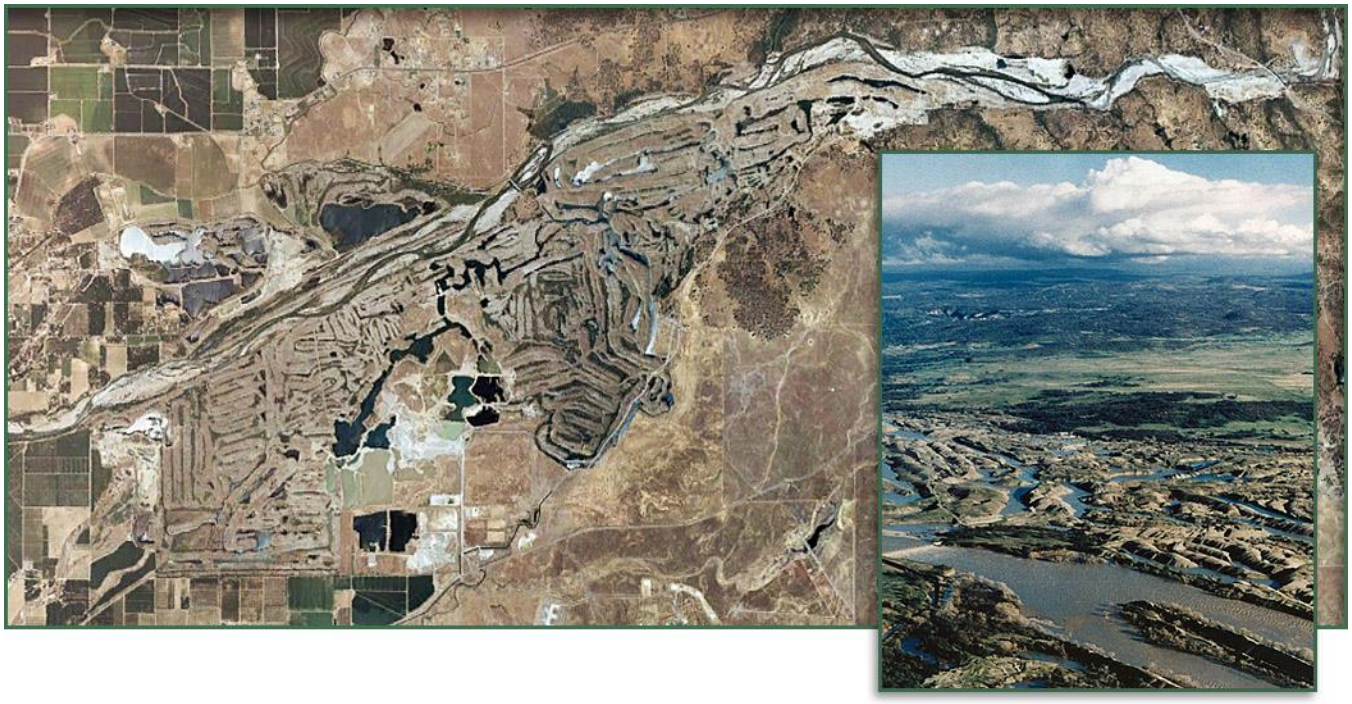
Public

Initial Study/Proposed Mitigated Negative Declaration

Yuba Goldfields 100-Year Flood Protection Project



Prepared for:

Three Rivers Levee Improvement Authority

AECOM

February 2014

Public
Initial Study/Proposed Mitigated Negative Declaration

Yuba Goldfields 100-Year Flood Protection Project

Prepared for:

Three Rivers Levee Improvement Authority
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Marysville, CA 95901

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February 2014

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Date: February 4, 2014

To: Interested Parties

From: Paul Brunner, P.E., Executive Director, Three Rivers Levee Improvement Authority

Subject: Notice of Availability and Intent to Consider Adoption of a Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project

Enclosed for your review is an Initial Study/proposed Mitigated Negative Declaration (IS/MND) evaluating the potential environmental effects of the proposed Yuba Goldfields 100-Year Flood Protection Project, which is located within the Goldfields along the south side of the Yuba River near Daguerre Point Dam, within the Browns Valley U.S. Geological Survey (USGS) 7.5-minute quadrangle in Yuba County. The Three Rivers Levee Improvement Authority (TRLIA) has prepared this IS/MND in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

The proposed project consists of constructing an embankment in the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles within the Goldfields. TRLIA intends to build the embankment using the Goldfields' existing dredge tailings, which may require an agreement with one or more private entities engaged in mining activities in the Goldfields.

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

The IS/MND is being circulated for public review and comment for a 30-day period beginning on February 5, 2014 and ending on March 6, 2014. The IS/MND may be reviewed at TRLIA's Web site, http://www.trlia.org/, and at the Yuba County Library, 303 Second Street, Marysville. For questions regarding the IS/MND and documents referenced in the IS/MND, contact Andrea Shephard, (916) 414-5800, andrea.shephard@aecom.com.

Please send written comments on the IS/MND to Paul Brunner, P.E., Executive Director, Three Rivers Levee Improvement Authority, 1114 Yuba Street, Suite 218, Marysville, CA 95901, fax (530) 749-6990. Comments may also be sent via e-mail to pbrunner@co.yuba.ca.us. For e-mailed comments, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's name and U.S. Postal Service mailing address. All written comments must be received by March 6, 2014.

TRLIA intends to consider adoption of the Mitigated Negative Declaration at its regularly scheduled board meeting on April 1, 2014, at 2:00 p.m. at the Yuba County Government Center Board Chambers at 915 Eighth Street, Marysville. This meeting is open to the public.

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PROPOSED MITIGATED NEGATIVE DECLARATION

Project: Yuba Goldfields 100-Year Flood Protection Project

Lead Agency: Three Rivers Levee Improvement Authority (TRLIA)

PROJECT DESCRIPTION

TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area.

The proposed project consists of constructing an embankment in the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles within the Goldfields. TRLIA intends to build the embankment using the Goldfields' existing dredge tailings, which may require an agreement with one or more private entities engaged in mining activities in the Goldfields.

FINDINGS

An initial study (IS) has been 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 have any significant adverse effects on the environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project would have no impacts on agriculture and forestry resources, mineral resources, population and housing, or public services.

2. The proposed project would have less-than-significant impacts on aesthetics, greenhouse gas emissions, land use and planning, noise, recreation, transportation/traffic, and utilities and service systems.

3. The proposed project would have potentially significant impacts on air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality, but mitigation measures are proposed to reduce these effects to less-than-significant levels.

   Following are the mitigation measures that would be implemented by TRLIA to avoid or minimize environmental impacts. Implementation of these mitigation measures would reduce the environmental impacts of the proposed project to a less-than-significant level.

   Mitigation Measure 3.3-1: Implement Feather River Air Quality Management District (FRAQMD) Standard Mitigation Measures.

   TRLIA and its construction contractor will implement the following measures required by FRAQMD:

   - *Develop and submit a fugitive dust control plan to FRAQMD.*

- *Control exhaust emissions from construction equipment, so that they do not exceed FRAQMD Regulation II, Rule 3.0, "Visible Emissions Limitations" (40% opacity or Ringelmann 2.0).*

- *Ensure that all construction equipment is properly tuned and maintained before and during all on-site operations.*

- *Limit idling time to 5 minutes. (State of California idling rule: commercial diesel vehicles—Title 13, Section 2485 of the California Code of Regulations [13 CCR 2485], effective 2/1/2005; off-road diesel vehicles—13 CCR 2449, effective 5/1/2008.)*

- *Use existing power sources (e.g., power poles) or clean fuel generators rather than temporary sources of power generation whenever possible.*

- *Register portable engines and portable engine-driven equipment units used at the same project worksite, with the exception of on-road and off-road motor vehicles, as required by the California Air Resources Board (ARB) Portable Equipment Registration Program.*

If the proposed project generates emissions that exceed the FRAQMD thresholds, then the proposed project must implement best-available mitigation measures to reduce the impact to a less-than-significant level. Because the unmitigated PM_{10} emissions would exceed the daily threshold of significance of 80 pounds per day, FRAQMD requires implementation of the following mitigation measures:

Mitigation Measure 3.3-1b: Implement Best-Available Mitigation Measures for the Construction Phase.

TRLIA and its construction contractor will ensure that the following applicable FRAQMD best-available mitigation measures for the construction phase are implemented during all project construction activities:

- *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered as needed to prevent visible emissions violations and off-site dust impacts.*

- *All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*

- *All vehicle speeds on unpaved roads will be limited to 15 miles per hour.*

- *A publicly visible sign will be posted at the project site within FRAQMD, with the telephone number and person to contact at FRAQMD regarding dust complaints. This person will respond and take corrective action within 48 hours. FRAQMD's phone number also will be visible, to ensure compliance with applicable regulations.*

- *All excavation, grading, and/or demolition activities will be suspended when average wind speeds exceed 20 miles per hour.*

- *The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time will be limited. Activities will be phased to reduce the amount of disturbed surfaces at any one time.*

- *All trucks and equipment, including their tires, will be washed off before leaving the site.*

- *Site accesses to a distance of 100 feet from the paved road will be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.*

- *Sandbags or other erosion control measures will be installed to prevent silt runoff to public roadways from sites with a slope greater than 1%.*

Mitigation Measure 3.4-1a: Develop and Implement Worker Environmental Awareness Program.

- *TRLIA will develop and implement a worker environmental awareness program (WEAP) in coordination with a qualified biologist, and all personnel involved in project implementation will be trained before starting work in the project area. The WEAP will include relevant identification, habitat, and life history information regarding the sensitive species and habitats on-site, and will provide relevant regulatory information to explain why the training is necessary. The WEAP will discuss appropriate avoidance and minimization measures for each species that has the potential to occur on the project site and will outline what to do and whom to contact if any protected species is encountered.*

Mitigation Measure 3.4-1b: Remove Riparian and Marsh Vegetation between September 16 and January 31 if Possible to Avoid Affecting Active Bird Nests.

- *TRLIA will attempt to time the removal of riparian and marsh vegetation to occur between September 16 and January 31, outside of the nesting season of special-status and migratory bird species. If all vegetation removal occurs at these times outside of the nesting season of special-status and migratory birds, no further mitigation for these species will be necessary. If vegetation cannot be removed outside of the nesting season, TRLIA will implement the additional measures outlined below.*

Mitigation Measure 3.4-1c: Conduct Surveys for Swainson's Hawk and Other Nesting Raptors and, if Found, Implement Avoidance Measures.

- *If project activity is scheduled to occur during the raptor nesting season (February 1–September 15), focused surveys for Swainson's hawk will be conducted in accordance with Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). Other raptors, including white-tailed kite and non-special-status raptors, will also be included because their nesting habitat is similar to that of Swainson's hawk.*

- *Surveys for raptors will be conducted by a qualified biologist before the start of project construction to identify active nests on the project site and in the vicinity. Surveys for Swainson's hawk nests will include all accessible areas of suitable nesting habitat located within 0.25 mile of the project site. Surveys for other raptors will include accessible suitable nesting habitat located within 500 feet of the areas where construction would occur. If no active nests are found, no further mitigation will be required.*

- *If active Swainson's hawk nests are located, TRLIA will maintain a buffer of 0.25 mile or consult with CDFW to determine appropriate buffers. If nests of other raptor species are found during the surveys, appropriate buffers will be established by a CDFW-authorized biologist to minimize impacts. No project activity will commence in the buffer area until a qualified biologist confirms that the nest is no longer active. The size of the buffers may be adjusted, depending on the project activity and stage of the nest, if a qualified biologist determines that activity within a reduced buffer would not be likely to adversely affect the adults or their young.*

Mitigation Measure 3.4-1d: Conduct Preconstruction Survey for Nesting Tricolored Blackbird if Vegetation will be Removed during the Nesting Season (March 15 to August 15) for the Species.

- *Within 30 days of project construction, a qualified biologist will conduct a focused survey for breeding tricolored blackbirds within suitable habitat on the project site. If no breeding tricolored blackbirds are found, the results of the survey will be documented in a memorandum to TRLIA and no further action will be necessary.*

- *If any breeding colony of tricolored blackbirds is documented, an appropriate buffer of up to 500 feet will be established around the colony, depending on site-specific conditions at the discretion of a qualified biologist, and any construction-related activities will be excluded from the buffer until the end of the breeding season.*

Mitigation Measure 3.4-1e: Conduct Preconstruction Nesting Bird Survey before Removal of Potential Nesting Habitat within the Nesting Season.

- *A qualified biologist will conduct a preconstruction survey no longer than 1 week before the removal of riparian vegetation and emergent marsh vegetation occurring within the nesting season (February 1–September 15) to avoid impacts on nesting birds. If an active nest is located during the preconstruction survey, an appropriate buffer will be determined by the biologist. The no-disturbance buffer will be observed until it has been determined that the nest is no longer active.*

Mitigation Measure 3.4-4: Minimize Impacts on Riparian Habitat during Construction and Replace Any Affected Riparian Habitat.

TRLIA will minimize impacts on riparian habitat during project construction whenever possible. This may be accomplished by placing protective construction fencing around areas of riparian vegetation to be preserved and including information about this sensitive community in the WEAP training described in Mitigation Measure 3.4-1a.

Mitigation Measure 3.4-1f: Implement Mitigation Measure 3.4-1a.

Mitigation Measure 3.4-1g: Avoid Impacts on Pacific Pond Turtle.

Within 15–30 days of construction, a qualified biologist retained by TRLIA will conduct a preconstruction survey to determine whether Pacific pond turtles are present within the aquatic habitat on the project site. Any turtle encountered on the project site will be relocated to an appropriate area within the Yuba Goldfields by a qualified biologist before the start of project construction.

Mitigation Measure 3.5-1: Immediately Halt Construction Activities if Cultural Resources are Encountered.

If archaeological resources are encountered during project-related ground-disturbing activities (e.g., unusual amounts of shell, midden, animal bone, bottle glass, ceramics, or structure/building remains), all work within 100 feet of the find shall cease until the find can be evaluated by a qualified archaeologist. If the archaeologist determines that the resources are significant, the archaeologist shall notify TRLIA and the resource shall be avoided if feasible.

Preservation in place is the preferred manner of mitigating impacts on an archaeological site and may be accomplished by planning construction to avoid archaeological sites, covering archaeological sites, or deeding a site into a permanent conservation easement. If avoidance is infeasible, a treatment plan that documents the research approach and methods for data recovery shall be prepared and implemented in consultation with TRLIA and with

appropriate Native American representatives if the resources are prehistoric or Native American in nature. Work may proceed on other parts of the project area while treatment is being carried out.

Mitigation Measure 3.5-2: Immediately Halt Construction Activities if Any Human Remains are Discovered.

TRLIA will follow the procedures for the treatment of discovered human remains that are contained in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all such activities within 75 feet of the find will be halted immediately and TRLIA or its designated representative will be notified. TRLIA will immediately notify the county coroner and a qualified professional archaeologist. 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, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). TRLIA's responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.9 of the California Public Resources Code. TRLIA or its appointed representative and the professional archaeologist will consult with a Most Likely Descendant (MLD) identified by the NAHC regarding the removal or preservation and avoidance of the remains, and will determine whether additional burials could be present in the vicinity.

Mitigation Measure 3.9-1: Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices.

TRLIA and its construction contractors will implement the following measures:

(1) During the development of grading permits and improvement plans, TRLIA will consult with Yuba County and the Central Valley RWQCB. The purpose of the consultation will be to acquire the regulatory approvals necessary to obtain either a statewide National Pollutant Discharge Elimination System stormwater permit for general construction activity from the State Water Resources Control Board, or obtain approval to complete construction under Order 5-00-107 and any other necessary site-specific waste discharge requirements or waivers under the Porter-Cologne Water Quality Control Act.

(2) TRLIA will prepare and implement the appropriate storm water pollution prevention plan (SWPPP) or storm water management plan (SWMP) to prevent and control pollution and to minimize and control runoff and erosion. The SWPPP or SWMP will identify the activities that may cause pollutant discharge (including sediment) during storms and the best management practices (BMPs) that will be employed to control pollutant discharge. Construction techniques that will be identified and implemented to reduce the potential for runoff may include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. In addition, the SWPPP or SWMP will include an erosion control plan and BMPs that specify the erosion and sedimentation control measures to be implemented, which may include silt fences, trench plugs, terraces, water bars, and seeding and mulching. The SWPPP or SWMP will also include a spill prevention, control, and countermeasure plan and applicable hazardous materials business plans, and will identify the types of materials used for equipment operation (including fuel and hydraulic fluids), and measures to prevent and materials available to clean up hazardous material and waste spills. The SWPPP or SWMP will also identify emergency procedures for responding to spills.

(3) The BMPs presented in either document shall be clearly identified and maintained in good working condition, with sufficient backup stock on-site during all site work and construction activities.

(4) The construction contractor will retain a copy of the approved SWPPP or SWMP on the construction site and modify it as necessary to suit specific site conditions through amendments approved by the Central Valley RWQCB.

Written comments regarding the IS/MND must be received by Thursday, March 6, 2014, and addressed to:

Paul Brunner
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901
Fax: (530) 749-6990
E-mail: PBrunner@co.yuba.ca.us

ADOPTION OF INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND APPROVAL OF INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Certification by Those Responsible for Preparation of This Document. Three Rivers Levee Improvement Authority has been responsible for the preparation of this proposed mitigated negative declaration and the incorporated initial study. I believe this document meets the requirements of the California Environmental Quality Act and provides an accurate description of the proposed project, and that the lead agency has the means and commitment to implement the project design measures that will assure the project does not have any significant, adverse effects on the environment. I recommend approval of this document.

_____ _____

Paul Brunner, Executive Director Date
Three Rivers Levee Improvement Authority

*(*To be signed upon completion of the public review process and preparation of a final project approval package including responses to comment, if any, on the environmental document and any necessary modifications to project design measures.)*

Approval of the Project by the Lead Agency. To meet Section 21082.1 of the California Environmental Quality Act, Three Rivers Levee Improvement Authority has independently reviewed and analyzed the initial study and proposed mitigated negative declaration for the proposed project and finds that the initial study and proposed mitigated negative declaration reflect the independent judgment of Three Rivers Levee Improvement Authority. The lead agency finds that the project design features will be implemented as stated in the mitigated negative declaration.

