air Quality).

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. 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.

X(b). No Impact. The proposed project involves the replacement of an existing bridge and does not propose activities requiring increases in groundwater use. No new extraction wells or buildings with the potential to increase water usage are proposed.

X(c)(i). Less Than Significant Impact. The project would not alter the existing drainage patterns at the site that would result in substantial erosion or siltation on- or off-site. The implementation of a SWPPP and BMPs during construction activities will minimize soil erosion and siltation caused by construction activities. The channel slopes are susceptible to erosion and bank protection will be necessary at the abutments to meet design requirements. Rock slope protection will be placed at both abutments to protect against channel erosion. The limits of RSP at each abutment will extend from the top of bank down to the toe of slope and approximately 10 feet. upstream and downstream of the proposed edge of deck. The result of the proposed project will be a site that is less susceptible to erosion and siltation, therefore this is considered a less than significant impact.

X(c)(ii). Less Than Significant Impact. The proposed Project includes realignment of County Road R to improve roadway geometry, as well as, minor widening of the paved approach sections to accommodate a wider bridge which will result in an increase of impervious surfaces at the project site. 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. Water will continue to drain into roadside ditches along County Road R and the Project will not contribute to a substantial increase in flooding or water runoff from the site. Project impacts are less than significant.

X(c)(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 proposed Project includes the replacement of an existing bridge, realignment and minor widening of an existing road and will not introduce a substantial additional source of polluted runoff. Project impacts are less than significant.

X(c)(iv). Less Than Significant Impact. The Glenn Colusa Irrigation District controls the flows in the Glenn-Colusa Canal. The freeboard requirements will be set by the GCID for the bridge and the bridge will be designed to provide this freeboard above the water surface elevation designated by GCID. Additionally, the proposed bridge will have two fewer piers than the existing bridge and be approximately 60 feet longer than existing. This will improve the hydraulics of the canal by increasing its hydraulic capacity. Flood water will continue to drain into roadside ditches along County Road R. The potential impacts of the project to impede or redirect flood flows are considered to be less than significant.

X(d). No Impact. The Project is located within Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel 06021C0650D and is not located in a Special Flood Hazard Area

(SFHA) Zone, which represents areas subject to flooding by the 100-year flood. 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.

X(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: MM-1 (Air Quality) & MM-6 (Biological Resources)

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
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?	☐	☐	☐	☒

DISCUSSION:

XI(a). Less Than Significant Impact. The project will not physically divide an established community. There will be a temporary detour to provide circulation around the project site which will result in approximately a 5 mile detour. There are several options for detours in this rural environment. This disruption will be temporary during construction activities Therefore, the project is anticipated to have a less than significant impact.

XI(b). No Impact. The project implements General Plan goals and policies which strive to enhance community connectivity and improve public safety and access. The project is also identified in the Glenn County Regional Transportation Plan. There will be no conflicts with land use plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This is considered no impact.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a 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?	☐	☐	☐	☒

DISCUSSION:

XII(a-b). No Impact. The closest mining operation is located approximately 2.25 miles west of the project location. The proposed project is a bridge replacement project located on an irrigation district canal. As such, the project would not result in the loss of availability of a known mineral resource or mineral resource recovery site. Mineral resources are not associated with the project or located on the project site. Therefore, the project would have no impact on mineral resources.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
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 groundborne vibration or groundborne 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?	☐	☐	☒	☐

DISCUSSION:

The Glenn County General Plan identifies land use compatibility standards for exterior community noise reported as Day Night Average Sound Level (Ldn) or a Community Noise Equivalent Level (CNEL), for a variety of sensitive land uses. For residential designations, a maximum allowable noise exposure level of 60 Ldn/CNEL outdoors and 45 Ldn/CNEL indoors decibel level is generally identified as being an acceptable noise environment requiring no special noise insulation or noise abatement features. This standard is applicable to properties containing noise sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land.

The Glenn County Noise Control Ordinance provides the County with a means of assessing complaints of alleged noise violations and to address noise level violations. The ordinance sets forth exterior and interior noise level standards that are applicable to sensitive areas within Glenn County, including residential uses. Among the noise generating activities subject to the noise ordinance are noise sources associated with construction. If project operations occur between 7:00 a.m. to 10:00 p.m. the maximum decibel level is 70 dB. From 10:00 p.m. to 7:00 a.m. decibels must remain below 65dB.

