

Initial Study/Proposed Mitigated Negative Declaration

Reclamation District 10

Feather River East Levee –

Southern Toe Access Corridor Project



Prepared for:
Reclamation District 10

Prepared by:



May 2020

Initial Study/Proposed Mitigated Negative Declaration

**Reclamation District 10
Feather River East Levee –
Southern Toe Access Corridor Project**

Prepared for:

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May 26, 2020

Project No. 1904403,4.1

Date: May 26, 2020

To: Interested Parties

From: Sarb Johl, Board of Directors President, Reclamation District 10

Subject: Notice of Availability and Intent to Consider Adoption of a Proposed Mitigated Negative Declaration for the Feather River East Levee Southern Toe Access Corridor Project

Enclosed for your review is an Initial Study and a proposed Mitigated Negative Declaration (IS/MND) evaluating the potential environmental effects of the proposed Feather River East Levee Southern Toe Access Corridor Project (project). Reclamation District (RD) 10 has prepared this IS/MND in accordance with the requirements of the California Environmental Quality Act (CEQA) and State CEQA Guidelines.

The project would be located in western Yuba County, approximately 1 mile north of the City of Marysville and 1 mile west of State Route 70, along the Feather River east levee, within the Yuba City U.S. Geological Survey 7.5-minute quadrangle.

The project consists of constructing approximately 2 miles of an all-weather elevated landside toe access corridor along the Feather River east levee, in the southwestern portion of RD 10, to improve levee accessibility for patrol and maintenance purposes.

The IS/MND identifies potentially significant or significant impacts related to biological resources, cultural resources, Tribal cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality. All potentially significant and significant impacts are reduced to less-than-significant levels with implementation of mitigation measures identified in the IS/MND.

The IS/MND is hereby circulated for public review and comment for a 30-day period beginning on May 28, 2020 and ending on June 26, 2020. The IS/MND and all referenced documents are available at <https://geiconsultants.sharefile.com/d-sd47e45c6f584ad99>. Contact Anne King at 916-382-7833 or aking@geiconsultants.com if you have questions regarding these documents or you require a hard copy of the IS/MND. Please send written comments on the IS/MND to Sarb Johl, Board of Directors President, Reclamation District 10, 9274 Highway 70, Marysville, CA 95901. Comments may also be sent via e-mail to sarb@johlfamilyfarms.com. For e-mailed comments, please include the project title in the subject line, attach comments in Microsoft Word format, and include the commenter's name and U.S. Postal Service mailing address. All written comments must be received by June 26, 2020.

RD 10 intends to consider adoption of the proposed MND and a Mitigation Monitoring and Reporting Program during a teleconference board meeting to be held at 10 a.m. on July 6, 2020. This meeting is open to the public. Please contact Anne King at 916-382-7833 or aking@geiconsultants.com for details regarding access to the teleconference.

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PROPOSED MITIGATED NEGATIVE DECLARATION

Project: Feather River East Levee – Southern Toe Access Corridor Project

Lead Agency: Reclamation District 10

PROJECT LOCATION

The Feather River East Levee – Southern Toe Access Corridor Project (project) site is located approximately 1 mile north of Marysville in Yuba County, California. The project site can be accessed via Laurellen Road or Silva Avenue from State Route 70.

PROJECT DESCRIPTION

The Reclamation District (RD) 10 levee system consists of approximately 22 miles of levees and protects approximately 12,000 acres of rural residential, farmland, and agricultural-related businesses. The project would improve levee accessibility for patrol and maintenance purposes by constructing approximately 2 miles of an all-weather elevated landside toe access corridor (TAC) along the Feather River east levee, in the southwestern portion of RD 10. The approximately 24-foot-wide TAC would include 3 feet of fill at the landside levee toe and would be topped with a 20-foot-wide corridor of aggregate base.

FINDINGS

An Initial Study (IS) was prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the IS, it has been determined that the proposed project would not result in significant adverse effects on the physical environment after implementation of proposed mitigation measures. This conclusion is supported by the following findings:

1. The proposed project would have no impacts on land use and planning, mineral resources, population and housing, public services, recreation, and wildfire.
2. The proposed project would have less-than-significant impacts on aesthetics, agriculture and forestry resources, air quality, energy, greenhouse gas emissions, noise, transportation, and utilities and service systems.
3. The proposed project would have potentially significant impacts on biological resources, cultural resources, Tribal cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality, but mitigation measures are proposed to avoid or reduce these effects to less-than-significant levels.
4. The proposed project would not 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 an

endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.

5. The proposed project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
6. The proposed project would not have possible environmental effects that are individually limited but cumulatively considerable and contribute to a significant cumulative impact. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
7. The environmental effects of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly.

Following are the proposed mitigation measures that would be implemented to avoid or minimize potentially significant and significant environmental impacts. Implementation of these mitigation measures would reduce the potentially significant and significant environmental impacts of the proposed project to less-than-significant levels. The responsibility for implementation of each mitigation measure is identified; however, Reclamation District 10 is ultimately responsible for ensuring each measure is implemented.

Mitigation Measure BIO-1: Minimize Potential to Destroy or Result in Failure of Active Bird Nests.

RD 10 and its construction contractor(s) will implement the following measures to minimize potential to destroy an active bird nest or result in failure of a special-status bird nest during project implementation:

- A qualified biologist shall conduct a survey of suitable nesting habitat that would be removed by project activities during the nesting season (February-August). A minimum of one survey shall be conducted no more than 7 days before project activities begin.
- If an active bird nest is found, removal or direct disturbance of habitat in which the nest is located shall be delayed until the biologist confirms the nest is no longer active.
- A qualified biologist also shall conduct a survey of suitable nesting habitat for Swainson's hawk, white-tailed kite, and common raptors adjacent to project activities that would occur during the nesting season (February-August). Surveys shall be conducted within 14 days before project activities begin near suitable raptor nesting habitat.
- If an active raptor nest is found, a protective buffer shall be established and implemented until a qualified biologist confirms the nest is no longer active. A qualified biologist will monitor the nest during project activities to confirm effectiveness of the

buffer. The size of the buffer will depend on the type and intensity of project disturbance, presence of visual buffers, and other variables that could affect susceptibility of the nest to failure.

Timing: Before and during project construction activities

Responsibility: RD 10 and construction contractor(s)

Mitigation Measure CR-1: Address Previously Undiscovered Historical Resources and Archaeological Resources.

RD 10 shall implement measures to reduce or avoid impacts on undiscovered historic properties and archaeological resources. If buried or previously unidentified historic properties or archaeological resources are discovered during project construction, all work within a 100-foot-radius of the find shall cease. RD 10 shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeologists to assess the discovery and recommend what, if any, further treatment or investigation is necessary for the find. Interested Native American Tribes will also be contacted. Any necessary treatment/investigation shall be developed in coordination with interested Native American Tribes providing recommendations and with RD 10, and shall be completed before project activities continue in the vicinity of the find.

Timing: During project construction activities

Responsibility: RD 10 and construction contractor(s)

Mitigation Measure CR-2: Avoid Potential Effects on Undiscovered Burials.

RD 10 shall implement the following measures to reduce or avoid potential impacts related to undiscovered burials. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all potentially damaging ground disturbance in the area of the burial and within a 100-foot radius, shall halt and the Yuba County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, then Federal laws governing the disposition of those remain would come into effect. Specifically, the Native American Graves Protection and Repatriation Act, Pub Law 101-601, 25 U.S.C. 3001 et seq., 104 Stat. 3048 requires Federal agencies and institutions that receive Federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian Tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. RD 10 shall ensure that the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 are followed.

Timing: During project construction activities
Responsibility: RD 10 and construction contractor(s)

Mitigation Measure GEO-1: Implement a Stormwater Pollution Prevention Plan and Associated Best Management Practices.

RD 10 shall prepare and implement the appropriate Stormwater Pollution Prevention Plan (SWPPP), or Stormwater Management Plan (SWMP), as needed, to prevent and control pollution and to minimize and control runoff and erosion in compliance with State and local laws. The SWPPP or SWMP shall identify the activities that may cause pollutant discharge (including sediment) during storms or strong wind events, techniques to control pollutant discharge, and an erosion control plan. Regardless of the need for a SWPPP or SWMP, construction techniques and Best Management Practices (BMPs) will be identified and implemented, as appropriate to reduce the potential for runoff and exposure to hazardous materials. Construction techniques will include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. BMPs that specify erosion and sedimentation control measures to be implemented may include silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, trench plugs, terraces, water bars, soil stabilizers, re-seeding with native species, and mulching to revegetate disturbed areas. If suitable vegetation cannot reasonably be expected to become established, non-erodible material will be used for such stabilization.

The SWPPP or SWMP shall also include a spill prevention, control, and countermeasure plan, and applicable hazardous materials business plans. The SWPPP or SWMP shall identify the types of materials used for equipment operation (including fuel and hydraulic fluids), measures to prevent hazardous material and waste spills, and materials available to clean up hazardous material and waste spills. The SWPPP or SWMP shall also identify emergency procedures for responding to spills. The SWPPP shall also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment, including during gravel processing.

The BMPs presented in either document shall be clearly identified and maintained in good working condition throughout the construction process. The construction contractor shall retain a copy of the approved SWPPP or SWMP on the construction site and modify it as necessary to suit specific site conditions.

RD 10 and all contractors will abide by regulations governing hazardous materials transport included in CCR Title 22, the California Vehicle Code (CCR Title 13), and the State Fire Marshal Regulations (CCR Title 19). Transport of hazardous materials can only be conducted under a registration issued by the California Department of Toxic Substances Control. Construction contractors shall be required to use, store, and transport hazardous materials in compliance with Federal, State, and local regulations.

Timing: Before and during project construction activities
Responsibility: RD 10 and construction contractor(s)

Mitigation Measure TCR-1: In the Event that Tribal Cultural Resources are Discovered Before or During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Impacts.

California Native American Tribes that are traditionally and culturally affiliated with the geographic area in which the project is located may have expertise concerning their Tribal Cultural Resources. Consistent with California PRC Section 21080.3.1, culturally affiliated Tribes shall be consulted concerning Tribal Cultural Resources that may be impacted, if these types of resources are discovered before or during construction. Consultation with culturally affiliated Tribes shall focus on identifying measures to avoid or minimize impacts on any such resources discovered during construction. If Tribal Cultural Resources are identified on the project site, before or during construction, the following performance standards shall be met before proceeding with construction and associated activities that may result in damage to or destruction of Tribal Cultural Resources:

- Each identified Tribal Cultural Resource will be evaluated for CRHR eligibility through application of established eligibility criteria (CCR 15064.636), in consultation with interested Native American Tribes.
- If a Tribal Cultural Resource is determined to be eligible for listing in the CRHR, RD 10 will avoid damaging the Tribal Cultural Resource in accordance with California PRC Section 21084.3, if feasible. If RD 10 determines that the project may cause a substantial adverse change to a Tribal Cultural Resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation steps capable of avoiding or substantially lessening potential significant impacts to a Tribal Cultural Resource or alternatives that would avoid significant impacts to a Tribal Cultural Resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which mitigation specifically addresses inadvertent discovery of Tribal Cultural Resources:
 - i. Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - ii. Treat the resource with culturally appropriate dignity, taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - a. Protect the cultural character and integrity of the resource.
 - b. Protect the traditional use of the resource.

- c. Protect the confidentiality of the resource.
- d. Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- e. Protect the resource.

Timing: Before and during project construction activities

Responsibility: RD 10 and construction contractor(s)

Mitigation Measure TCR-2: Conduct Cultural Resources Awareness Training.

RD10 shall provide a cultural resources and Tribal Cultural Resources sensitivity and awareness training program for all personnel involved in project construction, including field consultants and construction workers. The training shall be developed in coordination with an archaeologist meeting Secretary of the Interior Professional Qualifications Standards for Archaeology, as well as culturally affiliated Native American Tribes. RD 10 shall invite Native American representatives from interested culturally affiliated Native American Tribes to participate. The training shall be conducted before any project-related construction activities begin on the project site and shall include relevant information regarding sensitive cultural resources and Tribal Cultural Resources, including applicable regulations, protocols for avoidance, and consequences of violating Federal and State laws and regulations.

The training shall also describe what to do and who to contact if any potential cultural resources or Tribal Cultural Resources are encountered. The training shall emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and shall discuss appropriate behaviors and responsive actions, consistent with Native American Tribal values.

Timing: Before project construction activities

Responsibility: RD 10 and construction contractor(s)

Mitigation TCR-3: Invite Interested Culturally Affiliated Tribes to Inspect the Project Site

The following measures are intended to minimize impacts to identified or previously undiscovered Tribal Cultural Resources, Native American archaeological resources, and other Native American cultural resources during project-related ground-disturbing activities. RD 10 and its construction contractor(s) will implement the following measures to identify Tribal Cultural Resources at the earliest possible time during project-related ground-disturbing activities:

- RD 10 shall contact interested culturally affiliated Tribes at least 2 weeks before ground-disturbing activities begin and invite the Tribes to monitor ground-disturbing

activities during project construction. The duration of the monitoring and construction schedule shall be determined at this time.

- In order to track the status of mitigation measure implementation, field-monitoring activities shall be documented on a Tribal Monitor log. The total time commitment of the Tribal Monitor will vary depending on the intensity and location of construction and the sensitivity of the area, including the number of finds, if any.
- A Tribal Monitor(s) from traditionally and culturally affiliated Native American Tribes shall be invited to monitor the vegetation grubbing, stripping, grading, and other ground-disturbing activities on the project site. The Tribal Monitor(s) shall wear the appropriate safety equipment and follow all safety protocols.
- Native American Representatives and Tribal Monitors act as a representative of their Tribal government and have the authority to identify sites or objects of cultural value to Native Americans and recommend appropriate treatment of such sites or objects. Native American Monitors or their Representatives have the authority to request that work be temporarily paused, diverted, or slowed within 100 feet of the direct impact area, if sites or objects of significance are identified. Only a Native American Monitor or Representative from a culturally affiliated Tribe can recommend appropriate treatment and final disposition of Tribal Cultural Resources.
- If Tribal representatives identify Tribal Cultural Resources on the project site, before or during project construction, the Tribe shall immediately notify RD 10 and the consultation procedures identified in Mitigation Measure TCR-1 shall be initiated by RD 10.
- If Tribal Cultural Resources, Native American artifacts, or other Native American items or materials are identified on the project site and are collected by Tribal monitors, RD 10 shall provide a secure, climate-controlled facility for storage of the items until the culturally affiliated Tribe determines the disposition of the materials. Secure storage location(s) or container(s) of adequate size shall be identified and set aside exclusively for the secure storage of collected cultural items before the start of construction. This Secure Storage may be within a construction trailer or other facility on or near the site. Any collected items shall be recorded and placed by the Tribal monitor in the storage container at the end of the day or other appropriate intervals identified by the Tribal Monitor. Only designated Tribal Monitors shall have the keys or access codes to the container. When a storage location is at 75 percent capacity, the Tribal monitor shall notify RD 10, and RD 10 shall make arrangements for additional storage within 48 business hours of receiving the notification.

Timing: Before and during project construction activities

Responsibility: RD 10 and construction contractor(s)

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INITIAL STUDY

PROJECT INFORMATION

| | |
|---|---|
| 1. Project title: | Feather River East Levee – Southern Toe Access Corridor Project |
| 2. Lead agency name and address: | Reclamation District 10 (RD 10) 9274 Highway 70 Marysville, CA 95901 |
| 3. Contact person and phone number: | Sarb Johl President 530.682.4121 sarbjoahl@gmail.com |
| 4. Project location: | 199 Laurellen Road and 231 Silva Avenue Marysville, Yuba County, CA 95249 |
| 5. Project sponsor's name and address: | See #2, above. |
| 6. General plan designation: | Natural Resources |
| 7. Zoning: | AR-10 (Agricultural/Rural Residential District, 10 Acres) and AE-40 (Exclusive Agricultural District, 40 Acres). |
| 8. Description of project: | The project involves constructing approximately 2 miles of an all-weather elevated landside toe access corridor along the Feather River east levee, in the southwestern portion of RD 10, to improve levee accessibility for patrol and maintenance purposes. See Chapter 2, “Project Description.” |
| 9. Surrounding land uses and setting: | The project site is approximately 1 mile north of Marysville, in Yuba County, California. The project site is accessed via Laurellen Road or Silva Avenue from State Route 70. Surrounding land uses are agricultural, open space, and rural residential. See “Environmental Setting” under each issue area in Chapter 3, “Environmental Checklist.” |
| 10. Other public agencies whose approval may be required or requested (e.g., permits, financing approval, or participation agreement): | Yuba County Central Valley Regional Water Quality Control Board |

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| 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? | Yes. Consultation is described in more detail in Sections 3.5, "Cultural Resources," and 3.18, "Tribal Cultural Resources." |
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Abbreviations and Acronyms

| | |
|-------------------|---|
| B.C.E. | Before Common Era |
| BMPs | best management practices |
| cal | calibrated radiocarbon date |
| C.E. | Common Era |
| CAAQS | California Ambient Air Quality Standards |
| CARB | California Air Resources Board |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CGS | California Geological Survey |
| CNDDDB | California Natural Diversity Database |
| CRHR | California Register of Historical Resources |
| CSD | Community Services District |
| CWA | Clean Water Act |
| dB | decibels |
| dBA | A-weighted decibels |
| EPA | U.S. Environmental Protection Agency |
| FGC | California Fish and Game Code |
| FRAQMD | Feather River Air Quality Management District |
| GEI | GEI Consultants, Inc. |
| GHG | greenhouse gas |
| IS/MND | Initial Study/proposed Mitigated Negative Declaration |
| L _{eq} | equivalent sound level |
| MRZ | Mineral Resource Zones |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NMFS | National Marine Fisheries Service |
| NO _x | nitrogen oxides |
| OHWM | ordinary high water mark |
| PG&E | Pacific Gas and Electric Company |
| PM _{2.5} | particulate matter less than 2.5 microns in diameter |
| PM ₁₀ | particulate matter less than 10 microns in diameter |
| PRC | Public Resources Code |

| | |
|--------------------|---|
| project | Feather River East Levee – Southern Toe Access Corridor Project |
| Porter-Cologne Act | Porter-Cologne Water Quality Control Act |
| RD | Reclamation District |
| ROG | reactive organic gases |
| RWQCB | Regional Water Quality Control Board |
| SR | State Route |
| SRFCP | Sacramento River Flood Control Project |
| SWMP | Stormwater Managemant Plan |
| SWPPP | Stormwater Pollution Prevention Plan |
| SMAQMD | Sacramento Metropolitan Air Quality Management District |
| TAC | toe access corridor |
| UAIC | United Auburn Indian Community |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| UBC | Uniform Building Code |
| VMT | vehicle miles travelled |

Chapter 1. Introduction

Reclamation District (RD) 10 has prepared this Initial Study/proposed Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the potentially significant and significant environmental impacts of the proposed Feather River East Levee Southern Toe Access Corridor Project (project) in Yuba County, California. RD 10 is the lead agency under CEQA.

To satisfy CEQA requirements, this document includes:

- a Notice of Intent to adopt an MND for the proposed project
- an IS
- a proposed MND

After the required public review of this document is complete, RD 10 will consider adopting the MND, adopting a Mitigation Monitoring and Reporting Program, and approving the proposed project at a public hearing.

1.1 Purpose of the Initial Study

This document is an IS prepared in accordance with CEQA (California Public Resources Code [PRC], Section California Code of Regulations [CCR] 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the CCR). The purpose of this IS is to (1) determine whether project implementation would result in potentially significant or significant impacts on the physical environment; and (2) implement mitigation measures, as necessary, to eliminate the project's potentially significant or significant project impacts or reduce them to a less-than-significant level. An MND is prepared if the IS identifies potentially significant impacts, and: (1) feasible measures are available to mitigate the potentially significant impacts to less-than-significant levels; and (2) there is no substantial evidence, in light of the whole record before the lead agency, that the proposed project, with mitigation, may have a potentially significant or significant impact on the physical environment.

An IS presents environmental analysis and substantial evidence in support of its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts. An IS is neither intended nor required to include the level of detail provided in an Environmental Impact Report (EIR).

CEQA requires that all State and local government agencies consider the potentially significant and significant environmental impacts of projects they propose to carry out or over which they

have discretionary authority, before implementing or approving those projects. The public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance (State CEQA Guidelines, CCR Section 15367). RD 10 has principal responsibility for carrying out this project and is therefore the CEQA lead agency for this IS/MND.

If there is substantial evidence (including the analyses in an IS) that a project, either individually or cumulatively, may have a significant or potentially significant impact on the physical environment, the lead agency must prepare an EIR (State CEQA Guidelines, CCR Section 15064[a]). If the IS concludes that impacts would be less than significant, or that mitigation measures committed to by the project proponent would reduce impacts to a less-than-significant level, a Negative Declaration or MND may be prepared.

RD 10 has prepared this IS to evaluate the potential environmental impacts of the project and has identified mitigation measures to reduce or eliminate any potentially significant project-related impacts. Therefore, an MND has been prepared for this project.

1.2 Summary of Findings

Chapter 3, Environmental Checklist, of this document contains the analysis and discussion of potential environmental impacts of the project. Based on the issues evaluated in that chapter, it was determined that:

The proposed project would result in no impacts on the following issue areas:

- Land use and planning
- Mineral resources
- Population and housing
- Public services
- Recreation
- Wildfire

The proposed project would result in less-than-significant impacts on the following issue areas:

- Aesthetics
- Agriculture and forestry resources
- Air quality
- Energy
- Greenhouse gas emissions
- Noise
- Transportation

- Utilities and service systems

The proposed project would result in less-than-significant impacts *after* mitigation implementation on the following issue areas:

- Biological resources
- Cultural resources
- Tribal Cultural Resources
- Geology and soils
- Hazards and hazardous materials
- Hydrology and water quality
- Mandatory findings of significance (including cumulative impacts)

1.3 Document Organization

This document is divided into five key sections:

Chapter 1, “Introduction,” describes the purpose of the IS/MND, summarizes findings, and describes the organization of the IS.

Chapter 2, “Project Description,” describes the project location, project purpose, project components, construction activities, project operations, and discretionary actions and approvals that may be required.

Chapter 3, “Environmental Checklist,” presents an analysis of environmental issues identified in the CEQA Environmental Checklist and determines whether project implementation would result in a beneficial impact, no impact, less-than-significant impact, less-than-significant impact with mitigation incorporated, potentially significant impact, or significant impact, on the physical environment in each issue area. If any impacts are determined to be potentially significant or significant with mitigation incorporated, an EIR would be required. For this project, however, mitigation measures have been identified, as needed, to reduce all potentially significant and significant impacts to less-than-significant levels.

Chapter 4, “References Cited,” lists the references used to prepare this IS.

Chapter 5, “Report Preparers,” identifies individuals who helped prepare or review this IS.

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Chapter 2. Project Description

This chapter describes the project location and background, along with the project objectives, project components and characteristics, construction activities, project operations, and discretionary actions and approvals that may be required.

2.1 Project Location

The project site is located in the southwestern portion of RD 10, immediately east of the Feather River and north of the City of Marysville, in Yuba County (**Figure 2-1**). The RD 10 levee system consists of approximately 22 miles of levees and protects approximately 12,000 acres of rural residential, farmland, and agricultural-related businesses. The project site is in the un-sectioned portion of the U.S. Geological Survey 7.5-minute Yuba City quadrangle. Elevation at the landside levee toe ranges from approximately 60 feet at the south end of the project site to approximately 70 feet at the north end of the site.

2.2 Project Purpose

The purpose of the project is to improve levee accessibility for patrol and maintenance purposes by constructing approximately 2 miles of an all-weather elevated landside toe access corridor (TAC) along the Feather River east levee, in the southwestern portion of RD 10. The TAC is intended to support patrol and maintenance activities and is not intended to address any existing geotechnical levee deficiencies.