I hereby approve this project:

_____ _____

Paul Brunner, Executive Director Date
Three Rivers Levee Improvement Authority

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INITIAL STUDY

Yuba Goldfields 100-Year Flood Protection Project

1. Project Title	Yuba Goldfields 100-Year Flood Protection Project
2. Lead Agency Name and Address	Three Rivers Levee Improvement Authority 1114 Yuba Street, Suite 218 Marysville, CA 95901
3. **Contact Person and Phone Number**	Paul Brunner, P.E. Executive Director Three Rivers Levee Improvement Authority 1114 Yuba Street, Suite 218 Marysville, CA 95901 Fax: (530) 749-6990 E-mail: PBrunner@co.yuba.ca.us
4. Project Location	The project area is located within the Goldfields along the south side of the Yuba River near Daguerre Point Dam, within the Browns Valley U.S. Geological Survey (USGS) 7.5-minute quadrangle in Yuba County.
5. Project Sponsor's Name	Three Rivers Levee Improvement Authority
6. General Plan Designation	Natural Resources
7. Zoning	Extractive Industrial
8. Description of Project	The proposed project consists of constructing an embankment in the Goldfields designed to intercept and block 100-year breach flows originating from a critical erosion site along the Yuba River south bank tailings mound, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would begin at the end of the State Plan of Flood Control where it ties into the Goldfields and would extend continuously for approximately 2.1 miles. The embankment would be built in partnership by TRLIA and Western Aggregates using the Goldfields' existing dredge tailings.
9. Surrounding Land Uses and Setting	Surrounding land uses include agriculture, rural residential, mining, natural open space areas, and public facilities and infrastructure (e.g., levees, levee borrow areas). See Environmental Setting discussion under each issue area in Chapter 3, "Environmental Checklist."
10. Other Public Agencies Whose Approval Is Required	Central Valley Regional Water Quality Control Board, California Department of Fish and Wildlife, Feather River Air Quality Management District, Yuba County.

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ACRONYMS AND OTHER ABBREVIATIONS

°F	degrees Fahrenheit
µg/L	micrograms per liter
µin/sec	microinches per second
µS/cm	microsiemens per centimeter
AFB	Air Force Base
ALUCP	Airport Land Use Compatibility Plan
AQAP	air quality attainment plan
ARB	California Air Resources Board
BLM	U.S. Bureau of Land Management
BMP	best management practice
B.P.	before present
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
$CaCo_3$	calcium carbonate
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CDC	California Debris Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CGS	California Geological Survey
CLUP	comprehensive land use plan
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
cu. yd.	cubic yards
CVFPB	Central Valley Flood Protection Board
dB	decibels
dBA	A-weighted decibel
DO	dissolved oxygen

ACRONYMS AND OTHER ABBREVIATIONS

DOC	California Department of Conservation
DOF	California Department of Finance
DTSC	Department of Toxic Substances Control
DWQ	Division of Water Quality
DWR	California Department of Water Resources
EA	environmental assessment
EC	electrical conductivity
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FPD	Fire Protection District
FRAQMD	Feather River Air Quality Management District
GHG	greenhouse gas
GWP	global warming potential
HCP	habitat conservation plans
in/sec	inches per second
IS/MND	initial study/proposed mitigated negative declaration
lb/day	pounds per day
L_{dn}	Day-night average level
L_{eq}	Equivalent sound level
$L_{eq[h]}$	1-hour equivalent sound level (the sound energy averaged over a continuous 1-hour period)
L_{max}	Maximum sound level
L_n	sound level exceeded “n” percent of the time
mg/L	milligrams per liter
MLD	Most Likely Descendant
MRL	method reporting limit
MRZ	Mineral Resource Zone
msl	mean sea level
N	nitrogen
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
ng/L	nanograms per liter
NO_2	nitrogen dioxide
NO_3	nitrogen trioxide

ACRONYMS AND OTHER ABBREVIATIONS

NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
OHV	off-highway vehicle
PM	particulate matter
PM_{10}	particulate matter equal to or less than 10 micrometers in diameter
$PM_{2.5}$	particulate matter equal to or less than 2.5 micrometers in diameter
PPV	peak particle velocity
PRC	California Public Resources Code
proposed project	Yuba Goldfields 100-Year Flood Protection Project
RD	Reclamation District
RMP	Resource Management Plan
RMS	root-mean-square
ROG	reactive organic gas
RWQCB	Central Valley Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SIP	state implementation plan
SMARA	Surface Mining and Reclamation Act
SPFC	State Plan of Flood Control
SRA	State Responsibility Areas
SVAB	Sacramento Valley Air Basin
SVP	Society of Vertebrate Paleontology
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TRLIA	Three Rivers Levee Improvement Authority
UCMP	University of California, Berkeley Museum of Paleontology
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UYRLIP	Upper Yuba River Levee Improvement Project
VdB	vibration decibels
WEAP	worker environmental awareness program
WPIC	Western Pacific Interceptor Canal

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1 INTRODUCTION

The Three Rivers Levee Improvement Authority (TRLIA) has prepared this initial study/proposed mitigated negative declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the environmental consequences of the proposed Yuba Goldfields 100-Year Flood Protection Project (proposed project) in Yuba County, California (Exhibit 1-1). TRLIA is the lead agency under CEQA. TRLIA is a joint powers authority composed of Yuba County and Reclamation District (RD) 784 that was formed in 2004 to address funding and implementation of levee repairs for the RD 784 service area.

Yuba County is subject to seasonal flood threats from many rivers and creeks, including the Yuba, Feather, and Bear Rivers and tributary drainages. Because of this flood risk, many local rivers have been confined by constructed levees. The RD 784 levee system is part of the State Plan of Flood Control (SPFC), which comprises federally authorized and State of California–authorized flood protection facilities for which the Central Valley Flood Protection Board (CVFPB) or the California Department of Water Resources (DWR) has provided assurances of cooperation to the federal government (DWR 2010).

TRLIA is implementing a program of repairs to the RD 784 levee system to provide 200-year flood protection to properties within the RD 784 service area in southwest Yuba County. As part of this program, TRLIA completed various improvements along the south levee of the Yuba River in 2004–2012. The final phase of repairs along the Yuba River south levee (completed in summer 2012) extends from Simpson Lane to the Yuba Goldfields (Exhibit 1-2). This last reach of levee protection has been tied into the Goldfields with the assumption that the Goldfields serve as high ground. Contrary to this assumption, however, TRLIA has determined that flood flows could enter the Goldfields through potential breaches in the tailings mound embankments at one or more critical erosion sites along the south bank of the Yuba River, resulting in a continued flood risk in the RD 784 service area.

To reduce this flood risk, TRLIA proposes to implement a project in the Goldfields that would prevent Yuba River flood flows from flowing through the Goldfields and flanking the SPFC. The proposed project would create a continuous embankment, which would address the most critical erosion site within the Goldfields to provide a 100-year level of protection to southwest Yuba County. TRLIA is coordinating closely with Western Aggregates, which would partner with TRLIA to construct the project.

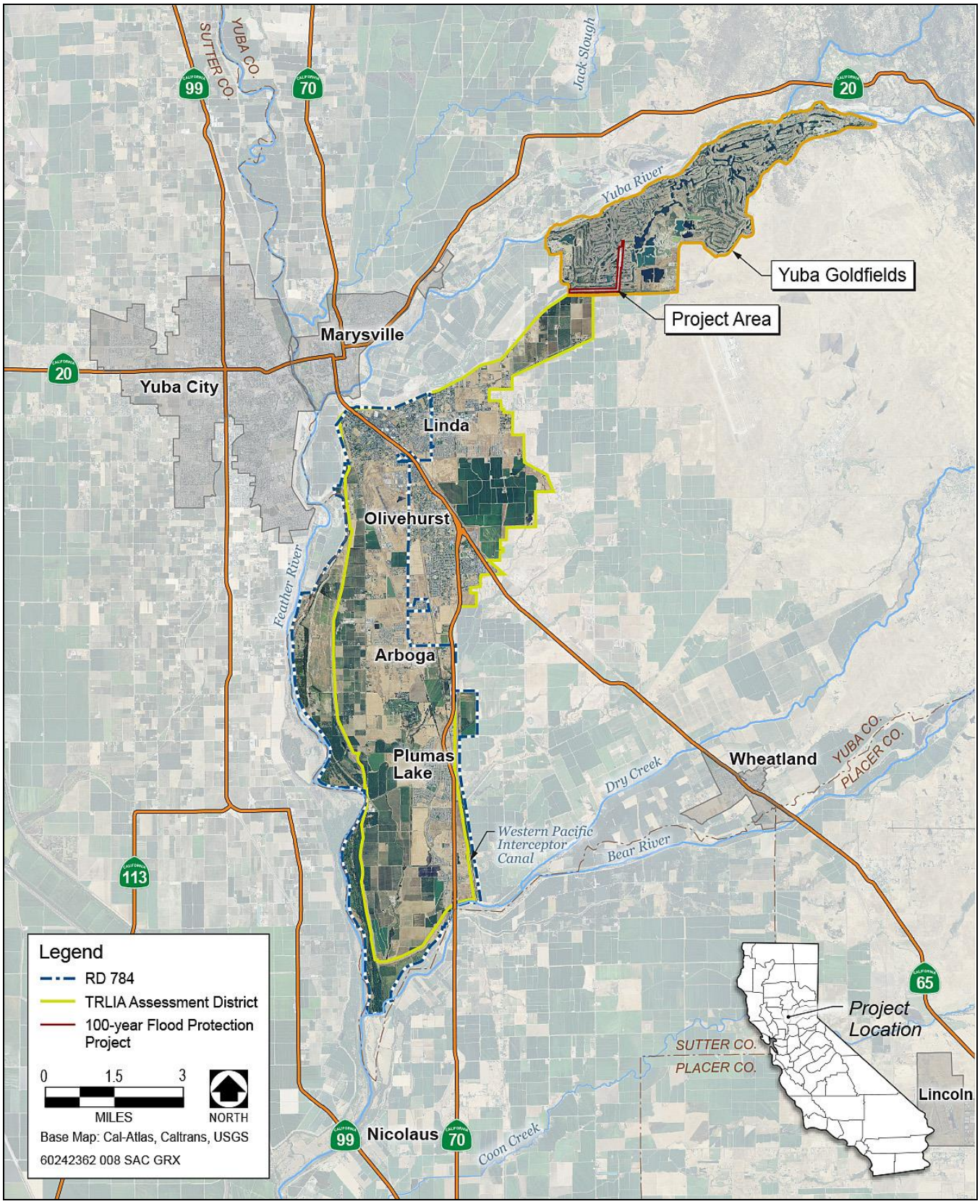
This document includes:

- an IS to satisfy CEQA requirements,
- a proposed MND to satisfy CEQA requirements, and
- a notice of availability and intent to adopt an IS/MND for the proposed project.

After the required public review of this document is complete, TRLIA will consider adopting the proposed MND and a mitigation monitoring and reporting program, and will decide whether to proceed with the proposed project.

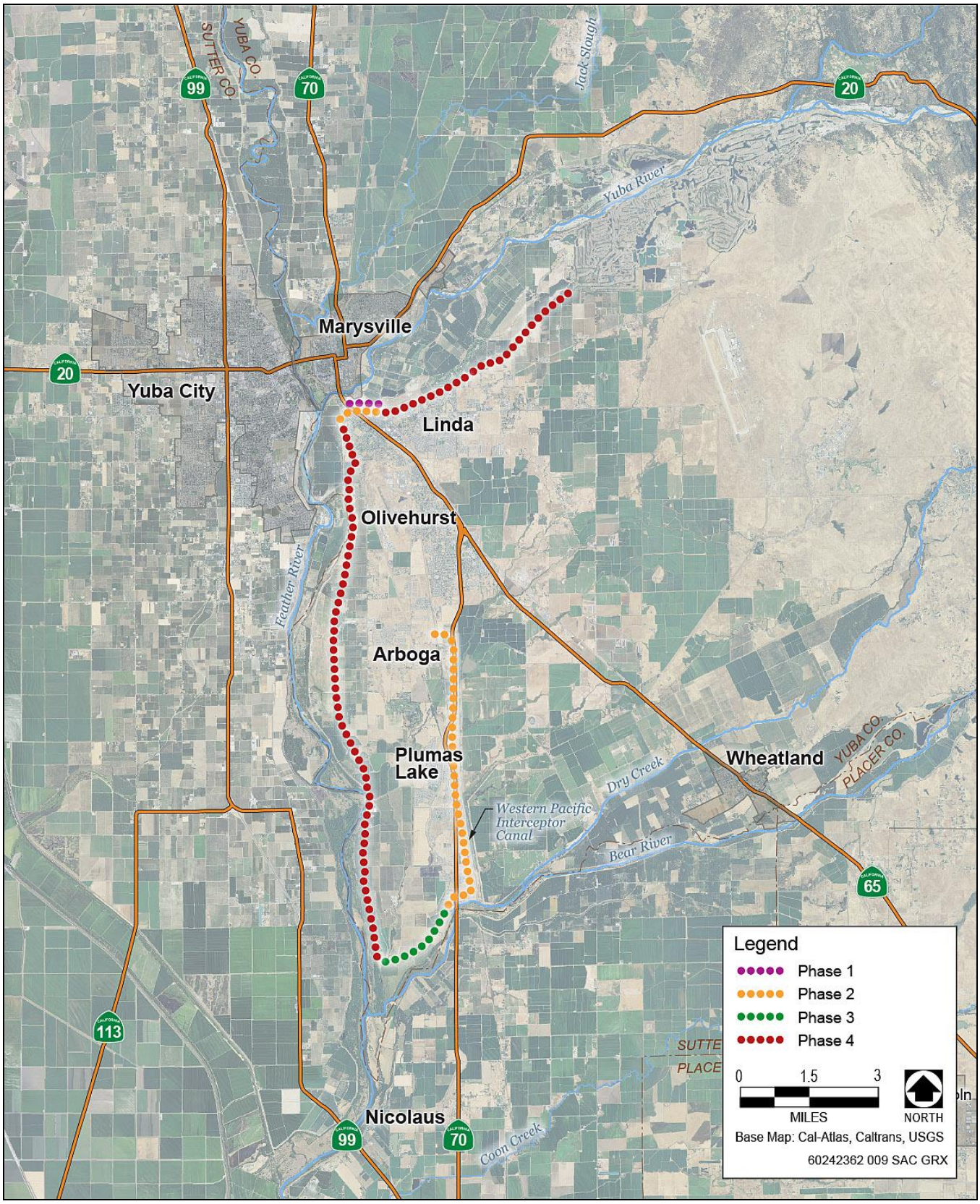
1.1 PURPOSE OF THE INITIAL STUDY

This document is an IS/MND prepared in accordance with CEQA (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The



Source: TRLIA 2013, adapted by AECOM in 2013

Exhibit 1-1 **Project Location and Vicinity**



Source: TRLIA 2009, adapted by AECOM in 2013

Exhibit 1-2 **Three Rivers Levee Improvement Program**

purpose of this IS/MND is to (1) determine whether project implementation would result in potentially significant or significant effects on the environment; and (2) incorporate mitigation measures into the project design, as necessary, to eliminate the project's potentially significant or significant project effects or reduce them to a less-than-significant level.

An IS/MND 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/MND 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 environmental consequences 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, Section 15367). TRLIA has principal responsibility for carrying out the proposed project and is therefore the CEQA lead agency for this IS/MND.

If there is substantial evidence (such as the findings of an IS) that a project, either individually or cumulatively, may have a significant effect on the environment, the lead agency must prepare an EIR (State CEQA Guidelines, Section 15064[a]). If the IS concludes that impacts would be less than significant, or that mitigation measures committed to by the applicant would clearly reduce impacts to a less-than-significant level, a negative declaration or MND can be prepared.

TRLIA has prepared this IS to evaluate the potential environmental effects of the proposed project and has incorporated 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 of this document contains the analysis and discussion of potential environmental impacts of the proposed 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:

- Agriculture and forestry resources
- Population and housing
- Public services

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

- Aesthetics
- Greenhouse gas emissions
- Land use
- Mineral resources
- Noise
- Recreation
- Transportation/traffic
- Utilities and service systems

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

- Air quality
- Biological resources
- Cultural resources
- Geology and soils
- Hazards and hazardous materials
- Hydrology and water quality
- Mandatory findings of significance

1.3 DOCUMENT ORGANIZATION

This document is divided into the following sections:

Notice of Availability and Intent to Consider Adoption of a Proposed MND. The notice of availability and intent to consider adoption of a proposed MND provides notice to responsible and trustee agencies, interested parties, and organizations of the availability of this IS, as well as TRLIA's intent to consider adopting an MND for the proposed project.

MND. The MND, which precedes the IS analysis, summarizes the environmental conclusions and identifies mitigation measures that would be implemented in conjunction with the proposed project.

Chapter 1, "Introduction." This chapter briefly summarizes the proposed project and describes the purpose of the IS/MND, summarizes findings, and describes the organization of this IS/MND.

Chapter 2, "Project Description." This chapter describes the purpose of and need for the proposed project, general background, and project elements.

Chapter 3, "Environmental Checklist." This chapter 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, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, a potentially significant impact, or a significant impact on the environment in each issue area. Should any impacts be determined to be potentially significant or significant, an EIR would be required. For this project, however, mitigation measures have been incorporated as needed to reduce all potentially significant and significant impacts to a less-than-significant level.

Chapter 4, "References." This chapter lists the references used in preparation of this IS/MND.

Chapter 5, "Report Preparers." This chapter identifies report preparers.

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2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Yuba Goldfields 100-Year Flood Protection Project (proposed project) is located within the Goldfields in Yuba County, California. The Goldfields encompass approximately 6,855 acres along the south side of the Yuba River near Daguerre Point Dam, approximately 10 miles northeast of Marysville (see Exhibit 1-1). The Goldfields were formed by dredging hydraulic mining debris from the Yuba River floodplain, which began in the early 1900s. The remnant mounds of sands, gravels, and cobbles were deposited along the active riverbank and interior floodplain, generating irregular gravel/cobble hills and an undulating terrain interspersed with ponds.

In more recent years, the Goldfields have been used to produce aggregate. Current operations in the Goldfields include gold mining by Cal Sierra Development, Inc., and aggregate production by Western Aggregates, Inc.

2.2 PROJECT BACKGROUND

2.2.1 RECLAMATION DISTRICT 784 LEVEE SYSTEM IMPROVEMENTS

TRLIA, in partnership with other local agencies, has implemented a comprehensive program of levee improvements to provide 200-year flood protection to the Reclamation District (RD) 784 service area. Those improvements are referred to in this document as the "TRLIA Program" (see Exhibit 1-1). RD 784's service area consists of approximately 29,000 acres in urban southwest Yuba County, including part or all of the communities of Linda, Olivehurst, Arboga, and Plumas Lake. RD 784 is bounded on the north by the Yuba River, on the west by the Feather River, on the south by the Bear River, and on the east by the Western Pacific Interceptor Canal (WPIC) (see Exhibit 1-1).