XIII(a-c). Less Than Significant Impact. The proposed project will be required to comply with all applicable rules, regulations and control measures including permitting, prohibitions, and limits to noise generation. The nearest residents to the project site are approximately 1,000 feet away. While construction activities would generate noise, it is anticipated at this distance noise levels would not exceed established acceptable levels. The project would be expected to comply with the noise ordinance with regard to allowable construction times and noise limits.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
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?	☐	☐	☐	☒

DISCUSSION:

XIV(a-b). No Impact. The proposed project is a bridge replacement project located in a rural portion of Glenn County. The proposed project will not induce substantial population growth in the area, directly or indirectly, or displace a substantial number of people or existing housing. The project will not displace people or housing nor necessitate the construction of replacement housing elsewhere. Therefore, the project will not impact population or housing.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) 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:				
i.) Fire protection?	☐	☐	☐	☒
ii.) Police protection?	☐	☐	☐	☒
iii.) Schools?	☐	☐	☐	☒
iv.) Parks?	☐	☐	☐	☒
v.) Other public facilities?	☐	☐	☐	☒

DISCUSSION:

XV(a)(i-v). No Impact. The proposed project would not construct buildings, businesses or other facilities that would result in an increased population in the area. Temporary delays to traffic may occur during construction activities. However, as required by state and local regulations, emergency vehicles will be given the right-of-way in the event of their presence at the project site. There would be no long-term demands on public services such as fire protection, police protection, schools, or parks generated by this project. Therefore, the proposed project is not anticipated to impact public services.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION.				
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?	☐	☐	☐	☒

DISCUSSION:

XVI(a-b). No Impact. The project does not propose dwelling units, businesses or other structures that might increase the area's human population. The project site does not include existing recreational facilities. Similarly, the proposed project would not construct recreational facilities. The proposed project would not generate additional demands on parks and recreational facilities. The proposed project does not include the development of recreational facilities or other structures that would necessitate the development or modification of any recreational facilities. Relative to recreation, the proposed project would result in no impact.

MITIGATION: None Required.

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

DISCUSSION:

XVII(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 project is also identified in the Glenn County Regional Transportation Plan. 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 Glenn County General Plan, Regional Transportation Plan, or any ordinance, policy, or congestion management program. The Project will have no impact on traffic circulation plans or policies.

XVII(b). Less Than Significant Impact. The Project would not have an impact on vehicle miles traveled. During the 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; 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.

XVII(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.

XVII(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. During the construction phase, emergency vehicle access to the project site would be ensured through adherence to applicable roadway and/or lane closures and detour standards. The project will be required to adhere to pertinent local and state construction site regulations. Impacts would be considered less than significant.

MITIGATION: None Required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

DISCUSSION:

XVIII(a)(i). Less Than Significant With Mitigation Incorporated. As discussed in Section V. (Cultural Resources), only one potential property located within the APE considered historically significant under Criterion A related to the development of agricultural practices in the region: the subject segment of the Glenn-Colusa Canal. However, based on the results of the ASR/HPSR documents 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. Post-construction restoration activities will restore the canal to its pre-construction condition, resulting in no permanent adverse effects on the canal. Therefore, implementation of Mitigation Measure MM-7 (Cultural Resources) will mitigate potential impacts to a less than significant impact.

XVIII(a)(ii). Less Than Significant With Mitigation Incorporated. Pacific Legacy requested a Sacred Lands File and Native American Contacts List from the Native American Heritage Commission (NAHC). NAHC responded to the request on March 8, 2018 indicating that Native American cultural sites are

present (presumably in the project area) and to contact Grindstone Rancheria as a source of information regarding known and/or recorded sites in the project area. The NAHC letter also provided a list of four Native American tribes and individuals who may have knowledge of cultural resources in the project area.

Representatives of local Native American groups were contacted via letters on March 14, 2018. The letter requested tribal knowledge, comments, and concerns about cultural resources in the proposed project area. No responses to the initial contact letter were received. Follow up correspondence was conducted on April 2, 2018 via mail and phone calls to the identified representatives. During the follow-up phone call to the Grindstone Indian Rancheria of Wintun-Wailaki, Pacific Legacy offered an invitation for a field visit, due to their potential knowledge/concerns with the project.