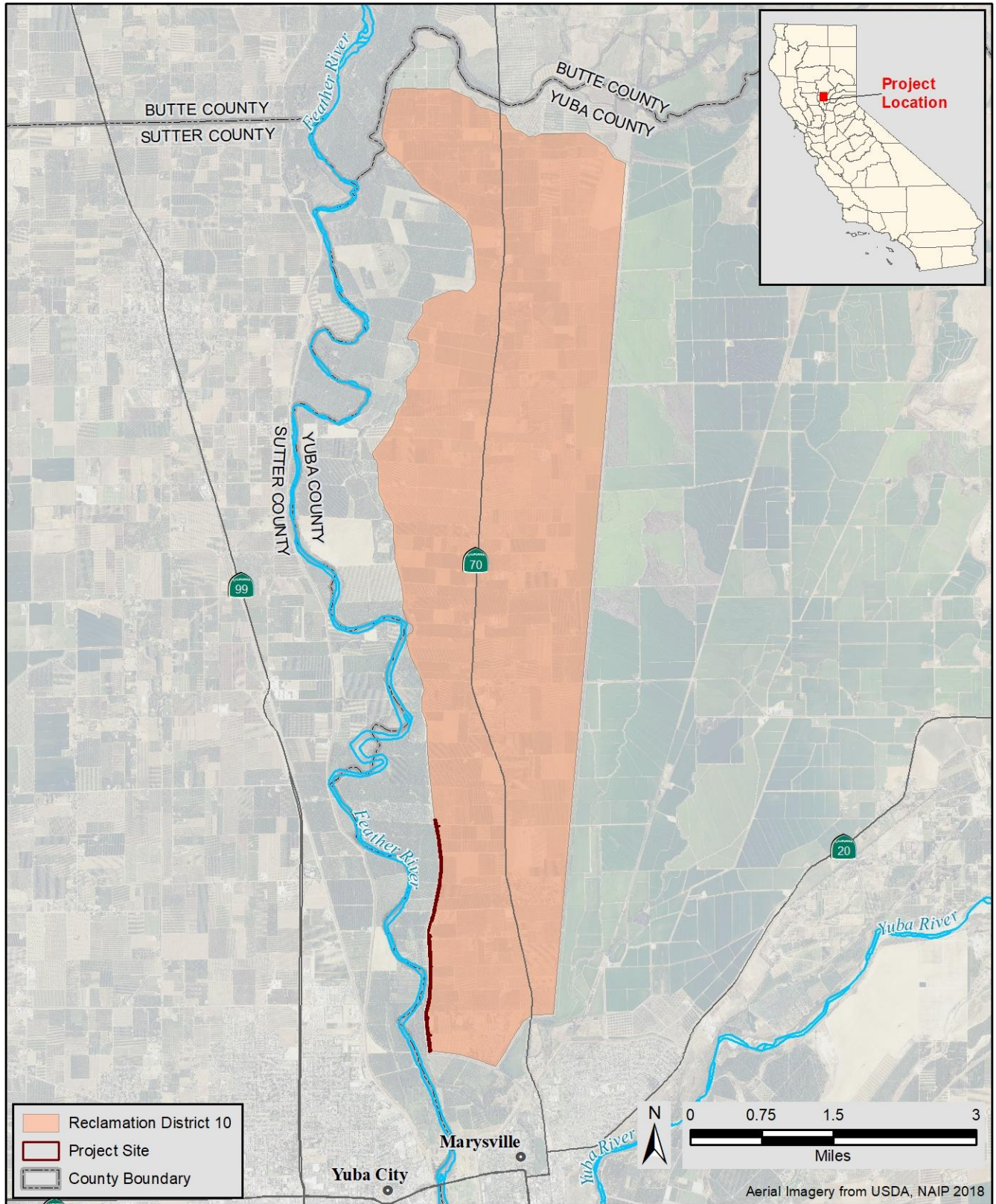
2.3 Project Construction

The project site shown in **Figure 2-2** and **Figure 2-3** corresponds to the overall construction footprint, including potential staging areas and potential on-site access and haul routes. Haul routes to the project site are also shown. The total area within the project site is approximately 27 acres. However, ground-disturbing activities would be limited to approximately 10 acres, and depth of ground disturbance for most construction components would be approximately 6 inches.

2.3.1 Project Components

The TAC would be constructed at the landside levee toe, from approximately Station 2547+00 to 2677+00, by placing 3 feet of fill, topped with 6 inches of aggregate base. Geotechnical seepage and slope stability analysis completed for this portion of the levee confirmed that constructing the TAC would not worsen existing geotechnical deficiencies. Therefore, the TAC would be constructed of uniform fill material. **Figure 2-4** shows a typical cross section of the TAC.

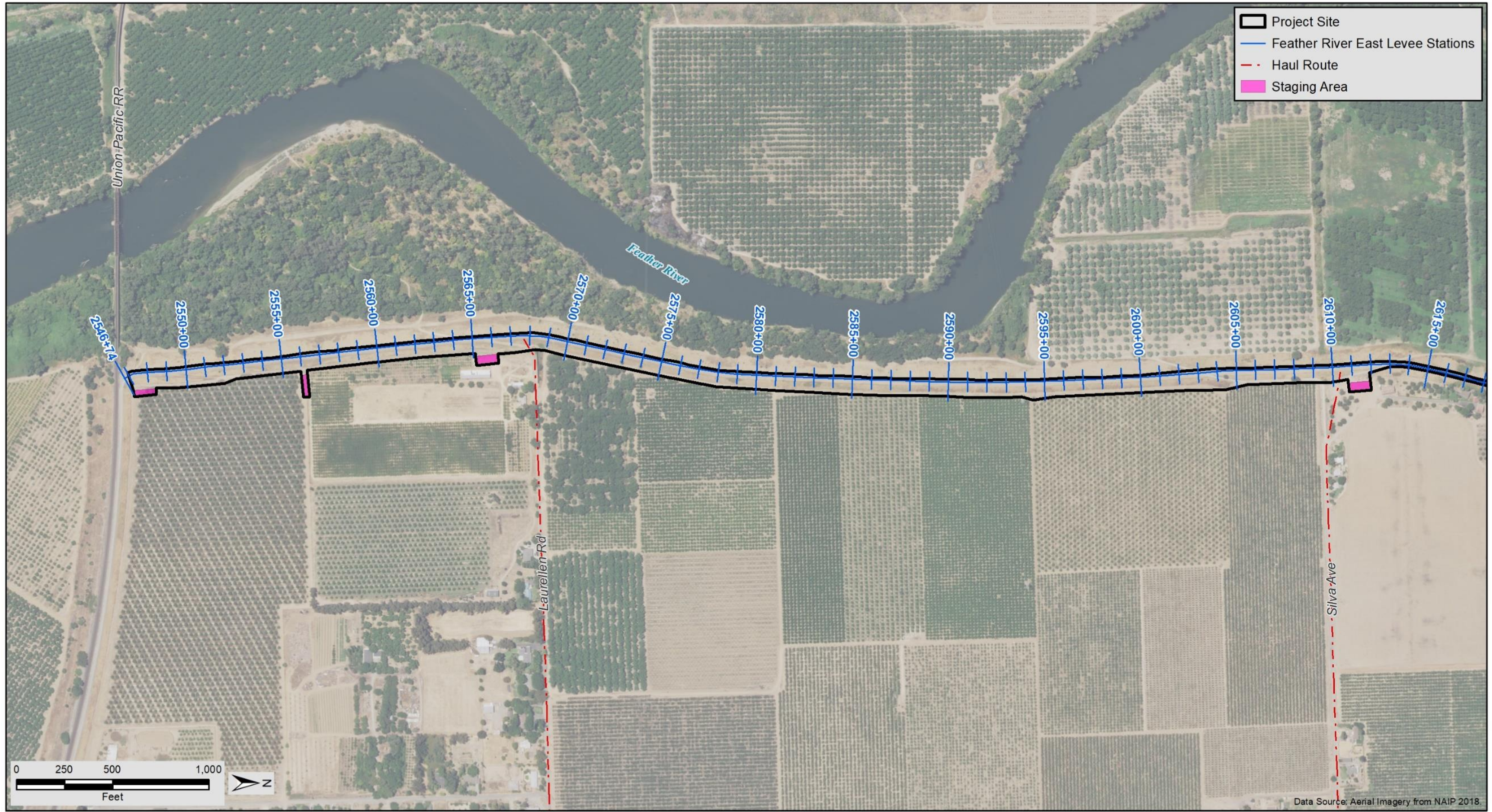
Figure 2-1. Project Location.



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05Mar2020 RS

Source: GEI Consultants, Inc. 2020

Figure 2-2. Project Footprint – South.



Source: GEI Consultants, Inc. 2020

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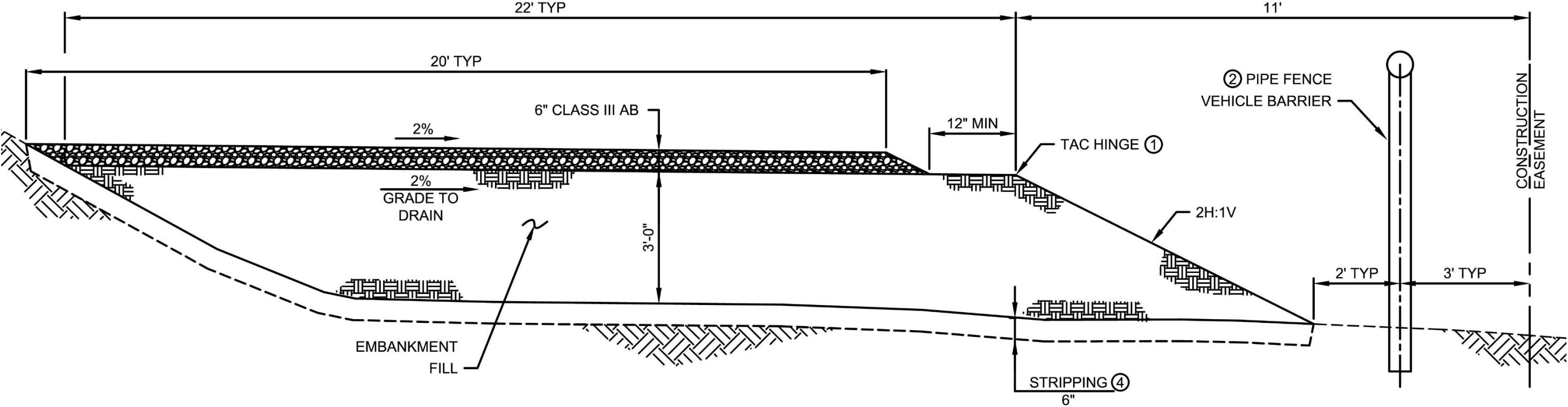
Figure 2-3. Project Footprint – North.



Source: GEI Consultants, Inc. 2020

02Mar2020 RS Z:\Projects\1904403_RD10\1904403_G008_ProjectSite_CEQA.mxd

Figure 2-4. Typical Cross Section of Toe Access Corridor.



Source: GEI Consultants, Inc. 2020

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The TAC would follow the existing landside elevations and would generally have a 2 percent cross slope to drain water away from the levee. It would be approximately 24 feet wide, with a 20-foot-wide area of aggregate base.

The width and configuration of the TAC would be adjusted, as needed, to avoid or accommodate existing ramps, utility poles, and structures. A gap in the TAC would occur from Station 2609+50 to at least Station 2618+50, to avoid an existing residence. An existing ramp would provide access to the levee crown at the southern end of the gap. If the TAC resumes immediately north of the residence (at Station 2618+50), a new ramp would be constructed to provide access to the landside toe. Otherwise an existing ramp approximately 700 feet farther north (at Station 2625+50) would be used.

Before TAC fill is placed, vegetation would be cleared and grubbed and the TAC foundation would be prepared. Topsoil may be stripped and stockpiled for later reuse on the TAC slope. Preparing the foundation would disturb the upper approximately 6 inches of soil. Because existing orchards are immediately adjacent to the levee toe, a small number of trees (typically a maximum of one row of orchard trees) would be removed to accommodate TAC construction. Trees within the TAC footprint would be completely removed, including the root balls; this would result in localized ground disturbance up to several feet deep, depending on the type of tree. Most of the trees are relatively small (prunes and pomegranates) and very few, if any, large trees (i.e., walnuts) are anticipated to require removal. If trees outside the TAC footprint interfere with project construction, they would be cut at ground level and the root balls left in place to minimize ground disturbance, to the greatest extent practicable.

Existing drainage culverts through the levee would be extended through the TAC at two locations (Stations 2566+75 and 2625+40). The existing gates and headwalls would be demolished and removed, new high-density polyethylene pipe would be sealed to the existing corrugated metal pipe to extend the culverts beyond the TAC, and new headwalls and slide gates would be installed. Ground disturbance associated with these activities could extend up to several feet deep, but it is anticipated to be limited to the area that was disturbed during culvert installation.

A 3-foot-tall vehicle barrier would be installed approximately 2 feet from the TAC toe. The barrier would be recycled drill pipe. Gates would be installed along the TAC at each end of the project site, each ramp, and other access points. Fence and gate posts would extend up to 4 feet deep to ensure they are properly secured.

All areas temporarily disturbed during project construction would be restored to approximate pre-project conditions, including hydroseeding for erosion control purposes, where appropriate.

2.3.2 Material Quantities, Sources, and Transport

Table 2-1 lists the estimated fill and excavation quantities potentially associated with project construction, as well as the estimated amount of material to be exported. Fill material for the TAC would be obtained from an off-site borrow source. Approximately 4,000 haul truck trips are anticipated to be required to transport TAC fill to the project site. The material would be imported

from existing permitted commercial sources located in the Marysville area, up to approximately 15 miles from the project site. Aggregate also would be obtained from existing permitted commercial sources located in the Marysville area, up to approximately 15 miles from the project site. Approximately 500 haul truck trips are anticipated to be required to transport aggregate to the site. Fencing and other materials required for project construction are anticipated to be transported to the site by approximately 15 trips of a full-size pick-up truck and large trailer.

Table 2-1. Estimated Material Quantities

| Project Activity/Component | Material Quantity |
|------------------------------------|--------------------|
| Stripping | 7,000 cubic yards |
| Clearing and grubbing | 9 acres |
| Toe Access Corridor fill—import | 41,000 cubic yards |
| Class 2 aggregate surfacing—import | 7,000 tons |
| Unsuitable material—export | 5,000 cubic yards |

Source: GEI Consultants, Inc. 2020

2.3.3 Staging Areas

Up to six staging areas would be used during project construction to allow for efficient distribution of material and equipment. Potential staging areas are shown in **Figures 2-2** and **2-3**. Staging could occur elsewhere within the construction area but would be restricted to the project site boundary shown in **Figures 2-2** and **2-3**. Construction materials, equipment, spoils, and excess material would be stored in the staging areas during the construction period. The staging areas also would provide a parking location for construction workers.

2.3.4 Utilities and Other Considerations

An active Southern Pacific Railroad line is located along the southern end of the TAC alignment. This railroad line would not be affected by project construction, and all roadways would remain open during construction. Pacific Gas and Electric Company (PG&E) steel towers and overhead utility lines are present landside of the levee. These lines would not be affected by project construction, and no utility relocation would be required.

2.3.5 Disposal of Excess Materials and Debris

Project construction would generate excess materials that require disposal. Material generated by clearing, grubbing, and stripping the TAC, that cannot be reused during TAC construction, and other construction-related debris would be hauled offsite to permitted and approved disposal areas near Marysville or Yuba City. The most likely disposal site is the Recology Ostrom Road Landfill, approximately 20 miles from the project site. Up to approximately 500 truck trips may be required to transport excess materials and debris for disposal.

2.3.6 Construction Equipment

Table 2-2 lists the anticipated work phases and the types and number of equipment anticipated to be used during each phase. However, the construction contractor may use different

equipment or more or less equipment, based on the construction schedule, the contractor's capabilities, and equipment availability.

Table 2-2. Construction Phases, Equipment, and Anticipated Work Durations

| Construction Phase | Anticipated Types of Equipment and Number of Pieces* | Anticipated Use Duration | Total Phase Duration |
|---|--|--------------------------|----------------------|
| Phase 1—clearing, grubbing, and stripping | (1) Scrapers | 18 days | 18 days |
| | (1) Water trucks | 18 days | |
| | (1) Front-end loaders | 18 days | |
| | (2) Pickup trucks | 18 days | |
| Phase 2—toe access corridor construction | (1) Dump/Haul trucks | 40 days | 40 days |
| | (1) Scrapers | 40 days | |
| | (1) Vibratory rollers | 38 days | |
| | (1) Water trucks | 40 days | |
| | (2) Pickup trucks | 40 days | |
| Phase 3—aggregate base placement | (1) Front-end loaders | 5 days | 5 days |
| | (2) Pickup trucks | 5 days | |
| | (2) Haul trucks | 5 days | |
| | (1) Water trucks | 5 days | |
| Phase 4—fence installation | (2) Post hole augers | 14 days | 83 days |
| | (1) Haul trucks | 14 days | |
| | (1) Pickup truck | 83 days | |
| Phase 5—hydroseeding | (1) Hydroseeding trucks | 4 days | 4 days |
| | (1) Pickup trucks | 4 days | |
| Phase 6—demobilization and site cleanup | (1) Pickup trucks | 2 days | 2 days |
| | (1) Haul trucks | 2 days | |

Note: * Equipment may be utilized concurrently.

Source: GEI Consultants, Inc. 2020

2.3.7 Construction-related Traffic

Material deliveries would be made to the project site, and workers would travel to and from the site throughout project construction. Access to the project site for personnel, equipment, and material delivery would be via State Route (SR) 70 and Laurellen Road, Silva Avenue, and Surrey Way. All of these are existing paved roads. Access within the site would primarily be along existing routes at the landside toe, though project vehicles may also travel on the levee crown.

2.3.8 Construction Schedule and Workers

Construction is anticipated to occur over one season, beginning in summer 2020 and ending by December 2020. Depending on the extent of overlap of TAC construction and fence installation, the total construction period would be up to approximately 150 days.

Crew sizes would vary depending on the construction phase but are estimated to consist of 10 to 20 people working one shift, 6 days a week (Monday through Saturday). Construction activities would typically be limited to 7 a.m. to 5 p.m. but may be extended to 6 a.m. to 8 p.m. for equipment maintenance. Equipment maintenance could also occur on Sunday. The specific number of hours that each piece of equipment would be used during the day is not known and would be up to the construction contractor. Construction workers would most likely come from the local workforce in the Marysville, Yuba City, and Sacramento areas.

2.4 Operations and Maintenance

Operations and maintenance associated with the TAC is anticipated to be minor and primarily limited to inspections/patrols and other ongoing activities already implemented for the existing levee (e.g., vegetation management, burrowing animal control and abatement, slope maintenance, erosion protection, and ramp maintenance). The TAC would be used to access the length of the levee during these activities and during Feather River high-flow events for flood-fighting purposes. Inspections and patrols for levee integrity, debris and trash removal, security, and other purposes would be conducted regularly by one to two persons driving the TAC. Maintenance activities would occur as needed to repair erosion and maintain grades and slopes. Such repairs would generally be localized and minor, though grading and aggregate replacement may infrequently be required to repair larger areas.

2.5 Regulatory Requirements, Permits, and Approvals

As the lead agency under CEQA, RD 10 has the principal responsibility for approving and carrying out the proposed project and for ensuring that CEQA requirements and all other applicable regulations are met. The following permits are anticipated to be required for the project:

- **Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by U.S. Army Corps of Engineers to Be Outside of Federal Jurisdiction 2004-0004-DWQ, Central Valley Regional Water Quality Control Board.** Required for water quality impacts related to discharge of dredge/fill material into waters of the State that are not also waters of the United States.
- **Grading Permit, Yuba County.** Required for any grading and/or other construction activity in Yuba County with ground disturbance of more than 1 acre that is not related to a State or Federal action.

Chapter 3. Environmental Checklist

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

| | | | | | |
|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | Aesthetics | <input type="checkbox"/> | Agriculture and Forestry Resources | <input type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Biological Resources | <input checked="" type="checkbox"/> | Cultural Resources | <input checked="" type="checkbox"/> | Geology / Soils |
| <input type="checkbox"/> | Greenhouse Gas Emissions | <input checked="" type="checkbox"/> | Hazards and Hazardous Materials | <input checked="" type="checkbox"/> | Hydrology / Water Quality |
| <input type="checkbox"/> | Land Use / Planning | <input type="checkbox"/> | Mineral Resources | <input type="checkbox"/> | Noise |
| <input type="checkbox"/> | Population / Housing | <input type="checkbox"/> | Public Services | <input type="checkbox"/> | Recreation |
| <input type="checkbox"/> | Transportation | <input checked="" type="checkbox"/> | Tribal Cultural Resources | <input type="checkbox"/> | Utilities / Service Systems |
| <input checked="" type="checkbox"/> | Mandatory Findings of Significance | <input type="checkbox"/> | Energy | <input type="checkbox"/> | Wildfire |

Determination (To be completed by the Lead Agency)

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.



Sarb Johl
President, Board of Directors
Reclamation District 10

May 26, 2020

Date

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 will 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 offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Operations and maintenance impacts of the proposed project are routine, minimal, and essentially the same as current operations and maintenance of the existing facilities. There is no potential for significant impacts to any resource category from project operations and maintenance of the existing and proposed facilities.
- 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) “Less-than-Significant Impact 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) 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.
- 6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) 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.
- 8) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

3.1 Aesthetics

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|--------------------------|
| I. AESTHETICS – Except as provided in PRC Section 21099, would the project: | | | | | |
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.1.1 Environmental Setting

The landscape at the project site is dominated by orchards and the Feather River levee system. The area surrounding the project site is relatively flat, with elevations ranging from approximately 65 to 100 feet, and is dominated by orchards to the east and the Feather River and associated riparian habitat to the west. Highway 99 parallels the project site, approximately 1.5 miles to the west, and SR 70 parallels the site approximately 1 mile to the east. The Yuba County General Plan identifies local-scale scenic views of the Feather, Yuba, and Bear Rivers at bridge crossings and where roads parallel these rivers (Yuba County 2011). The portion of the Feather River adjacent to the project site does not provide scenic views, because nearby orchards block views from Highway 99 and SR 70, and no bridges cross the Feather River in the vicinity of the project site. There are no designated State scenic highways in the project vicinity (Caltrans 2007 and 2019).

Viewer groups in the project area with high viewer sensitivity include rural residences immediately east of the project site at Stations 2568+00, 2610+00, and 2617+00. The nearby orchards provide some screening of the project site, because the project site is in a

topographically flat area and is level with the existing residences. Access within the project site would mostly be confined to existing routes at the landside toe, though project vehicles may also travel on the levee crown, which would be seen from nearby residences. The project site is not visible to motorists along Highway 99 or SR 70, due to surrounding vegetation and distance of at least 1 mile from the site.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

There are no scenic vistas within the vicinity of the project site. Therefore, there would be **no impact**.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

There are no State scenic highways within the project site or vicinity. Therefore, there would be **no impact**.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project is not in an urban area and there would be no conflict with applicable zoning regarding scenic quality. As discussed above, rural residences immediately to the east would have views of the project site. The view from these residences, where not screened by vegetation, is currently of the Feather River east levee. Visual impacts during construction would include equipment use and staging activities, though these impacts would be short-term and limited to the construction duration.

The project would visually alter the site by constructing the TAC, extending existing drainage culverts and replacing associated headwalls and slide gates, and installing a 3-foot-tall vehicle barrier along the outer edge of the TAC. These changes to the site would not permanently degrade the existing visual character or quality of views of the project site and its surroundings, because the changes are consistent with the overall visual character of the existing levee system. The project features would be constructed at the levee toe, well below the dominant levee crown viewpoint. In addition, the visual character of the project site would not be impacted by operational use, because inspection and maintenance would be infrequent.

Although orchard trees would be removed on the eastern edge of the project site to accommodate TAC construction, only one row of trees would be removed along the majority of the TAC alignment, and the hundreds of acres of remaining orchard trees would maintain the agricultural visual character of the area.

For these reasons, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Therefore, this impact would be **less than significant**.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project does not include new permanent sources of light. Construction would be during daylight hours and would not require temporary lighting. In addition, all exposed metal surfaces associated with culvert extensions and the vehicle barrier would be painted to reduce glare. Therefore, no substantial new sources of light or glare would be created by the project and there would be **no impact**.

3.2 Agriculture and Forestry Resources

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|--------------------------|
| II. AGRICULTURE AND FORESTRY RESOURCES: | | | | | |
| In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may <i>refer to</i> the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department 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 <i>refer to</i> 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.2.1 Environmental Setting

The project site is zoned as AR-10 (Agricultural/Rural Residential District, 10 Acres) and AE-40 (Exclusive Agricultural District, 40 Acres) (Yuba County 2016). The site is classified as Prime Farmland and Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program (DOC 2016). Yuba County does not offer Williamson Act contracts (DOC 2020). In 2018, approximately 272,480 acres, or 66 percent of the total county area was comprised of agricultural land (Yuba County 2018).

3.2.2 Discussion

- 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?**
- 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?**

Most of the area where the TAC would be constructed is barren. No forest land is present on the project site, but the site extends slightly onto agricultural land classified as Prime Farmland and Farmland of Statewide Importance. Project implementation requires permanent removal of approximately 3 acres of orchard trees to accommodate TAC construction. Tree removal is anticipated to generally be limited to one row of trees. Orchard trees that would be removed are within the 50-foot levee toe setback required by Yuba County Development Code Chapter 11.23 to preserve the long-term ability to conduct inspections, perform maintenance, fight floods, and allow room for future minor changes to levee configurations. The total loss of farmland would be an extremely small proportion (less than 0.01 percent) of the total agricultural land in Yuba County, and continued use of agricultural lands for agricultural purposes would not be disrupted by project construction or operation. Therefore, this impact would be **less than significant**.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

The project site is located on land zoned as agriculture. The TAC would be constructed at the landside levee toe, between the levee and adjacent orchards. Project implementation would not conflict with existing zoning, and adjacent land would continue in agricultural production. Yuba County does not offer Williamson Act contracts. This impact would be **less than significant**.

- 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?**

There is no forestland, timberland, or timberland zoned Timberland Production on or adjacent to the project site. Therefore, there would be **no impact**.