TRLIA Program work has been completed in four phases. Levee improvements have occurred throughout the RD 784 levee system, including improvements along the Yuba, Feather, and Bear Rivers and the WPIC. Multiple projects were implemented during Phase 4 of the TRLIA Program. The last of these, the Upper Yuba River Levee Improvement Project (UYRLIP), improved the Yuba River south levee from Simpson Lane to the Goldfields, which is also where the State Plan of Flood Control (SPFC) ends. UYRLIP work was completed in summer 2012.

The RD 784 levee system—specifically the northern terminus of the UYRLIP, and therefore the SPFC—is tied into the Goldfields with the assumption that the Goldfields serves as high ground and prevents floods in the Yuba River from flanking the levee system. If this assumption is not correct, the urban area of RD 784 remains at risk of flooding.

2.2.2 FLOOD RISK ASSOCIATED WITH THE GOLDFIELDS

In the early 1900s, embankments were constructed by the California Debris Commission (CDC), an entity created by federal statute, near the Goldfields along both sides (north and south) of the Yuba River's active main channel to control the location of the river. These historic "training walls" consisted of dredge tailings deposited to substantial heights (estimated 10–20 feet of freeboard above the 100-year flood elevation), with varying top widths of up to 500 feet. The south bank "training wall" prevented Yuba River floodwaters from directly entering the Goldfields. There were no construction or as-built plans that provided the final alignment location or geometry

for these embankments. Dredging companies continued to construct other embankments out of dredge tailings along the south side of the Yuba River using similar methods as they dredged the Goldfields for gold. All of these embankments have served to keep the Yuba River in its current location through the years. However, these embankments have been eroded and modified and it is unclear how the current dredge tailings relate to the original CDC "training wall." The existing dredge tailings continue to be eroded by the Yuba River and are not continuous, with gaps or low places in these mounds that would allow Yuba River flows to enter the Goldfields at high river discharges or allow high water elevations in the Goldfields to exit back to the Yuba River. The U.S. Army Corps of Engineers (USACE) took over the responsibilities of the CDC in 1986 when the CDC was abolished. USACE does not consider the historic CDC dredge tailings mounds to be flood protection facilities and does not actively monitor or maintain these structures.

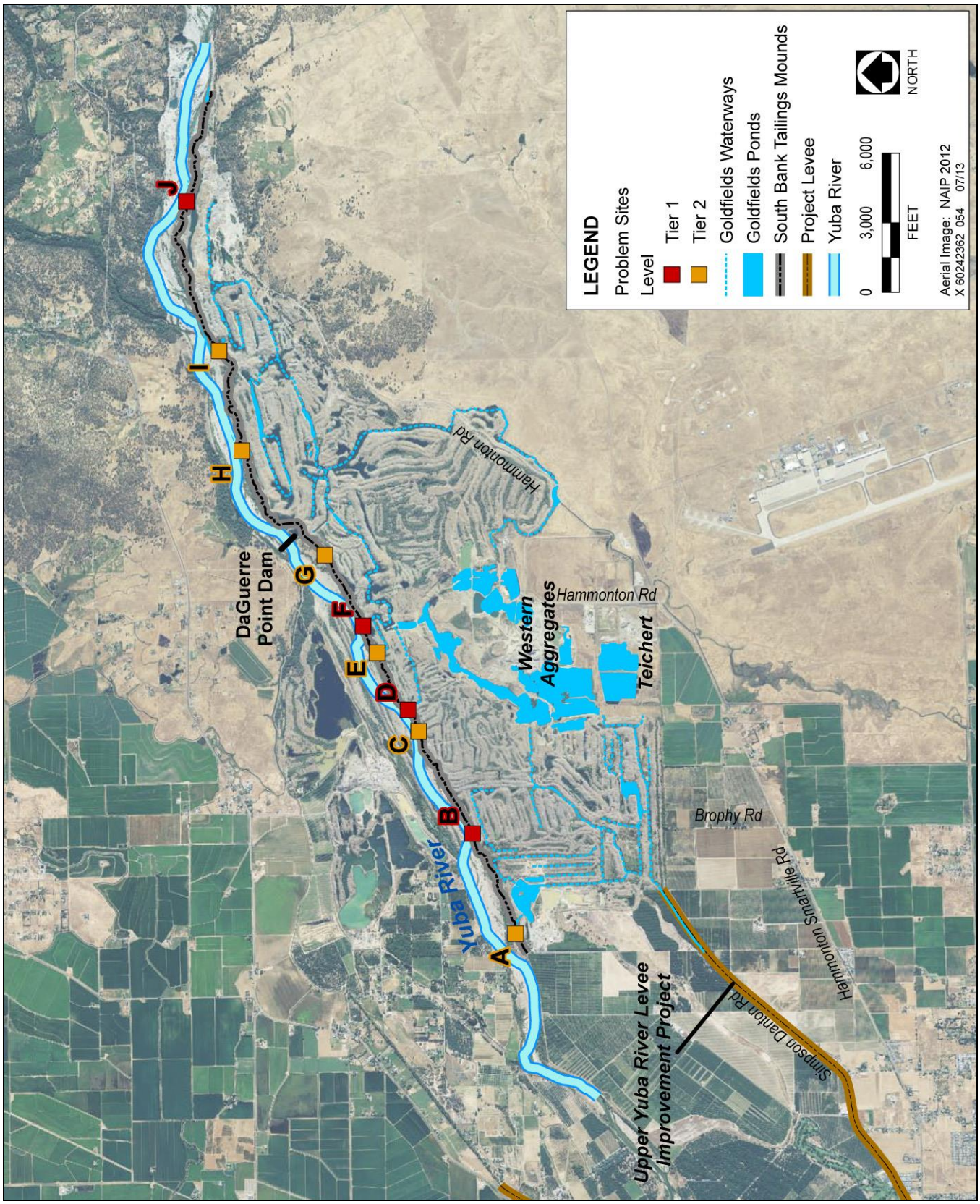
Water moves through the Goldfields through a combination of surface flow, subsurface flow, and seepage through the gravel/cobble mounds. This process results in a complex hydraulic flow pattern through the Goldfields. In addition, ongoing gold dredging and aggregate mining operations continually change the topography, affecting flow paths through the Goldfields.

In 2009–2010, USACE conducted a hydraulic analysis of the Goldfields area that led it to conclude that the Goldfields did not present a flood risk for the Yuba Basin for a 100-year storm event, but did present a flood risk for the 200-year storm event (Maak and Schultz, pers. comm., 2010). This USACE analysis was a coarse-level two-dimensional analysis of the Upper Yuba River conducted to conservatively estimate flood damages and costs for USACE's Yuba Basin General Reevaluation Report. USACE also concluded that there was not a federal interest in an engineered solution to extend existing flood protection, specifically constructing a new levee south of the Goldfields area.

To better define residual flood risk associated with the Goldfields, TRLIA refined and expanded USACE's hydraulic analysis to include the most recent topographic information available for the Goldfields. TRLIA also developed a comprehensive two-dimensional hydraulic model to simulate how surface water would flow through the complex Goldfields area and into the RD 784 protected area if the south bank tailings mound of the Yuba River were to breach (MBK 2011). In addition, TRLIA evaluated the south bank tailings mound to examine how this feature has performed during past flood events and determine its reliability to safely pass a 100-year flood event.

Contrary to USACE's earlier findings, the TRLIA analysis identified a risk of flooding from the Goldfields for floods more frequent than the 100-year flood (MBK 2011). The results of the TRLIA analysis indicate that the Yuba River is attempting to meander south at several locations and is actively eroding the south bank tailings mound. Specific locations at which the Yuba River directly attacks the south bank tailings mounds were identified and the sites at greatest risk of a breach were categorized as either Tier 1 or Tier 2. Tier 1 sites are more likely to breach or overtop in the near future (Exhibit 2-1). The analysis also shows that landform changes within the Goldfields created through historic gold dredge mining operations have affected flow paths within the Goldfields, and have made it easier for floodwaters to flow through the Goldfields and exit into the RD 784 service area.

This flood risk would flood areas that were thought to have 200-year protection and decrease the flood inundation benefits associated with the TRLIA 200-Year Flood Protection Program. It would also result in FEMA having to map residual floodplains in the RD 784 service area along with these residual flooded areas having to purchase flood insurance.



Source: TRLIA 2013, adapted by AECOM in 2013

Exhibit 2-1 **Yuba River South Bank Erosion Site Location and Tier Status**

2.3 PROJECT PURPOSE AND OBJECTIVES

The overall project purpose is to provide 100-year flood protection to the RD 784 service area. The objectives of the proposed project are to quickly implement a 100-year flood protection solution that (1) is sustainable for at least 15 years; (2) has minimal impact on aggregate mining operations, gold dredging operations, and the environment; and (3) prevents the RD 784 service area from being mapped into the Federal Emergency Management Agency (FEMA) 100-year floodplain.

2.4 PROPOSED PROJECT

The proposed project would involve constructing an embankment in the Goldfields designed to intercept and block breach flows originating at Site B (see Exhibit 2-1), holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles following the alignment shown in Exhibit 2-2. The embankment would be built in partnership by TRLIA and Western Aggregates using the Goldfields' existing dredge tailings. The embankment would have a crest elevation of 104 feet NAVD1988, (3 feet above the elevation of the 100-year water surface elevation in the Goldfields), a minimum top width of 35 feet, a waterside slope of 3:1 (horizontal:vertical), and a landside slope of 5:1 (horizontal:vertical) (Exhibit 2-3).

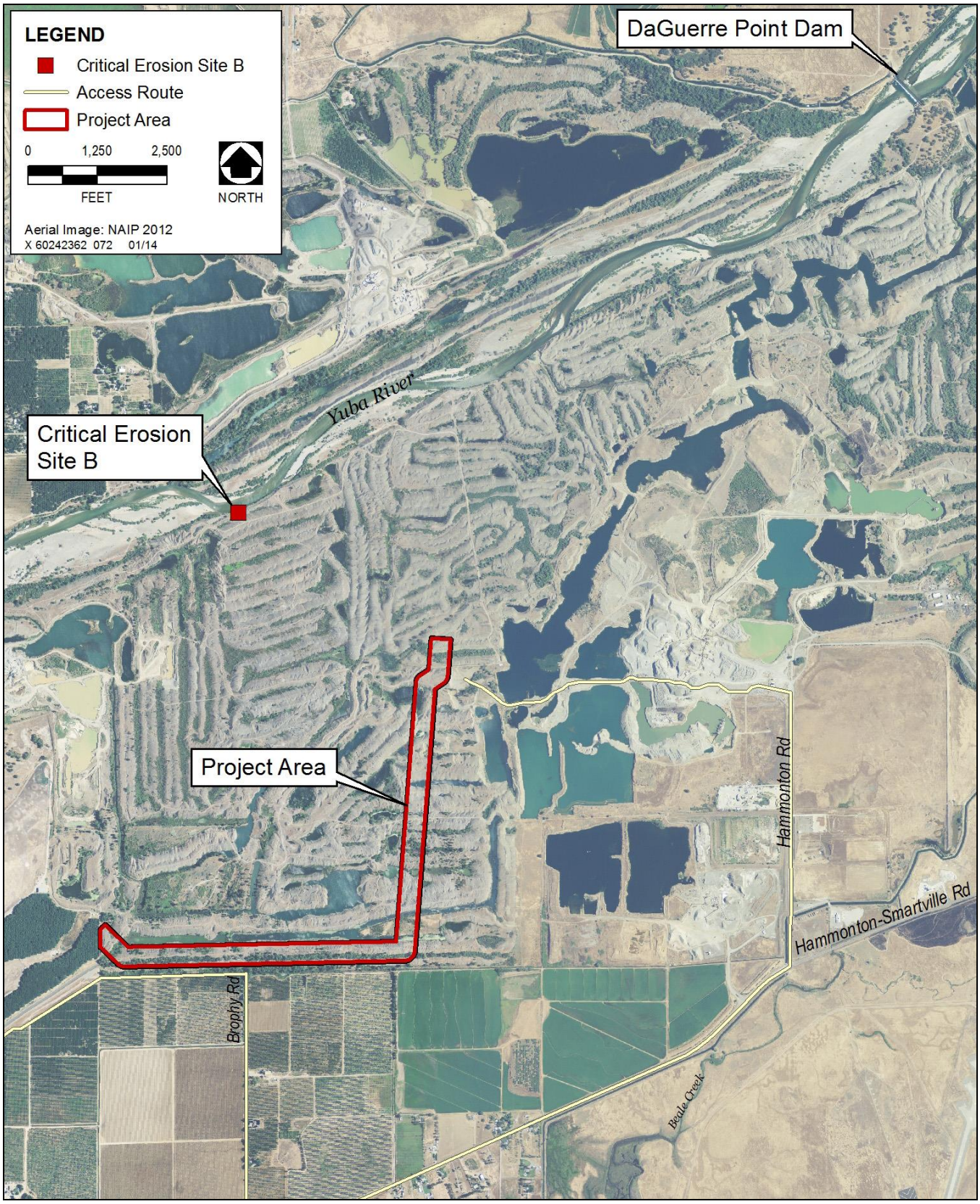
2.4.1 LAND OWNERSHIP

Land rights in the Goldfields are very complicated and have been and continue to be litigated. Land is owned in fee by federal agencies (USACE and the U.S. Bureau of Land Management [BLM]) and private entities. Even if land is owned in fee by one entity, other entities may have rights for surface mining (i.e., gold) extraction. Because these rights have been transferred through various acquisitions and the extent of the rights is the subject of ongoing litigation, vested rights in the Goldfields are not entirely clear. In addition, USACE holds easements over large tracts of private land. The purpose and conditions of USACE easements are not clear but USACE has used their easements to restrict mining near the tailings mounds along the Yuba River south bank. See Exhibit 2-4 for a map of land ownership in the Goldfields.

The 100-year Flood Protection Project would be located on property under private ownership in the Goldfields. TRLIA may enter into an agreement with property owners in the Goldfields to facilitate construction and maintenance of the embankment.

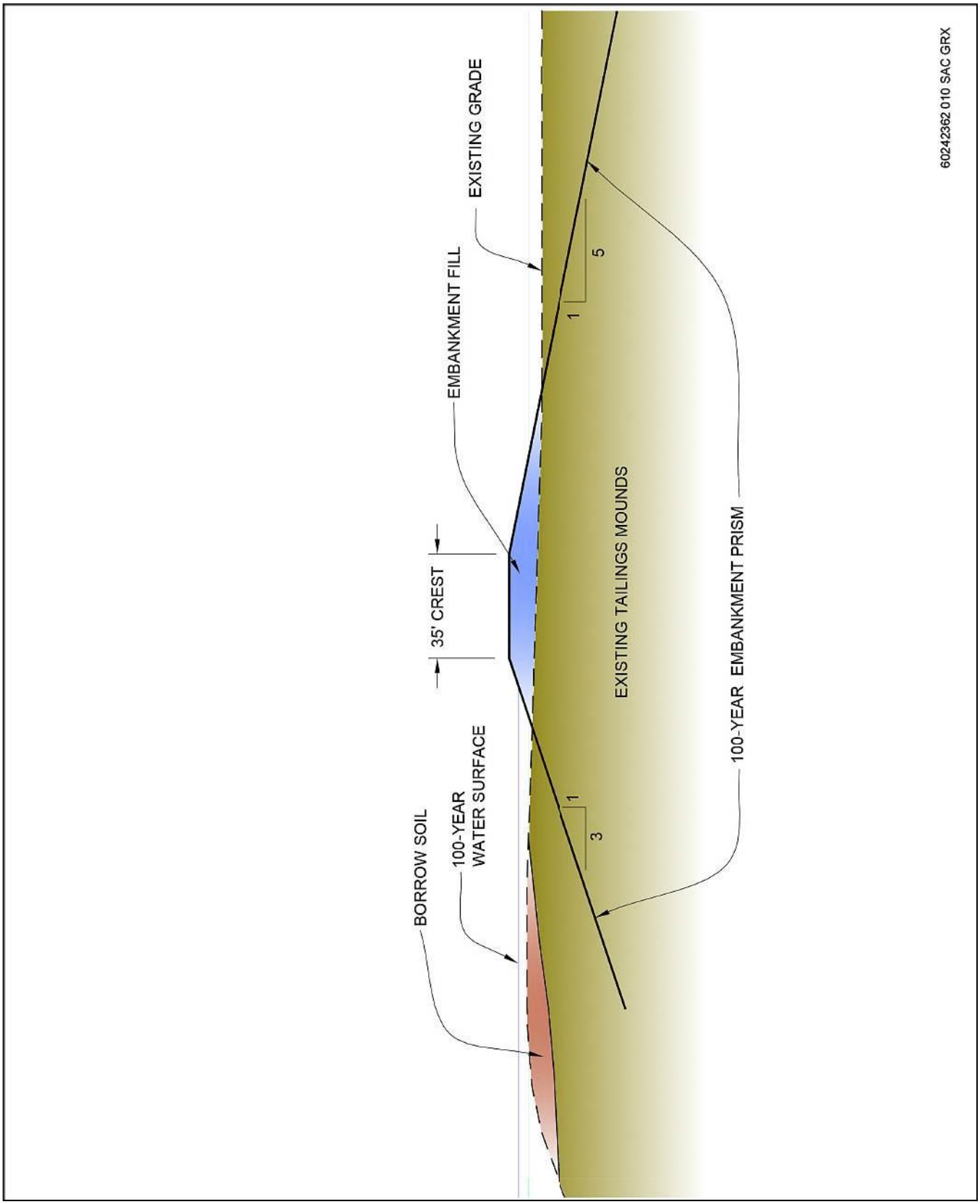
2.4.2 GENERAL CONSTRUCTION METHODS

Substantial portions of the proposed alignment already exceed the embankment geometry required for the 100-year embankment. Approximately 453,373 cubic yards (cu. yd.) of fill material would be needed to construct the 100-year embankment geometry within the alignment. The fill material would be taken either from adjacent areas that exceed the required flood protection elevation for the 100-year embankment, or from portions of the surrounding embankment located outside of the 100-year embankment geometry. The areas requiring fill to achieve the 100-year embankment and the areas that would serve as fill sources are identified in Exhibit 2-5.