Follow-up phone calls were returned April 3, 2018, from both the Estom Yumeka Maidu Tribe and Mechoopda Indian Tribe. The Estom Yumeka Maidu Tribe indicated the project area was outside their territory. The Mechoopda Indian Tribe deferred to other more local groups and did not wish to consult on the project. No response has been received from the Paskenta Band of Nomlaki Indians.

Additional efforts were made to contact the Grindstone Indian Rancheria of Wintun-Wailaki on April 9, 2018. A final phone call to the Grindstone Indian Rancheria on May 8, 2018 was answered and an additional copy of the initial consultation letter and associated maps was emailed to the representative. An email indicating receipt of the letter and map was returned on May 9, 2018, but there have been no further communications.

The extensive land modifications within the APE and surrounding areas makes the likelihood of intact cultural resources within the APE low. In the event that resources are inadvertently discovered, Implementation of Mitigation Measure MM-8 would reduce impacts to less than significant with mitigation incorporated.

MITIGATION:

Mitigation Measure MM-7 (Cultural Resources)

MITIGATION MEASURE MM-8: Tribal Cultural Resources
If during ground disturbing activities, any potentially paleontological, prehistoric, protohistoric, and/or historic cultural resources or tribal cultural resources are encountered, the contractor shall cease all work within 25 feet of the find (100 feet for human remains) and notify the County. A professional archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology and being familiar with the archaeological record of Glenn County, shall be retained to evaluate the significance of the find. County staff shall notify all local tribes on the consultation list maintained by the State of California Native American Heritage Commission, to provide local tribes the opportunity to monitor evaluation of the site. If human remains are uncovered, the project team shall notify the Glenn County Coroner pursuant to Section 7050.5 of California's Health and Safety Code. Site work shall not resume until the archaeologist conducts sufficient research, testing and analysis of the archaeological evidence to make a determination that the resource is either not cultural in origin or not potentially significant. If a potentially significant resource is encountered, the archaeologist shall prepare a mitigation plan for review and approval by the County, including recommendations for total data recovery, Tribal monitoring, disposition protocol, or avoidance, if applicable. All measures determined by the County to be appropriate shall be implemented pursuant to the terms of the archaeologist's report. The preceding requirement shall be incorporated into construction contracts and documents to ensure contractor knowledge and responsibility for the proper implementation.

MITIGATION MONITORING MM-8: Public Works staff will verify that the above wording is included on construction plans. Should paleontological, prehistoric, protohistoric, and/or historic cultural resources or tribal cultural resources be encountered, the contractor shall be responsible for reporting any such findings to Public Works staff, and contacting a professional archaeologist or paleontologist in consultation with Public Works staff, to evaluate the find.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water 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 waste water 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?	☐	☐	☐	☒

DISCUSSION:

XIX(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 underground 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 will include the relocation of telecommunication facilities. The 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.

XIX(b). No Impact. The proposed project would not increase the need for water supply. Therefore, the proposed projects would not result in the need for the construction of or expansion of water supply facilities, and would have no associated impacts.

XIX(c). No Impact. The Project would not produce wastewater.

XIX(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/transfer stations. The Project would not generate solid waste in amounts that would substantially affect landfill/transfer station capacity and impacts would be less than significant.

XIX(e). No Impact. Disposal of waste materials generated during construction will comply with all local, state, and federal requirements for integrated waste management (e.g., recycling, green waste) and solid waste disposal.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
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?	☐	☐	☐	☒

DISCUSSION:

XX(a-d). No Impact. The project is not located in or near state responsibility areas or lands classified as moderate, high or very high fire hazard severity zones; therefore, it will not substantially impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildfire risks, require the installation or maintenance of associated infrastructure, or expose people or structures to significant risks. The project site is identified as an area outside of Cal Fire's 'Very High Fire Hazard Severity Zone' (i.e., it is a non-VHFHSZ) as identified by Cal Fire (see the following: https://databasin.org/datasets/fbb8a20def844e168aeb7beb1a7e74bc. The project site is located in a Local Responsibility Area (LRA) pursuant to the Fire Hazard Severity Zone and is served by a local fire district. The proposed project would have no impact on wildfire.