3.3 Air Quality

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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 on to make the following determinations. Would the project: | | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.3.1 Environmental Setting

The project site is in the Sacramento Valley Air Basin. The Feather River Air Quality Management District (FRAQMD) administers local, State, and Federal air quality management programs in Yuba County. The Federal Clean Air Act and the California Clean Air Act required the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) to establish health-based air quality standards at the Federal and State levels. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) were established for the following criteria pollutants: carbon monoxide ozone, sulfur dioxide, nitrogen dioxide, particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), and lead. These standards have been established with a margin of safety to protect the public's health. Both EPA and CARB designate areas of the State as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the Federal and State Clean Air Acts, respectively.

An "attainment" designation for an area signifies that pollutant concentrations did not violate the NAAQS or CAAQS for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as identified in the criteria. A "maintenance" designation indicates that the area previously had nonattainment status and currently has attainment status for the applicable pollutant; the area must demonstrate continued attainment

for a specified number of years before it can be re-designated as an attainment area. An “unclassified” designation signifies that data do not support either an attainment or a nonattainment status.

Under NAAQS, Yuba County does not have any criteria air pollutants designated as nonattainment; however, under CAAQS, PM₁₀ is designated as nonattainment (CARB 2018).

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

FRAQMD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of Federal and State air quality laws. Air quality management is achieved through public education and enforcement of rules and regulations. FRAQMD *Indirect Source Review Guidelines* (FRAQMD 2010) identify CEQA thresholds of significance for certain criteria air pollutants to assist lead agencies in determining air quality impacts for projects located in Yuba County, as presented in **Table 3-1**. Thresholds are the same for construction and operation emissions.

Table 3-1. Feather River Air Quality Management District Criteria Air Pollutant Emission Thresholds of Significance

| Project Phase | Nitrogen Oxides | Reactive Organic Gases | PM ₁₀ | PM _{2.5} |
|---------------|--|---|------------------|---------------------|
| Operation | 25 pounds/day | 25 pounds/day | 80 pounds/day | Not yet established |
| Construction | 25 pounds/day multiplied by project length, not to exceed 4.5 tons/year* | 25 pounds/day multiplied by project length, not to exceed 4.5 tons /year* | 80 pounds/day | Not yet established |

Notes: * Construction emissions as nitrogen oxides and reactive organic gases may be averaged over the life of the project, but may not exceed 4.5 tons/year

PM₁₀ = particulate matter less than 10 microns in diameter, PM_{2.5} = particulate matter less than 2.5 microns in diameter

Source: Feather River Air Quality Management District 2010

Project construction would temporarily generate criteria air pollutant emissions from exhaust associated with on-site equipment operation, material hauling, and worker vehicle trips, and fugitive dust generation from ground-disturbing activities. **Table 3-2** shows estimated daily and annual construction emissions for construction Phases 1 through 4. Emissions were modeled using the Roadway Construction Emissions Model; results are provided in Appendix A, “Air Quality Modeling Data.” Emissions from Phase 4 (fence installation) were modelled as occurring at the same time as Phases 1 through 3, because fence installation may at least partially overlap TAC construction. Emission thresholds for nitrogen oxides (NO_x) and reactive organic gases (ROG) were calculated based on FRAQMD guidance (**Table 3-1**), by multiplying the daily emissions thresholds (25 pounds/day) by the minimum number of construction days for Phases 1 through 4. As shown in **Table 3-2**, calculated construction emissions of all criteria air pollutants for Phases 1 through 4 are below applicable daily and annual FRAQMD significance thresholds.

Construction Phases 5 and 6 (hydroseeding and demobilization and site cleanup) were not estimated. These phases would have very low emissions and would extend the number of construction days and the NO_x and ROG significance thresholds by 25 pounds for each additional day of work. Because additional emissions would be very low for Phases 5 and 6, and the thresholds for NO_x and ROG would be larger because of additional working days, emissions from Phases 1 through 6 would be below FRAQMD NO_x and ROG significance thresholds. In addition, because PM₁₀ emissions are substantially below the daily threshold for Phases 1 through 4, PM₁₀ emissions generated from Phases 5 and 6 would also be well below the FRAQMD PM₁₀ significance threshold.

Table 3-2. Estimated Phases 1 – 4 Daily and Annual Criteria Pollutant Emissions

| Project Activities | Daily Emissions (pounds/day) | Annual Emissions (pounds/year) | |
|-------------------------------------|---------------------------------|--------------------------------|--------------------|
| | PM ₁₀ | NO _x | ROG |
| Construction Phases 1 – 4 | Up to 8.5 ¹ | 1,475 | 93 |
| Phases 1 – 4 Significance Threshold | 80.0 | 1,575 ² | 1,575 ² |
| <i>Exceeds Threshold?</i> | <i>No</i> | <i>No</i> | <i>No</i> |

Notes: ¹Emissions were estimated for each phase (Phases 1 – 3) and concurrent Phase 4 activities; daily PM₁₀ emissions per phase ranged from 7.6 to 8.6 pounds/day. ²Annual thresholds were determined by multiplying 25.0 pounds/day by 63 working days (minimum total number of working days for Phases 1-4).

PM₁₀ = particulate matter less than 10 microns in diameter; NO_x = nitrous oxides; ROG = reactive organic gases.

Source: K.D. Anderson and Associates, Inc. 2020

As discussed, short-term construction emissions generated by the project would not exceed FRAQMD significance thresholds. In addition, operations and maintenance activities would continue as under current conditions, and potential additional vehicle and equipment use would be minimal and result in negligible emissions. Therefore, this impact would be **less than significant**.

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?

As discussed above, Yuba County does not have any criteria air pollutants designated as nonattainment under NAAQS; however, under CAAQS, PM₁₀ is designated at nonattainment (CARB 2018). Project implementation would not exceed any FRAQMD significance thresholds, as discussed under Air Quality Impact a) above. Therefore, the project would not result in a cumulatively considerable net increase in any of the criteria pollutants and this impact would be **less than significant**.

c) Expose sensitive receptors to substantial pollutant concentrations?

Some members of the population are especially sensitive to emissions of air pollutants and should be given special consideration during evaluation of a project's air quality impacts. These people include children, older adults, any person with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Sensitive receptors include

residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The project site is in a rural agricultural area. The nearest sensitive receptor is a residence immediately east of the project site, near station 2617+00. This residence is approximately 50 horizontal feet from the levee crown, which may be used for project-related vehicle traffic. The nearest potential TAC construction activities would occur approximately 100 feet north of this residence, if a new ramp is constructed. During construction, emissions of dust from ground-disturbing activities could disturb this and other nearby residences. However, because construction and operation of the project would not exceed pollutant significance thresholds, as mentioned in Air Quality Impact a) above, sensitive receptors would not be exposed to substantial pollutant concentrations including fugitive dust.

CARB has identified diesel particulate matter from diesel-fueled engines as a toxic air contaminant. Use of heavy-duty diesel equipment for construction and operation activities would generate diesel particulate matter. However, construction activities are temporary and would occur over a relatively short duration. As discussed in Air Quality Impact a), additional operations and maintenance activities would be minor and use of heavy-duty diesel equipment during these activities would be minimal. Given the temporary nature of emissions and relatively short construction schedule, sensitive receptors would not be subject to substantial pollutant concentrations. Therefore, this impact would be **less than significant**.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Human response to odors is subjective, and sensitivity to odors varies greatly. Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory reactions, nausea, vomiting, headaches). The project would not create new objectionable odors. There would be **no impact**.

3.4 Biological Resources

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|--------------------------|
| IV. BIOLOGICAL RESOURCES – Would the project: | | | | | |
| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations. 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.4.1 Environmental Setting

Information presented in this environmental setting is based on review of biological resource databases and observations made during three site visits, including reconnaissance field surveys conducted on February 6, 2019, and June 5, 2019, and a wetland delineation conducted on October 3, 2019.

Habitat and Land Cover Types

Appendix B, “Biological Resources Information,” includes landcover maps from the wetland delineation report prepared for the project (GEI 2020).

The project site is centered on the landside toe of the existing Feather River East Levee. Land east of the levee is dominated by walnut (*Juglans regia*) and prune (*Prunus* sp.) orchards. A pomegranate (*Punica granatum*) orchard at a rural residence also is present on the project site. The levee crown and existing unimproved dirt roads along the landside levee toe are devoid of vegetation where compaction is high and agricultural vehicles regularly drive.

Nonnative annual grassland on the project site is primarily limited to the levee slope and is dominated by nonnative annual grasses, including ripgut brome (*Bromus diandrus*), soft chess (*B. hordeaceus*), slender oat (*Avena barbata*), foxtail barley (*Hordeum murinum*), Italian ryegrass (*Festuca perennis*), Bermudagrass (*Cynodon dactylon*), and rattail sixweeks grass (*Festuca myuros*). Forbs are also common in this habitat, including black mustard (*Brassica nigra*), turkey mullein (*Croton setiger*), horseweed (*Erigeron canadensis*), wild radish (*Raphanus sativus*), and prickly lettuce (*Lactuca serriola*). This grassland habitat is subject to regular vegetation management activities associated with levee maintenance, including burning and mowing.

Ornamental plants occur in residential/landscaped areas on the project site that are associated with adjacent rural residences and farm buildings. Landscaped areas include lawns and ornamental plantings, such as oleander (*Nerium oleander*), privet (*Ligustrum* sp.), and English ivy (*Hedera helix*).

Three small ditches extend perpendicular to the eastern boundary of the project site. A ditch is present along each side of Silva Avenue; these ditches terminate immediately adjacent to the site. The third ditch is along the south side of an unnamed agricultural road approximately 0.3 mile north of Silva Avenue; this ditch extends very slightly onto the project site. The ditches along Silva Avenue are sparsely vegetated with nonnative forbs, including prickly lettuce, puncture vine (*Tribulus terrestris*), and Mexican tea (*Dysphania ambrosioides*). The ditch along the unnamed agricultural road was sparsely vegetated when the field delineation was conducted, and only nonnative field bindweed (*Convolvulus arvensis*) and native horseweed were observed in the ditch.

Sensitive Biological Resources

Sensitive biological resources addressed in this section include those that are afforded consideration or protection under CEQA, the California Fish and Game Code (FGC), the California Endangered Species Act, the Federal Endangered Species Act, Clean Water Act (CWA), and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Special-status Species

For purposes of this analysis, special-status species include plants and animals in one or more of the following categories:

- taxa (i.e., taxonomic categories or groups) officially listed by the State or Federal government as endangered, threatened, or rare;
- candidates for State or Federal listing as endangered or threatened;
- taxa that meet the criteria for listing, even if not currently included on any list, as described in State CEQA Guidelines California Code of Regulations Section 15380;
- species identified by the California Department of Fish and Wildlife (CDFW) as species of special concern;
- species listed as Fully Protected under the FGC; and
- plants considered by CDFW to be “rare, threatened, or endangered in California.”

Online sources of biological resource information were reviewed before the reconnaissance field surveys were conducted, and updated information was reviewed during the CEQA analysis. The California Natural Diversity Database (CNDDDB) (CDFW 2020) and online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2020) were reviewed for information on special-status plants and animals that occur in the RD 10 vicinity. These reviews were centered on two U.S. Geologic Survey 7.5-minute quadrangles that overlap RD 10 (Honcut and Yuba City) and also included the ten surrounding quadrangles. Lists of resources under jurisdiction of the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) that could occur in the project vicinity were obtained from the Information for Planning and Conservation website (USFWS 2020) and online California Species List Tools (NMFS 2020), respectively. Database search results and USFWS and NMFS resource lists are provided in Appendix B, “Biological Resources Information.”

Plants

Twenty-six special-status plants included in the CNDDDB and/or online Inventory of Rare and Endangered Vascular Plants of California search results were evaluated for their potential to occur on the project site. All of these species are restricted to habitat types that are absent from the project site, primarily aquatic habitats such as vernal pools, seasonal wetlands, and freshwater marsh. Based on observations made during the field surveys, no special-status plants have potential to occur on or adjacent to the project site, because no suitable habitat for them is present onsite.

Fish

Five special-status fish taxa are included in the CNDDDB search results and/or on the USFWS or NMFS resource lists. However, all of these taxa are restricted to the Feather River and other downstream rivers and floodplains. Because the project is limited to vehicle access along the existing levee crown and ground disturbance along the landside levee toe, the project site does not include any fish habitat within the Feather River corridor. The river channel is approximately 200 feet from the levee crown at its closest point to project site, but along most of the project site it is more than 1,000 feet away and is separated from the site by orchards or riparian habitat. Therefore, no special-status fish have potential to occur on or adjacent to the project site.

Wildlife

Twenty-five special-status wildlife taxa included in the CNDDDB search results and/or on the USFWS resource list were evaluated for their potential to occur on or adjacent to the project site. As with the plant species, nearly all of the wildlife species were determined to have no potential to occur on or adjacent to the project site because of restricted distribution and/or lack of suitable habitat. The very few special-status wildlife taxa for which at least potentially suitable habitat occurs on or adjacent to the project site were evaluated in further detail and are discussed below.

Elderberry (*Sambucus* sp.) shrubs are the obligate host plant for the Federally threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Elderberry shrubs are known to occur throughout the Feather River riparian corridor and were observed waterside of the levee north of the project site during reconnaissance field surveys. However, no elderberry shrubs are present on or within 165 feet of the project site. Therefore, valley elderberry longhorn beetle has no potential to occur on or adjacent to the project site, because suitable habitat for the species is absent.

The Feather River provides suitable habitat for western pond turtle (*Emys marmorata*), a California species of special concern that occurs in permanent or nearly permanent aquatic habitat and nests in uplands with suitable soils. However, the river is approximately 200 feet from the project site at its closest point, and upland habitat on the project site is not suitable for basking, sheltering, or nesting. In addition, the landside ditches perpendicular to the eastern edge of the project site do not provide suitable aquatic habitat for western pond turtle, because they only convey seasonal drainage during high intensity storm events and are dry most of the year. These ditches also do not provide suitable aquatic habitat for the Federally threatened giant garter snake (*Thamnophis gigas*), which requires aquatic habitat during their active season, generally May through September. Therefore, neither western pond turtle nor giant garter snake has potential to occur on the project site.

The project site does not provide suitable nesting or foraging habitat for any special-status birds. However, several special-status bird species have potential to nest in the Feather River corridor, adjacent to the southern portion of the site. These include Swainson's hawk (*Buteo swainsoni*) and bank swallow (*Riparia riparia*), which are both State-listed as threatened; white-tailed kite

(*Elanus leucurus*), which is fully protected by the FGC; and Modesto song sparrow (*Melospiza melodia*), which is a California species of special concern.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), which is Federally listed as threatened and State-listed as endangered, is very unlikely to nest in this portion of the Feather River corridor. Focused surveys conducted along the Feather River in 2012 and 2013 did not document any yellow-billed cuckoos, and the northern California breeding population was thought to be limited to the Sacramento River (Dettling et al. 2014). In 2019, an individual was observed approximately 10 miles south of the project site, during focused surveys associated with Feather River west levee improvements. However, the riparian corridor in the area of the 2019 observation is relatively wide (up to nearly 1 mile). The riparian corridor adjacent to the southern portion of the project site is less than 1,000 feet wide, at its widest point, and the riparian corridor is typically less than 200 feet wide along this portion of the river. Therefore, habitat adjacent to the project site is only moderately suitable for use by non-breeding yellow-billed cuckoo and is very unlikely to be used for nesting.

Three special-status bats have been documented in the region: Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), and western red bat (*Lasiurus blossevillei*). All of these are California species of special concern. Western mastiff bat and red bat could roost in riparian forest adjacent to the southern portion of the site if suitable trees are present, and agricultural buildings and other structures in the project vicinity could be suitable for Townsend's big-eared bat if they are relatively undisturbed.

Sensitive Habitats

The ditches along the north side of Silva Avenue and the south side of the unnamed agricultural road terminate in culverts that penetrate the levee. The area waterside of the levee at these locations was inspected for evidence of wetland hydrology during the field delineation, but no evidence of flow indicating an ordinary high-water mark (OHWM), or wetland hydrology was observed waterside of the levee in the vicinity of the outfalls. In addition, no evidence of an OHWM was observed in the ditches, landside of the levee, indicating that these ditches convey flow on an infrequent basis. The ditches primarily function to allow water to infiltrate into the ground, rather than convey flow across the landscape. Because the ditches lack evidence of an OHWM and do not meet the U.S. Army Corps of Engineers (USACE) criteria for wetlands, these areas were determined to be non-jurisdictional and therefore not subject to regulation under Section 404 of the CWA. In addition, these ditches are unlikely to qualify as a river, stream, or lake subject to CDFW jurisdiction under the FGC. However, the ditches may qualify as jurisdictional waters of the State under the Porter-Cologne Act, which defines a water of the State as any surface water or ground water within the boundaries of the state (Water Code Section 13050(e)).

3.4.2 Discussion

This impact discussion focuses on resources with reasonable potential to be affected by implementing remediation activities. Therefore, plant and wildlife species that are unlikely to

occur on or adjacent to the project site (because of poor or unsuitable habitat conditions, known extant range of the species, and/or lack of occurrence records) are not addressed in this discussion.

- 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, U.S. Fish and Wildlife Service, or National Marine Fisheries Service?**

Four special-status bird species—Swainson’s hawk, white-tailed kite, bank swallow, and Modesto song sparrow—have potential to nest in the Feather River corridor, adjacent to the southern portion of the project site. Non-breeding yellow-billed cuckoos could occasionally occur in riparian habitat adjacent to the southern portion of the project site, but this habitat is very unlikely to be used for nesting. Project activities would not directly remove nesting habitat or destroy active nests of special-status bird species, because suitable nesting habitat is not present on the site. Project activities are also unlikely to disrupt foraging behavior of individuals using the Feather River corridor. However, nesting behavior could be disturbed by project activity, if active nests are located close to the site.

Bank swallows nest in the river bank, which is separated from the project site by 200 feet of riparian vegetation at its closest point. Therefore, if an active bank swallow nest colony is present along this portion of the river, nesting activity would not be disturbed by project activities, because the vegetation provides a visual and audial buffer. Similarly, if song sparrows nest in vegetation adjacent to the project site, they are very unlikely to be disturbed by project-related traffic along the levee crown and would be separated from TAC construction by the levee. Therefore, project activities would not result in direct loss or disturbance of nesting bank swallow or Modesto song sparrow. This would be a less-than-significant impact.

Swainson’s hawks and white-tailed kites could nest in trees along the edge of the riparian corridor, immediately adjacent to the project site. If project activities disturb nesting behavior, they could result in nest abandonment, reduced care of eggs or young, or premature fledging. Because Swainson’s hawk is a threatened species and white-tailed kite is a fully protected species, project-related failure of a nest of either species would be a **potentially significant** impact. Mitigation Measure BIO-1 presented below has been identified to address this impact.

The small amount of orchard tree removal and clearing of ruderal grassland vegetation within the TAC corridor could remove a very small number of active nests of common bird species. FGC Section 3503 prohibits take, possession, and needless destruction of nest or eggs of any bird. Although removing an active nest of a common bird during project activities could violate FGC Section 3503, this would not in itself be a significant impact under CEQA, and loss of a very small number of active nests of common species would not substantially reduce their abundance or cause any species to drop below self-sustaining levels. Therefore, this would be

a less-than-significant impact. In addition, implementing Mitigation Measure BIO-1 would minimize potential to destroy bird nests protected by FGC Section 3503.

Mitigation Measure BIO-1: Minimize Potential to Destroy or Result in Failure of Active Bird Nests.

RD 10 and its construction contractor(s) will implement the following measures to minimize potential to destroy an active bird nest or result in failure of a special-status bird nest during project implementation:

- A qualified biologist shall conduct a survey of suitable nesting habitat that would be removed by project activities during the nesting season (February-August). A minimum of one survey shall be conducted no more than 7 days before project activities begin.
- If an active bird nest is found, removal or direct disturbance of habitat in which the nest is located shall be delayed until the biologist confirms the nest is no longer active.
- A qualified biologist also shall conduct a survey of suitable nesting habitat for Swainson's hawk, white-tailed kite, and common raptors adjacent to project activities that would occur during the nesting season (February-August). Surveys shall be conducted within 14 days before project activities begin near suitable raptor nesting habitat.
- If an active raptor nest is found, a protective buffer shall be established and implemented until a qualified biologist confirms the nest is no longer active. A qualified biologist will monitor the nest during project activities to confirm effectiveness of the buffer. The size of the buffer will depend on the type and intensity of project disturbance, presence of visual buffers, and other variables that could affect susceptibility of the nest to failure.

Timing: Before and during project construction activities

Responsibility: RD 10 and construction contractor(s)

Implementing Mitigation Measure BIO-1 would reduce the potentially significant impact associated with failure of active bird nests to a less-than-significant level, because habitat with active nests would not be removed, and buffers would be implemented around active raptor nests. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The project site does not support any riparian habitat, designated critical habitat, or other sensitive natural community identified in local or regional plans, policies, regulations. Therefore, there would be **no impact**.

- 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?**

The three ditches perpendicular to the eastern edge of the project site do not support wetland habitat, due to lack of hydric soils, absence of hydrophytic vegetation, and absence of wetland hydrology. These ditches do not meet the definition of waters of the United States and, therefore, these features are not Federally protected wetlands or waters. The ditches may, however, qualify as waters of the State, under the Porter-Cologne Act, because they support surface water during drainage periods. Approximately 70 linear feet (less than 0.05 acre) of the northernmost ditch would be filled to accommodate the TAC. The ditch along the north side of Silva Avenue would not be affected by project implementation, but the ditch along the south side of Silva Avenue may be very slightly impacted (approximately 10 linear feet, less than 0.01 acre). These impacts would require notifying the Central Valley Regional Water Quality Control Board (RWQCB) under the Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by U.S. Army Corps of Engineers to Be Outside of Federal Jurisdiction (2004-0004-DWQ). However, because the ditches that would be affected are rarely inundated, vegetated with upland species, and do not support wetland functions and values, the small amount of impact would not have a substantial adverse effect on waters of the State. Therefore, this impact would be **less than significant**.

- 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?**

The project site is part of a much larger area dominated by agricultural lands, and it does not support any corridors of natural habitat that facilitate wildlife movement; it also does not support fish movement corridors or wildlife nursery sites. Terrestrial wildlife movements in the area occur primarily through the Feather River riparian corridor, which is adjacent to the southern portion of the project site. Construction activities would be limited to daytime hours and to an area that is presently subject to regular disturbance associated with agricultural activities. Therefore, project construction would result in very minor wildlife disturbance and would not 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. This impact would be **less than significant**.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Yuba County does not have any ordinances prescribing specific requirements for tree preservation or protection of other biological resources. The Natural Resources Element of the 2030 General Plan (Yuba County 2011) includes several policies and actions designed to protect natural resources, specifically trees, wetlands, and riparian and salmonid habitats. The project

would not affect natural resources addressed in the 2030 General Plan, and **no impact** related to conflict with natural resource policies would occur.

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?

Yuba and Sutter Counties, in collaboration with CDFW, USFWS, and NMFS, are developing a regional conservation plan that will be a joint Federal Habitat Conservation Plan and State Natural Community Conservation Plan; however, the plan has not yet been approved and it is speculative to assume approval. Therefore, the project would not conflict with an adopted conservation plan, and **no impact** related to conflict with such a plan would occur.

3.5 Cultural Resources

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|------------------------------|--------------------------|--------------------------|
| V. CULTURAL RESOURCES – Would the project: | | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.5.1 Environmental Setting

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance. CEQA defines a “historical resource” as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).

Prehistoric Setting

This brief overview of the prehistory of the region is adapted from synthesis and analysis of the archaeology of central California (Rosenthal et al. 2007), which expands and refines earlier chronological schemes developed for central California.

The Paleo-Indian period (11,500 to 8550 calibrated radiocarbon date [cal] Before Common Era [B.C.E.]¹) is the earliest accepted period for human occupation in California. Archaeological evidence dating to this period, however, is extremely rare or of dubious association.

The Lower Archaic period (8550 to 5550 cal B.C.E.) is nearly as bereft of evidence as the Paleo-Indian primarily because of two large depositional events in 9050 cal B.C.E. and 5550 cal B.C.E. Artifacts dating to this period are usually found as isolated finds and include stemmed points, crescent-shaped flaked stone tools, and early concave base points. Despite this limited data set, however, marine shell from California found in the Great Basin and obsidian from sources in the Great Basin indicate that regional interaction was well established by this archaeological period.

¹ Before Common Era and Common Era are alternatives to the Dionysian system terminology of Before Christ and Anno Domini, respectively, and correspond to the same years in the Dionysian system.

Middle Archaic period (5550 to 550 cal B.C.E.) sites are rare in most of central California but are relatively common in buried contexts in the foothills. Archeological assemblages from this period are characterized by expedient, cobble-based tools used for chopping, pounding, scraping, and mulling. Archaeobotanical studies have shown a heavy reliance on acorns and pine nuts during this period. Few bone or shell artifacts have been identified to this period, but tabular pendants, incised slate, and perforated stone plummets have been found in low numbers and over wide areas. Material sources tend to be local, with few imported obsidian artifacts.