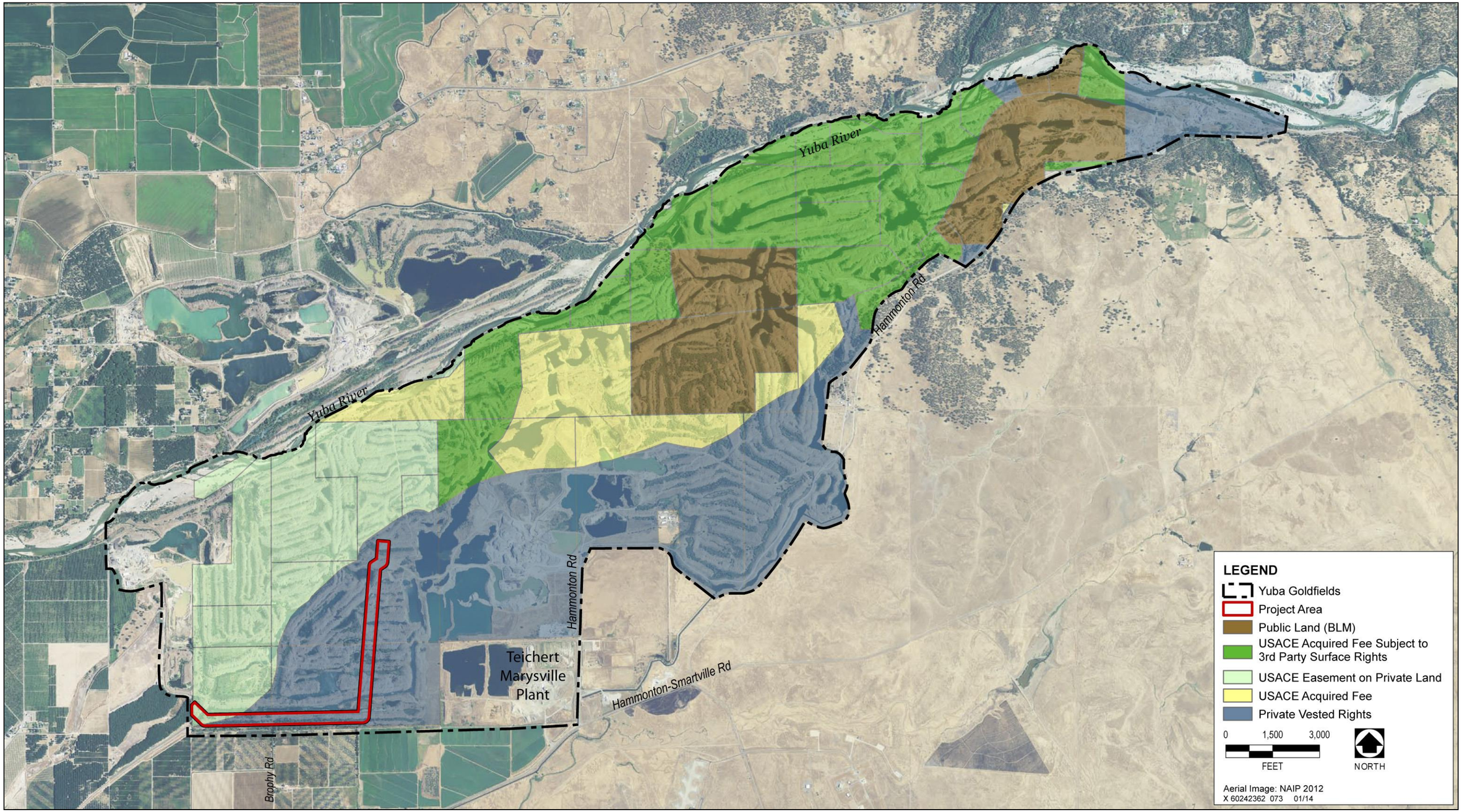
Source: TRLIA 2013, adapted by AECOM in 2013

Exhibit 2-2 **Yuba Goldfields 100-Year Flood Protection Project Area**



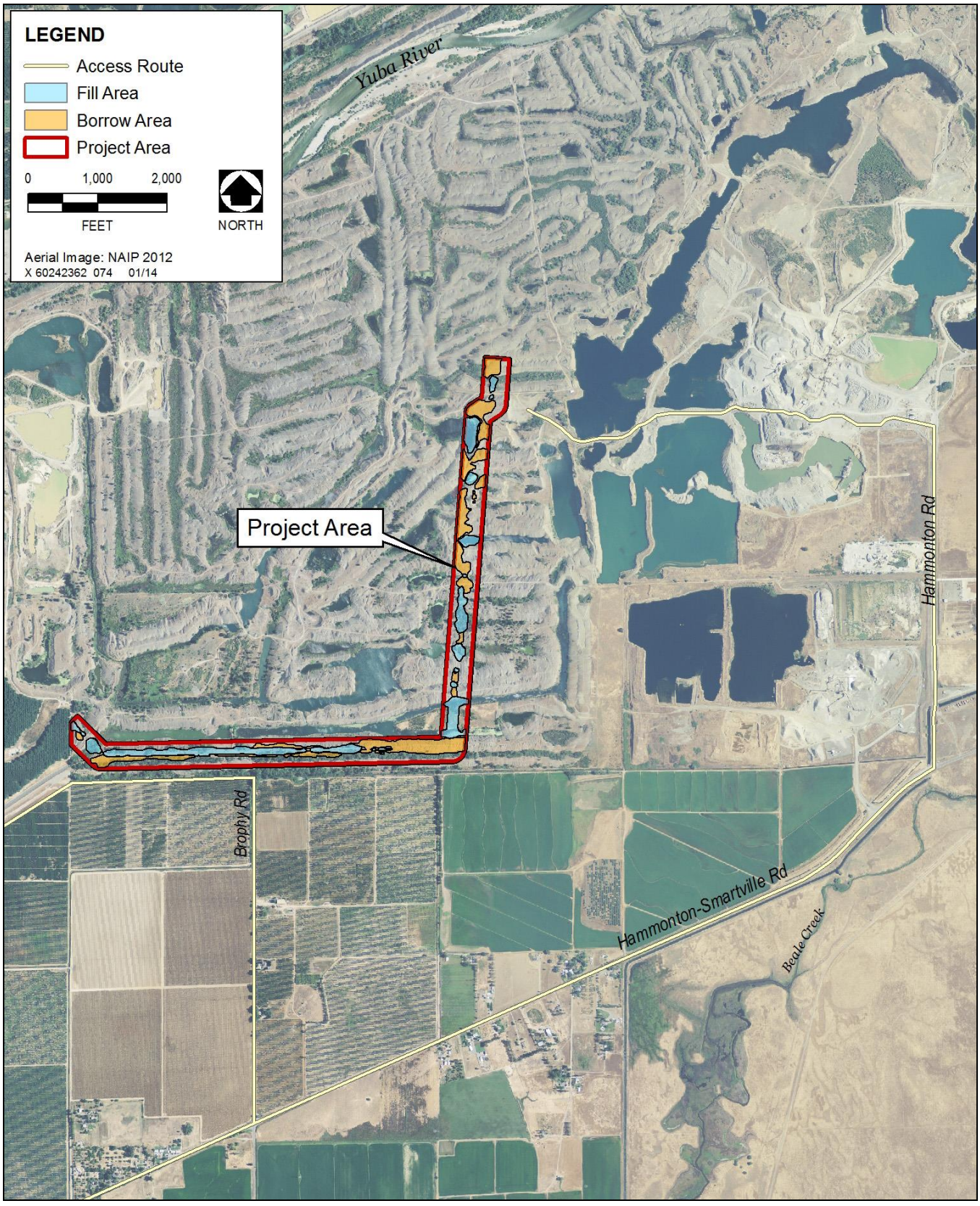
Source: TRLIA 2013, adapted by AECOM in 2013

Exhibit 2-3 **Typical 100-Year Embankment Cross-Section**



Source: TRLIA 2013, adapted by AECOM in 2013

Exhibit 2-4 **Yuba Goldfields Land Ownership**



Source: Data provided by ENGEO, adapted by AECOM in 2013

Exhibit 2-5 **Fill and Borrow Source Areas for 100-Year Embankment**

Because of the close proximity and abundance of available borrow material, no long hauls of material would be necessary.

Access to the embankment construction area would be provided by existing access roads to and within the Goldfields. Main access to the Goldfields is from Hammonton-Smartville Road and then along Brophy Road or Hammonton Road (main access) to the interior of the Goldfields (see Exhibit 2-2).

2.4.3 CONSTRUCTION SCHEDULE

Construction of the proposed project would require less than 5.5 months. Construction is anticipated to begin in spring 2014, no earlier than April 1, and would be completed no later than November 1 of the same year. Work would occur Monday through Saturday during normal working hours (7 a.m. to 7 p.m.), with no nighttime construction.

2.4.4 CONSTRUCTION LABOR FORCE AND EQUIPMENT

TRLIA may partner with private property owners to construct the proposed embankment. Construction activities would require up to 14 employees on peak construction days. Two dump trucks, one excavator, one dozer, one water truck, and one work truck would be needed to implement earthmoving operations on peak construction days.

2.4.5 VALLEY ELDERBERRY LONGHORN BEETLE HABITAT PROTECTION

Elderberry shrubs, which may provide habitat for the valley elderberry longhorn beetle, a species federally listed as threatened, are common in some areas within the Yuba Goldfields. To avoid disturbance to the valley elderberry longhorn beetle, TRLIA will establish a minimum setback of at least 20 feet from the dripline of each elderberry shrub within 100 feet of the construction area. These buffer areas will be flagged and fenced prior to construction and the fencing will be maintained for the duration of construction activities. In addition, TRLIA will erect signs every 50 feet along the edge of avoidance areas with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs will be clearly readable from a distance of 20 feet, and will also be maintained for the duration of construction activities.

2.5 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

As the lead agency under CEQA, TRLIA 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. Other permitting agencies that may have permitting approval or review authority over portions of the proposed project are listed below.

- Central Valley Regional Water Quality Control Board—Clean Water Act Section 402 National Pollutant Discharge Elimination System stormwater permit for general construction and Waste Discharge Requirement pursuant to the Porter-Cologne Water Quality Control Act

- California Department of Fish and Wildlife—California Endangered Species Act consultation

- Feather River Air Quality Management District—authority to construct permit
- Yuba County—grading permit

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3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION		
1.	Project Title:	Yuba Goldfields 100-Year Flood Protection Project
2.	Lead Agency Name and Address:	Three Rivers Levee Improvement Authority, 1114 Yuba Street, Suite 218, Marysville, CA 95901
3.	Contact Person and Phone Number:	Paul G. Brunner, P.E., Executive Director, (530) 749-7841
4.	Project Location:	Along the south side of the Yuba River near Daguerre Point Dam, approximately 10 miles northeast of Marysville within the Yuba Goldfields in Yuba County, California.
5.	Project Sponsor's Name and Address:	Three Rivers Levee Improvement Authority (See above address.)
6.	General Plan Designation:	Natural Resources
7.	Zoning:	M-2 (Extractive Industrial)
8.	Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)	
	The proposed project consists of constructing an embankment in the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles within the Goldfields. TRLIA intends to build the embankment using the Goldfields' existing dredge tailings, which may require an agreement with one or more private entities engaged in mining activities in the Goldfields.	
9.	Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)	The Goldfields consist of irregular gravel/cobble hills and an undulating terrain interspersed with ponds. To the north and northwest of the Goldfields is the Yuba River. The lands east and northeast of the Goldfields are vacant and are used primarily for cattle grazing. Orchards and active agricultural fields are located adjacent to the southeastern end and westernmost end of the Goldfields.
10:	Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)	USACE, USBLM, USFWS, RWQCB, CDFW, FRAQMD, Yuba County

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.		
☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance
		☒ None With Mitigation

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.

Signature	Date
Printed Name	Title
Three Rivers Levee Improvement Authority	
Agency	

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 off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

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

3.1 AESTHETICS

ENVIRONMENTAL ISSUES		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**Aesthetics. Would the project:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 ENVIRONMENTAL SETTING

The aesthetic value of an area is typically a measure of its visual character and visual quality combined with viewer response. As described in Chapter 2, "Project Description," the Yuba Goldfields encompass approximately 10,000 acres along the south side of the Yuba River. The Goldfields were formed as dredging activities along the lower Yuba River associated with hydraulic mining deposited remnant mounds of sands, gravels, and cobbles along the riverbank and floodplain. Today the Goldfields contain irregular gravel/cobble mounds interspersed with ponds. The cobble mounds are covered with sparse ruderal vegetation; trees occur sporadically throughout the project area and scattered woody vegetation is present in upland areas (see Section 3.4, "Biological Resources," for further information). The Goldfields also contain large embankments, constructed in the early 1900s along both sides of the lower Yuba River's active main channel, to control the location of the river.

The existing dredge tailings mounds in the Yuba Goldfields range in size and reach heights of up to 90 feet. The dredge tailings are not continuous, with gaps or low places in the mounds. The water elevations in the ponds (pools) between tailings mounds rise and fall in response to river water elevations and surrounding groundwater elevations (TRLIA 2013:3). Ongoing gold dredging and aggregate mining operations continually change the area's topography (TRLIA 2013:4).

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The program's goal is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of land adjacent to highways. No highways in Yuba County have been officially designated by Caltrans as state scenic highways, although State Route 49 in the far northeastern part of the county (east of New Bullards Bar Reservoir) is eligible for such a designation (Caltrans 2011).

3.1.2 DISCUSSION

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

Less-than-Significant Impact. A scenic vista is generally considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. No scenic vistas have been officially

designated in the *Yuba County General Plan*. However, the dredge tailings mounds in the Yuba Goldfields, which are up to 90 feet tall, constitute remarkable landscape elements. Thus, the project area, with its dramatic mounds of dredge tailings, could be considered to represent a scenic vista.

Construction of the 100-year embankment would not have a substantial adverse effect on the scenic vista afforded by the Goldfields. Rural/agricultural-residential properties exist north of the Yuba River opposite the northwest corner of the Goldfields, and to the south near the intersection of Brophy Road and Hammonton-Smartville Road. As noted in Section 3.12, "Noise," the closest residences are located approximately 2,660–6,100 feet from construction areas. Local residents on the north side of the Yuba River and recreationists on the lower Yuba River would not notice a change in the scenic view of the Goldfields, because the project area would not be visible from these locations. However, some residents could notice a change in the scenic view of the Goldfields caused by the movement of construction equipment to build the continuous embankment. This change in the view would be temporary and limited to one construction season.

Project construction would not be expected to cause a substantial change in the height of the existing mounds in the Goldfields; rather, it would result in a continuous embankment made up of the same materials (sands, gravels, and cobbles) that already exist at the site. As stated in Section 2.2.2, "Flood Risk Associated with the Goldfields," in Chapter 2, ongoing gold dredging and aggregate mining operations in the Goldfields continually change the topography; thus, the scenic vista of the project area has been and is currently subject to ongoing adjustment.

The proposed project would involve constructing a continuous embankment in place of multiple mounds; however, because construction activities would be temporary and the embankment would be built using the Goldfields' existing dredge tailings, the scenic vista of the Goldfields would not be substantially affected. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista. This impact would be less than significant.

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

Less-than-Significant Impact. Some tree removal would be required for the proposed project, as described in Section 3.4, "Biological Resources." In addition, volcanic bedrock outcrops are present just south of Daguerre Point Dam (ENGEO 2013:12) (see Section 3.6, "Geology and Soils," for further discussion). However, the area where volcanic bedrock outcrops are present is not located in the immediate vicinity of the 100-year embankment construction area, and thus would not be disturbed by construction. The Goldfields themselves can be considered a natural unique scenic resource, but the Goldfields' existing dredge tailings would be used to construct the proposed embankment. Furthermore, no historic buildings are located on the project site.

No highways in Yuba County have been officially designated as state scenic highways. Therefore, although project construction would require the removal of trees and other vegetation, the proposed project would not damage any resources in the vicinity of a state scenic highway, and this impact would be less than significant.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-Significant Impact. Visual character is distinguished by visual pattern elements: an object's form (mass, bulk, or shape) and its line, color, and texture. Awareness of these pattern elements varies with distance (FHWA n.d.:37). The most typical viewers would be residents who are located south of the Goldfields

approximately 2,660 feet or farther from the site. Views of the project area from the north are obstructed by the south bank of the Yuba River, which is higher in elevation than the project area. Therefore, residents who are located across the river and recreationists on the lower Yuba River would not experience a change in the visual character of the Goldfields.

The form of the existing Goldfields encompasses irregular hills and ponds. TRLIA intends to construct a continuous embankment using the Goldfields' existing dredge tailings. Because the proposed embankment would be continuous rather than irregular, the project could cause a change in the Goldfields' embankment pattern and pool sizes (the "line" of the site). However, such a change would not be expected to be substantial, and it would not result in a substantial change in the other elements of the site's visual character (form, color, texture).

The existing dredge tailings mounds have side slopes that range from 3:1 (horizontal:vertical) to 1.5:1 (horizontal:vertical) toward the edges (ENGEO 2013:12). By contrast, the proposed embankment would have a waterside slope of 3:1 (horizontal:vertical) and a landside slope of 5:1 (horizontal:vertical). Thus, on the water side, the slope of the embankment would be identical to the slope of the existing tailings mounds, which would help to maintain the character of the site as seen from the north. On the land side, the slope of the embankment would be less steep than the slope of the existing tailings mounds (5:1 slope versus generally 3:1), thus adjusting the shape and line of the dredge tailings deposits. In addition, the embankment would present an increased mass and more continuous bulk relative to the existing irregular mounds, although the color and texture would remain the same because the embankment would be constructed using existing materials. Thus, despite the change in slope, the visual character and quality of the site as seen from the land side would remain dramatic.

Implementing the proposed project would not substantially degrade the visual character or quality of the Goldfields and its surroundings. 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?

Less-than-Significant Impact. Work associated with the proposed project is described above under item c). Construction of the proposed 100-year embankment would not result in any substantial sources of light or glare that would affect daytime views. Recreationists on the lower Yuba River and residents across the river from the site would not have a view of the project site. Residences to the south of the project site may be able to view some of the construction work, but from a distance (2,660 feet or farther). Because of this distance, and because no buildings would be constructed and existing materials would be moved to create the new embankment, any light or glare from operation of construction equipment would be minimal and momentary. Changes in the locations of pools could result, but any such changes would not be anticipated to substantially increase daytime light or glare levels beyond existing conditions.

The proposed project would not involve any nighttime construction. Construction equipment would be present and equipment staging areas may be temporarily lit for security reasons during the construction period. However, existing nighttime views in the area would remain largely unchanged. Project construction would not create new sources of nighttime lighting other than temporary security lighting, nor would new buildings be constructed that would require the use of lighting after construction is complete.

The proposed project would not adversely affect day or nighttime views in the area by creating a new source of substantial light or glare. This impact would be less than significant.

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3.2 AGRICULTURE AND FORESTRY RESOURCES

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

This section describes agricultural uses and forestry resources on the project site and in the vicinity and analyzes the potential impacts of implementing the proposed project on agriculture and forestry resources. These include impacts on lands mapped as part of the Farmland Mapping and Monitoring Program (FMMP) by the California Department of Conservation (DOC), Division of Land Resource Protection.

Additional information about land uses on and adjacent to the project site is provided in Section 3.10, "Land Use and Planning."