MITIGATION: None required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.				
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?	☐	☐	☒	☐

DISCUSSION:

XXI(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 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.

XXI(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.

XXI(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.

5. MITIGATION MONITORING AND REPORTING PROGRAM

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Air Quality						
MITIGATION MEASURE MM-1: Air Quality	To comply with the Glenn County Air Pollution Control District's (GAPCD) regulations (section 76 visible emissions), the County shall comply with all Best Available Mitigation Measures (BAMMs) for the control of construction related particulatmye emissions. The contractor shall submit an Air Quality Attainment Plan to the County for approval. The approved plan shall include all applicable BAMMs as specified by GCAPCD's Standard Construction Phase Mitigation Measures, including but not limited to the following: 1. Haul trucks must be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. 2. Construction equipment exhaust emissions shall not exceed GCAPCD Section 76 Visible Emissions (40 percent opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall act to repair the equipment within 72 hours or remove the equipment from service. 3. The area disturbed by demolition, clearing, grading, earth moving, or excavation operations shall be minimized at all times. 4. Suspend grading or earth moving activities when wind speeds exceed 20 mph. 5. Minimize unnecessary idling time to 5 minutes. 6. Water shall be applied as needed to prevent fugitive dust impacts offsite. 7. All onsite vehicles should be limited to a speed of 15mph on unpaved roads.	Public Works staff shall ensure the construction documents incorporate Best Available Mitigation Measures and the development of an Air Quality Attainment Plan. Public Works (with GCAPCD) staff will ensure that construction, grading, and erosion control operations are conducted in accordance with GCAPCD standards.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-2: Western Pond Turtle The following measures will be required in order to avoid and minimize potential impacts to western pond turtle: • The dewatered work area and disturbance to in-channel habitat shall be kept to the minimum area necessary to perform work. • Operation of equipment and placement of materials within the banks or channel of the Glenn-Colusa canal shall be conducted slowly and deliberately. When first entering the banks or the channel each day, a designated individual shall walk the work area ahead of the equipment to alert any western pond turtles and allow them to move from the work area. • If western pond turtles are encountered within the BSA during construction, work activity in the immediate vicinity will cease until any turtles have left the work area. • Prior to initiation of construction activities, workers shall participate in environmental awareness training provided by a qualified biologist. The training shall instruct workers regarding: (1) how to identify the turtle; (2) the habitats used by the turtle; (3) the potential for turtle egg clutches (i.e., nest sites) to be discovered during vegetation clearing; and (4) what to do if a turtle or suspected egg clutch is encountered during construction activities.	Public Works staff will require final copies of the pre-construction surveys for western pond turtle, no less than 2 days prior to the commencement of construction. Should the species occur on the project site, a qualified biologist shall be retained on-site during ground-disturbance.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-3: Burrowing Owl The following measures will be required in order to avoid and minimize potential impacts to burrowing owl: • A minimum of one pre-construction survey for occupied burrowing owl burrows within 300 feet of the BSA will be conducted by a qualified biologist within 15 days prior to the initiation of construction activities, regardless of the timing of construction. If any occupied burrows are identified, appropriate conservation measures (as determined by a qualified biologist) will be implemented. No disturbance will occur within 150 feet of occupied burrows during the non-breeding season (September 1–January 31) or within 250 feet during the breeding season (February 1–August 31). These measures may also include establishing a construction free buffer zone around the active nest site in coordination with the CDFW, biological monitoring of the active nest site, and delaying construction activities in the vicinity of the active nest site until the young have fledged.	Public Works staff will confirm project initiation timing and/or require final copies of the pre-construction surveys for burrowing owl, no less than 2 days prior to the commencement of construction. Should the species occur on the project site, a qualified biologist shall be retained on-site during ground-disturbance.