The Upper Archaic period (550 cal B.C.E. to cal Common Era [C.E.] 1100) corresponds roughly to the beginning of the Late Holocene, a time characterized by a shift from a relatively warm, dry climate to a wetter, cooler, and more stable climate. This archaeological period is better represented and understood than previous periods, with evidence indicating that while economies varied by region, the overall emphasis was on resources that could be harvested and processed in bulk. Such resources included acorn, rabbit, salmon, shellfish, and deer. Specialized technologies, including new types of bone tools, various bead types, ceremonial blades, and polished and ground stone plummets, appear in the archaeological record during this period. The lower Sierra foothills may have been occasionally occupied by groups from the valley floor, based on similar burial patterns.

The Emergent period (cal C.E. 1100 to Historic²) archaeological record is the most substantial and comprehensive of any period, and its assemblages and adaptations are also the most diverse. Many earlier archaic technologies and traditions are no longer represented during this period, and arguably the most distinctive technological aspect of the Emergent period, bow and arrow technology, appears. More complex social forms also emerged, as evidenced by increased variation in burial types and furnishings. Other changes included shifts in obsidian use/production, decentralization of bead manufacture, a unique arrow type form in some areas, changes in burial practices, and possibly a monetized system of exchange. The Emergent period is usually split into two broad phases, the Lower and Upper Emergent, that are defined based on the appearance or increase in frequency of specific artifact types.

Ethnographic Setting

The project site is in the traditional territory of Central Valley Miwok speakers, part of the Eastern Miwok, a subgroup of one of two major divisions of Miwok, which is a part of the Utian language family. Linguistic analysis indicates that Miwok speakers have been present in the Sacramento-San Joaquin River Delta region for a long period, possibly thousands of years, though presence in the Sierra Nevada foothills is likely much more recent, approximately 600 years (Barrett 1908; Bennyhoff 1977; Kroeber 1925; Levy 1978).

The Miwok lived in small villages throughout the foothills, mostly situated on ridges or terraces above streams for a nearby water supply, though smaller specialized camp locations were

² Historic refers to the time from European-American settlement (early 1800s) to present day.

established farther from water sources. Like in much of central California, the political organization of the Central Valley Miwok revolved around the tribelet. In general, the tribelet system was typified by a single, relatively large village, usually containing one or more ceremonial structures and the home base for a chief and possibly several assistants. This central, large village had one or more satellite villages associated with it. Together, the central village and its satellites were the largest political unit (the tribelet) that was recognized by Miwok speakers. Associated villages within an individual tribelet cooperated with each other for ceremonial purposes and group activities such as game drives (Kroeber 1925; Levy 1978; Merriam 1967).

The subsistence staple of the Miwok, again as in much of California west of the Sierra Nevada mountains, was the acorn. Acorns were processed using the mortar and pestle to reduce nutmeats to meal, followed by a leaching process to remove tannins. Bread and mush were made from the processed meal. Acorn was supplemented with other seeds, berries, nuts, and edible roots. Animals food resources included small game, such as rabbit and quail. Larger game, such as mule deer, tule elk, black bear, and grizzly bear, were also hunted. Fishing was also important in the valley and in the foothills along major water ways (Levy 1978).

The Miwok tool kit was varied and efficient. Ground stone tools included cobble pestles used with several different types of bedrock mortars, acorn anvils, and hammer stones. Several types of flaked stone hunting and butchering tools, made of chert and imported obsidian, were used, including knives, scrapers, and arrow and spear points. The Miwok made excellent and varied types of baskets, including seed beaters, burden baskets, rackets for games, cradle baskets, and others for cooking and serving foods. Pottery was not made, but the Miwok did fashion stone bowls. Fishing nets, fishing hooks, seines, and harpoons also were crafted (Levy 1978).

The Miwok built several different types of structures, including surface and semi-subterranean conical dwelling houses, a public assembly house, and sweat houses. Less substantial structures included acorn granaries, brush-covered ceremonial structures, shades, and hunting blinds (Barrett and Gifford 1933).

Historic Setting

Yuba County

European influence began in the project vicinity in 1808, when Spanish explorer Gabriel Moraga led an expedition from Mission San Jose up to the Cosumnes and Feather Rivers. Other explorers, fur trappers, and traders visited the area over the following decades (Beck and Haase 1974). Captain John Augustus Sutter settled in the Sacramento Valley in 1841, when his grant was approved by the Mexican authorities. He built Sutter's Fort in Sacramento, and his considerable claim covered most of what would become Sacramento and Placer Counties, all of Sutter County, the valley portion of Yuba County, and a small part of Colusa County. The region offered fertile land for settlers encouraged by the proximity of Sutter's settlements, but it was not until the discovery of gold on the American River in 1848 that immigrants flooded into Yuba County. The initial discovery of gold in what is now Yuba County was made just east of Marysville (Newland et al. 2005:5; Hoover et al 1990:540). In 1850, the township of Marysville

was established. Marysville witnessed tremendous growth, because of its proximity to the gold-bearing placers. Apart from this community, there was little other development in the area. With the introduction of the gold dredging process in the late 1800s, mining boomed along the Yuba River for a few decades. The mining method remained popular until the turn of the 20th century when the courts ended hydraulic mining.

Flood Management

The California Legislature tried to coordinate a levee system and to control levee construction by creating the Swamp Land Commission in 1861. This gave California drainage districts the power to construct levees. In 1905, Captain Thomas Jackson came to California and undertook a comprehensive flood management plan for the greater Sacramento Valley. In 1910, his report, known as the Jackson Report, became the foundation for the Sacramento River Flood Control Project (SRFCP). One year later, the California Debris Commission designed a flood control plan that was more comprehensive than just constructing levees (O'Neill 2006:81, 111, 114–115). The 1917 Federal Flood Control Act, required USACE to work with State government and local levee districts and provided funding to construct flood control facilities on the Sacramento River (O'Neill 2006:125). The SRFCP began in 1918 and marked the first expansive flood control efforts on the Sacramento River. It also was the first time Congress appropriated funds for the specific purpose of flood control. By 1925, most Sacramento River levees were improved, as required by Federal design standards (Arnold 1988:14, Kochis 1963:11).

The 1936 Flood Control Act established the Federal government's responsibility for flood control and solidified USACE authority. This act was later modified to authorize Federal expenditures for completing flood control projects. By 1944, the SRFCP was nearly 90 percent complete and an estimated 980 miles of levees were constructed (Kelley 1989:309). By 1955, there were many miles of project levees along the Sacramento River that required work to bring the levees up to Federal standards (Kochis 1963:Section 4.1).

3.5.2 Discussion

The cultural resources investigations completed to support this analysis included a records search conducted at the North Central California Information Center of the California Historical Resources Information System, review of historic maps and ethnographic documents, archival research at local repositories, and an archaeological survey of the project site.

The records search was conducted by GEI Consultants, Inc. (GEI) architectural historian Patricia Ambacher on June 6, 2019, and archival research was conducted at the California History Room, California Digital Newspaper Collection, and GEI's cultural resources library. The records search and background research identified P-58-001369, a portion of the Feather River east levee that extends onto the project site, and Levee Unit 151. Levee P-58-001369 dates to 1911. Levee Unit 151 was constructed in the early 1900s and improved in the mid-20th century as part of the SRFCP. No other resources were identified within 0.5 mile of the project site.

GEI archaeologist Jesse Martinez, M.A. and Registered Professional Archaeologist, conducted an archaeological pedestrian survey of the project site on March 10, 2020. The site is narrow, and space between walking transects was approximately 15 feet. Surface visibility was generally excellent except for the levee road which is covered in gravel and an approximately 0.25-mile section of the current dirt road which is also covered in gravel; in the 0.25-mile gravel covered section, visibility was still good on the edges of the Project area and these areas were examined during the pedestrian survey. No cultural resources were identified during the pedestrian survey.

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places, as well as some California Historical Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA, unless a preponderance of evidence indicates otherwise (California PRC Section 5024.1, 14 CCR Section 4850). The eligibility criteria for listing in the CRHR are similar to those for National Register of Historic Places listing but focus on importance of the resources to California history and heritage.

A cultural resource may be eligible for listing in the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. is associated with the lives of persons important in our past
3. embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values
4. or has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Levee P 58-001369 does not appear to meet CRHR criteria because of a lack of integrity. Levee Unit 151 appears eligible for the CRHR under Criterion 1, for its association with regional flood management and the SRFCP. It is also considered a historical resource for the purposes of CEQA. The project would not cause the physical destruction of Levee Unit 151 and it would continue to function as designed. The levee would retain its historical significance and integrity; therefore, this impact would be less than significant.

No archaeological resources were identified in the project area during the investigation. During project activities and continuing consultation with Native American Tribes, however, it is possible that archaeological resources meeting criteria for inclusion of the CRHR may be identified; therefore, this would be a **potentially significant** impact. Mitigation Measure CR-1 presented below has been identified to address this impact.

Mitigation Measure CR-1: Address Previously Undiscovered Historical Resources and Archaeological Resources.

RD 10 shall implement measures to reduce or avoid impacts on undiscovered historic properties and archaeological resources. If buried or previously unidentified historic properties or archaeological resources are discovered during project construction, all work within a 100-foot-radius of the find shall cease. RD 10 shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeologists to assess the discovery and recommend what, if any, further treatment or investigation is necessary for the find. Interested Native American Tribes will also be contacted. Any necessary treatment/investigation shall be developed in coordination with interested Native American Tribes providing recommendations and with RD 10, and shall be completed before project activities continue in the vicinity of the find.

Timing: During project construction activities
Responsibility: RD 10 and construction contractor(s)

Implementing Mitigation Measure CR-1 would reduce the potential impact related to discovery of unknown historical resources to a less-than-significant level because the find would be assessed by an archaeologist and the treatment or investigation would be conducted in accordance with CCR Section 15064.5. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

As used in California PRC Section 21083.2, the term "unique archaeological resource" refers to an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
- has a special and particular quality such as being the oldest of its type or the best available example of its type
- is directly associated with a scientifically recognized important prehistoric or historic event or person

No archaeological resources were found on the project site during the pedestrian survey or in the records search. Ground disturbance expected to occur during TAC construction and maintenance is limited in extent. The depth of ground disturbance would primarily be limited to 6 inches for preparing the approximately 9-acre TAC foundation. Small, discreet areas would experience disturbance to greater depths (up to 4 feet for installing gate and fence posts), but these areas would be very limited in areal extent. Orchard trees within the project footprint would be cut at ground level when feasible; root balls would require removal if they are in the TAC footprint or would interfere with installing fence posts. However, because the trees that would require removal are small varieties (prunes and pomegranates), ground disturbance required for root ball removal would be limited. Therefore, the likelihood of encountering cultural resources during project construction is low. Nevertheless, the possibility remains that archaeological resources may be discovered during project-related ground-disturbing activities. Therefore, this impact would be **potentially significant**. Mitigation Measure CR-1 presented below has been identified to address this impact.

Mitigation Measure CR-1: Address Previously Undiscovered Historic Properties, and Archaeological Resources.

Please *refer to* Mitigation Measure CR-1 in cultural resources impact a) above for the full text of this mitigation measure.

Implementing Mitigation Measure CR-1 would reduce the potential impact related to discovery of unknown archaeological resources because the find would be assessed by an archaeologist and the treatment or investigation would be conducted in accordance with CCR Section 15064.5. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

No human remains are known to have been discovered in the project vicinity, and there is no indication from the records searches or pedestrian survey that human remains are present on the project site. Therefore, it is not anticipated that human remains, including those interred outside of dedicated cemeteries, would be discovered during ground-disturbance activities on the project site. However, in the event that human remains, including those interred outside of formal cemeteries and including associated items and materials, are discovered during subsurface activities, the human remains and associated items and materials could be inadvertently damaged. Therefore, a **potentially significant impact** would occur. Mitigation Measure CR-2 presented below has been identified to address this impact.

Mitigation Measure CR-2: Avoid Potential Effects on Undiscovered Burials.

RD 10 shall implement the following measures to reduce or avoid potential impacts related to undiscovered burials. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all potentially

damaging ground disturbance in the area of the burial and within a 100-foot radius, shall halt and the Yuba County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, then Federal laws governing the disposition of those remain would come into effect. Specifically, the Native American Graves Protection and Repatriation Act, Pub Law 101-601, 25 U.S.C. 3001 et seq., 104 Stat. 3048 requires Federal agencies and institutions that receive Federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian Tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. RD 10 shall ensure that the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 are followed.

Timing: During project construction activities
Responsibility: RD 10 and construction contractor(s)

Implementing Mitigation Measure CR-2 would reduce the potentially significant impact related to discovery of human remains to a less-than-significant level because the find would be treated or investigated in accordance with State and Federal laws. Therefore, the project would have a **less-than-significant impact with mitigation incorporated.**

3.6 Energy

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.6.1 Environmental Setting

Electric power and natural gas in Yuba County are supplied by PG&E. In 2018, Yuba County consumed approximately 505 million kilowatts per hour (CEC 2018). Current energy usage at the project site is negligible, because the site is limited to the Feather River east levee and adjacent orchards.

3.6.2 Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Project-related energy consumption would result from fuel use in construction equipment and vehicles. Implementing the project would involve six construction phases, each with varying equipment needs and durations. Equipment and vehicle use would occur as specified in Section 2, "Project Description." During each construction phase, only the necessary vehicles and equipment would be used to avoid wasteful, inefficient, or unnecessary consumption of energy resources. Operation and maintenance activities would not include permanent lighting or other sources of energy use, except for minimal use of vehicles for levee patrol and maintenance purposes. Energy use and associated emissions are analyzed in Section 3.3, "Air Quality," and Section 3.8, "Greenhouse Gas Emissions." Energy use from the project would result in a **less-than-significant impact**.

- b) **Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?**

Implementing the project would not result in any developed land uses or construct temporary or permanent structures or facilities that could conflict with State or local plans for renewable energy or efficiency. There would be **no impact**.

3.7 Geology and Soils

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? (<i>Refer to California Geological Survey Special Publication 42.</i>) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.7.1 Environmental Setting

Soils along the project alignment are classified as well-drained loam or clay loam (NRCS 2020). The nearest faults to the project site are considered inactive by the California Geological Survey (CGS) and include: several unnamed pre-Quaternary and Quaternary faults, associated with the Sutter Buttes, 8 miles west of the project site; and pre-Quaternary and Quaternary faults approximately 12 miles east of the project site, along the discontinuous Prairie Creek and Swain Ravine Fault Zones, which are part of the larger Foothills Fault Zone. The closest active fault to the project site, the Cleveland Hill Fault, is approximately 20 miles northeast and was last active in 1975 (CGS 2010). There are no Alquist-Priolo Earthquake Fault Zones of required investigation near the project site (CGS 2020). Additionally, the project site is not within an area at risk for landslides or within a known liquefaction zone (CGS 2020).

Generally, the project area is underlain by natural and levee channel deposits and alluvium, due to its proximity to the Feather River. Additionally, portions of the TAC alignment are underlain by the Riverbank Formation. The Riverbank Formation consists of Pleistocene-age sediment that forms terraces and alluvial fans in many areas of the Central Valley and foothills (Saucedo and Wagner 1992). Because a large number of fossils has been recovered from the Riverbank Formation throughout the Central Valley, it is considered to be of high paleontological sensitivity under the Society of Vertebrate Paleontology guidelines (2010).

3.7.2 Discussion

- 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 California Geological Survey Special Publication 42.)**

The project site is not within an Alquist-Priolo Earthquake Fault Zone. Additionally, the faults in the project vicinity are not considered active by CGS, because surface fault rupture is most likely to occur on active faults (i.e., faults showing evidence of displacement within the last 11,700 years). Therefore, there would be **no impact**.

- ii) **Strong seismic ground shaking?**
- iii) **Seismic-related ground failure, including liquefaction?**
- iv) **Landslides?**

Strong earthquakes generally create ground shaking, including liquefaction and landslides, with reduced effects as distance increases from the earthquake's epicenter. The area affected by ground shaking in any given earthquake would vary depending on the earthquake's intensity, duration, distance from the project site, and the underlying material. Although the closest active

fault to the project site is 20 miles away, ground shaking could occur from distant earthquakes. However, project design would comply with California Uniform Building Code (UBC); California UBC is based on the Federal UBC but is more detailed and stringent. Chapter 18 of the California UBC regulates excavation and geotechnical considerations, and Appendix J addresses grading, excavation, fill, drainage, and erosion control considerations. UBC Appendix Chapter A33 regulates grading activities, including drainage and erosion control, and construction on unstable soils (BSC 2016). Additionally, the project site is not located within a known liquefaction or landslide zone (CGS 2020). Finally, as indicated in the project description, a relative geotechnical seepage and slope stability analysis conducted as part of project design confirmed TAC construction would not exacerbate existing geotechnical deficiencies along the levee. The project would not expose people or structures to potential substantial adverse effects from strong seismic ground shaking. Therefore, this impact would be **less than significant**.

b) Result in substantial soil erosion or the loss of topsoil?

Grading on the project site would be necessary to prepare the TAC area for fill and aggregate base placement. Grading would also be necessary to ensure that the TAC follows the existing landside contours and to establish a 2 percent slope for adequate drainage of the TAC surface. Grading and other construction activities would result in the short-term soil disturbance and could expose disturbed areas if a storm event occurs during construction. Rainfall of sufficient intensity could dislodge soil particles from the soil surface. If particles are dislodged and the storm is large enough to generate runoff, substantial localized erosion could occur. In addition, soil disturbance could result in substantial loss of topsoil from wind erosion. Therefore, this impact would be **potentially significant**. Mitigation Measure GEO-1 presented below has been identified to address this impact.

Mitigation Measure GEO-1: Implement a Stormwater Pollution Prevention Plan and Associated Best Management Practices.

RD 10 shall prepare and implement the appropriate Stormwater Pollution Prevention Plan (SWPPP), or Stormwater Management Plan (SWMP), as needed, to prevent and control pollution and to minimize and control runoff and erosion in compliance with State and local laws. The SWPPP or SWMP shall identify the activities that may cause pollutant discharge (including sediment) during storms or strong wind events, techniques to control pollutant discharge, and an erosion control plan. Regardless of the need for a SWPPP or SWMP, construction techniques and Best Management Practices (BMPs) will be identified and implemented, as appropriate to reduce the potential for runoff and exposure to hazardous materials. Construction techniques will include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. BMPs that specify erosion and sedimentation control measures to be implemented may include silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, trench plugs, terraces, water bars, soil stabilizers, re-seeding with native species, and mulching to revegetate disturbed areas. If suitable vegetation cannot

reasonably be expected to become established, non-erodible material will be used for such stabilization.

The SWPPP or SWMP shall also include a spill prevention, control, and countermeasure plan, and applicable hazardous materials business plans. The SWPPP or SWMP shall identify the types of materials used for equipment operation (including fuel and hydraulic fluids), measures to prevent hazardous material and waste spills, and materials available to clean up hazardous material and waste spills. The SWPPP or SWMP shall also identify emergency procedures for responding to spills. The SWPPP shall also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment, including during gravel processing.

The BMPs presented in either document shall be clearly identified and maintained in good working condition throughout the construction process. The construction contractor shall retain a copy of the approved SWPPP or SWMP on the construction site and modify it as necessary to suit specific site conditions.

RD 10 and all contractors will abide by regulations governing hazardous materials transport included in CCR Title 22, the California Vehicle Code (CCR Title 13), and the State Fire Marshal Regulations (CCR Title 19). Transport of hazardous materials can only be conducted under a registration issued by the California Department of Toxic Substances Control. Construction contractors shall be required to use, store, and transport hazardous materials in compliance with Federal, State, and local regulations.

Timing: Before and during project construction activities
Responsibility: RD 10 and construction contractor(s)

Implementing Mitigation Measure GEO-1 would reduce the potentially significant impact from construction-related erosion to a less-than-significant level, because a SWPPP or SWMP and BMPs would be implemented to prevent and control pollution and minimize and control runoff and erosion. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?**

See response to Question “a)” above. This impact would be **less than significant**.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?**

The project site consists of well-drained loam or clay loam soils and is not located on expansive soils (NRCS 2020). There would be **no impact**.

- 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?**

The project does not include septic tanks or connection to a sewage system. Project workers would be served by regularly serviced portable toilets during construction. There would be **no impact**.

- f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Portions of the project site are underlain by the Riverbank Formation, which is known to be paleontologically sensitive. However, because ground disturbance would be limited to surficial clearing and grubbing and all TAC fill material for TAC construction would be brought from an offsite location, paleontological resources are not likely to be encountered. Therefore, this impact would be **less than significant**.

3.8 Greenhouse Gas Emissions

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.8.1 Environmental Setting

Yuba County has adopted a local Resource Efficiency Plan that includes measures to reduce greenhouse gas (GHG) emissions. These measures include energy efficiency training for the community, increasing community participation in existing energy efficiency programs, promoting or requiring home energy evaluations and improvements, and implementing and enhancing the bicycle master plan (Yuba County 2016).

3.8.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

FRAQMD has not established CEQA thresholds of significance for GHG emissions. However, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has adopted a CEQA threshold of 1,100 metric tons of carbon dioxide equivalent per year for construction-related GHG emissions (SMAQMD 2015). In the absence of a local threshold, the SMAQMD threshold was used to evaluate the significance of GHG emissions.

Project construction would generate GHG emissions from exhaust associated with on-site equipment operation, haul truck trips, and worker vehicle trips. GHG emissions from project construction were modeled using the Road Construction Emissions Model. Modeling results are presented in Appendix A, “Air Quality Modeling Results.” The project is estimated to generate approximately 185 metric tons of carbon dioxide equivalent for Phases 1 – 4, an amount significantly below the SMAQMD significance threshold. Construction Phases 5 and 6 (hydroseeding and demobilization and site cleanup) were not estimated, but these phases would have very low GHG emissions, primarily from operation of worker vehicles. Because GHG emissions are substantially below the daily threshold for Phases 1 – 4, and a very low amount

of additional GHG emissions would be generated from Phases 5 and 6, GHG emissions from Phases 1 – 6 would be below the SMAQMD GHG significance threshold.

Existing vehicle trips to monitor the levee would continue, and potential new vehicle trips and equipment use for TAC maintenance activities would be minimal. The project also would not result in increased population or employment growth, as the project is not growth-inducing. Therefore, the project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the physical environment. This impact would be **less than significant**.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The project would not conflict with plans, policies, or regulations adopted to reduce GHG emissions. The project's small incremental contribution to the cumulative impact of increasing atmospheric levels of GHGs would be less than cumulatively considerable. This impact would be **less than significant**.

3.9 Hazards and Hazardous Materials

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.9.1 Environmental Setting

A database search of all data sources included in the Cortese List (enumerated in PRC Section 65962.5) was conducted for the project, including: GeoTracker database, a groundwater information management system maintained by the State Water Resources Control Board; Hazardous Waste and Substances Site List (i.e., the EnviroStor database) maintained by the California Department of Toxic Substances Control; and EPA's Superfund Site database (DTSC 2020, SWRCB 2020a and 2020b, CalEPA 2016, EPA 2020). No hazardous materials sites within 0.25 mile of the project site were identified in these database searches. There are also no known naturally occurring asbestos hazards in the vicinity of the project site (DOC 2000).

No schools are present within 0.25 mile of the project site. The nearest schools to the project site are Twin River Charter School, approximately 0.8 mile east of the southern end of the project site, and Gray Avenue Middle School, approximately 1 mile west of the north end of the project site. The nearest park, Northridge Park, is approximately 1 mile from the project site.

The nearest airports to the project site are the Sutter County Airport, approximately 2.5 miles south, and Yuba County Airport, approximately 5 miles southeast. The project site is not within the safety zones or land use activity review areas for either airport (SACOG 1994 and 2011).

The project site is not located on an emergency evacuation route or within an emergency response planning area. The closest designated evacuation route is SR 70, approximately 1 mile east of the project site (Yuba County 2011 and 2015).

3.9.2 Discussion

- 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?**

The project site does not contain any known hazardous materials. Additionally, clean fill, aggregate base, and other project materials would be brought from offsite for use in TAC construction. The project would likely result in some excess material that may need to be disposed of offsite at an approved facility (see Section 3.19, "Utilities and Service System" for a discussion of disposal of cleared and grubbed material). Project-related construction activities would include use and storage of small amounts of hazardous substances necessary for the operation of construction equipment, such as fuels, lubricants, and oils. Project activities would not involve use of acutely hazardous materials, and construction contractors would be required to use, store, and transport hazardous materials in compliance with Federal, State, and local regulations during project construction. However, accidental spills could occur during construction activities. Therefore, this impact would be **potentially significant**. Mitigation Measure GEO-1 has been identified to address this impact.

Mitigation Measure GEO-1: Implement a Stormwater Pollution Prevention Plan and Associated Best Management Practices.

Please *refer to* Mitigation Measure GEO-1 in Section 3.7 “Geology and Soils,” for the full text of this mitigation measure.

Implementing Mitigation Measure GEO-1 would reduce the potentially significant impact from accidental spill of or exposure to hazardous materials during routine use, transport, or disposal to a less-than-significant level because a SWPPP or SWMP would be implemented. The SWPPP or SWMP would include a spill prevention, control, and countermeasure plan, and would identify the types of materials used for equipment operation (including fuel and hydraulic fluids), along with measures to prevent and materials available to clean up hazardous material and waste spills. The SWPPP would also identify emergency procedures for responding to spills. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

There are no schools within 0.25 mile of the project site. There would be **no impact**.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

The project site is not identified on lists compiled pursuant to Government Code Section 65962.5. There would be **no impact**.