3.2.1 ENVIRONMENTAL SETTING

AGRICULTURAL LAND USES ON THE PROJECT SITE AND IN THE VICINITY

The Yuba Goldfields have been used to produce aggregate; no active agricultural land uses exist within the project site. Orchards and active rice fields are located adjacent to the southernmost end of the project site along the south side of Brophy Road, and mature orchards are located adjacent to the site's westernmost boundary along the north side of Simpson Dantoni Road.

FARMLAND MAPPING AND MONITORING PROGRAM

DOC classifies Important Farmland as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. These classifications recognize the land's suitability for agricultural production by considering the soil's physical and chemical characteristics, such as soil temperature range, depth of the groundwater table, flooding potential, rock fragment content, and rooting depth. The classifications also consider location, growing season, and moisture available to sustain high-yield crops. Together, Important Farmland and Grazing Land are defined by DOC as "Agricultural Land." In addition, DOC identifies other categories based on their suitability for agricultural use. The following list comprehensively defines the classifications mapped by DOC as part of the FMMP:

- **Prime Farmland**—Land that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years before the mapping date.

- **Farmland of Statewide Importance**—Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years before the mapping date.

- **Unique Farmland**—Land of lesser quality soils used for the production of the state's leading agricultural cash crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the 4 years before the mapping date.

- **Farmland of Local Importance**—Land that is of importance to the local agricultural economy, as defined by each county's local advisory committee and adopted by its board of supervisors. Farmland of Local Importance either is currently producing or has the capability to produce, but does not meet the definition of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

- **Grazing Land**—Land with existing vegetation that is suitable for grazing.

- **Urban and Built-up Lands**—Land that is used for residential, industrial, commercial, institutional, or public utility structures, or for other developed purposes.

- **Land Committed to Nonagricultural Use**—Land that has a permanent commitment to development but has an existing land use of agricultural or grazing lands.

- **Other Land**—Land that does not meet the criteria of any previous category. Other Lands generally include low-density rural developments, vegetative and riparian areas not suitable for livestock grazing, confined-animal agriculture facilities, strip mines, borrow pits, and vacant and nonagricultural land surrounded by urban development.

According to the Yuba County Important Farmland map, published by DOC's Division of Land Resource Protection, both the project site and surrounding land within the Goldfields are designated as Other Land (DOC 2011). DOC does not consider Other Land to be Important Farmland.

Near the project site, Prime Farmland and Farmland of Statewide Importance are located along the south side of Brophy Road and along the north side of Simpson Dantoni Road (DOC 2011). DOC considers both designations to be Important Farmland.

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?

No Impact. Constructing the 100-year embankment would not convert Important Farmland to nonagricultural uses. The fill material needed to construct the project would be taken either from adjacent areas that exceed the required flood protection elevation for the 100-year embankment, or from portions of the surrounding embankment located outside of the 100-year embankment geometry. In addition, access to construction areas would be provided by existing access roads to and within the Goldfields. Main access to the Goldfields is from Hammonton-Smartville Road and then along Brophy Road or Hammonton Road (main access) to the interior of the Goldfields.

As discussed previously, the project site and surrounding land within the Goldfields is designated as Other Land (vegetative and riparian areas not suitable for livestock grazing, confined-animal agriculture facilities, strip mines, borrow pits, water bodies, and vacant and nonagricultural land surrounded by urban development). DOC does not consider Other Land to be Important Farmland.

Near the project site, Prime Farmland and Farmland of Statewide Importance are located adjacent to the southernmost end of the project site along the south side of Brophy Road and adjacent to the site's westernmost boundary along the north side of Simpson Dantoni Road. Fill material and construction areas would be located within the Goldfields, and access to the construction areas would be provided by existing access roads. The presence of the continuous embankment would not affect the continuation of agricultural operations in these areas.

Implementing the proposed project would not directly or indirectly convert Important Farmland within or near the project site to nonagricultural uses. Therefore, no impact would occur.

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

No Impact. Yuba County does not participate in the Williamson Act program. The project site and lands within the Goldfields that surround the site are zoned M-2 (Extractive Industrial). These areas are intended primarily for extracting, processing, and distributing minerals that occur naturally, such as sand, gravel, ores, and precious

metals. Therefore, implementing the proposed project would not conflict with existing zoning for agricultural uses or conflict with a Williamson Act contract. No impact would occur.

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))?

No Impact. The project site is not zoned as forestland, timberland, or a Timberland Production Zone. Therefore, implementing the proposed project would not conflict with existing zoning for, or cause rezoning of, forestry resources. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Section 12220(g) of the California Public Resources Code defines forestland as land that can support 10% native tree cover and woodland vegetation of any species (including hardwoods) under natural conditions, and that allows for management of one or more forest resources (timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation) and other public benefits. The project site does not contain forestland as defined by Section 12220(g). Therefore, implementing the proposed project would not result in the loss of forestland or conversion of forestland to nonforest uses. No impact would occur.

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?

No Impact. See responses to items a) and d) above. Implementing the proposed project would not result in other changes in the physical environment that could directly or indirectly result in the conversion of agricultural land, including Important Farmland, to nonagricultural uses or result in the conversion of forestland to nonforest uses. No impact would occur.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management 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?	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 ENVIRONMENTAL SETTING

The project site is located in Yuba County, which is under the jurisdiction of the Feather River Air Quality Management District (FRAQMD). FRAQMD is part of the Sacramento Valley Air Basin (SVAB), which includes Butte, Colusa, Glenn, Tehama, Shasta, Yolo, Sacramento, Yuba, and Sutter Counties and parts of Placer, El Dorado, and Solano Counties. The SVAB is bounded on the north and west by the Coast Ranges, on the east by the southern portion of the Cascade Range and the northern portion of the Sierra Nevada, and on the south by the San Joaquin Valley Air Basin. Summer conditions are typically characterized by high temperatures and low humidity, with prevailing winds from the south. Rainstorms occur occasionally during winter, and are interspersed by stagnant and sometimes foggy weather. Rain falls mainly from late October to early May, in amounts that vary substantially each year.

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) have identified six air pollutants as being of nationwide and statewide concern: ozone, carbon monoxide (CO), nitrogen dioxide, sulfur dioxide, lead, and particulate matter (PM). PM is subdivided into two classes based on particle size: PM equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$).

Health-based air quality standards have been established for these pollutants by EPA at the national level and by ARB at the state level. These standards are referred to as the national ambient air quality standards (NAAQS) and

the California ambient air quality standards (CAAQS), respectively. The NAAQS and CAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. Both EPA and ARB designate areas of the state as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant. The "unclassified" designation is used in an area that cannot be classified as meeting or not meeting the standards, based on available information.

FRAQMD is currently designated as a nonattainment area for the $PM_{2.5}$ NAAQS. On January 10, 2013, EPA determined that the area had attained the $PM_{2.5}$ NAAQS based on 2009–2011 monitoring data. However, that action did not constitute a redesignation to attainment because EPA has not yet approved a maintenance plan. Yuba County is also a nonattainment-transitional area for the 1-hour and 8-hour ozone CAAQS, and a nonattainment area with respect to the PM_{10} CAAQS (ARB 2013). Yuba County is either an attainment area or unclassified for the remaining NAAQS and CAAQS.

EPA, under the provisions of the CAA, requires each state with regions that have not attained the NAAQS to prepare a state implementation plan (SIP) that details how each local area is to meet these standards. ARB is the lead agency for developing the SIP in California. Local air districts and other agencies prepare air quality attainment plans (AQAPs), or air quality management plans, and submit them to ARB for review, approval, and incorporation into the applicable SIP. The CCAA also requires that each area exceeding the CAAQS develop a plan aimed at achieving those standards (California Health and Safety Code, Section 40911 et seq.).

FRAQMD is the agency responsible for air quality planning and development of the AQAP in the project area. The AQAP establishes the strategies that will be used to achieve compliance with the CAAQS in all areas within FRAQMD's jurisdiction. All projects within FRAQMD's jurisdictional area are subject to adopted FRAQMD rules and regulations in effect at the time of construction and operation.

3.3.2 DISCUSSION

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

Less-than-Significant Impact with Mitigation Incorporated. Project consistency is determined based on whether the proposed project would conflict with or obstruct implementation of the AQAP and/or applicable portions of the SIP, which would lead to increases in the frequency or severity of existing air quality violations. The CCAA requires a triennial assessment of the extent to which air quality has improved and pollutant emissions have been reduced as a result of implementing control measures developed in the AQAP. The air districts in the Northern Sacramento Valley Planning Area, which includes Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties, adopted the 2009 Triennial AQAP on June 7, 2010 (FRAQMD 2013). The AQAP, drafted in compliance with the requirements set forth in the CCAA, specifically addresses the CAAQS for ozone and PM_{10}. The 2009 Triennial AQAP contains the control measures included in the previously adopted 2006 AQAP and additional control measures for stationary sources.

FRAQMD also adopted the $PM_{2.5}$ Redesignation Request and Maintenance Plan in April 2013 (FRAQMD 2013). The $PM_{2.5}$ plan demonstrates that the area has attained the 24-hour $PM_{2.5}$ NAAQS standard with implementation of permanent and enforceable measures adopted by FRAQMD and ARB.

Consistency with the AQAPs is determined by analyzing a project with the assumptions in the plans. Short-term construction activities for the proposed project would involve the use of off-road equipment and haul trucks, as well as worker commute trips. Project operations would not substantially increase long-term operational mobile-source emissions that were previously included in the AQAP. However, as discussed in greater detail under item b) below and summarized in Table 3.3-1, construction activities for the proposed project would generate daily PM_{10} emissions that would exceed FRAQMD's threshold of significance. FRAQMD thresholds of significance are considered the allowable emissions limits for each project to avoid impeding the region's attainment and maintenance of ambient air quality standards (i.e., the purpose of AQAPs). Accordingly, construction of the proposed project without mitigation would exceed the assumptions used to develop the current AQAP and would obstruct or conflict with the plan. Therefore, this impact would be significant.

Mitigation Measure 3.3-1a: Implement FRAQMD Standard Mitigation Measures.

TRLIA and its construction contractor will implement the following measures required by FRAQMD:

- *Develop and submit a fugitive dust control plan to FRAQMD.*
- *Control exhaust emissions from construction equipment, so that they do not exceed FRAQMD Regulation II, Rule 3.0, "Visible Emissions Limitations" (40% opacity or Ringelmann 2.0).*
- *Ensure that all construction equipment is properly tuned and maintained before and during all on-site operations.*
- *Limit idling time to 5 minutes. (State of California idling rule: commercial diesel vehicles—Title 13, Section 2485 of the California Code of Regulations [13 CCR 2485], effective 2/1/2005; off-road diesel vehicles—13 CCR 2449, effective 5/1/2008.)*
- *Use existing power sources (e.g., power poles) or clean fuel generators rather than temporary sources of power generation whenever possible.*
- *Register portable engines and portable engine-driven equipment units used at the same project worksite, with the exception of on-road and off-road motor vehicles, as required by the ARB Portable Equipment Registration Program.*

Because the proposed project would generate emissions that exceed the FRAQMD thresholds, the proposed project must implement best-available mitigation measures to reduce the impact to a less-than-significant level. Because the unmitigated PM_{10} emissions would exceed the daily threshold of significance of 80 pounds per day, FRAQMD requires implementation of the following mitigation measures:

Mitigation Measure 3.3-1b: Implement Best-Available Mitigation Measures for the Construction Phase.

TRLIA and its construction contractor will ensure that the following applicable FRAQMD best-available mitigation measures for the construction phase are implemented during all project construction activities:

- *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered as needed to prevent visible emissions violations and off-site dust impacts.*

- *All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
- *All vehicle speeds on unpaved roads will be limited to 15 miles per hour.*
- *A publicly visible sign will be posted at the project site within FRAQMD, with the telephone number and person to contact at FRAQMD regarding dust complaints. This person will respond and take corrective action within 48 hours. FRAQMD's phone number also will be visible, to ensure compliance with applicable regulations.*
- *All excavation, grading, and/or demolition activities will be suspended when average wind speeds exceed 20 miles per hour.*
- *The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time will be limited. Activities will be phased to reduce the amount of disturbed surfaces at any one time.*
- *All trucks and equipment, including their tires, will be washed off before leaving the site.*
- *Site accesses to a distance of 100 feet from the paved road will be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.*
- *Sandbags or other erosion control measures will be installed to prevent silt runoff to public roadways from sites with a slope greater than 1%.*

As discussed further under item b) below, implementing these mitigation measures would reduce maximum daily PM_{10} emissions to a level less than the FRAQMD threshold of significance. Thus, because the proposed project would not exceed any of FRAQMD's thresholds of significance with mitigation incorporated, the project would not substantially impede achievement of the region's air quality goals. Therefore, implementing Mitigation Measures 3.3-1a and 3.3-1b would reduce this significant impact to a less-than-significant level.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-than-Significant Impact with Mitigation Incorporated. Construction emissions are considered short term and temporary, but they have the potential to represent a significant impact with respect to air quality. Construction of the proposed project would temporarily generate emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_X), CO, PM_{10}, and $PM_{2.5}$. Emissions of the ozone precursors ROG and NO_X are generated primarily by on-road mobile sources (i.e., delivery vehicles, construction worker vehicles) and off-road construction equipment. The level of emissions generated varies as a function of vehicle trips per day for worker commute trips; the types and number of heavy-duty, off-road equipment used; and the intensity and frequency of their operation.

Fugitive PM dust is one of the pollutants of greatest concern with respect to construction activities. Construction-related fugitive PM dust emissions can vary greatly depending on the level of activity, the specific operations taking place, the number and types of equipment operated, vehicle speeds, local soil conditions, weather conditions, and the amount of earth disturbance. The movement of fill from adjacent areas on the project site to build the 100-year embankment would be the primary source of fugitive PM dust emissions from construction

activities. Movement of off-road construction equipment and work trucks on unpaved roads can also generate fugitive PM dust emissions.

Construction-related exhaust emissions were modeled using the California Emissions Estimator Model (CalEEMod), Version 2011.1, which was the most currently available version at the time of this analysis. CalEEMod allows the user to enter project-specific construction information, such as the types, number, and horsepower of construction equipment, and the number and length of off-site motor vehicle trips. Construction-related emissions for the proposed project were estimated for construction worker commutes, haul trucks, and the use of off-road equipment.

Table 3.3-1 shows the unmitigated emissions associated with construction activities. Additional modeling assumptions and details are provided in Appendix A.

Table 3.3-1
Unmitigated Construction-Related Emissions from the Proposed Project

Construction Phase	Pollutants			
	ROG [a]	NO_X [a]	PM_{10} [b]	$PM_{2.5}$ [b]
Project Grading	0.1	0.8	188.0	39.9
Total Emissions (tons)	**0.1**	**0.8**	–	–
Average or Maximum Daily Emissions (lb/day)[c]	**3**	**25**	**188**	**40**
FRAQMD Thresholds (average or maximum lb/day)[d]	25	25	80	–
Exceeds FRAQMD Threshold?	No	No	Yes	–

Notes: lb/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 micrometers; PM_{10} = particulate matter with aerodynamic diameter less than 10 micrometers; ROG = reactive organic gases

[a] FRAQMD's thresholds of significance for ROG and NO_X are in units of average pounds per day. The total tons of ROG and NO_X are divided by the total number of work days to calculate average daily ROG and NO_X emissions to compare to the FRAQMD threshold

[b] FRAQMD's threshold of significance for PM_{10} is in units of maximum daily pounds. PM_{10} emissions include both exhaust and fugitive dust emissions. FRAQMD has not developed a threshold for $PM_{2.5}$ emissions. $PM_{2.5}$ emissions are shown for informational purposes.

[c] Emissions of ROG and NO_X are in units of average daily emissions, which are the same units as the FRAQMD thresholds of significance. Average daily emissions were estimated assuming that the proposed construction activities would last 65 work days. Emissions of PM_{10} and $PM_{2.5}$ are in units of maximum daily emissions, which are the same units as the FRAQMD threshold of significance. FRAQMD has not developed a threshold for $PM_{2.5}$.

[d] FRAQMD's thresholds of significance for ROG and NO_X are in units of average pounds per day, while the threshold of significance for PM_{10} is in units of maximum daily pounds.

Source: Modeled by AECOM in 2013

Construction-related emissions for the proposed project would result in average daily emissions of approximately 3 pounds of ROG and 25 pounds of NO_X (Table 3.3-1), which would not exceed the thresholds of significance. Average daily NO_X emissions would equal the FRAQMD threshold of significance, but would not exceed the threshold and therefore would still be considered less than significant. Unmitigated maximum daily PM emissions were estimated at approximately 188 pounds of PM_{10} (combined exhaust and fugitive dust) and 40 pounds of $PM_{2.5}$.

As shown in Table 3.3-1, construction emissions associated with the proposed project would generate PM_{10} emissions that would exceed FRAQMD's thresholds of significance. This impact would be significant. According

to FRAQMD, if a proposed project exceeds the thresholds of significance, implementation of FRAQMD's Standard Mitigation Measures is required.

Mitigation Measure 3.3-2: Implement Mitigation Measures 3.3-1a and 3.3-1b.

Implementing this mitigation measure, described above under item a), would reduce daily PM_{10} emissions associated with construction of the proposed project. As determined by the Bay Area Air Quality Management District, implementing the set of construction control measures presented in Mitigation Measures 3.3-1a and 3.3-1b can reduce fugitive dust emissions by up to 75% (BAAQMD 2012). Table 3.3-2 shows the mitigated PM_{10} emissions associated with construction of the proposed project. Additional modeling assumptions and details are provided in Appendix A.

Table 3.3-2
Mitigated Construction-Related Emissions from the Proposed Project

Construction Phase	Pollutants (total tons)			
	ROG [a]	NO_X [a]	PM_{10} [b]	$PM_{2.5}$ [b]
Project Grading	0.1	0.8	47.8	10.7
Total Emissions [c]	**0.1**	**0.8**	**–**	**–**
Average or Maximum Daily Emissions (lb/day) [d]	**3**	**25**	**48**	**11**
FRAQMD Thresholds (average or maximum lb/day [e])	25	25	80	–
Exceeds FRAQMD Threshold?	No	No	No	–

Notes: lb/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 micrometers; PM_{10} = particulate matter with aerodynamic diameter less than 10 micrometers; ROG = reactive organic gases

[a] FRAQMD's thresholds of significance for ROG and NO_X are in units of average pounds per day. The total tons of ROG and NO_X that would occur are divided by the total number of work days to calculate average daily ROG and NO_X emissions to compare to the FRAQMD threshold.