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-4: Tri-Colored Blackbird and Migratory Birds and Raptors Annual grassland, barren, and irrigation ditches in and adjacent to the BSA provide suitable nesting habitat for a variety of migratory birds, including songbirds. The bridge and the weir structure along the canal to the west of the BSA may provide suitable nesting habitat for cliff swallows. To avoid impacts to avian threatened species (i.e. tricolored blackbird) or avian species protected under the MBTA and the CFGC, the following avoidance and minimization measures are required. • Vegetation removal, grading, and other construction activities shall be scheduled to avoid the breeding season for nesting raptors and other special-status birds (i.e., February 15 through August 31) to the extent practicable. If construction occurs outside of the breeding season, no further mitigation is necessary. If the breeding season cannot be completely avoided, then the following mitigation measure will be implemented. • If construction is to occur during the breeding season, a qualified biologist will conduct pre-construction surveys for nesting migratory birds and raptors within the BSA and a 250-foot buffer around the BSA. The survey will be conducted no more than 15 days prior to the initiation of construction, to ensure no active nests will be disturbed. • If an active nest is found, appropriate conservation measures (as determined by a	Public Works staff will confirm project initiation timing and/or require final copies of the pre-construction surveys for tri-colored blackbird, no less than 2 days prior to the commencement of construction. Should the species occur on the project site, a qualified biologist shall be retained on-site during vegetation or ground disturbance.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-4: Tri-Colored Blackbird and Migratory Birds and Raptors Continued	qualified biologist) shall be implemented. These may include but are not limited to: a construction-free buffer will be established around the active nest site; biological monitoring of the active nest site; and delaying construction activities in the vicinity of the active nest site until the young have fledged (based on field verification by a qualified biologist). If nesting tricolored blackbirds are observed, CDFW shall be consulted to determine requirements for CESA compliance.	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-5: Giant Garter Snake Initial construction and the installation of exclusion fencing will be initiated during the active period of GGS; therefore, GGS individuals are expected to avoid harm's way during initial vegetation removal and ground-disturbing activities. Construction activities will continue as temperatures decrease and GGS enter their dormant season. With the installation of exclusion fencing during the GGS active season and the continuation of construction activities throughout the GGS inactive season, GGS individuals will not be expected to move into the project area. Avoidance and minimization measures will also be implemented to minimize the potential for take. To ensure no direct take of GGS occur due to the proposed project, the following avoidance and minimization measures will be implemented. <u>Avoidance and Minimization Efforts</u> The following requirements will avoid and minimize impacts to this species: • Construction personnel shall participate in a USFWS- and CDFW-approved worker environmental awareness program. Under this program, workers shall be informed about the potential presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the ESA. Prior to construction activities, a qualified biologist approved by the USFWS and CDFW shall instruct all construction personnel about: (1) the		Public Works staff shall ensure the incorporation of avoidance and minimization measures into the plans. Public Works staff shall document the final purchase of required mitigation credits, or other method of compensatory mitigation documenting relief thereof, prior to commencement of construction activities.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-5: Giant Garter Snake Continued	life history of the giant garter snake; (2) the importance of irrigation canals, marshes/wetland, and seasonally flooded areas, such as rice fields, to the giant garter snake; and (3) the terms and conditions of the biological opinion. • Within 24 hours prior to commencement of construction activities, the site shall be inspected by a qualified biologist who is approved by the USFWS and CDFW. The biologist will provide the USFWS and CDFW with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities. • Vegetation clearing will be limited to the minimum area necessary. • If water will be obtained from any suitable giant garter snake aquatic habitat, intake hoses will be screened with mesh no larger than ¼ inch. • Tightly woven fiber netting (mesh size less than 0.25 inch), coconut coir matting, or similar material will be used for erosion control or other purposes. Plastic monofilament or wire mesh in the straw waddles or erosion control mats will not be used. Only erosion control materials (blankets, roles, mats, etc.) with natural coir fibers or other netting approved by the USFWS and CDFW will be used. The edge of the material will be buried in the ground to prevent giant garter snakes from entering underneath the material.	