- 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?**

The project site is not located within an airport land use planning area or within 2 miles of an airport. In addition, construction and use of the TAC would not expose site workers to excessive airport noise. There would be **no impact**.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Construction worker and haul truck access to the project site would be via SR 70 and local roads. Although the project involves import of fill and aggregate and export of an unknown quantity of waste material for offsite disposal, this transport would be short-term and limited to the construction period. Additionally, because the TAC would be used for levee inspections and maintenance by existing RD 10 staff, there would be no permanent increase in the number of

employees at the project site or future use of the project site that would impair emergency response or evacuation on nearby SR 70. The project would not require road closures during construction or other changes that could result in inadequate emergency access. The temporary increase in construction-related trucks transporting materials to and from the project site during construction activities would be small, intermittent, and limited at any time, and would not affect emergency access. Therefore, this impact would be **less than significant**.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site is primarily surrounded by actively cultivated orchards. Most of the project site is barren, and the limited vegetation is characterized by short grasses and a few trees and shrubs. As described in the project description, this vegetation will be removed during clearing and grubbing activities. No structures would be built as part of the project. Earthmoving activities on the project site would be short-term, and construction equipment is equipped with standard spark-arresting devices. Therefore, the potential for exposure of people or structures to wildfire risk due to the project would not substantially increase beyond existing conditions. This impact would be **less than significant**. Wildland fire risk associated with the project site is discussed in depth in Section 3.20, "Wildfire."

3.10 Hydrology and Water Quality

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i) result in substantial erosion or siltation on- or offsite; | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv) impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.10.1 Environmental Setting

Surface Water

The project site lies at a lower elevation than surrounding lands and slopes slightly from north to south. Existing site drainage is by overland flow that mostly infiltrates into surface soils (due to loamy soils). During infrequent larger storm events, excess site drainage collects in ditches along Silva Avenue and in an unnamed agricultural ditch at the northern end of the project site, flows by gravity (east to west) through culverts through the existing levee (at approximately Stations 2610+00 and 2626+00), and flows overland to the Feather River. The project site is located within a 100-year flood zone and is mapped as Zone A (areas with a 1 percent annual chance of flooding) (FEMA 2011). The project site is currently mapped in multiple dam inundation zones, including zones for New Bullards Bar Dam, Oroville Dam, Bowman Dam, and Canyon Dam (Lake Almanor) (DWR 2020a, Yuba County 2011). The project site is not in a coastal area and is outside the tsunami hazard zone. Additionally, there are no water bodies on or near the project site large enough to be subjected to a seiche, as a result of an earthquake.

The project site is in the Sacramento Hydrologic Basin Planning Area, the Marysville Hydrologic Unit, and the Lower Feather River Hydrologic Unit Subarea (515.40), as designated by the Central Valley RWQCB (2018). In accordance with CWA Section 303, water quality standards for this basin are contained in the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin. There are no water bodies on the project site that appear on the 303(d) list as an impaired water. However, the project site ultimately drains to the Feather River, which is listed for chlorpyrifos, pesticides, mercury, polychlorinated biphenyls, and unknown toxicity (SWRCB 2016).

Groundwater

The project site is in the Sacramento Valley – North Yuba Groundwater Subbasin (#5-021.60), as designated by California Department of Water Resources Bulletin 118 (DWR 2016). However, the site is not located within a groundwater basin designated as “High Priority” or “Critically Overdrafted” (DWR 2019). The project site is also within the planning areas of Yuba County Water Agency³ Groundwater Management Plan and Yuba Subbasins Water Management Plan, which was the Groundwater Sustainability Plan developed for the project area, in compliance with the Sustainable Groundwater Management Act (YCWA 2010, YWA 2019). The project site is also located within the Yuba County Integrated Regional Water Management Plan area (YCRWMG 2018).

There are no known municipal, domestic, or industrial groundwater supply wells near the project site. The nearest documented groundwater monitoring well is 0.1-mile east of the project site, within an existing orchard north of Laurellen Road (DWR 2020b). Documented depth to

³ As of July 2018, Yuba County Water Agency rebranded to Yuba Water Agency, however the legal name of the agency remains Yuba County Water Agency.

groundwater in the project area is approximately 20 feet (DWR 2020c). Localized groundwater levels may be variable, due to proximity to the Feather River and the presence of near-surface clays in the subbasin, which restricts vertical movement of water in the shallow subsurface (YWA 2019).

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?

During construction, both direct and indirect discharges associated with ground-disturbing project activities could cause surface water to become contaminated by soil or construction-related substances. Project activities could temporarily impair water quality. If disturbed material, petroleum products, or construction-related wastes are discharged into surface drainages or onto the ground, where they could be carried into receiving waters. Accidental spills of construction-related substances, such as oils and fuels, could also contaminate both surface water and groundwater. The extent of potential impacts on water quality would depend on several factors, including the tendency toward erosion of soil types encountered, soil chemistry, construction practices, extent of disturbed area, duration of construction activities, proximity to receiving water bodies, and sensitivity of those water bodies to construction-related contaminants.

TAC construction would not require dewatering during construction. Therefore, no dewatering effluent would need to be managed during construction or discharged to surface waters, and there would be no impact associated with dewatering. Ground-disturbing activities would primarily be limited to surface grading, fill placement, and culvert extension. Surface soils could be exposed to wind and water erosion during grading activities and culvert extension. If precautions are not taken to contain these materials, construction activities could produce sediment-laden storm runoff that would degrade water quality. Exposure of construction materials to rain or wind could also result in adverse water quality impacts. Construction activities would generally occur during the dry season. Regardless of construction timing, direct and indirect impacts to water quality from erosion and stormwater runoff, and ponding during storm events, have the possibility to occur and result in a **potentially significant** impact. Mitigation Measure GEO-1 has been identified to address this impact.

Measure GEO-1: Implement a Stormwater Pollution Prevention Plan and Associated Best Management Practices.

Please *refer to* Mitigation Measure GEO-1 in Section 3.7, “Geology and Soils,” for the full text of this mitigation measure.

Implementation of Mitigation Measure GEO-1 would include measures to prevent and manage soil erosion and sediment-laden stormwater runoff that could degrade water quality during construction. Therefore, potential impacts to surface water quality from the project would be a **less-than-significant impact with mitigation incorporated**.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project would not rely on consumptive groundwater use for construction, operation, or maintenance activities. The TAC would be constructed of uniform fill material and aggregate base and would not require the placement of impervious surfaces on the project site. Any surface runoff from the TAC would flow overland and infiltrate in the same manner as pre-project conditions and would not interfere with groundwater recharge. The project not would impede sustainable management of the groundwater basin in the region. Therefore, this impact would be **less than significant**.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or offsite?

Construction is planned for the dry season. However, the possibility exists that clean fill and aggregate material stockpiled onsite may experience erosion during unforeseen rainfall events that occur during construction.

As discussed previously in Section 3.7, "Geology and Soils," and under Impact a) above, grading and other construction activities could result in the temporary and short-term disturbance of soil and could expose disturbed areas, if a storm event occurs during construction activities, resulting in on- or off-site erosion or siltation. This impact would be **potentially significant**. Mitigation Measure GEO-1 has been identified to address this impact.

Mitigation Measure GEO-1: Implement a Stormwater Pollution Prevention Plan and Associated Best Management Practices.

Please *refer to* Mitigation Measure GEO-1 in Section 3.7, "Geology and Soils," for the full text of this mitigation measure.

Implementation of Mitigation Measure GEO-1 would include BMPs to manage erosion and siltation during construction. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

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?

iv) Impede or redirect flood flows?

The project would alter the drainage pattern of the site. However, this alteration would improve stormwater drainage at the site, because the TAC would be graded to ensure stormwater flows away from the levee. Additionally, existing onsite culverts would be extended through the TAC and new headwalls and slide gates would be installed for stormwater management.

The project would not impede or redirect floodflows in a manner which would affect flood risk at the project site or offsite or that would exceed the capacity of existing or planned stormwater drainage systems. The TAC would follow existing landside elevations and would not include any features that impede or redirect floodflows in a manner that could undermine the TAC or adjacent levee. The vehicle barrier would be constructed of recycled drill pipe that allows flow around and through the barrier and does not obstruct surface runoff.

Additionally, although this area is mapped within a 100-year flood hazard zone, TAC construction would occur landside of the Feather River east levee, and floodflows through the project site are unlikely. The extended culverts would be sized appropriately for conveyance of the expected volume of runoff at the project site, ensuring the capacity of the existing and planned stormwater drainage systems onsite would not be exceeded. Additionally, because the TAC would be constructed of clean fill and aggregate base imported from an approved supplier, project construction is not expected to contribute to polluted runoff from the site. This impact would be **less than significant**.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The project site is located in a designated 100-year flood hazard area. However, TAC construction would improve accessibility for flood patrols, inspections, and maintenance and would not increase risk of pollutant release during a flood. Additionally, the project is not located within a tsunami or seiche hazard area, and the project would not expose people or structures to additional danger from such an event. There would be **no impact**.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Refer to the discussion above under Impacts a), b), and c). The project would not result in other effects that would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, this impact would be **less than significant**.

3.11 Land Use and Planning

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|--------------------------|
| XI. LAND USE AND PLANNING – Would the project: | | | | | |
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.11.1 Environmental Setting

The project site is located on land designated as Natural Resources by the Yuba County General Plan and is zoned as agricultural (AR-10 and AE-40) (Yuba County 2011 and 2016). The Feather River corridor and adjacent orchards are west of the project site, and orchards and rural residences are east of the project site.

3.11.2 Discussion

a) Physically divide an established community?

The southern end of the project site is 1 mile north of the City of Marysville, and scattered rural residences are present east of the project site. The project would not physically divide an established community. There would be **no impact**.

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?

There would be no change in land use at the project site that would conflict with an adopted land use plan, policy, or regulation. Therefore, there would be **no impact**.

3.12 Mineral Resources

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|--------------------------|
| XII. MINERAL RESOURCES – Would the project: | | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.12.1 Environmental Setting

In compliance with the Surface and Mining Reclamation Act, CGS has established a Mineral Resource Zones (MRZ) classification system to denote location and significance of key extractive resources. The southern end of the project alignment is located within the Yuba City-Marysville Production-Consumption Region; however, no portion of the project site is in an area designated as a MRZ (CGS 1988). Additionally, the project site is not identified as a locally important mineral resource area in the Yuba County General Plan (Yuba County 2011).

3.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project site is not located in or near a State-designated MRZ. Implementing the project would not result in the loss of or preclude the recovery of a mineral resource of Statewide or regional importance. There would be **no impact**.

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?

The project site is not located in or near an area designated as an important resource recovery site by Yuba County. Implementing the project would not result in the loss of or preclude the recovery of a mineral resource of local importance. There would be **no impact**.

3.13 Noise

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|--------------------------|
| XIII. NOISE – Would the project: | | | | | |
| 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 in other applicable local, state, or Federal standards? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.13.1 Environmental Setting

The project site is in a rural area adjacent to agricultural land, scattered rural residences, and the Feather River east levee.

The Yuba County Code of Ordinances establishes a maximum noise protection standard for single-family residential receptors of: 55 decibels (dB) between 10 p.m. and 7 a.m., 60 dB between 7 p.m. and 10 p.m., and 65 dB between 7 a.m. and 7 p.m. Additionally, Section 8.20.310 of the Yuba County Code of Ordinances prohibits unpermitted nighttime construction in or near residential zones.

3.13.2 Discussion

- 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 in other applicable standards of other agencies?**

Construction noise impacts typically occur when construction activities take place during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), when construction

activities occur immediately adjacent to noise sensitive land uses, or when construction durations last over extended periods of time. The project would temporarily generate construction noise from operation of construction equipment at the project site and from transport of construction workers, construction materials, and equipment to and from the project site. The list of typical construction equipment that may be used for construction and typical noise levels generated at 50 feet from each equipment type (reference levels) are presented in **Table 3-3**.

Table 3-3. Construction Equipment and Typical Equipment Noise Levels.

| Type of Equipment | Typical Noise Levels (dB) L_{max} at 50 Feet |
|-----------------------|--|
| Backhoe | 80 |
| Dump Truck | 76 |
| Excavator with Hammer | 81 |
| Grader | 85 |
| Pick-up Truck | 75 |

Notes: dB = decibels; L_{max} = maximum instantaneous sound level;

Source: Construction equipment list based on Federal Highway Administration 2006, adapted by GEI Consultants, Inc. in 2020

TAC construction would generate temporary construction noise on the project site, primarily during grading and fill placement activities. Three residences and several work buildings are located near the TAC footprint and/or staging areas. Due to surrounding land uses, the operation of heavy-duty equipment associated with agricultural activities is common in the project area, during noise sensitive times of the day, and can typically result in noise levels of approximately 75 A-weighted decibels (dBA) equivalent sound level (L_{eq}) at 50 feet (EPA 1974).

The closest sensitive receptor to the project site is a residence approximately 50 feet east of the levee, at 231 Silva Avenue. During project activities, construction-related noise levels could temporarily exceed Yuba County's daytime limit of 65 dBA L_{eq} at this receptor. If a new ramp is constructed at Station 2618+50, associated construction activities would occur approximately 100-200 feet from this residence. However, new ramp construction is anticipated to be completed within approximately 8 days, and other construction activities would occur at least 200 feet from this sensitive receptor. The other nearby residences are located approximately 250 feet and 400 feet from the project site. Noise levels generated by equipment working on the project site are not anticipated to exceed the Yuba County daytime limit at these residences.

Hauling of TAC fill, aggregate, debris and waste material, and other construction materials (e.g., fencing) would generate noise from trucks traveling past residences along Laurellen Road, Silva Avenue, and Surrey Way. However, noise resulting from haul trips would be short-term and limited to the construction periods of up to approximately 45 days for fill and aggregate transport, 15 days for transport of other construction materials, and 40 days for debris and excess material removal. Because three haul routes are available, the number of days on which hauling would occur along a given street is anticipated to be a maximum of approximately 35 days over the total construction period.

Construction would be limited to between 7 a.m. and 5 p.m., within the hours allowed under Yuba County's noise ordinance, and all construction equipment would be properly maintained and equipped with standard noise control components, such as mufflers, per manufacturer's specifications. Because potential exceedance Yuba County noise level limits would be short-term, would occur only during a portion of the overall project construction period, and would be similar to periodic noise levels caused by agricultural equipment typically operating in the project area, this impact would be **less than significant**.

Following construction activities, operations and maintenance activities at the TAC would be similar to activities that occur under existing conditions. Levee maintenance personnel would periodically patrol and access the area via pickup truck during periodic inspections and/or flood fighting activities. There would be no permanent sources of noise generated by the project. This impact would be **less than significant**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

The project would generate temporary groundborne vibrations from construction activities and transient groundborne vibration from construction equipment use. Vibrations may be detectable at nearby sensitive receptors for brief periods. However, the Yuba County Code of Ordinances (Yuba County 2018) states that although

“No vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments by a reasonable person at the property lines of the site. Vibrations from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard.

Therefore, this impact would be **less than significant**.

Following construction activities, operations and maintenance activities at the TAC would be similar to activities that occur under existing conditions. Levee maintenance personnel would periodically patrol and access the area by pickup truck during periodic inspections and/or flood fighting activities. There would be no permanent sources of vibration generated by project operations and maintenance. This impact would be **less than significant**.

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 2 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?

As discussed previously in Section 3.9, “Hazards and Hazardous Materials,” the project site is not located within an airport land use planning area or within 2 miles of an airport. In addition, construction and use of the TAC would not expose site workers to excessive airport noise. There would be **no impact**.

3.14 Population and Housing

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.14.1 Environmental Setting

The project site is located just north of the City of Marysville, in an unincorporated area of Yuba County. The population of Yuba County was estimated in 2019 to be 77,916 (DOF 2019). There are several rural residences located near the project site.

3.14.2 Discussion

- a) Induce substantial 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)?**

The project would not develop any new roads or other infrastructure that would support or facilitate construction of new homes or businesses or extend roadways or other infrastructure that could increase population near the project site. The project does not involve construction of temporary or permanent housing. Therefore, the project would have no potential to directly or indirectly induce population growth. There would be **no impact**.

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

The project would not displace any houses or people. The TAC includes a gap between Stations 2606+50 and at least Station 2618+50 to avoid an existing residence. There would be **no impact**.

3.15 Public Services

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|--------------------------|
| XV. PUBLIC SERVICES – Would the project: | | | | | |
| Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | | | | | |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.15.1 Environmental Setting

The Yuba County Sheriff's Department provides law enforcement and emergency response services to the unincorporated areas of Yuba County. In the event of a fire at the project site, the District 10 Hallwood Community Service District (CSD) would respond (Yuba County 2011). The Marysville Fire Department occasionally responds to calls for service outside of City limits. The nearest schools to the project site are Twin River Charter School, approximately 0.8 mile east of the southern end of the project site, and Gray Avenue Middle School, approximately 1 mile west of the north end of the project site. The nearest park, Northridge Park, is approximately 1 mile from the project site.

3.15.2 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 public services, including fire protection, police protection, schools, or other public facilities.**

The project would not create new or more intense uses, or temporary or permanent population increases at the project site. There would be no increase in the need for public services, compared to existing conditions. Because the project would not develop buildings requiring public services or increase the number of users at the project site, the project would not impede

or increase response times for fire protection, police protection, or other public services. Additionally, because the project does not involve new residential construction, no new schools would be needed. Therefore, there would be **no impact**.

3.16 Recreation

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|--------------------------|
| XVI. RECREATION – Would the project: | | | | | |
| a) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.16.1 Environmental Setting

Yuba County operates a total of nine local parks and one regional park, which offer a variety of recreational opportunities, including fishing, hiking, camping, playgrounds, and basketball courts (Yuba County 2011). The project site is located near the Feather River, just north of Marysville. The Feather River Parkway, located 1 mile south of the southern end of the project site, offers accessibility to portions of the Feather River in the City of Marysville and surrounding areas.

3.16.2 Discussion

- a) **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?**

The project does not involve the construction of new housing that would generate new residents who would increase the use of existing recreational facilities. The project would not affect existing recreational uses or recreational facilities. There would be **no impact**.

- b) **Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

The project does not include or require the construction of new recreational facilities. There would be **no impact**.

3.17 Transportation

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.17.1 Environmental Setting

Access to the project site is available from SR 70, via Laurellen Road, Silva Avenue, and Surrey Way, all of which are paved roads. SR 70 serves local and regional travel in Yuba County; it begins at SR 99 in Sutter County and extends northerly into Butte County. Vehicle miles traveled (VMT) in Yuba County was estimated to be 765,263 in 2011, when the Yuba County General Plan was prepared.

3.17.2 Discussion

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No transit, roadway, bicycle, or pedestrian closures are planned, but heavy construction vehicles, materials, and workers would travel to and from the site via SR 70 and the local access roads (Laurellen Road, Silva Avenue, and Surrey Way). The project would generate temporary construction trips from commuting site workers, deliveries of construction-related materials, and off-hauling activities. The project would be completed in six phases, with crew size and equipment needs varying depending on the construction phase (see Chapter 2, Section 2.3.7, Table 2-2 for Construction Phases, Equipment, and Anticipated Work Durations).

Approximately 3,000 truck trips would be required to transport fill to the project site, and approximately 500 truck trips would be required to transport aggregate material to the site. TAC fill and aggregate material would be obtained from a local source within approximately 15 miles of the project site. Approximately 10-15 trucks per day, for approximately 30-45 days, would be needed to transport fill and aggregate material to site. Additionally, 15 truck and trailer trips over approximately 15 days would be needed to bring all other construction-related materials (fencing, culvert pipes, etc.) to the site, and up to approximately 500 truck trips over approximately 40 days could be required to haul unsuitable material to a disposal site.

Approximately 10-20 people working one shift 6 days a week (Monday through Saturday) would be required, and worker vehicle commutes would account for approximately 10 trips per day. During the up to approximately 160-day construction period, a total of approximately 1,600 worker commute trips would be generated.

No transit or bicycle facilities would be affected by the project. Overall, truck trips to support construction would occur over the short-term construction period. No new permanent trips would be generated by project operation/maintenance. The project would not conflict with a program, plan, or ordinance, nor would it involve any permanent changes in transportation circulation patterns or disrupt alternative transportation modes. Therefore, this impact would be **less than significant**.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

The project does not include development of any new residential uses or land development that would directly contribute to population growth or affect the existing VMT by residents or visitors of the area. See response to Question “a)” above for a more detailed discussion of VMT. Project implementation would have no impact on VMT and, therefore, is presumed to result in a less-than-significant impact consistent with State CEQA Guidelines 15054.3(b)(2). Therefore, this impact would be a **less than significant**.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The TAC would not be open to public traffic, and would be designed to avoid hazards and conform to applicable design standards. Therefore, this impact would be **less than significant**.

d) Result in inadequate emergency access?

The project would not require road closures or other changes that could result in inadequate emergency access. The increased number of construction-related trucks to and from the project site during construction activities would be relatively small and would not affect emergency access. Therefore, this impact would be **less than significant**.

3.18 Tribal Cultural Resources

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|--|--------------------------------|---|------------------------------|--------------------------|--------------------------|
| XVIII. TRIBAL CULTURAL RESOURCES – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | | |
| a) 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 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.18.1 Environmental Setting

Refer to the “Ethnographic Setting” in Section 1.8, “Cultural Resources.”

Although no California Native American Tribes had previously contacted RD 10 to request consultation on projects under Assembly Bill 52 (PRC Section 21080.3.1), on behalf of RD 10, GEI sent a request to the Native American Heritage Commission (NAHC) asking for a search of its Sacred Lands File for the project vicinity. The NAHC responded on March 19, 2020 stating that the search indicated the presence of a Native American cultural resource in the vicinity of the project site, but a specific location was not identified. The response also indicated that the United Auburn Indian Community (UAIC) should be contacted regarding the resource. The letter received from the NAHC is provided in Appendix C, “Tribal Consultation.”

On behalf of RD 10, GEI sent an email to UAIC on March 24, 2020, with an attached project description and maps of the project location and project site. UAIC responded on the same day, March 24, 2020, stating that the project overlaps several known burial sites and that UAIC considers even relatively minor activities, such as grubbing and clearing, as having possibly substantial impacts to burials along the Feather River. UAIC noted that they had not previously

sent a letter to RD 10 formally requesting consultation on RD 10 projects but that they would do so. In the interim, UAIC stated that they were seeking to initiate consultation with RD 10 pursuant to CEQA and PRC Sections 5097.94 to 5097.97. Consultation with UAIC is ongoing.

3.18.2 Discussion

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 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)?**
- b) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.**

Tribal Cultural Resources are either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that is either in or eligible for inclusion in the CRHR or a local historic register; or (2) a resource that the lead agency, at its discretion and supported by substantial evidence, chooses to treat as a Tribal Cultural Resource. In addition, a cultural landscape may also qualify as a Tribal Cultural Resource if it meets the criteria to be eligible for inclusion in the CRHR and is geographically defined in terms of the size and scope of the landscape. Other historical resources (as described in California PRC 21084.1), unique archaeological resources (as defined in California PRC 21083.2[g]), and non-unique archaeological resources (as described in California PRC 21083.2[h]) may also be a Tribal Cultural Resource, if they meet CRHR eligibility criteria.

UAIC has stated that the project overlaps several burial sites. The exact location and depth at which these burial sites may be encountered is not known and no evidence of these reported Tribal Cultural Resources were identified by archaeologists during the pedestrian survey. The use of archaeological excavation was considered as a method to determine if these resources are present in the project site boundary, but this method was not used because of the likelihood that the excavation would cause as much or more damage to such resources as would project construction. Because the purpose of the project is to improve levee accessibility for patrol and maintenance purposes, it was determined to be infeasible to reroute the TAC to another location.

Because project-related ground-disturbing activities (i.e., clearing and grubbing to prepare the TAC foundation, fence post installation, and tree removal) would be limited to areas that have

been previously disturbed by agricultural activities, levee construction, and utility line and drainage ditch installation, it is unlikely that project construction would cause new damage to Tribal Cultural Resources. In addition, proposed placement of embankment fill may act as a cap to protect Tribal Cultural Resources from future disturbances.

Nevertheless, if these Tribal Cultural Resources extend into the project footprint and are relatively shallow, they could be encountered during project-related ground-disturbing activities. This would be a **potentially significant impact**. Mitigation Measures TCR-1 and TCR-2 have been identified to address this impact. In addition, Mitigation Measure TCR-3 has been identified to provide interested culturally affiliated Tribes the opportunity to inspect the project site and conduct monitoring during construction.

Mitigation Measure TCR-1: In the Event that Tribal Cultural Resources are Discovered Before or During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Impacts.