[b] FRAQMD's threshold of significance for PM_{10} is in units of maximum daily pounds. PM_{10} emissions include both exhaust and fugitive dust emissions. FRAQMD has not developed a threshold for $PM_{2.5}$ emissions. $PM_{2.5}$ emissions are shown for informational purposes.

[c] Emissions of ROG and NO_X are in units of average daily emissions, which are the same units as the FRAQMD thresholds of significance. Average daily emissions were estimated assuming the proposed construction activities would last 65 work days. Emissions of PM_{10} and $PM_{2.5}$ are in units of maximum daily emissions, which are the same units as the FRAQMD threshold of significance. FRAQMD has not developed a threshold for $PM_{2.5}$.

[e] FRAQMD's thresholds of significance for ROG and NO_X are in units of average pounds per day, while the threshold of significance for PM_{10} is maximum daily pounds.

Source: Data compiled by AECOM in 2013

After implementation of the FRAQMD-required mitigation (Mitigation Measure 3.3-1a) and Mitigation Measure 3.3-1b, the proposed project would generate mitigated maximum daily PM_{10} emissions of approximately 48 pounds per day (Table 3.3-2), which is less than the FRAQMD threshold of significance.

The proposed project would require only minimal operational activities for maintenance at the project site. These activities would not exceed the existing maintenance and inspection activities for current infrastructure. Implementing the proposed project would not require or result in trips or activities for operations and maintenance beyond existing conditions.

Therefore, with implementation of Mitigation Measure 3.3-2, it is not anticipated that construction emissions would conflict with or obstruct implementation of air quality planning efforts or violate or contribute substantially to an existing or projected air quality violation, and this significant impact would be reduced to a less-than-significant level.

c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-Significant Impact with Mitigation Incorporated. The cumulative analysis focuses on whether a specific project would result in a cumulatively considerable incremental contribution in pollutant emissions to an existing significant cumulative impact. By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SVAB, and this regional impact is cumulative rather than being attributable to any one source. A project's emissions may be individually limited but cumulatively considerable when taken in combination with past, present, and future development projects.

FRAQMD's thresholds of significance are relevant to whether a project's individual emissions would result in a cumulatively considerable incremental contribution to existing cumulatively significant air quality conditions. These thresholds are designed to identify those projects that would result in significant levels of air pollution on a project level, and to assist the region in attaining the applicable CAAQS and NAAQS. Projects that would exceed these thresholds would be considered significant on a project level and would also be considered to contribute a cumulatively considerable amount of pollutants to regional emissions. As discussed previously under item b), the proposed project would generate construction-related emissions of ROG, NO_X, and $PM_{2.5}$, but at levels that would not exceed FRAQMD thresholds. However, unmitigated construction-related emissions of PM_{10} would exceed FRAQMD thresholds. Therefore, without mitigation, this impact would be significant.

Mitigation Measure 3.3-3: Implement Mitigation Measures 3.3-1a and 3.3-1b.

Implementing this mitigation measure, described above under item a), would ensure that all necessary construction management practices would be implemented during construction to minimize PM_{10} emissions, and that these emissions would not exceed the CAAQS or NAAQS, which would reduce PM_{10} impacts to a less-than-significant level. Therefore, the proposed project's construction emissions would not be considered a cumulatively considerable incremental contribution to a significant cumulative impact on regional air quality. Thus, implementing Mitigation Measure 3.3-3 would reduce this significant impact to a less-than-significant level.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. Some members of the population are especially sensitive to emissions of air pollutants and should be given special consideration during the evaluation of a project's air quality impacts. These people include children, older adults, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The nearest sensitive receptor to the project site is a single-family residence located approximately 2,660 feet from the construction area.

The greatest potential for toxic air contaminant (TAC) emissions would be related to diesel PM emissions associated with activity by heavy-duty construction equipment. ARB classified diesel PM as a TAC in 1998. Most of the estimated local health risk from TACs is from diesel PM.

Construction emissions associated with the proposed project would last 7 months. After completion of the embankments, all construction activities and associated diesel PM emissions would cease.

The dose to which receptors are exposed is the primary factor used to determine health risk and is a function of the concentration and duration of exposure. According to the state Office of Environmental Health Hazard Assessment, health-risk assessments that determine the health risks associated with exposure of residential receptors to TAC emissions should be based on a 70-year exposure period (OEHHA 2003). However, health-risk assessments should be limited to the period/duration of activities associated with the emissions activity. Therefore, the total exposure time where some level of construction activities and subsequent diesel PM emissions are occurring would be less than 1 year, which is less than the minimum number of years recommended for a health-risk assessment and less than 1% of the total exposure time for a typical health-risk assessment. Furthermore, the dose (i.e., concentration levels) to which nearby receptors would be exposed would be limited because of their distance from the project site (approximately 2,660 feet from the nearest sensitive receptor to the site). ARB's *Air Quality and Land Use Handbook* states that PM levels drop by 70% at a distance of 500 feet from a roadway, which is less than one-fifth of the distance from the project site to the nearest sensitive receptor. Construction emissions would be dispersed around the site; thus, TAC emissions from project construction would be less concentrated than those from a typical roadway and would be less likely to substantially expose receptors. Therefore, it is anticipated that diesel PM concentrations would decrease substantially before affecting the nearest sensitive receptor.

Because of the temporary and intermittent use of off-road construction equipment, the distance between construction activities and the nearest sensitive receptor, the dispersive properties of diesel PM (Zhu et al. 2002), and the relatively low exposure period, short-term construction activities would not result in the exposure of sensitive receptors to emissions at levels that would result in a health hazard or exceed applicable standards. As a result, this impact would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. The occurrence and severity of odor impacts depend on numerous factors such as the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. Offensive odors rarely cause any physical harm, but they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. FRAQMD recommends that lead agencies consider the potential of a project to locate receptors near an existing odor source or to locate an odor source near existing sensitive receptors.

Construction of the proposed project is not anticipated to expose nearby off-site receptors to objectionable odors. Sources that may emit odors during construction activities include exhaust from diesel construction equipment and heavy-duty trucks, which could be considered offensive to some individuals. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The closest sensitive receptor to the project site is located at least 2,660 feet from the boundary of the project site, which would allow an opportunity for odor emissions to disperse and dilute with ambient air. Because of the diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with project

construction. The proposed project would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. After construction of the proposed project, all construction-related odors would cease. Operation of the proposed project would not add any new odor sources. As a result, the proposed project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant.

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3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 ENVIRONMENTAL SETTING

Information in this section is based on a review of the following information sources:

- The California Natural Diversity Database (CNDDB)
- The U.S. Fish and Wildlife Service (USFWS) database of endangered and threatened species (USFWS 2011)
- The notice of adoption of waste discharge requirements for Western Aggregates (Central Valley RWQCB 2000)
- The California Native Plant Society's online inventory of rare and endangered plants (CNPS 2013)
- The Yuba County Ordinance Code (Yuba County 2011)

- The California Department of Fish and Wildlife (CDFW) Web site for the status of habitat conservation plans (HCPs)
- A summary of the 2005 Yuba County Voluntary Individual Oak and Oak Woodland Management Plan and Landowner Guidelines (YCRCD 2013)
- Survey reports for numerous preliminary biological surveys for valley elderberry longhorn beetle (VELB) and nesting raptors conducted in the project vicinity in 2012 and 2013 (AECOM 2012a, 2012b, 2013a, 2013b)
- A reconnaissance survey of the project site on August 8, 2013

TRLIA used the results of the biological surveys to avoid impacts on sensitive resources, where feasible, while designing the 100-year flood protection alignment.

HABITAT TYPES ON THE PROJECT SITE

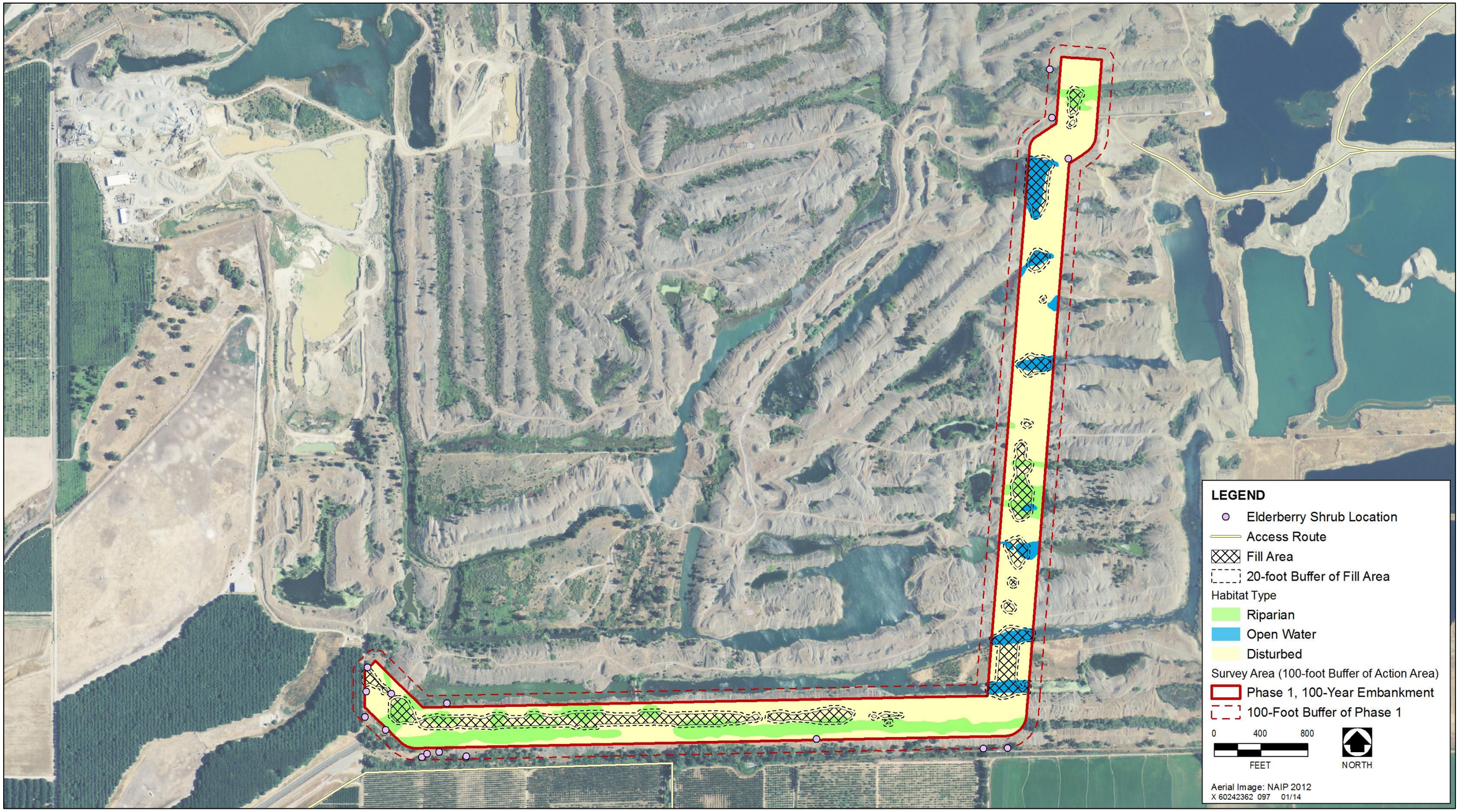
The project site is located on the floodplain of the Yuba River, on the south side of the river approximately 10 miles east of Marysville. The Yuba River is north of the project site, Beale Air Force Base is to the south, and active rice fields and orchards are to the south and west. The project site is characterized by dredge tailing mounds and dredge ponds. Habitat types at the project site include riparian habitat, open water, and "developed" areas characterized by dredge tailings. The location and extent of the habitat types in the project area are shown in Exhibit 3.4-1.

The developed areas of the project site are sparsely vegetated because little soil substrate is available to support plant growth. Common annual ruderal species include wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), yellow star thistle (*Centaurea solstitialis*), and field hedge parsley (*Torilis arvensis*). Isolated upland trees, including grey pine (*Pinus sabiniana*), Ponderosa pine (*P. ponderosa*), and blue oak (*Quercus douglasii*), occur sporadically throughout the upland portions of the project area.

Dredge ponds are present throughout the project site. These ponds either are completely unvegetated, and therefore are classified as open-water habitat, or may support riparian vegetation. In some ponds, marsh species like tule (*Schoenoplectus* sp.), rushes (*Juncus* spp.), and Himalayan blackberry (*Rubus discolor*) occur in or along the pond margins.

Common tree species located in the riparian habitat surrounding the ponds and in depressions with high groundwater tables include valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), box elder (*Acer negundo*), edible fig (*Ficus carica*), and willow (*Salix* sp.). Understory plants in the riparian habitat include Himalayan blackberry, California grape (*Vitis californica*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), poison oak (*Toxicodendron diversilobum),* and coyote bush *(Baccharis pilularis).*

Based on previous discussions between the U.S. Army Corps of Engineers (USACE), the Central Valley Regional Water Quality Control Board (RWQCB), and Western Aggregates, Inc. (Central Valley RWQCB 2000) that are described in more detail below, the dredge ponds on the project site are not considered waters of the United States subject to USACE jurisdiction under Section 404 of the Federal Clean Water Act (CWA). However, the ponds contain surface water and qualify as waters of the state, which are subject to permitting requirements under the State's Porter-Cologne Water Quality Control Act.



Source: ENGEO 2013; adapted by AECOM in 2013

Exhibit 3.4-1 **Habitat Types in the Project Area**

On June 21, 2000, the Central Valley RWQCB sent a notice of adoption of updated wastewater discharge requirements for the Yuba Goldfields to Western Aggregates (Central Valley RWQCB 2000). In this document, the Central Valley RWQCB enclosed a list of the findings it made at its June 15, 2000, meeting in Order No. 5-00-107. Finding 13 states that:

> …The Corps [USACE], on behalf of the United States, subsequently determined that the ponds and channels within the Yuba Gold Fields were not jurisdictional waters of the U.S. under the Clean Water Act (March, July, and November 1995 Corps letters to Cal Sierra, Western, and Teichert respectively and December 1998 letter to LASER).

Furthermore, finding 16 states:

> USEPA [the U.S. Environmental Protection Agency] has reviewed the Goldfields gold dredging operation and concluded that this operation does not involve a point source discharge to waters of the U.S. (Development Document for Proposed Effluent Limitations for Placer Mining, EPA440/1-85/061-B, October 1985). Although [Western Aggregates] does not dredge for gold, it discharges into the same type of manmade dredger ponds as a gold dredge, and the Board finds that this discharge is not to waters of the U.S.

The decision to not consider dredge ponds to be waters of the United States subject to CWA jurisdiction is not isolated to the Yuba Goldfields. The Central Valley RWQCB found that the dredge ponds resulting from mining operations located immediately to the north of the project site across the Yuba River also do not qualify as wetlands under CWA Section 404 guidelines. The RWQCB issued a waste discharge requirement permit for impacts on these ponds on the north side of the river, as they qualified as waters of the state (Central Valley RWQCB 2010).

The ultimate decision on whether a waterbody is subject to USACE jurisdiction under Section 404 of the CWA lies with USACE. USACE uses criteria such as hydrologic connections and connections to interstate commerce to make a determination.

SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources are those resources protected or regulated by federal, state, or local laws and regulations. Sensitive biological resources include special-status species and sensitive habitats/sensitive natural communities.

Special-status Species

Special-status species are plants and animals that fall into any of the following categories:

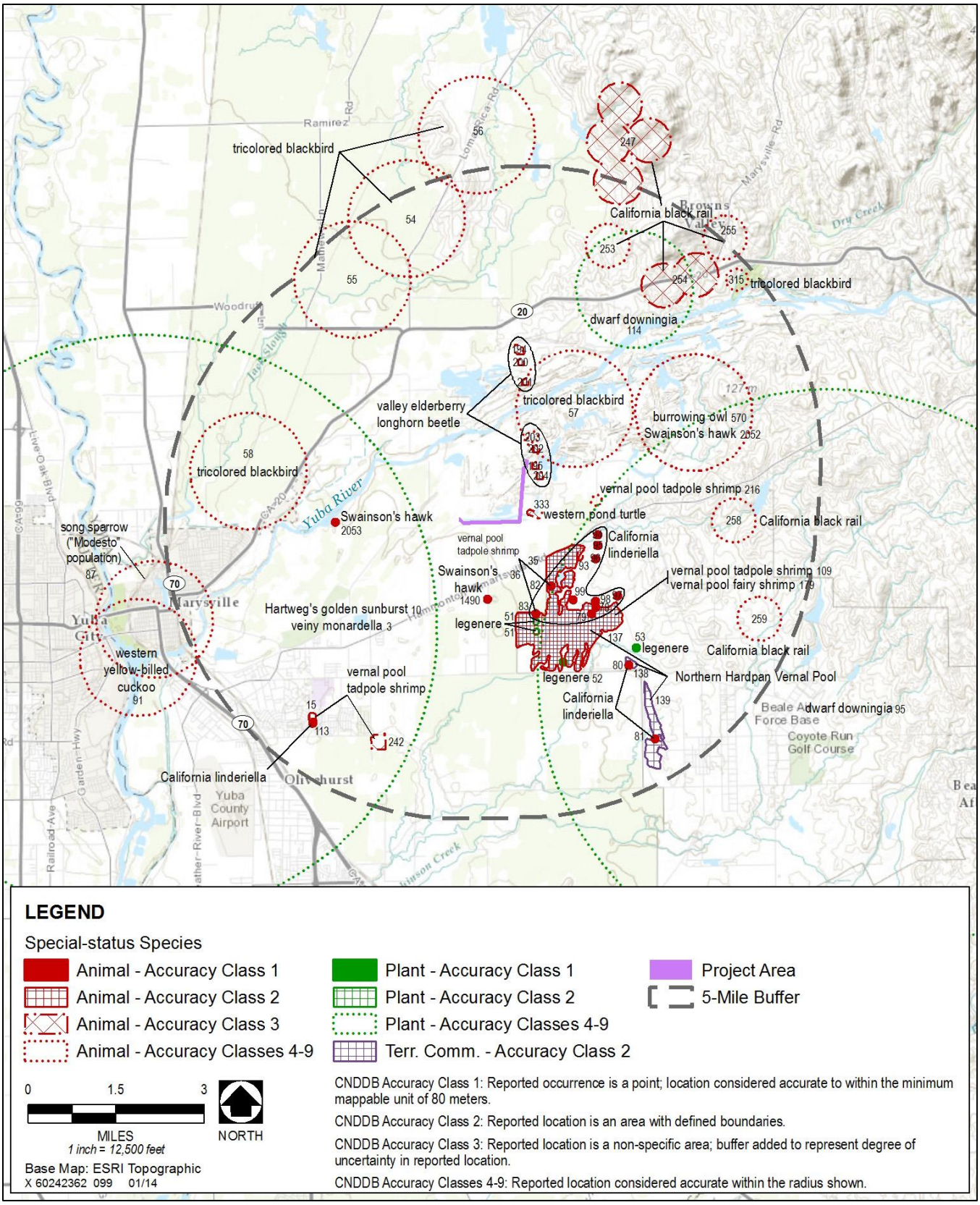
- Species officially listed by the State of California or the federal government as endangered, threatened, or rare
- Candidate species for state or federal listing as endangered or threatened
- Species proposed for listing under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA)

- Taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines
- Species identified by CDFW as species of special concern
- Species listed as Fully Protected under the California Fish and Game Code
- Species afforded protection under local or regional planning documents
- Taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR).The CDFW system uses the following five rarity and endangerment ranks to categorize plant species of concern:
    - CRPR 1A—Plants presumed to be extinct in California
    - CRPR 1B—Plants that are rare, threatened, or endangered in California and elsewhere
    - CRPR 2A—Plants that are presumed extirpated in California, but are more common elsewhere
    - CRPR 2B—Plants that are rare, threatened, or endangered in California but more common elsewhere
    - CRPR 3—Plants about which more information is needed (a review list)
    - CRPR 4—Plants of limited distribution (a watch list)

All plants with a CRPR are considered "special plants" by CDFW. The term "special plants" is a broad term used by CDFW to refer to all of the plant taxa inventoried in the CDFW CNDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A, 1B, or 2 may qualify as endangered, rare, or threatened species within the definition of State CEQA Guidelines Section 15380. CDFW recommends, and local governments may require, that CRPR 1A, 1B, and 2 species be addressed in CEQA projects. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to State CEQA Guidelines Section 15380; however, these species may be evaluated by the lead agency on a case-by-case basis to determine significance criteria under CEQA.