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-5: Giant Garter Snake Continued • All Project personnel will look beneath parked vehicles and equipment for snakes prior to their movement. • To compensate for the permanent loss of 0.209 acre of giant garter snake habitat (0.129 acre of aquatic habitat and 0.08 acre of upland habitat), the County will purchase 0.627 acre (a 3:1 ratio) of giant garter snake credits at a USFWS- and CDFW-approved conservation bank. • Prior to any Project activities that could incidentally take giant garter snake, the County will provide CDFW with written documentation that the County has allocated sufficient funds, acceptable to and approved by CDFW, in the Expenditure Authorization for the Project to ensure implementation of all measures to minimize and fully mitigate the incidental take of giant garter snake resulting from construction of the Project. The documentation provided by the County will identify specific minimization and mitigation components and the costs associated with each component. • If work must be performed during the giant garter snake dormant period, (i.e., between October 2 and April 30), the County will implement the following protective measures: o A full-time USFWS- and CDFW-approved biological monitor will be onsite for the duration of any ground-	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-5: Giant Garter Snake Continued	disturbing activities (e.g., vegetation clearing, grubbing, grading, and other earth-moving activities) after October 1. o If a snake is encountered during construction activities, the monitoring biologist shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities shall be allowed to move away from construction activities on their own. The Project shall be re-inspected whenever a lapse in construction activity of two weeks or greater has occurred. o All vegetation within 200 feet of aquatic habitat will be cleared prior to the giant garter snake hibernation period (i.e., vegetation clearing must be completed by October 1 for any work occurring between October 2 and April 30). o A fencing plan will be prepared and provided to the USFWS and CDFW for comments prior to the start of construction. The exclusion and construction barrier fencing will be installed during the active period for giant garter snakes (May 1–October 1) to reduce the potential for injury and	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-5: Giant Garter Snake Continued	mortality during this activity. Exclusion fencing will be installed before ground-disturbing activities begin. o The County will prepare a giant garter snake relocation plan in the event that a snake is injured or trapped during construction. The plan will outline the biological monitor qualifications and responsibilities, and the steps to be taken if a giant garter snake is encountered during construction. The plan will identify the names and contact information for one or more USFWS- and CDFW-approved biologists that will be responsible for handling snakes. The location (if known) where trapped giant garter snakes would be relocated to will be included in the plan or the plan will specify that trapped individuals will be relocated to the nearest suitable habitat that is outside of the construction area. The plan will describe the steps that will be taken in the notification process and documentation required for submission to the USFWS and CDFW. The plan will be approved by the USFWS and CDFW.	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-5: Giant Garter Snake Continued Compensatory Mitigation The project will permanently and temporarily impact upland and aquatic GGS habitat. To mitigate permanent and temporary impacts to GGS habitat the following is required: • Permanent loss of GGS habitat will be compensated by purchasing creation credits at the Colusa Basin Conservation Bank or at another USFWS and CDFW approved conservation bank with a service area that accommodates the project location. Credits shall be purchased prior to the start of construction. The County will purchase 0.627 acre (a 3:1 ratio) of giant garter snake credits. • Temporary disturbance to snake habitat shall be restored to pre-project conditions within 1 year of completion of construction. o Restoration and monitoring shall follow the USFWS Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat (1997). If restoration is unsuccessful, as determined by the USFWS, consultation will be reinitiated.	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Biological Resources						
MITIGATION MEASURE MM-6: Regulatory Permits Prior to commencing construction, the County shall have available the final copies of the permits and authorizations required by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Regional Water Quality Control Board, California Department of Fish and Wildlife, and the Central Valley Flood Protection Board or copies of relevant correspondence documenting that no permit is required, as applicable.		Public Works staff will require final copies of the required permits or letters documenting relief thereof, prior to the commencement of construction.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Cultural Resources						
MITIGATION MEASURE MM-7: Cultural Resources As outlined in the Secretary of the Interior's Standards (SOIS) Action Plan, prepared by Stantec (2019), the following measures are recommended in order to avoid and minimize potential impacts to historic properties: • All work will be outlined in a final project scope package, which will be reviewed by all parties prior to initiation of work • The Project Architectural Historian (PAH) will be notified at least three weeks prior to the start of construction activities to allow or the preparation and scheduling of any required preconstruction activities (e.g., pre-construction tailboard to discuss SOIS). • The work area will be thoroughly documented through photographs prior to construction to serve as a baseline for future restoration activities. This will be conducted by the PAH and Project Engineering Team, or appropriate representatives. The PAH will notify the CalTrans Architectural Historian (CAH) upon completion of this task. • All documentation prepared will be submitted to all parties as a field report to be kept on file. • The PAH will participate in the pre-construction meeting to reiterate the historic nature of the canal, the importance of the SOIS, and the procedures for any changes to the proposed scope of work. This will be reiterated to the construction personnel prior to construction.		