California Native American Tribes that are traditionally and culturally affiliated with the geographic area in which the project is located may have expertise concerning their Tribal Cultural Resources. Consistent with California PRC Section 21080.3.1, culturally affiliated Tribes shall be consulted concerning Tribal Cultural Resources that may be impacted, if these types of resources are discovered before or during construction. Consultation with culturally affiliated Tribes shall focus on identifying measures to avoid or minimize impacts on any such resources discovered during construction. If Tribal Cultural Resources are identified on the project site, before or during construction, the following performance standards shall be met before proceeding with construction and associated activities that may result in damage to or destruction of Tribal Cultural Resources:

- Each identified Tribal Cultural Resource will be evaluated for CRHR eligibility through application of established eligibility criteria (CCR 15064.636), in consultation with interested Native American Tribes.
- If a Tribal Cultural Resource is determined to be eligible for listing in the CRHR, RD 10 will avoid damaging the Tribal Cultural Resource in accordance with California PRC Section 21084.3, if feasible. If RD 10 determines that the project may cause a substantial adverse change to a Tribal Cultural Resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation steps capable of avoiding or substantially lessening potential significant impacts to a Tribal Cultural Resource or alternatives that would avoid significant impacts to a Tribal Cultural Resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which mitigation specifically addresses inadvertent discovery of Tribal Cultural Resources:
 - iii. Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or

planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

- iv. Treat the resource with culturally appropriate dignity, taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - a. Protect the cultural character and integrity of the resource.
 - b. Protect the traditional use of the resource.
 - c. Protect the confidentiality of the resource.
 - d. Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
 - e. Protect the resource.

Timing: Before and during project construction activities

Responsibility: RD 10 and construction contractor(s)

Mitigation Measure TCR-2: Conduct Cultural Resources Awareness Training.

RD10 shall provide a cultural resources and Tribal Cultural Resources sensitivity and awareness training program for all personnel involved in project construction, including field consultants and construction workers. The training shall be developed in coordination with an archaeologist meeting Secretary of the Interior Professional Qualifications Standards for Archaeology, as well as culturally affiliated Native American Tribes. RD 10 shall invite Native American representatives from interested culturally affiliated Native American Tribes to participate. The training shall be conducted before any project-related construction activities begin on the project site and shall include relevant information regarding sensitive cultural resources and Tribal Cultural Resources, including applicable regulations, protocols for avoidance, and consequences of violating Federal and State laws and regulations.

The training shall also describe what to do and who to contact if any potential cultural resources or Tribal Cultural Resources are encountered. The training shall emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and shall discuss appropriate behaviors and responsive actions, consistent with Native American Tribal values.

Timing: Before project construction activities begin

Responsibility: RD 10 and construction contractor(s)

Implementing Mitigation Measures TCR-1 and TRC-2 would reduce the potential impact related to discovery of Tribal Cultural Resources to a less-than-significant level because the find would be assessed by culturally affiliated Tribes and the identification and implementation of avoidance

or minimization measures would be conducted in consultation with the Tribes. Therefore, the project would have a less-than-significant impact with mitigation incorporated.

Mitigation TCR-3: Invite Interested Culturally Affiliated Tribes to Inspect the Project Site

The following measures are intended to minimize impacts to identified or previously undiscovered Tribal Cultural Resources, Native American archaeological resources, and other Native American cultural resources during project-related ground-disturbing activities. RD 10 and its construction contractor(s) will implement the following measures to identify Tribal Cultural Resources at the earliest possible time during project-related ground-disturbing activities:

- RD 10 shall contact interested culturally affiliated Tribes at least 2 weeks before ground-disturbing activities begin and invite the Tribes to monitor ground-disturbing activities during project construction. The duration of the monitoring and construction schedule shall be determined at this time.
- In order to track the status of mitigation measure implementation, field-monitoring activities shall be documented on a Tribal Monitor log. The total time commitment of the Tribal Monitor will vary depending on the intensity and location of construction and the sensitivity of the area, including the number of finds, if any.
- A Tribal Monitor(s) from traditionally and culturally affiliated Native American Tribes shall be invited to monitor the vegetation grubbing, stripping, grading, and other ground-disturbing activities on the project site. The Tribal Monitor(s) shall wear the appropriate safety equipment and follow all safety protocols.
- Native American Representatives and Tribal Monitors act as a representative of their Tribal government and have the authority to identify sites or objects of cultural value to Native Americans and recommend appropriate treatment of such sites or objects. Native American Monitors or their Representatives have the authority to request that work be temporarily paused, diverted, or slowed within 100 feet of the direct impact area, if sites or objects of significance are identified. Only a Native American Monitor or Representative from a culturally affiliated Tribe can recommend appropriate treatment and final disposition of Tribal Cultural Resources.
- If Tribal representatives identify Tribal Cultural Resources on the project site, before or during project construction, the Tribe shall immediately notify RD 10 and the consultation procedures identified in Mitigation Measure TCR-1 shall be initiated by RD 10.
- If Tribal Cultural Resources, Native American artifacts, or other Native American items or materials are identified on the project site and are collected by Tribal monitors, RD 10 shall provide a secure, climate-controlled facility for storage of the items until the

culturally affiliated Tribe determines the disposition of the materials. Secure storage location(s) or container(s) of adequate size shall be identified and set aside exclusively for the secure storage of collected cultural items before the start of construction. This Secure Storage may be within a construction trailer or other facility on or near the site. Any collected items shall be recorded and placed by the Tribal monitor in the storage container at the end of the day or other appropriate intervals identified by the Tribal Monitor. Only designated Tribal Monitors shall have the keys or access codes to the container. When a storage location is at 75 percent capacity, the Tribal monitor shall notify RD 10, and RD 10 shall make arrangements for additional storage within 48 business hours of receiving the notification.

Timing: Before and during project construction activities
Responsibility: RD 10 and construction contractor(s)

3.19 Utilities and Service Systems

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a determination by the wastewater treatment provider that 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Comply with Federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.19.1 Environmental Setting

PG&E provides electric and gas service to the project site and vicinity. There are 11 State-regulated wastewater treatment facilities in Yuba County, including facilities operated by Olivehurst Public Utilities District, Linda County Water District, Community Service District, Beale Air Force Base, and the cities of Marysville and Wheatland. Solid waste collection services are provided by Recology Yuba-Sutter; after solid waste is collected and sorted, it is disposed of at the Ostrom Road Landfill, approximately 4 miles north of Wheatland. (Yuba County 2011.)

3.19.2 Discussion

- 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?**

PG&E steel towers and overhead utility lines are adjacent to the landside of the Feather River east levee would not be affected by project construction. The project also would not require relocation or construction of new utilities or service systems that would be connected to the overall public services and utility infrastructure in the region. There would be **no impact**.

- b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?**

The project would not require development of water supplies. Because no residences or other permanent structures would be constructed, potable water demand would not increase as a result of the project. There would be **no impact**.

- c) **Result in a determination by the wastewater treatment provider that 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?**

The project would not generate new wastewater, and no permanent residential or other structures would be constructed. There would be **no impact**.

- 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?**

The project would generate a relatively small amount of debris during the construction phase, primarily from clearing and grubbing activities, and excess material that cannot be reused in TAC construction. This debris and excess material is anticipated to be taken to a commercial waste or recycling facility in Marysville or Yuba City area, such as the Recology Ostrom Road Landfill, located approximately 20 miles from the project site. The Ostrom Road Landfill has a remaining capacity of 39,223,000 cubic yards and can accept 3,000 tons of solid waste per day (CalRecycle 2019). The amount of debris generated by the project (up to approximately 5,000 cubic yards) would be an insubstantial contribution to the remaining landfill capacity. Therefore, this impact would be **less than significant**.

- e) **Comply with Federal, state, and local management and reduction statutes and regulations related to solid waste?**

Debris and excess material generated by the project would be disposed of in compliance with Federal, State, and local regulations related to solid waste. Therefore, this impact would be **less than significant**.

3.20 Wildfire

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.20.1 Environmental Setting

The project site is within an unincorporated Local Responsibility Area with fire hazard severity classifications of unzoned and moderate (CalFire 2007a and 2007b). In the event of a fire, the District 10 Hallwood CSD would respond. District 10 Hallwood CSD contracts with Marysville Fire Department for fire protection services but owns and provides its own equipment and has two on-call firefighters, in addition to the Marysville Fire Department firefighters (Yuba County 2011).

3.20.2 Discussion

- a) **Substantially impair an adopted emergency response plan or emergency evacuation plan?**

The short-term nature of construction and material delivery and off-site disposal would not pose a risk to emergency response or evacuation during an emergency. Therefore, there would be **no impact**.

- 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?**

The project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, as chances of a wildfire occurring are minimal. Therefore, there would be **no impact**.

- 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?**

The project would not require infrastructure that would exacerbate fire risk or the risk of flooding, slope instability, or drainage changes. Therefore, there would be **no impact**.

- 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?**

The project would not expose people or structures to significant risks, including flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, there would be **no impact**.

3.21 Mandatory Findings of Significance

| Environmental Issue | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact | Beneficial Impact |
|---|--------------------------------|---|-------------------------------------|--------------------------|--------------------------|
| XXI. MANDATORY FINDINGS OF SIGNIFICANCE – Would the project: | | | | | |
| 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, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.21.1 Discussion

- 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, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

The analysis conducted in this IS concludes that implementing the project would not have a significant impact on the environment. As evaluated in Section 3.4, "Biological Resources,"

impacts on biological resources would be less than significant or less than significant with mitigation incorporated. The project would not 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; or reduce the number or restrict the range of an endangered, rare, or threatened species. As discussed in Section 3.5, "Cultural Resources," the project would not eliminate important examples of the major periods of California history or prehistory. This impact would be **less than significant with mitigation incorporated**.

- 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.)**

As discussed in this IS, the project would result in less-than-significant impacts with mitigation incorporated, less-than-significant impacts, or no impacts on aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire.

The temporary nature of the project's construction impacts (up to approximately 150 days), and the long-term improvements to site access to support maintenance and levee patrol activities at the project site would result in no impacts, less-than-significant impacts, or less-than-significant impacts with mitigation incorporated on the physical environment. No other past, present, or probable future projects would overlap with the project at the project site, with the exception of the existing levee, which has been in place for approximately 100 years. The proposed project would augment the existing levee project at this site by facilitating improved levee protection and maintenance, thereby reducing the potential for flooding, which could potentially result in numerous significant impacts to environmental resources, such as land use, population and housing, public services, agriculture, air quality, GHG emissions, noise, transportation, utilities and service systems, geology and soils, hazardous materials, and water quality. Potential impacts to these resources would depend on the specific location, magnitude, and duration of any flooding, and the high potential for significant post-flood, construction-related impacts.

The project's minor impacts would result from the relatively short construction schedule and the project's specific location between an existing levee and existing orchard orchard, which constrains impacts to a relatively small area without significant environmental resources. With implementation of mitigation presented in this IS, none of the project's impacts make cumulatively considerable, incremental contributions to significant cumulative impacts. This impact would be **less than significant with mitigation incorporated**.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

The project would result in less-than-significant impacts and would not cause substantial adverse effects on human beings, either directly or indirectly. The impact would be **less than significant**.

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3.21 Mandatory Findings of Significance

No references cited.

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Chapter 5. Report Preparers

Reclamation District 10

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Madeline Bowen Built-environment Cultural Resources

Ryan Snyder Geographic Information Systems

Gigi Gable Word Processing

KD Anderson & Associates, Inc.

Wayne Shijo Criteria Air Pollutant and Greenhouse Gas Emissions Modelling

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Appendix A. Air Quality Modeling Report

March 23, 2020

Ms. Anne King
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Subject: *Reclamation District 10 Toe Access Corridor Project –
Emissions Modeling Analysis*

Dear Ms. King:

On behalf of KD Anderson & Associates (KDA), I am pleased to submit this report on air pollutant emissions analysis of the Reclamation District 10 Toe Access Corridor Project (RD 10 TAC Project).

Project Understanding

Our understanding is the RD 10 TAC Project would involve improving levee accessibility for patrol and maintenance purposes by constructing approximately two miles of a landside Toe Access Corridor along the Feather River east levee. The project site is located north of the City of Marysville, in Yuba County. The RD 10 TAC Project would be constructed of uniform fill material, generally extending 24 feet from the existing levee toe and adjusted to avoid existing structures and other constraints. Project construction would involve the following six phases:

- Phase 1 — Clearing, Grubbing, and Stripping;
- Phase 2 — Toe Access Corridor Construction;
- Phase 3 — Aggregate Base Placement;
- Phase 4 — Fence Installation;
- Phase 5 — Hydroseeding; and
- Phase 6 — Demobilization and Site Cleanup.

While the project phases listed above are in approximate chronological order, overlap would occur as project construction proceeds. For example, portions of Phase 4, Fence Installation, could occur concurrently with Phases 1, 2 and 3.

Our understanding is the RD 10 TAC Project would have little or no effect on long-term operational emissions.

Methodology

In the *Indirect Source Review Guidelines*, the Feather River Air Quality Management District (FRAQMD) notes,

“The District recommends the Roadway Construction Emissions Model to calculate emissions from linear construction projects, such as new roadways, road widening, and levee projects. This model is available to download at: <http://www.airquality.org/ceqa/index.shtml>.”

KDA applied the Road Construction Emissions Model to analyze the effects of the RD 10 TAC Project on criteria pollutant air quality emissions and greenhouse gas (GHG) emissions. A detailed description of the model may be found at the Sacramento Metropolitan Air Quality Management District internet website (<http://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>).

The Road Construction Emissions Model analysis was based on project description information provided by you in March 2 and March 4, 2020 E-mail messages to me. The Road Construction Emissions Model output reports are enclosed.

Phase Names. The Road Construction Emissions Model software is limited in the number of construction phases that can be analyzed in an individual model run and is limited in the names that can be applied to phases. Individual runs of the model are limited to four construction phases, and the names of phases in the model cannot be modified.

Because the Road Construction Emissions Model is limited to four construction phases, two runs of the model were used to analyze the six phases of the RD 10 TAC Project. One run of the model was used to analyze Phases 1, 2, and 3 of the RD 10 TAC Project. A second run of the model was used to analyze Phases 4, 5, and 6 of the project.

Because the names of construction phases in the Road Construction Emissions Model cannot be modified, the names of RD 10 TAC Project construction phases do not appear in the enclosed model output reports. To facilitate review of the model output reports, the following describes how RD 10 TAC Project construction phases are listed in the output reports.

In the first run of the Road Construction Emissions Model, the following describes the correspondence between model phase names and RD 10 TAC Project phase names:

- The Road Construction Emissions Model phase “Grubbing/Land Clearing” is used for “Phase 1 - Clearing, Grubbing, and Stripping” of the RD 10 TAC Project.

KDA

- The Road Construction Emissions Model phase “Grading/Excavation” is used for “Phase 2 - Toe Access Corridor Construction” of the RD 10 TAC Project.
- The Road Construction Emissions Model phase “Drainage/Utilities/Sub-Grade” is used for “Phase 3 - Aggregate Base Placement” of the RD 10 TAC Project.

In the second run of the model, the following describes the correspondence between Road Construction Emissions Model phase names and RD 10 TAC Project phase names:

- The Road Construction Emissions Model phase “Grubbing/Land Clearing” is used for “Phase 4 - Fence Installation” of the RD 10 TAC Project.
- The Road Construction Emissions Model phase “Grading/Excavation” is used for “Phase 5 - Hydroseeding” of the RD 10 TAC Project.
- The Road Construction Emissions Model phase “Drainage/Utilities/Sub-Grade” is used for “Phase 6 - Demobilization and Site Cleanup” of the RD 10 TAC Project.

Significance Thresholds

The following is a description of significance thresholds applied in this letter report.

Criteria Pollutant Emissions. In the *Indirect Source Review Guidelines*, the FRAQMD recommends significance thresholds for construction-related emissions of nitrogen oxides (NO_x), reactive organic gases (ROG), and particulate matter less than 10 microns in diameter (PM₁₀).

For both NO_x and ROG, the FRAQMD recommends a significance threshold of “25 lbs/day multiplied by the project length, not to exceed 4.5 tons/year”. The FRAQMD further notes, “NO_x and ROG Construction emissions may be averaged over the life of the project, but may not exceed 4.5 tons/year”. In this report,

- NO_x and ROG emissions were calculated in pounds per day (ppd), averaged over the duration of the construction period. The project is considered to have a significant impact if the average daily value for either NO_x or ROG exceeds 25 ppd.
- The sum of NO_x and ROG emissions over the entire construction period were also calculated. The project is considered to have a significant impact if the total for the construction period exceeds 4.5 tons.

For PM₁₀, the FRAQMD recommends a significance threshold of 80 ppd. The project is considered to have a significant impact if emissions exceed 80 ppd during the construction period.

KDA

Greenhouse Gas Emissions. In the *Indirect Source Review Guidelines*, the FRAQMD notes,

“Air districts have traditionally provided guidance to local lead agencies on evaluating and addressing air pollution impacts from projects subject to CEQA. Recognizing the need for a common platform of information and tools to support decision makers as they establish policies and programs for GHG and CEQA, the California Air Pollution Control Officers Association has prepared a white paper reviewing policy choices, analytical tools, and mitigation strategies. This white paper, entitled ‘CEQA and Climate Change’ is available at <http://www.capcoa.org/>. The District recommends the use of this white paper by local lead agencies.”

The California Air Pollution Control Officers Association (CAPCOA) document *CEQA and Climate Change* notes,

“Although construction activity has been addressed in the analytical methodologies and mitigation chapters, this paper does not discuss whether any of the threshold approaches adequately addresses impacts from construction activity. More study is needed to make this assessment or to develop separate thresholds for construction activity. The focus of this paper is the long-term adverse operational impacts of land use development.”

In *CEQA and Climate Change* CAPCOA identifies a guideline of 900 metric tons per year of carbon dioxide equivalent (MT/yr CO₂e) emissions as a conservative threshold for requiring further analysis and mitigation. While CAPCOA does not directly recommend use of this guideline to construction activity, because the FRAQMD recommends use of *CEQA and Climate Change*, and because the 900 MT CO₂e is a conservative threshold, this threshold is applied in this letter report. Therefore, the RD 10 TAC Project is considered to have a significant impact if GHG emissions exceed 900 MT/yr of CO₂e.

Results

The results of the Road Construction Emissions Model emissions analysis are shown in the enclosed **Table 1** and **Table 2**.

Criteria Pollutant Emissions. Estimated criteria pollutant emissions for the RD 10 TAC Project are presented in **Table 1**. As shown in **Table 1**, project-related emissions of NO_x, ROG and PM₁₀ would all be below the daily significance thresholds presented in the *Significance Threshold* section of this report. In addition, emissions of NO_x and ROG for the entire construction period would be below the 4.5 tons per year threshold. As a result, the project’s impact on criteria pollutant emissions is considered to be less than significant. No mitigation measures are required.

KDA

Greenhouse Gas Emissions. Estimated GHG emissions for the RD 10 TAC Project are presented in **Table 2**. As shown in **Table 2**, project-related GHG emissions are forecasted to be 201.25 MT of CO₂e for the construction period, which is below the 900 MT/yr CO₂e significance threshold. As a result, the project's impact on GHG emissions is considered to be less than significant. No mitigation measures are required.

Closing

Thank you for providing KDA with the opportunity to provide GEI Consultants with air pollutant emissions analysis services on the RD 10 TAC Project. Please let me know if you have any questions about this report.

Sincerely,

KD Anderson & Associates, Inc.

A handwritten signature in blue ink, appearing to read 'Wayne Shijo', with a stylized, cursive script.

Wayne Shijo
Project Manager

enclosures

KDA

Table 1. Toe Access Corridor Project Criteria Pollutant Emissions

| Emissions and Time Period | Phase 1 - Clearing, Grubbing, and Stripping | | | Phase 2 - Toe Access Corridor Construction | | | Phase 3 - Aggregate Base Placement | | | Total Construction Period (Sum of All Phases) |
|---|---|---------------------------------------|--------|--|---------------------------------------|----------|------------------------------------|---------------------------------------|-------|--|
| | Phase 1 | Concurrent Phase 4 Fence Installation | Total | Phase 2 | Concurrent Phase 4 Fence Installation | Total | Phase 3 | Concurrent Phase 4 Fence Installation | Total | |
| NO _x in ppd | 14.55 | 1.19 | 15.74 | 29.87 | 1.19 | 31.06 | 3.71 | 1.19 | 4.90 | |
| ROG in ppd | 1.28 | 0.16 | 1.44 | 1.49 | 0.16 | 1.65 | 0.30 | 0.16 | 0.46 | |
| PM ₁₀ in ppd | 6.24 | 1.79 | 8.03 | 6.79 | 1.79 | 8.58 | 5.81 | 1.79 | 7.60 | |
| Length of Phase in Days | | | 18 | | | 40 | | | 5 | 63 |
| NO _x in Pounds for Phase Period | | | 283.32 | | | 1,242.40 | | | 24.50 | 1,550.22 |
| NO _x in Tons for Phase Period | | | 0.14 | | | 0.62 | | | 0.01 | 0.78 |
| ROG in Pounds for Phase Period | | | 25.92 | | | 66.00 | | | 2.30 | 94.22 |
| ROG in Tons for Phase Period | | | 0.01 | | | 0.03 | | | 0.00 | 0.05 |
| <div> <div>NO_x in ppd Averaged Over the Construction Period</div> <div>NO_x Significance Threshold in ppd Averaged Over the Construction Period</div> <div>Total Construction Period NO_x Exceeds 4.5 tons per year?</div> <div>Significant Impact?</div> </div> | | | | | | | | | | <div>24.61</div> <div>25</div> <div>No</div> <div>No</div> |
| <div> <div>ROG in ppd Averaged Over the Construction Period</div> <div>ROG Significance Threshold in ppd Averaged Over the Construction Period</div> <div>Total Construction Period ROG Exceeds 4.5 tons per year?</div> <div>Significant Impact?</div> </div> | | | | | | | | | | <div>1.50</div> <div>25</div> <div>No</div> <div>No</div> |
| <div> <div>Maximum PM₁₀ in ppd for the Construction Period</div> <div>PM₁₀ Significance Threshold in ppd</div> <div>Significant Impact?</div> </div> | | | | | | | | | | <div>8.58</div> <div>80</div> <div>No</div> |

Notes: "NO_x" = nitrogen oxides. "ROG" = reactive organic gases. "PM₁₀" = inhalable particulate matter less than 10 microns diameter. "ppd" = pounds per day.
Because of their low emission values and unclear position in the construction schedule, Phases 5 and 6 are not included to present a conservative emissions estimate.