The term "California species of special concern" is applied by CDFW to wildlife that are not listed under the federal Endangered Species Act (ESA) or the California Endangered Species Act but are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist.

The CNDDB was used as the primary tool for researching the potential occurrence of special-status species and sensitive habitats in or near the project area. A records search was conducted within 5 miles of the project site (CDFW 2013). This search revealed records for four special-status plants and 10 special-status wildlife previously recorded within a 5-mile radius of the project site (Exhibit 3.4-2). The USFWS species list generator for a nine-quadrangle search centered on the Browns Valley quadrangle (Appendix B) and the USFWS critical habitat mapper were used as secondary resources. This search yielded five additional special-status wildlife species (not included in the CNDDB search) and no additional special-status plant species. A total of 19 species were considered from both the CNDDB and the USFWS database searches. Although no records are recorded near the project within 5 miles, white-tailed kite (*Elanus leucurus*) is also discussed below under "Species with Potential to Be Affected by the Proposed Project" because it is a fully protected species in California that commonly occurs near the project site. As discussed in separate sections below, five species are addressed and 12 were removed from consideration.



Sources: CNDDB 2013; ENGEO 2013

Exhibit 3.4-2 **CNDDB Special-status Species within 5 Miles of the Project Footprint**

Five special status-species have the potential to occur on the project site: VELB (*Desmocerus californicus dimorphus*), Swainson's hawk (*Buteo swainsoni*), white tailed kite, tricolored blackbird (*Agelaius tricolor*), and Pacific pond turtle (*Actinemys marmorata*).

Special-status Species with Potential to Be Affected by the Proposed Project

Based on observance of these species in or near the project area and the presence of suitable habitat in the project area, the following special-status species were found to have potential to be affected by the proposed project.

Valley Elderberry Longhorn Beetle

VELB is federally listed as threatened. This species is entirely dependent on its host plant, the elderberry shrub, during its life cycle. Elderberry shrubs are common on the project site. The proposed project has been designed to avoid impacts on VELB habitat (i.e., elderberry shrubs). As previously mentioned, several surveys were performed from 2011 to 2013 to map elderberry shrub locations; the design team used this information to choose an alignment that would not affect elderberry shrubs while still meeting the necessary 100-year flood protection level. For example, the southern boundary of the western edge of the alignment was shifted northward to avoid a depression that contains many elderberry shrubs. The final alignment was resurveyed for elderberry shrubs in February and March 2013, and a follow up survey occurred on October 3, 2013. A total of 26 elderberry shrubs were mapped within the survey area, which included the alignment and a buffer of 100 feet (see Exhibit 3.4-1). As described in Section 2.4.5, "Valley Elderberry Longhorn Beetle Protection," all of these elderberry shrubs would be avoided and a buffer of 20 feet would be established with orange construction fencing and maintained during construction around each shrub within 100 feet of borrow and fill areas.

Swainson's Hawk

Swainson's hawk, which is state listed as threatened, was observed by AECOM biologists flying over the project site during surveys conducted in 2012. Several nest records for this species have been documented in the CNDDB within 5 miles of the project site. Swainson's hawk most often nest in mature riparian trees or in isolated mature trees adjacent to agricultural operations or open grasslands. They are most often found near alfalfa fields because this perennial crop provides habitat for small mammals, such as voles, which provide a key component of their diet while they are in California. The project site does not support likely foraging habitat for Swainson's hawk; the site is sparsely vegetated with nonnative annual plants, so populations of small mammals are likely to be low. The trees at the western end of the project site contain suitable nesting habitat for Swainson's hawk. Although there are no alfalfa fields immediately adjacent to these trees, open foraging habitat with few trees is present to the south at Beale Air Force Base.

White-tailed Kite

Moderate potential exists for white-tailed kite, a fully protected species in California, to nest on the project site. There is no CNDDB record for white-tailed kite within 5 miles of the project site, but this species commonly nests in riparian trees throughout the Central Valley, and the project site contains suitable nesting habitat. Like Swainson's hawk, white-tailed kite forages primarily on small mammals; as mentioned previously, the project site is unlikely to support large populations of small mammals based on the low density of vegetation.

Tricolored Blackbird

Low to moderate potential exists for tricolored blackbird, a California species of special concern, to nest on the project site. Several CNDDB records of this species occur near the project site; however, the majority of these records are from the 1930s and the colonies are possibly extirpated. The closest nesting colony that is presumed extant is located across the Yuba River to the northeast (occurrence number 58). Some of the dredge ponds and depressions between tailing mounds within the Yuba goldfields contain dense willows and/or support emergent vegetation along their edges that could potentially support a nesting colony of tricolored blackbird; however, very little suitable habitat exists in or near the project site.

Pacific Pond Turtle

High potential exists for Pacific pond turtle, a species of special concern in California, to occur on the project site. An AECOM biologist observed a Pacific pond turtle in a dredge pond within the Goldfields immediately adjacent to the project site during the reconnaissance-level survey on August 8, 2013, and there is a CNDDB record of the species occurring in a pond 0.21 mile east of the project site within the Goldfields. Pacific pond turtle inhabits ponds and slow-moving streams with basking sites and travels through upland areas to move to other ponds. It nests in loose substrate near aquatic habitat from April to August, sometimes laying two clutches (CaliforniaHerps.com 2013).

Special-status Species within 5 Miles of the Project Area that Were Dismissed from Consideration

Occurrences of the following four plant and 10 wildlife species within 5 miles of the project area were found in the CNDDB and/or the USFWS databases, but these species were found to lack the potential to be affected by the proposed project.

Plants

None of the special-status plant species previously recorded in the CNDDB within 5 miles of the project area are likely to occur on the project site because the site is highly disturbed as the result of a long history of mining operations and does not support suitable habitat for these species. Dwarf downingia (*Downingia pusilla*, CRPR 2B) and legenere (*Legenere limosa*, CRPR 1B) are vernal pool species and the project site does not support vernal pool habitat. Historical CNDDB records from the project vicinity of veiny monardella (*Monardella venosa*, CRPR 1B) and Hartweg's golden sunburst (*Pseudobahia bahiifolia*, state listed and federally listed as endangered, CRPR 1B) are extirpated or presumed extirpated, and their habitats (cismontane woodland and grassland) do not occur on the project site. No special-status plants are expected to occur on the project site.

Vernal Pool Fairy Shrimp, Vernal Pool Tadpole Shrimp, and Conservancy Fairy Shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*), federally listed as threatened, vernal pool tadpole shrimp (*Lepidurus packardi*), federally listed as endangered, and conservancy fairy shrimp (*Branchinecta conservatio*), federally listed as endangered, are vernal pool invertebrates that are known to occur in vernal pools within the project vicinity; however, these species are not expected to occur on the project site because of the lack of suitable habitat.

Giant Garter Snake

Giant garter snake (*Thamnophis gigas),* which is federally and state listed as threatened, is contained on the potential species list for the USFWS nine-quadrangle search; however, the nearest CNDDB occurrence is 13 miles to the west. Giant garter snakes inhabit perennial streams and irrigation ditches with emergent vegetation growing along the banks. This habitat is absent from the project site; therefore, the species in not expected to occur.

California Red-legged Frog

California red legged frog (*Rana draytonii*) (CRLF), which is federally listed as threatened and a species of special concern in California, is also included on the USFWS nine-quadrangle search; however, there are no CRLF occurrences within the project vicinity in the CNDDB, and all the ponds on the project site were artificially constructed. Furthermore, the dredge ponds contain bullfrog (*Rana catesbeiana),* an avid CRLF predator that thrives in permanently inundated waters. Therefore, CRLF are not expected to occur on the project site.

California Black Rail

The California black rail, a species state listed as threatened, is found in the region throughout the year but is most susceptible to disturbance during its breeding season (March–July). There are several CNDDB records for California black rail in the project vicinity. The habitat on the project site that could potentially support black rail is of poor quality for this species. Black rails found in the foothills typically inhabit large, shallow (greater than 0.25 acre and less than 1 foot deep), permanently inundated water features with gentle slopes and dense emergent vegetation (Richmond et al. 2010). The water features on the project site are characterized by steep slopes, unevenly vegetated pond margins, and deep water. This species is not expected to occur on the project site because of the lack of suitable habitat.

Burrowing Owl

Burrowing owl (*Athene cunicularia*), a species of special concern in California, is unlikely to occur on the project site because there is poor quality foraging habitat and a lack of suitable burrows. Creating burrows in the cobble substrate on the project site would be difficult for fossorial mammals. No California ground squirrels (*Otospermophilus beecheyi*), which commonly create the burrows used by burrowing owls, were observed during the reconnaissance-level survey in 2013 and on many previous surveys conducted within or near the project site in 2012–2013.

Western Yellow-billed Cuckoo

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), which is a candidate species for federal listing and state listed as endangered, is unlikely to occur on the project site because it inhabits mature riparian forest with dense understory and the project site does not support this type of mature riparian habitat.

Central Valley Steelhead Distinct Population Segment, Central Valley Chinook Salmon Evolutionarily Significant Unit, Winter-Run Chinook Salmon, and Late-Fall Run Chinook Salmon

The Yuba River is designated critical habitat for steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*O. tshawytscha*). The Central Valley steelhead Distinct Population Segment is federally listed as threatened. The legal status of Chinook salmon varies among different Evolutionarily Significant Units (ESUs) the Central Valley

Chinook salmon ESU is federally and state listed as threatened; the winter-run Chinook salmon is federally listed as endangered; and the fall-run Chinook salmon is state listed as a species of concern. Surface water from the dredge ponds in the west side of the Goldfields flows through an unnamed drain into the Yuba River. It is possible that errant adult steelhead or Chinook salmon may swim up the unnamed drain and enter the first holding pond located near the Yuba River; however, it is highly unlikely that these fish would continue through a series of culverts and reach the project site. At normal groundwater levels there is no direct connection between the unnamed drain to the project site; at high flows, the shortest path to the project site would be nearly 3 miles long.

Sensitive Habitats

Sensitive habitats are those that are of special concern to resource agencies or are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the CWA, and the state's Porter-Cologne Water Quality Control Act. Sensitive habitat may be of special concern to these agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species.

CDFW maintains a list of plant communities that are native to California. On that list, CDFW identifies special-status plant communities (aka sensitive natural communities), which it defines as communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special-status species or their habitat. Special-status plant communities are tracked in the CNDDB.

Riparian forest and scrub are typically considered sensitive habitats. Thin strips of riparian vegetation occur at the periphery of the dredge ponds (Exhibit 3.4-1). Some of the depressions between tailing mounds contain no permanent surface water but still support riparian vegetation. An example is found in the wooded area in the western portion of the project area. This area contains sparse understory plants and semi-mature trees normally associated with riparian areas in the Central Valley, including valley oak and Fremont cottonwood. The species composition and structure of vegetation in this depression is identical to bench areas associated with major river systems in the Central Valley and the area supports the nests of many avian species that are common along river corridors. Riparian areas at the north end of the project site are more closely associated with surface water and contain dense understory. There is a total of 5.517 acres of riparian habitat within fill areas on the project site. Riparian habitat in other areas within the project site will be avoided.

3.4.2 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 or the U.S. Fish and Wildlife Service?

SPECIAL-STATUS PLANTS

No Impact. The project site does not support suitable habitat for special-status plants and none are expected to occur. Therefore, no impact would occur.

SPECIAL-STATUS ANIMALS

The proposed project has the potential to adversely affect five special-status animals known from or with potential to occur on the project site: VELB, Swainson's hawk, white-tailed kite, tricolored blackbird, and Pacific pond turtle. The impact on each species is addressed separately below.

Valley Elderberry Longhorn Beetle

Less-than-Significant Impact. Elderberry shrubs are located within 100 feet of the project site. However, as described in Section 2.4.5, "Valley Elderberry Longhorn Beetle Habitat Protection," construction of the 100-year embankment would avoid elderberry shrubs within 100 feet of borrow and fill areas and a 20-foot buffer would be established and maintained around each shrub with construction fencing. In addition, signage would be erected in avoidance areas explaining that disturbance of this habitat would be a violation of the ESA and a punishable offense. . Because construction of the embankment would avoid disturbance to VELB habitat and a buffer of 20 feet would be maintained during the course of construction, impacts to VELB would be less than significant.

Nesting and Special-Status Birds

Less-than-Significant Impact with Mitigation Incorporated. Three special-status bird species—Swainson's hawk, white-tailed kite, and tricolored blackbird—could nest on or near the project site. In addition to these special-status bird species, several common raptor species could nest in the project vicinity. The nests of all raptor species are protected under Section 3503.5 of the California Fish and Game Code and the nests of most bird species found in California are protected by the Migratory Bird Treaty Act of 1918. Nest disturbance resulting from project construction has the potential to cause nest abandonment or the loss of eggs or chicks as a result of reduced parental care. The proposed project would remove riparian habitat near the western edge of the project area that includes suitable nest trees for Swainson's hawk and other raptors. In addition, the riparian and marsh habitats that occur along the edges of some of the dredge ponds provide suitable nesting habitat for migratory bird species. Loss of a nest for special-status bird species or loss of a raptor nest caused by disturbance during project construction would be a significant impact. In addition, loss of nests of other migratory birds could also be significant. Therefore, this impact would be potentially significant.

Mitigation Measure 3.4-1a: Develop and Implement Worker Environmental Awareness Program.

TRLIA will develop and implement a worker environmental awareness program (WEAP) in coordination with a qualified biologist, and all personnel involved in project implementation will be trained before starting work in the project area. The WEAP will include relevant identification, habitat, and life history information regarding the sensitive species and habitats on-site, and will provide relevant regulatory information to explain why the training is necessary. The WEAP will discuss appropriate avoidance and minimization measures for each species that has the potential to occur on the project site and will outline what to do and whom to contact if any protected species is encountered.

Mitigation Measure 3.4-1b: Remove Riparian and Marsh Vegetation between September 16 and January 31 if Possible to Avoid Affecting Active Bird Nests.

TRLIA will attempt to time the removal of riparian and marsh vegetation to occur between September 16 and January 31, outside of the nesting season of special-status and migratory bird species. If all vegetation removal occurs at these times outside of the nesting season of special-status and migratory birds, no further mitigation for these

species will be necessary. If vegetation cannot be removed outside of the nesting season, TRLIA will implement the additional measures outlined below.

Mitigation Measure 3.4-1c: Conduct Surveys for Swainson's Hawk and Other Nesting Raptors and, if Found, Implement Avoidance Measures.

If project activity is scheduled to occur during the raptor nesting season (February 1–September 15), focused surveys for Swainson's hawk will be conducted in accordance with Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). Other raptors, including white-tailed kite and non-special-status raptors, will also be included because their nesting habitat is similar to that of Swainson's hawk.

Surveys for raptors will be conducted by a qualified biologist before the start of project construction to identify active nests on the project site and in the vicinity. Surveys for Swainson's hawk nests will include all accessible areas of suitable nesting habitat located within 0.25 mile of the project site. Surveys for other raptors will include accessible suitable nesting habitat located within 500 feet of the areas where construction would occur. If no active nests are found, no further mitigation will be required.

If active Swainson's hawk nests are located, TRLIA will maintain a buffer of 0.25 mile or consult with CDFW to determine appropriate buffers. If nests of other raptor species are found during the surveys, appropriate buffers will be established by a CDFW-authorized biologist to minimize impacts. No project activity will commence in the buffer area until a qualified biologist confirms that the nest is no longer active. The size of the buffers may be adjusted, depending on the project activity and stage of the nest, if a qualified biologist determines that activity within a reduced buffer would not be likely to adversely affect the adults or their young.

Mitigation Measure 3.4-1d: Conduct Preconstruction Survey for Nesting Tricolored Blackbird if Vegetation will be Removed during the Nesting Season (March 15 to August 15) for the Species.

Within 30 days of project construction, a qualified biologist will conduct a focused survey for breeding tricolored blackbirds within suitable habitat on the project site. If no breeding tricolored blackbirds are found, the results of the survey will be documented in a memorandum to TRLIA and no further action will be necessary.

If any breeding colony of tricolored blackbirds is documented, an appropriate buffer of up to 500 feet will be established around the colony, depending on site-specific conditions at the discretion of a qualified biologist, and any construction-related activities will be excluded from the buffer until the end of the breeding season.

Mitigation Measure 3.4-1e: Conduct Preconstruction Nesting Bird Survey before Removal of Potential Nesting Habitat within the Nesting Season.

A qualified biologist will conduct a preconstruction survey no longer than 1 week before the removal of riparian vegetation and emergent marsh vegetation occurring within the nesting season (February 1–September 15) to avoid impacts on nesting birds. If an active nest is located during the preconstruction survey, an appropriate buffer will be determined by the biologist. The no-disturbance buffer will be observed until it has been determined that the nest is no longer active.

Implementing Mitigation Measures 3.4-2a through 3.4-2e would reduce the potentially significant impact of the proposed project on nesting and special-status birds to a less-than-significant level because workers would be trained on how to avoid and minimize effects on nesting and special-status birds, and construction would be timed to avoid the nesting season or surveys would be conducted and appropriate buffers would be established before the start of construction.