The County's Project Architectural Historian will be responsible for monitoring construction and inspecting the completed project once all construction and restoration activities have been completed by the responsible parties. Upon completion of each task in the SOIS Action Plan, the County's Project Architectural Historian will notify the Caltrans Principal Architectural Historian.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Cultural Resources						
MITIGATION MEASURE MM-7: Cultural Resources Continued The PAH will notify the CAH upon completion of this task. • Weekly tailgate meetings during construction activities will be held and the importance of the SOIS will be reiterated to all construction personnel. The importance of notifying appropriate parties of any major scope of work changes to assess potential adverse effects related to the SOIS will be emphasized. • The PAH will be notified immediately if the proposed scope of work departs from what is documented in this study to ensure that the new activities are compliant with the SOIS. The PAH will notify the CAH of scope changes and consult to assess potential adverse effects. • In the event of large scope of work changes, the CAH will consult with the Caltrans Cultural Studies Office to discuss the revised scope of work and determine whether the finding of no adverse effects with standard conditions SOIS remains valid. If the finding is no longer valid, the CAH will notify the PAH of the need for additional studies. • Following completion of the new bridge, the County will restore the subject work area at the canal banks using in-kind materials to restore the canal to its pre-construction condition. • Following all construction and restoration activities, the PAH shall conduct the final	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Cultural Resources						
MITIGATION MEASURE MM-7: Cultural Resources Continued	inspection of the subject area and overall condition of the canal. The PAH will notify the CAH upon completion of this task. • The PAH will document the post-restoration conditions and prepare a final field report outlining the final inspection and adherence to the SOIS, which will be submitted to all parties for their files. The report will include a completed and initiated copy of this form.	See previous pages	See previous pages			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Tribal Cultural Resources						
MITIGATION MEASURE MM-8: Tribal Cultural Resources If during ground disturbing activities, any potentially paleontological, prehistoric, protohistoric, and/or historic cultural resources or tribal cultural resources are encountered, the contractor shall cease all work within 25 feet of the find (100 feet for human remains) and notify the County. A professional archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology and being familiar with the archaeological record of Glenn County, shall be retained to evaluate the significance of the find. County staff shall notify all local tribes on the consultation list maintained by the State of California Native American Heritage Commission, to provide local tribes the opportunity to monitor evaluation of the site. If human remains are uncovered, the project team shall notify the Glenn County Coroner pursuant to Section 7050.5 of California's Health and Safety Code. Site work shall not resume until the archaeologist conducts sufficient research, testing and analysis of the archaeological evidence to make a determination that the resource is either not cultural in origin or not potentially significant. If a potentially significant resource is encountered, the archaeologist shall prepare a mitigation plan for review and approval by the County, including recommendations for total data recovery, Tribal monitoring, disposition protocol, or avoidance, if applicable.	Public Works staff will verify that the above wording is included on construction plans. Should paleontological, prehistoric, protohistoric, and/or historic cultural resources or tribal cultural resources be encountered, the contractor shall be responsible for reporting any such findings to Public Works staff, and contacting a professional archaeologist or paleontologist in consultation with Public Works staff, to evaluate the find.	Glenn County Public Works Agency			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
Tribal Cultural Resources						
MITIGATION MEASURE MM-8: Tribal Cultural Resources Continued All measures determined by the County to be appropriate shall be implemented pursuant to the terms of the archaeologist's report. The preceding requirement shall be incorporated into construction contracts and documents to ensure contractor knowledge and responsibility for the proper implementation.		See previous pages	See previous pages			

APPENDICES

Appendix A - Farmland Impact Study
Appendix B - Natural Environmental Study (NES)
Appendix C - Delineation of Waters of the United States
Appendix D - Biological Assessment (BA)
Appendix E - Historic Properties Survey Report and Archaeological Survey Report
Appendix F - Initial Site Assessment Transaction Screen Assessment
Appendix G - Foundation Report