Table 2. Toe Access Corridor Project Greenhouse Gas Emissions

| Project Phase | Metric Tons of Carbon Dioxide Equivalent Emissions During Project Phase |
|---|--|
| Phase 1-Clearing, Grubbing, and Stripping | 16.50 |
| Phase 2-Toe Access Corridor Construction | 178.85 |
| Phase 3-Aggregate Base Placement | 2.67 |
| Phase 4-Fence Installation | 2.54 |
| Phase 5-Hydroseeding | 0.46 |
| Phase 6-Demobilization and Site Cleanup | 0.23 |
| | <hr/> |
| Total | 201.25 |
| Significance Threshold | 900 |
| Significant Impact? | No |

**Road Construction Emissions Model
Output Report for
Phases 1, 2, and 3**

Road Construction Emissions Model, Version 9.0.0

| Daily Emission Estimates for -> RD 10 Toe Access Corridor Phases 1, 2, and 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------|-----------------------|-------------------------|---------------------------|---------------------------------|--------------------------|----------------------------|----------------------------------|------------------|------------------|------------------|------------------|-----------------|--|---|--|-----------------------|--|--|--|-------|------|---------|--------------|-----------------|----------------|-------------|------------------------|---|---|---|---|-----|----|--------------------|-------|---|-------|---|-----|-----|------------------------------|---|---|---|---|-----|-----|--------|---|---|---|---|---|---|
| Project Phases (Pounds) | ROG (lbs/day) | CO (lbs/day) | NOx (lbs/day) | Total PM10 (lbs/day) | Exhaust PM10 (lbs/day) | Fugitive Dust PM10 (lbs/day) | Total PM2.5 (lbs/day) | Exhaust PM2.5 (lbs/day) | Fugitive Dust PM2.5 (lbs/day) | SOx (lbs/day) | CO2 (lbs/day) | CH4 (lbs/day) | N2O (lbs/day) | CO2e (lbs/day) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grubbing/Land Clearing | 1.28 | 10.76 | 14.55 | 6.24 | 0.64 | 5.60 | 1.73 | 0.57 | 1.16 | 0.02 | 2,320.95 | 0.58 | 0.07 | 2,357.32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grading/Excavation | 1.49 | 12.41 | 29.87 | 6.79 | 1.19 | 5.60 | 1.97 | 0.80 | 1.16 | 0.11 | 11,052.79 | 0.57 | 1.45 | 11,500.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drainage/Utilities/Sub-Grade | 0.30 | 3.41 | 3.71 | 5.81 | 0.21 | 5.60 | 1.32 | 0.16 | 1.16 | 0.01 | 1,330.60 | 0.11 | 0.14 | 1,373.49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum (pounds/day) | 1.49 | 12.41 | 29.87 | 6.79 | 1.19 | 5.60 | 1.97 | 0.80 | 1.16 | 0.11 | 11,052.79 | 0.58 | 1.45 | 11,500.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (tons/construction project) | 0.04 | 0.30 | 0.63 | 0.18 | 0.03 | 0.15 | 0.05 | 0.02 | 0.03 | 0.00 | 210.23 | 0.01 | 0.03 | 218.27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Notes: Project Start Year -> 2020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Length (months) -> 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Area (acres) -> 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Area Disturbed/Day (acres) -> 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Truck Used? -> Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><td></td><td colspan="2">Total Material Imported/Exported Volume (yd³/day)</td><td colspan="4">Daily VMT (miles/day)</td></tr><tr><td>Phase</td><td>Soil</td><td>Asphalt</td><td>Soil Hauling</td><td>Asphalt Hauling</td><td>Worker Commute</td><td>Water Truck</td></tr><tr><td>Grubbing/Land Clearing</td><td>0</td><td>0</td><td>0</td><td>0</td><td>300</td><td>80</td></tr><tr><td>Grading/Excavation</td><td>1,125</td><td>0</td><td>2,130</td><td>0</td><td>300</td><td>160</td></tr><tr><td>Drainage/Utilities/Sub-Grade</td><td>0</td><td>0</td><td>0</td><td>0</td><td>300</td><td>200</td></tr><tr><td>Paving</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> | | | | | | | | | | | | | | | | Total Material Imported/Exported Volume (yd³/day) | | Daily VMT (miles/day) | | | | Phase | Soil | Asphalt | Soil Hauling | Asphalt Hauling | Worker Commute | Water Truck | Grubbing/Land Clearing | 0 | 0 | 0 | 0 | 300 | 80 | Grading/Excavation | 1,125 | 0 | 2,130 | 0 | 300 | 160 | Drainage/Utilities/Sub-Grade | 0 | 0 | 0 | 0 | 300 | 200 | Paving | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Material Imported/Exported Volume (yd³/day) | | Daily VMT (miles/day) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase | Soil | Asphalt | Soil Hauling | Asphalt Hauling | Worker Commute | Water Truck | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grubbing/Land Clearing | 0 | 0 | 0 | 0 | 300 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grading/Excavation | 1,125 | 0 | 2,130 | 0 | 300 | 160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drainage/Utilities/Sub-Grade | 0 | 0 | 0 | 0 | 300 | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paving | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Emission Estimates by Phase for -> RD 10 Toe Access Corridor Phases 1, 2, and 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Phases (Tons for all except CO2e. Metric tonnes for CO2e) | ROG (tons/phase) | CO (tons/phase) | NOx (tons/phase) | Total PM10 (tons/phase) | Exhaust PM10 (tons/phase) | Fugitive Dust PM10 (tons/phase) | Total PM2.5 (tons/phase) | Exhaust PM2.5 (tons/phase) | Fugitive Dust PM2.5 (tons/phase) | SOx (tons/phase) | CO2 (tons/phase) | CH4 (tons/phase) | N2O (tons/phase) | CO2e (MT/phase) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grubbing/Land Clearing | 0.01 | 0.08 | 0.11 | 0.05 | 0.00 | 0.04 | 0.01 | 0.00 | 0.01 | 0.00 | 17.90 | 0.00 | 0.00 | 16.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grading/Excavation | 0.03 | 0.21 | 0.51 | 0.12 | 0.02 | 0.10 | 0.03 | 0.01 | 0.02 | 0.00 | 189.48 | 0.01 | 0.02 | 178.85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drainage/Utilities/Sub-Grade | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 2.85 | 0.00 | 0.00 | 2.67 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum (tons/phase) | 0.03 | 0.21 | 0.51 | 0.12 | 0.02 | 0.10 | 0.03 | 0.01 | 0.02 | 0.00 | 189.48 | 0.01 | 0.02 | 178.85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (tons/construction project) | 0.04 | 0.30 | 0.63 | 0.18 | 0.03 | 0.15 | 0.05 | 0.02 | 0.03 | 0.00 | 210.23 | 0.01 | 0.03 | 198.02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The CO2e emissions are reported as metric tons per phase. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Road Construction Emissions Model
Selected Data Entry Screens for
Phases 1, 2, and 3**

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

| Construction Periods | User Override of Construction Months | Program Calculated Months | User Override of Phase Starting Date | Program Default Phase Starting Date |
|------------------------------|---|---------------------------------|---|---|
| Grubbing/Land Clearing | 0.60 | 0.21 | 8/1/2020 | 1/1/2020 |
| Grading/Excavation | 1.33 | 0.95 | 8/20/2020 | 1/20/2020 |
| Drainage/Utilities/Sub-Grade | 0.17 | 0.63 | 9/30/2020 | 3/1/2020 |
| Paving | 0.00 | 0.32 | 10/10/2020 | 3/7/2020 |
| Totals (Months) | 2 | | | |

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

| Soil Hauling Emissions | | User Override of Miles/Round Trip | Program Estimate of Miles/Round Trip | User Override of Truck Round Trips/Day | Default Values Round Trips/Day | Calculated Daily VMT | | | | | |
|---|--|--------------------------------------|---|---|-----------------------------------|-------------------------|------|----------|------|------|----------|
| User Input | | | | | | | | | | | |
| Miles/round trip: Grubbing/Land Clearing | | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Grading/Excavation | | 30.00 | | | 71 | 2130.00 | | | | | |
| Miles/round trip: Drainage/Utilities/Sub-Grade | | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Paving | | | | | 0 | 0.00 | | | | | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Draining/Utilities/Sub-Grade (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grubbing/Land Clearing (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Draining/Utilities/Sub-Grade (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Grading/Excavation | | 0.20 | 1.97 | 14.73 | 0.52 | 0.23 | 0.08 | 8,460.77 | 0.01 | 1.33 | 8,857.31 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.03 | 0.25 | 0.01 | 0.00 | 0.00 | 145.04 | 0.00 | 0.02 | 151.84 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | | 0.00 | 0.03 | 0.25 | 0.01 | 0.00 | 0.00 | 145.04 | 0.00 | 0.02 | 151.84 |

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

| Asphalt Hauling Emissions | | | | | | | | | | |
|---|-----------------------------------|--------------------------------------|--|--------------------------------|----------------------|------|----------|------|------|----------|
| User Input | User Override of Miles/Round Trip | Program Estimate of Miles/Round Trip | User Override of Truck Round Trips/Day | Default Values Round Trips/Day | Calculated Daily VMT | | | | | |
| Miles/round trip: Grubbing/Land Clearing | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Grading/Excavation | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Drainage/Utilities/Sub-Grade | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Paving | | | | 0 | 0.00 | | | | | |
| Emission Rates | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Draining/Utilities/Sub-Grade (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grubbing/Land Clearing (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Draining/Utilities/Sub-Grade (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emissions | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grubbing/Land Clearing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Grading/Excavation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grading/Excavation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Drainage/Utilities/Sub-Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Note: Worker commute default values can be overridden in cells D121 through D126.

| User Input | Worker Commute Emissions | | User Override of Worker Commute Default Values | | Default Values | | | | | | |
|---|--|------|--|------|------------------------|----------------------|------|--------|------|------|--------|
| | Miles/ one-way trip | 15 | | | Calculated Daily Trips | Calculated Daily VMT | | | | | |
| | One-way trips/day | 2 | | | | | | | | | |
| | No. of employees: Grubbing/Land Clearing | 10 | | | 20 | 300.00 | | | | | |
| | No. of employees: Grading/Excavation | 10 | | | 20 | 300.00 | | | | | |
| | No. of employees: Drainage/Utilities/Sub-Grade | 10 | | | 20 | 300.00 | | | | | |
| | No. of employees: Paving | | | | 0 | 0.00 | | | | | |
| | | | | | | | | | | | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Grading/Excavation (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Draining/Utilities/Sub-Grade (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Paving (grams/mile) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grubbing/Land Clearing (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Grading/Excavation (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Draining/Utilities/Sub-Grade (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Paving (grams/trip) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.07 | 0.94 | 0.09 | 0.03 | 0.01 | 0.00 | 235.39 | 0.01 | 0.01 | 237.81 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 1.82 | 0.00 | 0.00 | 1.83 |
| Pounds per day - Grading/Excavation | | 0.07 | 0.94 | 0.09 | 0.03 | 0.01 | 0.00 | 235.39 | 0.01 | 0.01 | 237.81 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 4.04 | 0.00 | 0.00 | 4.08 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.07 | 0.94 | 0.09 | 0.03 | 0.01 | 0.00 | 235.39 | 0.01 | 0.01 | 237.81 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 | 0.51 |
| Pounds per day - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 6.36 | 0.00 | 0.00 | 6.42 |

**Road Construction Emissions Model
Output Report for
Phases 4, 5, and 6**

Road Construction Emissions Model, Version 9.0.0

| Daily Emission Estimates for -> RD 10 Toe Access Corridor Phases 4, 5, and 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------|-----------------------|-------------------------|---------------------------|---------------------------------|--------------------------|----------------------------|----------------------------------|------------------|------------------|------------------|------------------|-----------------|-------|---|--|-----------------------|--|--|--|------|---------|--------------|-----------------|----------------|-------------|------------------------|---|---|---|---|-----|----|--------------------|---|---|---|---|----|----|------------------------------|---|---|---|---|----|----|--------|---|---|---|---|---|---|
| Project Phases (Pounds) | ROG (lbs/day) | CO (lbs/day) | NOx (lbs/day) | Total PM10 (lbs/day) | Exhaust PM10 (lbs/day) | Fugitive Dust PM10 (lbs/day) | Total PM2.5 (lbs/day) | Exhaust PM2.5 (lbs/day) | Fugitive Dust PM2.5 (lbs/day) | SOx (lbs/day) | CO2 (lbs/day) | CH4 (lbs/day) | N2O (lbs/day) | CO2e (lbs/day) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grubbing/Land Clearing | 0.16 | 1.13 | 1.19 | 1.79 | 0.06 | 1.73 | 0.40 | 0.04 | 0.36 | 0.00 | 454.65 | 0.01 | 0.04 | 467.53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grading/Excavation | 0.02 | 0.24 | 0.45 | 1.75 | 0.02 | 1.73 | 0.37 | 0.01 | 0.36 | 0.00 | 285.41 | 0.00 | 0.04 | 297.06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drainage/Utilities/Sub-Grade | 0.02 | 0.24 | 0.45 | 1.75 | 0.02 | 1.73 | 0.37 | 0.01 | 0.36 | 0.00 | 285.41 | 0.00 | 0.04 | 297.06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum (pounds/day) | 0.16 | 1.13 | 1.19 | 1.79 | 0.06 | 1.73 | 0.40 | 0.04 | 0.36 | 0.00 | 454.65 | 0.01 | 0.04 | 467.53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (tons/construction project) | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 3.46 | 0.00 | 0.00 | 3.57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div>Notes:Project Start Year -> 2020Project Length (months) -> 1Total Project Area (acres) -> 2Maximum Area Disturbed/Day (acres) -> 0Water Truck Used? -> Yes</div> <table><tr><th rowspan="2">Phase</th><th colspan="2">Total Material Imported/Exported Volume (yd³/day)</th><th colspan="4">Daily VMT (miles/day)</th></tr><tr><th>Soil</th><th>Asphalt</th><th>Soil Hauling</th><th>Asphalt Hauling</th><th>Worker Commute</th><th>Water Truck</th></tr><tr><td>Grubbing/Land Clearing</td><td>0</td><td>0</td><td>0</td><td>0</td><td>150</td><td>60</td></tr><tr><td>Grading/Excavation</td><td>0</td><td>0</td><td>0</td><td>0</td><td>60</td><td>60</td></tr><tr><td>Drainage/Utilities/Sub-Grade</td><td>0</td><td>0</td><td>0</td><td>0</td><td>60</td><td>60</td></tr><tr><td>Paving</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> | | | | | | | | | | | | | | | Phase | Total Material Imported/Exported Volume (yd³/day) | | Daily VMT (miles/day) | | | | Soil | Asphalt | Soil Hauling | Asphalt Hauling | Worker Commute | Water Truck | Grubbing/Land Clearing | 0 | 0 | 0 | 0 | 150 | 60 | Grading/Excavation | 0 | 0 | 0 | 0 | 60 | 60 | Drainage/Utilities/Sub-Grade | 0 | 0 | 0 | 0 | 60 | 60 | Paving | 0 | 0 | 0 | 0 | 0 | 0 |
| Phase | Total Material Imported/Exported Volume (yd³/day) | | Daily VMT (miles/day) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Soil | Asphalt | Soil Hauling | Asphalt Hauling | Worker Commute | Water Truck | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grubbing/Land Clearing | 0 | 0 | 0 | 0 | 150 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grading/Excavation | 0 | 0 | 0 | 0 | 60 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drainage/Utilities/Sub-Grade | 0 | 0 | 0 | 0 | 60 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paving | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Emission Estimates by Phase for -> RD 10 Toe Access Corridor Phases 4, 5, and 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Phases (Tons for all except CO2e. Metric tonnes for CO2e) | ROG (tons/phase) | CO (tons/phase) | NOx (tons/phase) | Total PM10 (tons/phase) | Exhaust PM10 (tons/phase) | Fugitive Dust PM10 (tons/phase) | Total PM2.5 (tons/phase) | Exhaust PM2.5 (tons/phase) | Fugitive Dust PM2.5 (tons/phase) | SOx (tons/phase) | CO2 (tons/phase) | CH4 (tons/phase) | N2O (tons/phase) | CO2e (MT/phase) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grubbing/Land Clearing | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 2.73 | 0.00 | 0.00 | 2.54 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grading/Excavation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.49 | 0.00 | 0.00 | 0.46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drainage/Utilities/Sub-Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 | 0.23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum (tons/phase) | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 2.73 | 0.00 | 0.00 | 2.54 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (tons/construction project) | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 3.46 | 0.00 | 0.00 | 3.24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The CO2e emissions are reported as metric tons per phase. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Road Construction Emissions Model
Selected Data Entry Screens for
Phases 4, 5, and 6**

Road Construction Emissions Model Data Entry Worksheet

Note: Required data input sections have a yellow background.

Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.

The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.

Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.



Input Type

| RD 10 Toe Access Corridor Phases 4, 5, and 6 | |
|---|--|
| Project Name | |
| Construction Start Year | <div>2020</div> <div>Enter a Year between 2014 and 2040 (inclusive)</div> |
| Project Type | <div>4</div> <div> 1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction </div> |
| Project Construction Time | <div>0.75</div> <div>months</div> |
| Working Days per Month | <div>25.71</div> <div>days (assume 22 if unknown)</div> |
| Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22) | <div>2</div> <div> 1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta) </div> |
| Project Length | <div>2.00</div> <div>miles</div> |
| Total Project Area | <div>2.42</div> <div>acres</div> |
| Maximum Area Disturbed/Day | <div>0.17</div> <div>acres</div> |
| Water Trucks Used? | <div>1</div> <div> 1. Yes 2. No </div> |

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionseries

Material Hauling Quantity Input

| Material Type | Phase | Haul Truck Capacity (yd ³) (assume 20 if unknown) | Import Volume (yd ³ /day) | Export Volume (yd ³ /day) |
|---------------|------------------------------|---|--------------------------------------|--------------------------------------|
| Soil | Grubbing/Land Clearing | | | |
| | Grading/Excavation | | | |
| | Drainage/Utilities/Sub-Grade | | | |
| | Paving | | | |
| Asphalt | Grubbing/Land Clearing | | | |
| | Grading/Excavation | | | |
| | Drainage/Utilities/Sub-Grade | | | |
| | Paving | | | |

Mitigation Options

| | |
|---|--|
| On-road Fleet Emissions Mitigation | |
| Off-road Equipment Emissions Mitigation | |

Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer

Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (<http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation>).

Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

| Construction Periods | User Override of Construction Months | Program Calculated Months | User Override of Phase Starting Date | Program Default Phase Starting Date |
|------------------------------|---|---------------------------------|---|---|
| Grubbing/Land Clearing | 0.47 | 0.08 | 9/1/2020 | 1/1/2020 |
| Grading/Excavation | 0.13 | 0.34 | 9/18/2020 | 1/16/2020 |
| Drainage/Utilities/Sub-Grade | 0.07 | 0.23 | 10/1/2020 | 1/21/2020 |
| Paving | | 0.11 | | 1/24/2020 |
| Totals (Months) | 1 | | Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used. | |

Please note: You have entered a different number of months than the project length shown in cell D16.

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

| Soil Hauling Emissions | | User Override of Miles/Round Trip | Program Estimate of Miles/Round Trip | User Override of Truck Round Trips/Day | Default Values Round Trips/Day | Calculated Daily VMT | | | | | |
|---|--|--------------------------------------|---|---|-----------------------------------|-------------------------|------|----------|------|------|----------|
| User Input | | | | | | | | | | | |
| Miles/round trip: Grubbing/Land Clearing | | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Grading/Excavation | | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Drainage/Utilities/Sub-Grade | | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Paving | | | | | 0 | 0.00 | | | | | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Draining/Utilities/Sub-Grade (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grubbing/Land Clearing (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Draining/Utilities/Sub-Grade (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Grading/Excavation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

| Asphalt Hauling Emissions | | | | | | | | | | |
|---|-----------------------------------|--------------------------------------|--|--------------------------------|----------------------|------|----------|------|------|----------|
| User Input | User Override of Miles/Round Trip | Program Estimate of Miles/Round Trip | User Override of Truck Round Trips/Day | Default Values Round Trips/Day | Calculated Daily VMT | | | | | |
| Miles/round trip: Grubbing/Land Clearing | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Grading/Excavation | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Drainage/Utilities/Sub-Grade | | | | 0 | 0.00 | | | | | |
| Miles/round trip: Paving | | | | 0 | 0.00 | | | | | |
| Emission Rates | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Draining/Utilities/Sub-Grade (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grubbing/Land Clearing (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Draining/Utilities/Sub-Grade (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emissions | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grubbing/Land Clearing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Grading/Excavation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grading/Excavation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Drainage/Utilities/Sub-Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Note: Worker commute default values can be overridden in cells D121 through D126.

| User Input | Worker Commute Emissions | | User Override of Worker Commute Default Values | | Default Values | | | | | | |
|---|--|------|--|------|------------------------|----------------------|--------|------|------|--------|--|
| | Miles/ one-way trip | 15 | | | Calculated Daily Trips | Calculated Daily VMT | | | | | |
| | One-way trips/day | 2 | | | | | | | | | |
| | No. of employees: Grubbing/Land Clearing | 5 | | | 10 | 150.00 | | | | | |
| | No. of employees: Grading/Excavation | 2 | | | 4 | 60.00 | | | | | |
| | No. of employees: Drainage/Utilities/Sub-Grade | 2 | | | 4 | 60.00 | | | | | |
| | No. of employees: Paving | | | | 0 | 0.00 | | | | | |
| | | | | | | | | | | | |
| Emission Rates | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
| Grubbing/Land Clearing (grams/mile) | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 | |
| Grading/Excavation (grams/mile) | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 | |
| Draining/Utilities/Sub-Grade (grams/mile) | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 | |
| Paving (grams/mile) | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 | |
| Grubbing/Land Clearing (grams/trip) | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 | |
| Grading/Excavation (grams/trip) | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 | |
| Draining/Utilities/Sub-Grade (grams/trip) | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 | |
| Paving (grams/trip) | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 | |
| Emissions | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
| Pounds per day - Grubbing/Land Clearing | 0.04 | 0.47 | 0.05 | 0.02 | 0.01 | 0.00 | 117.70 | 0.00 | 0.00 | 118.90 | |
| Tons per const. Period - Grubbing/Land Clearing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.71 | 0.00 | 0.00 | 0.71 | |
| Pounds per day - Grading/Excavation | 0.01 | 0.19 | 0.02 | 0.01 | 0.00 | 0.00 | 47.08 | 0.00 | 0.00 | 47.56 | |
| Tons per const. Period - Grading/Excavation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.08 | |
| Pounds per day - Drainage/Utilities/Sub-Grade | 0.01 | 0.19 | 0.02 | 0.01 | 0.00 | 0.00 | 47.08 | 0.00 | 0.00 | 47.56 | |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.04 | |
| Pounds per day - Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Tons per const. Period - Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Total tons per construction project | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.83 | 0.00 | 0.00 | 0.84 | |

Appendix B. Biological Resources Information

California Natural Diversity Database Plant and Animal Species Lists

California Native Plant Society Species List

U.S. Fish and Wildlife Service Resources List

California Natural Diversity Database Plant and Animal Species Lists



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS > (Biggs (3912146)> OR > Palermo (3912145)> OR > Bangor (3912144)> OR > Gridley (3912136)> OR > Honcut (3912135)> OR > Loma Rica (3912134)> OR > Sutter (3912126)> OR > Yuba City (3912125)> OR > Browns Valley (3912124)> OR > Gilsizer Slough (3912116)> OR > Olivehurst (3912115)> OR > Wheatland (3912114))
AND Taxonomic Group> IS > (Fish> OR > Amphibians> OR > Reptiles> OR > Birds> OR > Mammals> OR > Mollusks> OR > Arachnids> OR > Crustaceans> OR > Insects)

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--|--------------|----------------|--------------|-------------|------------|--------------------------------|
| <i>Agelaius tricolor</i> tricolored blackbird | ABPBXB0020 | None | Threatened | G2G3 | S1S2 | SSC |
| <i>Antigone canadensis tabida</i> greater sandhill crane | ABNMK01014 | None | Threatened | G5T4 | S2 | FP |
| <i>Athene cunicularia</i> burrowing owl | ABNSB10010 | None | None | G4 | S3 | SSC |
| <i>Branchinecta lynchi</i> vernal pool fairy shrimp | ICBRA03030 | Threatened | None | G3 | S3 | |
| <i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose | ABNJB05035 | Delisted | None | G5T3 | S3 | WL |
| <i>Buteo swainsoni</i> Swainson's hawk | ABNKC19070 | None | Threatened | G5 | S3 | |
| <i>Circus hudsonius</i> northern harrier | ABNKC11011 | None | None | G5 | S3 | SSC |
| <i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo | ABNRB02022 | Threatened | Endangered | G5T2T3 | S1 | |
| <i>Corynorhinus townsendii</i> Townsend's big-eared bat | AMACC08010 | None | None | G3G4 | S2 | SSC |
| <i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle | IICOL48011 | Threatened | None | G3T2 | S2 | |
| <i>Elanus leucurus</i> white-tailed kite | ABNKC06010 | None | None | G5 | S3S4 | FP |
| <i>Emys marmorata</i> western pond turtle | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| <i>Erethizon dorsatum</i> North American porcupine | AMAFJ01010 | None | None | G5 | S3 | |
| <i>Eumops perotis californicus</i> western mastiff bat | AMACD02011 | None | None | G5T4 | S3S4 | SSC |
| <i>Haliaeetus leucocephalus</i> bald eagle | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| <i>Lasionycteris noctivagans</i> silver-haired bat | AMACC02010 | None | None | G5 | S3S4 | |
| <i>Laterallus jamaicensis coturniculus</i> California black rail | ABNME03041 | None | Threatened | G3G4T1 | S1 | FP |



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| <i>Lepidurus packardii</i> vernal pool tadpole shrimp | ICBRA10010 | Endangered | None | G4 | S3S4 | |
| <i>Linderiella occidentalis</i> California linderiella | ICBRA06010 | None | None | G2G3 | S2S3 | |
| <i>Melospiza melodia</i> song sparrow ("Modesto" population) | ABPBXA3010 | None | None | G5 | S3? | SSC |
| <i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS | AFCHA0209K | Threatened | None | G5T2Q | S2 | |
| <i>Oncorhynchus tshawytscha pop. 6</i> chinook salmon - Central Valley spring-run ESU | AFCHA0205A | Threatened | Threatened | G5 | S1 | |
| <i>Rana boylei</i> foothill yellow-legged frog | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| <i>Riparia riparia</i> bank swallow | ABPAU08010 | None | Threatened | G5 | S2 | |
| <i>Spea hammondi</i> western spadefoot | AAABF02020 | None | None | G3 | S3 | SSC |
| <i>Thamnophis gigas</i> giant gartersnake | ARADB36150 | Threatened | Threatened | G2 | S2 | |
| <i>Vireo bellii pusillus</i> least Bell's vireo | ABPBW01114 | Endangered | Endangered | G5T2 | S2 | |

Record Count: 27



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Biggs (3912146) OR Palermo (3912145) OR Bangor (3912144) OR Gridley (3912136) OR Honcut (3912135) OR Loma Rica (3912134) OR Sutter (3912126) OR Yuba City (3912125) OR Browns Valley (3912124) OR Gilsizer Slough (3912116) OR Olivehurst (3912115) OR Wheatland (3912114))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| <i>Astragalus tener</i> var. <i>ferrisiae</i> Ferris' milk-vetch | PDFAB0F8R3 | None | None | G2T1 | S1 | 1B.1 |
| <i>Clarkia biloba</i> ssp. <i>brandegeae</i> Brandegee's clarkia | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| <i>Delphinium recurvatum</i> recurved larkspur | PDRAN0B1J0 | None | None | G2? | S2? | 1B.2 |
| <i>Downingia pusilla</i> dwarf downingia | PDCAM060C0 | None | None | GU | S2 | 2B.2 |
| <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow | PDMAL0H0R3 | None | None | G5T3 | S3 | 1B.2 |
| <i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush | PMJUN011L1 | None | None | G2T1 | S1 | 1B.2 |
| <i>Legenere limosa</i> legenere | PDCAM0C010 | None | None | G2 | S2 | 1B.1 |
| <i>Monardella venosa</i> veiny monardella | PDLAM18082 | None | None | G1 | S1 | 1B.1 |
| <i>Navarretia leucocephala</i> ssp. <i>bakeri</i> Baker's navarretia | PDPLM0C0E1 | None | None | G4T2 | S2 | 1B.1 |
| <i>Orcuttia tenuis</i> slender Orcutt grass | PMPOA4G050 | Threatened | Endangered | G2 | S2 | 1B.1 |
| <i>Paronychia ahartii</i> Ahart's paronychia | PDCAR0L0V0 | None | None | G3 | S3 | 1B.1 |
| <i>Pseudobahia bahiifolia</i> Hartweg's golden sunburst | PDAST7P010 | Endangered | Endangered | G1 | S1 | 1B.1 |
| <i>Sagittaria sanfordii</i> Sanford's arrowhead | PMALI040Q0 | None | None | G3 | S3 | 1B.2 |
| <i>Tuctoria greenei</i> Greene's tuctoria | PMPOA6N010 | Endangered | Rare | G1 | S1 | 1B.1 |

Record Count: 14

California Native Plant Society Species List

*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

26 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 3912136, 3912135, 3912134, 3912144, 3912145, 3912146, 3912126, 3912125, 3912124, 3912116, 3912115 and 3912114;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

| Scientific Name | Common Name | Family | Lifeform | Blooming Period | CA Rare Plant Rank | State Rank | Global Rank |
|--|-----------------------------|---------------|---------------------------------------|-----------------|--------------------|------------|-------------|
| Astragalus pauperculus | depauperate milk-vetch | Fabaceae | annual herb | Mar-Jun | 4.3 | S4 | G4 |
| Astragalus tener var. ferrisiae | Ferris' milk-vetch | Fabaceae | annual herb | Apr-May | 1B.1 | S1 | G2T1 |
| Azolla microphylla | Mexican mosquito fern | Azollaceae | annual / perennial herb | Aug | 4.2 | S4 | G5 |
| Brodiaea rosea ssp. vallicola | valley brodiaea | Themidaceae | perennial bulbiferous herb | Apr-May(Jun) | 4.2 | S3 | G5T3 |
| Brodiaea sierrae | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | 4.3 | S3 | G3 |
| Calycadenia oppositifolia | Butte County calycadenia | Asteraceae | annual herb | Apr-Jul | 4.2 | S3 | G3 |
| Clarkia biloba ssp. brandegeae | Brandegee's clarkia | Onagraceae | annual herb | May-Jul | 4.2 | S4 | G4G5T4 |
| Cryptantha rostellata | red-stemmed cryptantha | Boraginaceae | annual herb | Apr-Jun | 4.2 | S3 | G4 |
| Delphinium recurvatum | recurved larkspur | Ranunculaceae | perennial herb | Mar-Jun | 1B.2 | S2? | G2? |
| Downingia pusilla | dwarf downingia | Campanulaceae | annual herb | Mar-May | 2B.2 | S2 | GU |
| Erythranthe glaucescens | shield-bracted monkeyflower | Phrymaceae | annual herb | Feb-Aug(Sep) | 4.3 | S3S4 | G3G4 |
| Hibiscus lasiocarpus var. occidentalis | woolly rose-mallow | Malvaceae | perennial rhizomatous herb (emergent) | Jun-Sep | 1B.2 | S3 | G5T3 |
| Juncus leiospermus var. ahartii | Ahart's dwarf rush | Juncaceae | annual herb | Mar-May | 1B.2 | S1 | G2T1 |
| Juncus leiospermus var. leiospermus | Red Bluff dwarf rush | Juncaceae | annual herb | Mar-Jun | 1B.1 | S2 | G2T2 |
| Legenere limosa | legenere | Campanulaceae | annual herb | Apr-Jun | 1B.1 | S2 | G2 |
| Limnanthes floccosa ssp. floccosa | woolly meadowfoam | Limnanthaceae | annual herb | Mar-May(Jun) | 4.2 | S3 | G4T4 |

| | | | | | | | |
|--|---------------------------|-----------------|---------------------------------------|--------------|------|----|------|
| <u>Monardella venosa</u> | veiny monardella | Lamiaceae | annual herb | May-Jul | 1B.1 | S1 | G1 |
| <u>Navarretia leucocephala ssp. bakeri</u> | Baker's navarretia | Polemoniaceae | annual herb | Apr-Jul | 1B.1 | S2 | G4T2 |
| <u>Navarretia nigelliformis ssp. nigelliformis</u> | adobe navarretia | Polemoniaceae | annual herb | Apr-Jun | 4.2 | S3 | G4T3 |
| <u>Orcuttia tenuis</u> | slender Orcutt grass | Poaceae | annual herb | May-Sep(Oct) | 1B.1 | S2 | G2 |
| <u>Paronychia ahartii</u> | Ahart's paronychia | Caryophyllaceae | annual herb | Feb-Jun | 1B.1 | S3 | G3 |
| <u>Plagiobryoides vinosula</u> | wine-colored tufa moss | Bryaceae | moss | | 4.2 | S2 | G3G4 |
| <u>Pseudobahia bahiifolia</u> | Hartweg's golden sunburst | Asteraceae | annual herb | Mar-Apr | 1B.1 | S2 | G2 |
| <u>Sagittaria sanfordii</u> | Sanford's arrowhead | Alismataceae | perennial rhizomatous herb (emergent) | May-Oct(Nov) | 1B.2 | S3 | G3 |
| <u>Trichocoronis wrightii var. wrightii</u> | Wright's trichocoronis | Asteraceae | annual herb | May-Sep | 2B.1 | S1 | G4T3 |
| <u>Tuctoria greenei</u> | Greene's tuctoria | Poaceae | annual herb | May-Jul(Sep) | 1B.1 | S1 | G1 |

Suggested Citation

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[California Natural Diversity Database](#)

[The Jepson Flora Project](#)

[The Consortium of California Herbaria](#)

[CalPhotos](#)

Questions and Comments

rareplants@cnps.org

U.S. Fish and Wildlife Service Resources List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME

Reclamation District 10 Toe Access Corridor

LOCATION

Sutter and Yuba counties, California




DESCRIPTION

The project includes constructing an elevated, all-weather access road at the landside toe of the Feather River East Levee, for patrol and maintenance purposes.

Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME

STATUS

Yellow-billed Cuckoo *Coccyzus americanus*

Threatened

There is **proposed** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/3911>

Reptiles

NAME

STATUS

Giant Garter Snake *Thamnophis gigas*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4482>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Insects

NAME

STATUS

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/8246>

Vernal Pool Fairy Shrimp *Branchinecta lynchi***Threatened**

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Vernal Pool Tadpole Shrimp *Lepidurus packardii***Endangered**

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2246>

Flowering Plants

| NAME | STATUS |
|--|-------------------|
| Hartweg's Golden Sunburst <i>Pseudobahia bahiifolia</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1704 | Endangered |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Dec 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Long-billed Curlew *Numenius americanus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5511>

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Nuttall's Woodpecker *Picoides nuttallii*

Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Rufous Hummingbird *Selasphorus rufus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Song Sparrow *Melospiza melodia*

Breeds Feb 20 to Sep 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee *Pipilo maculatus clementae*

Breeds Apr 15 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/4243>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

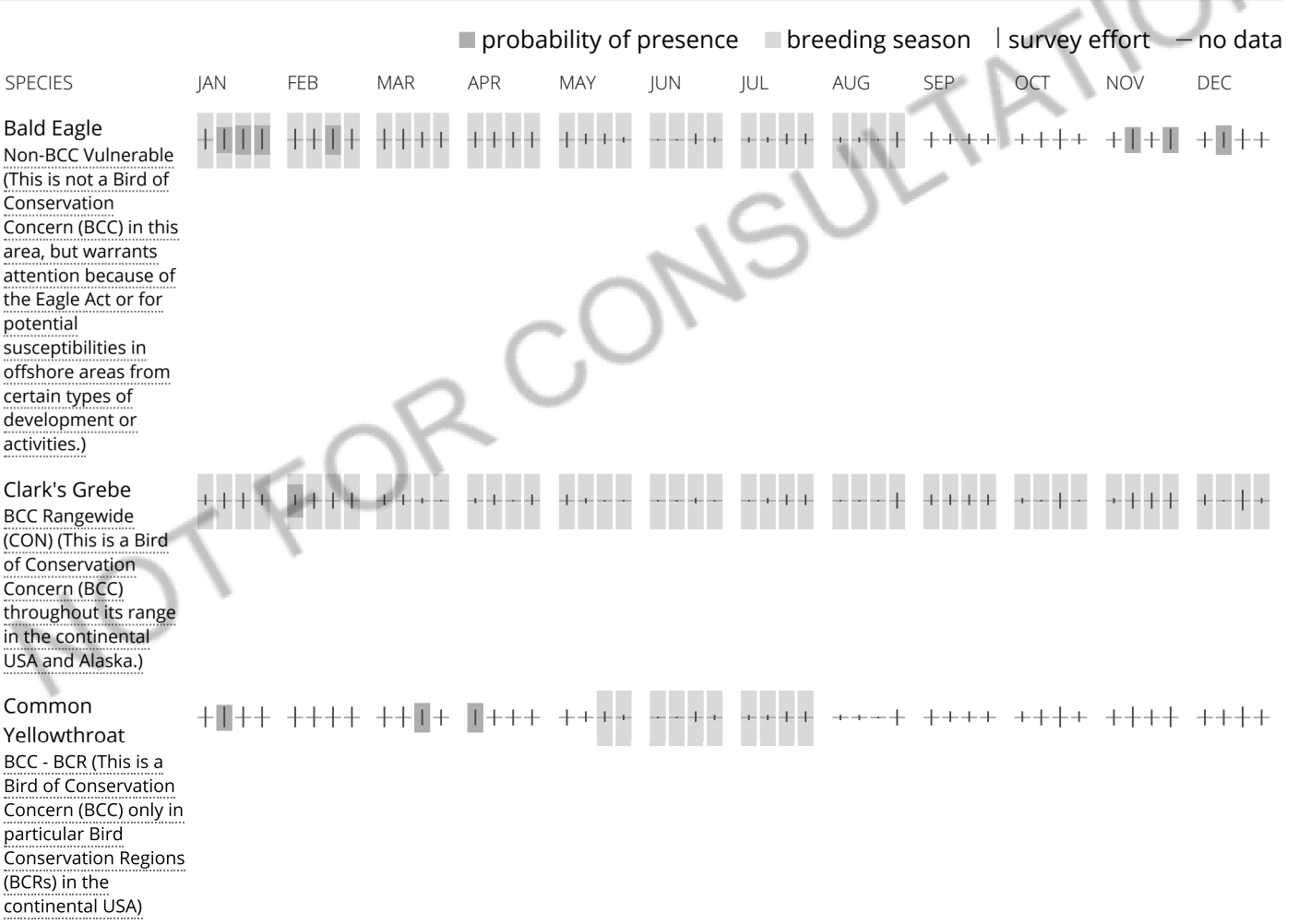
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

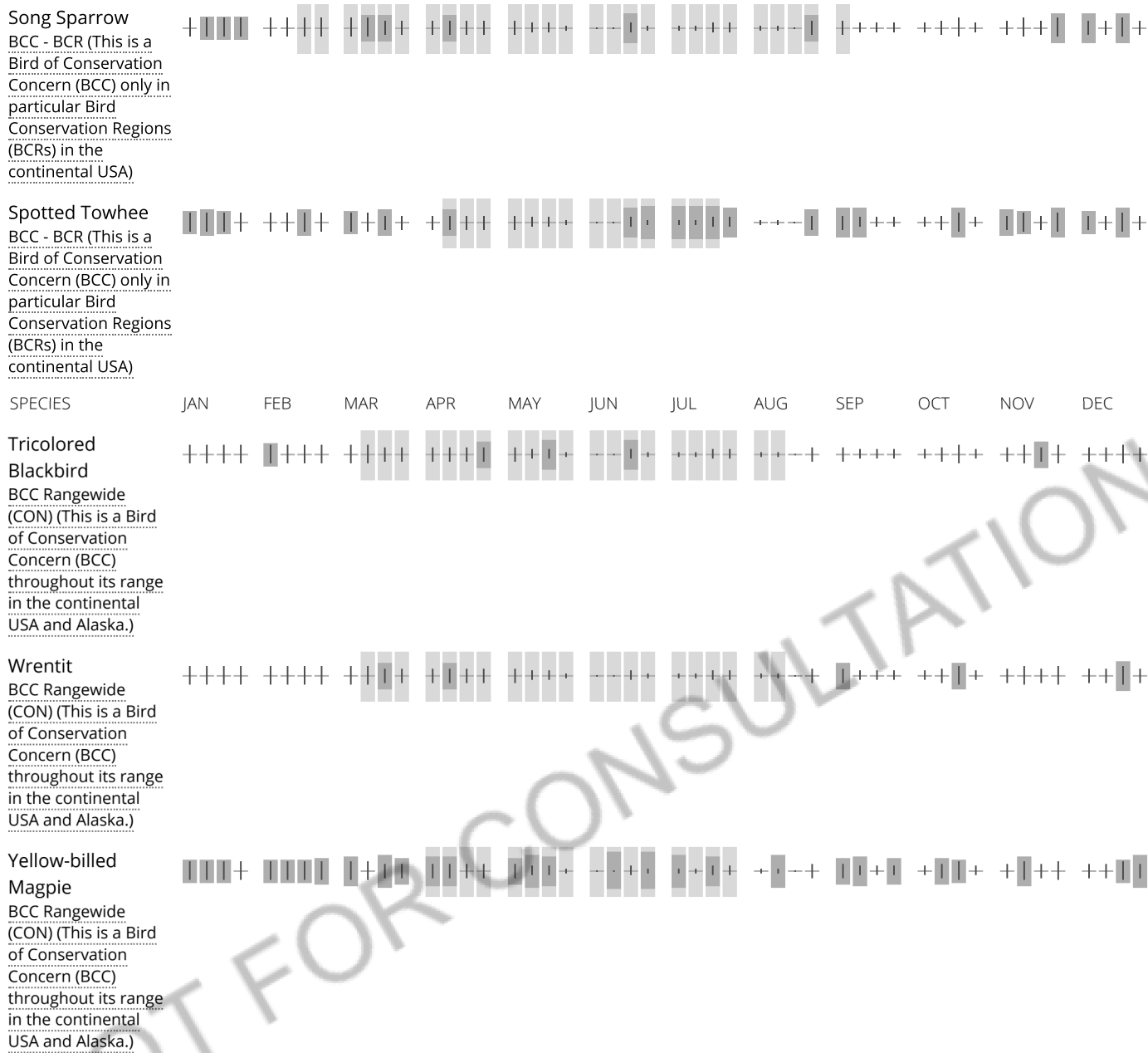
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



FOR CONSULTATION



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project

intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

Palustrine

RIVERINE

Riverine

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

National Marine Fisheries Service Species Lists

National Marine Fisheries Service – Species Lists

Quad Name **Honcut**

Quad Number **39121-C5**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat - **X**
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - **X**
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH -



Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

Quad Name **Yuba City**

Quad Number **39121-B5**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) - **X**

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat - **X**

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH -



Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

Appendix C. Tribal Consultation

Native American Heritage Commission Correspondence



NATIVE AMERICAN HERITAGE COMMISSION

March 19, 2020

Jesse Martinez

GEI Consultants

Via Email to: jmartinez@geiconsultants.com

Cc: bguth@auburnrancheria.com

CHAIRPERSON

Laura Miranda

Luiseño

VICE CHAIRPERSON

Reginald Pagaling

Chumash

SECRETARY

Merri Lopez-Keifer

Luiseño

PARLIAMENTARIAN

Russell Attebery

Karuk

COMMISSIONER

Marshall McKay

Wintun

COMMISSIONER

William Mungary

Paiute/White Mountain

Apache

COMMISSIONER

Joseph Myers

Pomo

COMMISSIONER

Julie Tumamait-

Stenslie

Chumash

COMMISSIONER

[Vacant]

EXECUTIVE SECRETARY

Christina Snider

Pomo

NAHC HEADQUARTERS

1550 Harbor Boulevard

Suite 100

West Sacramento,

California 95691

(916) 373-3710

nahc@nahc.ca.gov

NAHC.ca.gov

Re: RD 10 Toe Access Corridor Project, Sutter County

Dear Mr. Martinez:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project.

The results were positive. Please contact the United Auburn Indian Community of the Auburn Rancheria on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez

Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Native American Contact List
Sutter County
3/19/2020**

Mechoopda Indian Tribe

Dennis Ramirez, Chairperson
125 Mission Ranch Blvd KonKow
Chico, CA, 95926 Maidu
Phone: (530) 899 - 8922
Fax: (530) 899-8517
dramirez@mechoopda-nsn.gov

***Mooretown Rancheria of Maidu
Indians***

Benjamin Clark, Chairperson
#1 Alverda Drive KonKow
Oroville, CA, 95966 Maidu
Phone: (530) 533 - 3625
Fax: (530) 533-3680
frontdesk@mooretown.org

***Mooretown Rancheria of Maidu
Indians***

Guy Taylor,
#1 Alverda Drive KonKow
Oroville, CA, 95966 Maidu
Phone: (530) 533 - 3625

***Pakan'yani Maidu of Strawberry
Valley Rancheria***

Tina Goodwin, Chairperson
P.O. Box 984 Maidu
Marysville, CA, 95901 Miwok
Phone: (617) 417 - 2166
tinagoodwin@washoetanf.org

***United Auburn Indian
Community of the Auburn
Rancheria***

Gene Whitehouse, Chairperson
10720 Indian Hill Road Maidu
Auburn, CA, 95603 Miwok
Phone: (530) 883 - 2390
Fax: (530) 883-2380
bguth@auburnrancheria.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed RD 10 Toe Access Corridor Project, Sutter County.

United Auburn Indian Community Correspondence

King, Anne

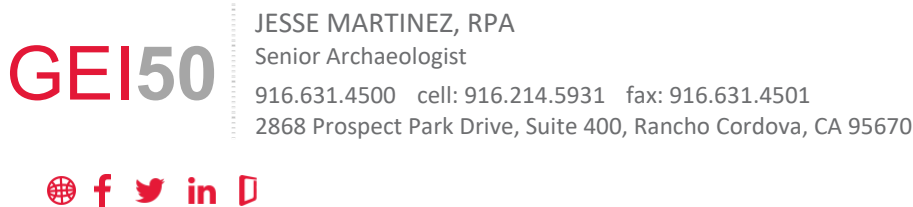
From: Martinez, Jesse
Sent: Thursday, March 26, 2020 11:23 AM
To: Melodi McAdams
Cc: King, Anne; Antonio Ruiz; Rebecca Allen; Travis Young; Anna Starkey
Subject: FW: RD 10 Toe Access Corridor Project

Hello Melodi,

The address for RD 10: **RD 10 – 9274 HWY 70 Marysville, CA 95901**

They are indeed very small. No real office. Addressing the correspondence simply to RD 10 is fine.

Take care,



From: King, Anne <aking@geiconsultants.com>
Sent: Thursday, March 26, 2020 7:24 AM
To: Martinez, Jesse <jmartinez@geiconsultants.com>
Subject: FW: RD 10 Toe Access Corridor Project

Hi Jesse – Here's the address:

RD 10 – 9274 HWY 70 Marysville, CA 95901

From: Melodi McAdams <mmcadams@auburnrancheria.com>
Sent: Tuesday, March 24, 2020 4:05 PM
To: Martinez, Jesse <jmartinez@geiconsultants.com>; Antonio Ruiz <aruiz@auburnrancheria.com>
Cc: King, Anne <aking@geiconsultants.com>; Anna Starkey <astarkey@auburnrancheria.com>; Travis Young <tyoung@auburnrancheria.com>; Rebecca Allen <rallen@auburnrancheria.com>
Subject: [EXT] RE: RD 10 Toe Access Corridor Project

Hi Jesse,

I reviewed our files. UAIC did not submit a request to RD 10 for AB 52 consultation on RD 10 projects because RD 10 is not in the list of public agencies that is maintained by the NAHC (posted at: <http://nahc.ca.gov/2020/01/2019-ca-lead-agency-list/>). We would like to correct this oversight and send them a letter, however RD 10 does not appear to maintain a website, and I am unable to find reliable contact information for them.

Can you please provide us with contact information for RD 10 or refer our request to your RD 10 contact?

Sincerely,

Melodi McAdams
Repatriation and Research Specialist
Tribal Historic Preservation Department
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603
(530) 328-1109 - office
(530) 401-7470 - cell

From: Melodi McAdams
Sent: Tuesday, March 24, 2020 3:46 PM
To: 'Martinez, Jesse' <jmartinez@geiconsultants.com>; Antonio Ruiz <aruiz@auburnrancheria.com>
Cc: King, Anne <aking@geiconsultants.com>; Anna Starkey <astarkey@auburnrancheria.com>; Travis Young <tyoung@auburnrancheria.com>; Rebecca Allen <rallen@auburnrancheria.com>
Subject: RE: RD 10 Toe Access Corridor Project

Hi Jesse,

Thank you for the update. UAIC had sent AB 52 letters to all agencies (as identified by the NAHC) within UAIC's ancestral territory. It is possible that RD 10 might not have been in the NAHC list, since they are a small agency. We will double check to see if a letter to them went out.

In interim, we would like to initiate consultation pursuant to CEQA and pursuant to CA PRC 5097.94 to 5097.97 (which identifies protections for sites on the NAHC Sacred Lands Inventory).

Sincerely,
Melodi McAdams
Repatriation and Research Specialist
Tribal Historic Preservation Department
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603
(530) 328-1109 - office
(530) 401-7470 - cell

From: Martinez, Jesse <jmartinez@geiconsultants.com>
Sent: Tuesday, March 24, 2020 2:20 PM
To: Melodi McAdams <mmcadams@auburnrancheria.com>; Antonio Ruiz <aruiz@auburnrancheria.com>
Cc: King, Anne <aking@geiconsultants.com>; Anna Starkey <astarkey@auburnrancheria.com>; Travis Young <tyoung@auburnrancheria.com>; Rebecca Allen <rallen@auburnrancheria.com>
Subject: RE: RD 10 Toe Access Corridor Project

Hello Melodi,
Thanks for the quick response. I've Cc'd my project manager on these emails.

FYI-no Tribes have sent RD 10 letters requesting AB 52 consultation on their projects.

Hope all is going well for all of you,



JESSE MARTINEZ, RPA
Senior Archaeologist

916.631.4500 cell: 916.214.5931 fax: 916.631.4501
2868 Prospect Park Drive, Suite 400, Rancho Cordova, CA 95670



From: Melodi McAdams <mmcadams@auburnrancheria.com>
Sent: Tuesday, March 24, 2020 1:31 PM
To: Martinez, Jesse <jmartinez@geiconsultants.com>; Antonio Ruiz <aruiz@auburnrancheria.com>
Cc: King, Anne <aking@geiconsultants.com>; Anna Starkey <astarkey@auburnrancheria.com>; Travis Young <tyoung@auburnrancheria.com>; Rebecca Allen <rallen@auburnrancheria.com>
Subject: [EXT] RE: RD 10 Toe Access Corridor Project

Hi Jesse,

Your project area overlaps with several known burial sites, and it is possible that the clearing and grubbing of the vegetation may expose burials, burial offerings or burial soils. Unfortunately, erosion has been a problem along the Feather River, and we have found that even small activities like grubbing can have substantial impacts to burials.

Please identify the CEQA lead for your project, we would like to initiate AB 52 consultation to coordinate appropriate mitigation measures for the avoidance of impacts to these sites, as well as formally identify the sites as TCRs, pursuant to AB 52.

Sincerely,
Melodi McAdams
Repatriation and Research Specialist
Tribal Historic Preservation Department
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603
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(530) 401-7470 - cell

From: Martinez, Jesse <jmartinez@geiconsultants.com>
Sent: Tuesday, March 24, 2020 12:16 PM
To: Antonio Ruiz <aruiz@auburnrancheria.com>
Cc: King, Anne <aking@geiconsultants.com>; Melodi McAdams <mmcadams@auburnrancheria.com>
Subject: RE: RD 10 Toe Access Corridor Project

Hello Antonio,

Please forward this to all appropriate personnel.

This is in regard to RD 10's Toe Access Corridor Project. We sent a request to the NAHC to search the SLF and the response came back positive for a Tribal cultural resource in the area. I've attached a brief project description and map.

In short, the project consists of building a 3-foot high access road from imported materials. There will be clearing and grubbing of vegetation along the 30-foot corridor of the project, one row of orchard trees will be taken out, two culvert pipes will be taken out and replaced, and the levee road will be used for access.

Please let us know if you have interest/concern in the project and require any additional information.

Thanks,

GEI50 JESSE MARTINEZ, RPA
Senior Archaeologist
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