Pacific Pond Turtle

Less-than-Significant Impact with Mitigation Incorporated. Pacific pond turtles may occur in the dredge ponds and in uplands surrounding the ponds that would be disturbed as part of construction. Implementing the proposed project could result in mortality of Pacific pond turtles, if any are present. This impact would be potentially significant.

> **Mitigation Measure 3.4-1f: Implement Mitigation Measure 3.4-1a.**
>
> **Mitigation Measure 3.4-1g: Avoid Impacts on Pacific Pond Turtle.**
>
> *Within 15–30 days of construction, a qualified biologist retained by TRLIA will conduct a preconstruction survey to determine whether Pacific pond turtles are present within the aquatic habitat on the project site. Any turtle encountered on the project site will be relocated to an appropriate area within the Yuba Goldfields by a qualified biologist before the start of project construction.*

Implementing Mitigation Measures 3.4-1f and 3.4-1g would reduce the potentially significant impact of the proposed project on Pacific pond turtle to a less-than-significant level because workers would be trained on how to avoid and minimize effects on Pacific pond turtle, and turtles encountered on the project site would be moved before the start of construction.

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 the U.S. Fish and Wildlife Service?

Less-than-Significant Impact with Mitigation Incorporated. The proposed project would not affect the bed or bank of streams or lakes or contribute material to any stream or lake because the project site is separated from the surrounding areas, including the Yuba River, by dredge tailing mounds. The dredge ponds on the project site are human-made features; however, some of the ponds and depressions between tailing mounds contain vegetation that is normally associated with riparian communities. These stands of vegetation provide similar functions and values as riparian vegetation associated with natural streams and are treated as riparian habitat in this document. Riparian forest and scrub found within the project site qualify as sensitive natural communities.

Of the 20.55 acres of riparian habitat present within the proposed project site, 5.517 acres are located within fill areas and would be impacted. Therefore, the calculated long-term loss of riparian habitat resulting from implementation of the proposed project would be approximately 5.517 acres of riparian habitat. This impact would be potentially significant.

Mitigation Measure 3.4-2: Minimize Impacts on Riparian Habitat during Construction and Replace Any Affected Riparian Habitat.

TRLIA will minimize impacts on riparian habitat during project construction whenever possible. This may be accomplished by placing protective construction fencing around areas of riparian vegetation to be preserved and including information about this sensitive community in the WEAP training described in Mitigation Measure 3.4-1a.

For those impacts on riparian habitat that are unavoidable, TRLIA will replace the riparian habitat lost in kind (i.e., will replace willow scrub with willow scrub and riparian forest with riparian forest) at a 1:1 replacement ratio, based on the acreage affected. Replacement planting would occur on-site (if feasible), or on other suitable sites near the project site. Replacement plantings will be maintained until well established and able to survive on their own and will be placed in an area that is protected from future impacts, such as an approved mitigation bank or areas owned by TRLIA and maintained for long-term habitat protection.

Implementing Mitigation Measure 3.4-3 would reduce the potentially significant impact of the proposed project on riparian habitat to a less-than-significant level because riparian habitat would be avoided or replaced in kind and maintained until established.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The proposed project would not have a substantially adverse effect on federally protected wetlands because no federally protected wetlands subject to USACE jurisdiction under Section 404 of the CWA are present on the project site, as discussed above in Section 3.4.1, "Environmental Setting."

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?

Less-than-Significant Impact. A wildlife corridor is generally a topographical or landscape feature, or movement area, that connects two open-space habitat parcels that otherwise would be entirely fragmented or isolated from one another. A variety of wildlife species may use the project site, but the site does not function as a known or major migratory corridor. Project construction and operation would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, nor would the project impede the use of wildlife nursery sites. Any wildlife moving through the area would be able to use adjacent open-space areas, including during construction. Therefore, 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?

No Impact. The proposed project would be constructed in partnership by TRLIA and Western Aggregates on property that is privately owned by Western Aggregates and is subject to the Yuba County Ordinance Code; however, there are no tree ordinances within the county's Ordinance Code that apply to this project (Yuba County 2011). Yuba County adopted the *Yuba County Voluntary Individual Oak and Oak Woodland Management Plan*

and Landowner Guidelines on December 13, 2005 (YCRCD 2013); however, private landowners are not required to comply. Therefore, the proposed project would not conflict with any local ordinances. No impact 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?

No Impact. The proposed project would not conflict with any provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP. Yuba and Sutter Counties, in collaboration with CDFW, USFWS, and the National Marine Fisheries Service, are developing a regional conservation plan that will be a joint federal natural community conservation plan and state HCP; however, the plan has not yet been approved. Coverage of flood control projects is not recommended for consideration in the regional conservation plan. Therefore, no conflict exists, and no impact would occur.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

3.5.1 REGULATORY SETTING

CULTURAL RESOURCES

CEQA broadly defines cultural or historical resources. Cultural resources can include traces of prehistoric habitation and activities, historic-era sites and materials, and places used for traditional Native American observances or places with special cultural significance. In general, any trace of human activity more than 50 years in age must be considered a cultural resource.

CEQA states that if a project would have significant impacts on important cultural resources, then alternative plans or mitigation measures must be considered. However, only significant cultural resources (termed "historical resources") need to be addressed. The State CEQA Guidelines define a historical resource as a resource listed or eligible for listing in the California Register of Historical Resources (CRHR) (California Public Resources Code, Section 5024.1). A resource may be eligible for inclusion 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; or

(4) has yielded, or may be likely to yield, information important in prehistory or history.

The State CEQA Guidelines also require consideration of unique archaeological resources (Section 15064.5). As used in the Public Resources Code (Section 21083.2), the term "unique archaeological resource" means 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:

(1) Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

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 (California Office of Historic Preservation 1999:69–70).

PALEONTOLOGICAL RESOURCES

Professional Paleontological Standards

The Society of Vertebrate Paleontology (SVP) (1995, 1996), a national scientific organization of professional vertebrate paleontologists, has established standard guidelines. These guidelines outline acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, analysis, and curation. Most practicing professional paleontologists in the nation adhere to SVP assessment, mitigation, and monitoring requirements, as specifically spelled out in its standard guidelines.

3.5.2 ENVIRONMENTAL SETTING

CULTURAL RESOURCES

Prehistoric Setting

The archaeology of Yuba County is included in the broad framework established by archaeologists for the Sacramento Valley. Although human occupation of the northern Sacramento Valley may extend back 10,000 years or more, reliable evidence of the presence of such an early human presence is lacking. Early archaeological sites bearing evidence of these Paleo-Indian populations may be present in the valley but deeply buried under alluvium (Moratto 1984). The following summary of the prehistoric cultural sequence is drawn primarily from Moratto (1984).

Reliable evidence of early occupation in the northern Sacramento Valley dates after 8,000 years before present (B.P.) The Borax Lake Pattern of the Lower Archaic Period (8000–5000 B.P.) is defined by certain material items such as wide-stemmed projectile points, hand-stones, milling stones, and bowl mortars. The Late Borax Lake Pattern, which archaeologists date to the Middle Archaic Period (5000–2500 B.P.), represents a continuation of the earlier Borax Lake Pattern. Late Borax Lake is distinguished from the earlier manifestation by a greater diversity of projectile point types and the use of the spear thrower (atl-atl).

During the Upper Archaic Period (2500–1500 B.P.), early cultures of the Sacramento Valley exhibited a shift to predominant use of mortars and pestles instead of hand-stones and milling stones. This change may reflect an increased reliance on acorns as a staple food by the valley's indigenous population.

The Emergent Period (1500–200 B.P.) in Sacramento Valley prehistory is represented by the Shasta Aspect of the Augustine Pattern. Shasta Aspect archaeological sites are typically located near watercourses, contain semisubterranean dwellings and new artifact types, and reflect a hunting and gathering economy focused on acorn procurement. Moratto (1984) proposed that the Shasta Aspect represents the influence and intrusion of peoples from farther north in California. Toward the end of this period, extensive Euro-American influences began to adversely affect native cultures throughout California.

Ethnographic Setting

The project area is situated within the territory occupied and used by the Nisenan, or Southern Maidu. Their territory encompassed the Bear, Yuba, Sacramento, and American River basins. The western boundary of Nisenan territory was the west bank of the Sacramento River. The eastern boundary was "the line in the Sierra Nevada mountains where the snow lay on the ground all winter" (Littlejohn 1928:13). The language of the Nisenan, which includes several dialects, is classified within the Maiduan family of the Penutian linguistic stock (Kroeber 1925; Shipley 1978).

The subsistence of the Nisenan consisted of fish, deer, and acorns and was supplemented by a vast array of small mammals, avian game, nuts, seeds, roots, and berries (Wilson and Towne 1978:389). The acorn crop from the blue oak (*Quercus douglasii*) and black oak (*Q. kelloggii*) was so carefully managed that its management served as the equivalent of agriculture. Acorns could be stored in anticipation of winter shortfalls in resource abundance.

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually located on low rises along major watercourses. Wilson and Towne (1978) indicate that village size ranged from three to 40 or 50 houses. During expeditions in 1833, Work (in Maloney 1944) indicated that these villages along the Feather River were composed of as many as 200 individuals. Houses were domed structures covered with earth and tule or grass and measured 10–15 feet in diameter. Brush shelters were used in summer and at temporary camps during food-gathering rounds. Larger villages often had semisubterranean dance houses that were covered in earth and tule or brush and had a central smoke hole at the top and an east-facing entrance. According to the accounts of an informant documented by Kroeber (1929), excluding the American River, there were 57 villages on the Sacramento and Feather Rivers from the northern boundary of the Patwin on the Sacramento, and from just below Oroville on the Feather, to a point 4 miles below the city of Sacramento. Given the number of villages and tribelets, an estimate of well over 10,000 Nisenan inhabited this area before contact.

Before the discovery of gold within the Nisenan territory, an epidemic—possibly malaria—swept through the Sacramento Valley, leaving devastation in its wake. John Work's California Expedition, 1832–1833, for the Hudson's Bay Company was said to have been "heavily infested" with malaria (Cook 1955:316). Work (in Maloney 1944:132) notes the depopulation of the lower Feather River villages caused by disease, which afflicted the natives throughout the whole interior valley:

> …The villages which were so populous and swarming with inhabitants when we passed that way in Jary [January] or Febry [February] last seem now almost deserted & have a desolate appearance. The few

wretched Indians who remain seem wretched they are lying apparently scarcely able to move, It is not starvation as they have considerable quantities of their winter stock of acorns still remaining. We are unable to learn the malady or its cause. I have given the people orders to avoid approaching the villages lest it be infectious.

Historic-Era Setting

Beginning in 1849, prospectors and entrepreneurs overran the streams of the Sierra Nevada in search of riches. Miners initially established their claims and workings on watercourses, and then gradually worked back from the flats adjacent to streams, ridges, and hillsides. By 1857, hydraulic mining began to replace the smaller scale placer methods, and extracting placer gold was no longer restricted to the immediate stream channel and bars. Debris from hydraulic operations destroyed or buried many of the older mining camps (Hoover et al. 1990). With the exception of Arcadia Publishing Company's book on Hammonton and Marigold (Criddle and Criddle 2007) and a Huell Howser broadcast from the Goldfields in 2005 (see Massey 2005), these mine tailings have not been formally documented.

PALEONTOLOGICAL RESOURCES

Geologic Setting

The project site is located along the lower Yuba River just as the river exits a bedrock canyon within the Sierra Nevada foothills. As discussed in the *Goldfields Geotechnical Studies Report* (ENGEO 2013:5–6, Figure A3), the Yuba River has been transporting sediment to the Great Valley for millions of years. As the river exited the confined canyon, it fanned out into different channel alignments where coarse-grained sediments and gold were deposited. Before mining activities occurred in the 1800s and 1900s, the project site was composed of the Modesto, Riverbank, and Laguna Formations (ENGEO 2013:Figure A3), which consisted of interbedded gravel, sand, and silt (Helley and Harwood 1985). The bedrock canyon east of the project site is mapped as Jurassic-age volcanic rocks that are also present on the project site at Daguerre Point, just south of Daguerre Point Dam.

In 1904, bucket-line dredge mining began on what is now the project site. Large floating dredges excavated into the hydraulic mine sediment and natural deposits to extract the fine gold embedded in the gravel and sand. These dredges excavated to depths of 60–140 feet, processed the sediments to extract gold, and deposited the tailings in linear piles via conveyor belts. Typically, material measuring greater than 1/4 inch was screened and cast off the main conveyor, while material measuring less than 1/4 inch was sluiced for gold and dropped out a lower conveyor. The dredging created enormous piles of granular tailings, consisting mostly of sand, gravel, and cobble, that are located throughout the project site. As dredge mining technology and techniques advanced, dredges were able to excavate deeper, which caused some areas to be re-dredged two or three times to extract gold from the deeper undisturbed sediments.

As a result of the dredging process, which has taken place for more than 100 years, the project site consists almost entirely of completely disturbed loose gravel, cobble, and sand with isolated areas of slickens and a labyrinth of waterways. Western Aggregates and Cal Sierra Development, Inc., continue to actively mine for gold and aggregate at the project site, with excavation depths that reach 125–140 feet. (ENGEO 2013:6–11.)

3.5.3 METHODS

CULTURAL RESOURCES

Study Methodology

Methods employed for this project consisted of a records search and Native American consultation. In conjunction with historic and prehistoric overviews, previous investigations and historic maps provide background information that may be used to assess the cultural sensitivity and types of sites that may be located within the project area. A field survey was not conducted as access to the proposed project site was not granted by the landowner.

Records Search and Literature Review

AECOM conducted a records search for pertinent cultural resources information curated by the California Historical Resources Information System at the North Central Information Center (NCIC), California State University, Sacramento. The records search included but was not necessarily restricted to a review of select publications and properties listed in the following sources:

- National Register of Historic Places/California Register of Historic Resources (2006)
- *California Inventory of Historic Resources* (1976)
- *State Historic Landmarks* (1992 and updates)
- General Land Office Plat Map of Township 15 North, Range 4 East (GLO 1860)
- Historic Map, Browns Valley Quadrangle (USGS 1911)
- Historic Map, Mines and Prospects of Yuba County (CDMG 1952)

The files maintained at the NCIC contain information about archaeological investigations that have already been conducted near or within the project area. Two studies have been conducted within one-quarter mile of the project site (the buffer area included in the cultural resources study area) (Farber 1991, HDR/DTA 2010).

Native American Consultation

In addition to the NCIC records search, a letter of inquiry was sent to the Native American Heritage Commission (NAHC) asking for a review of the Sacred Lands files and for a list of individuals or groups with knowledge of areas of cultural sensitivity that may be located in the project area. The response from the NAHC indicated that there are no known Native American cultural resources in the immediate project area. In addition, the NAHC provided a list of individuals or tribes that may have knowledge of cultural resources in the area. A letter of inquiry was mailed to those individuals on August 21, 2013. Marcos Guerrero, Cultural Resources Manager of the United Auburn Indian Community of the Auburn Rancheria, responded via email and inquired as to the ethnographic and historic background information. No other responses have been received to date.

Cultural Resources within the Study Area

No previously recorded historic resources have been identified within the project's one-quarter-mile buffer area.

PALEONTOLOGICAL RESOURCES

Study Methodology

Methods employed for this project consisted of background research, literature review, and a records search to develop a baseline paleontological resource inventory, and assess the paleontological sensitivity of the project site, or the likelihood of the project site to contain unique paleontological resources.

Paleontological Resource Inventory

Background research was conducted to develop a baseline paleontological resource inventory of the project site and establish the paleontological sensitivity of each geologic unit present there. Each geologic formation exposed within the project site was assigned a paleontological sensitivity, based on the number of previously recorded fossil sites from that unit and the scientific importance of the fossil remains recorded. These methods are consistent with SVP 1995 guidelines for assessing the importance of paleontological resources.

Geologic maps and both published and unpublished geological and paleontological literature covering the project site's bedrock and surficial geology were reviewed. The purpose of the review was to determine the exposed and subsurface rock units, assess the potential paleontological productivity of each rock unit, and delineate their respective areal distribution in the project area. The number and location of previously recorded fossil sites from rock units exposed within the project site and the types of fossil remains produced by each rock unit were evaluated based on the available literature.

The literature review was supplemented by a records search from the University of California, Berkeley Museum of Paleontology (UCMP) on August 13, 2013.

Because of the low likelihood that the dredge tailings would contain unique paleontological resources (as discussed below), a field survey was not conducted.

Paleontological Resources Assessment by Rock Unit

The results of a paleontological records search at the UCMP (2013) indicated that there are no recorded vertebrate fossil localities in Yuba County. However, Pleistocene-age vertebrate fossils have been recorded from several localities in Sutter County, including the Sutter Buttes (locality V-4043, approximately 15 miles west of the project site), and two localities approximately 10 miles southwest of the project site (localities V-3915 and V-6426).

The dredge tailings at the project site are composed of sand, gravel, and cobbles originally derived from the Pleistocene-age Modesto and Riverbank Formations, and the Pliocene-age Laguna Formation. The Modesto and Riverbank Formations are known to be paleontologically sensitive, because thousands of vertebrate fossils have been recovered from these formations throughout the Central Valley. However, these formations have been previously excavated at the project site, in some cases up to three different times over the last 100 years, to depths of up to 140 feet. The mechanical nature of the dredging process would likely have destroyed any vertebrate fossils that may have been present before the mining activities began. Therefore, the dredge tailings are considered to be of low paleontological sensitivity.

Paleontological Resources Evaluation

The project's potential impacts on paleontological resources were evaluated using the significance criteria set forth in Appendix G of the State CEQA Guidelines. Those criteria state that a project would have a significant impact on paleontological resources if it would directly or indirectly destroy a unique paleontological resource or site. For the purposes of this analysis, a unique resource or site is one that is considered significant under the following professional paleontological standards.

A paleontologically important rock unit is one that (1) has a high potential paleontological productivity rating and (2) is known to have produced unique, scientifically important fossils. The potential paleontological productivity rating of a rock unit exposed at the project site refers to the abundance/densities of fossil specimens and/or previously recorded fossil sites in exposures of the unit. Exposures of a specific rock unit at the project site are most likely to yield fossil remains representing particular species in quantities or densities similar to those previously recorded from the unit in other locations.

An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- A type specimen (i.e., the individual from which a species or subspecies has been described)
- A member of a rare species
- A species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn
- A skeletal element different from, or a specimen more complete than, those now available for its species
- A complete specimen (i.e., all or substantially all of the entire skeleton is present)

The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates are generally common; the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare.

3.5.4 DISCUSSION

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

Less-than-Significant. Portions of the land composing the project area were dredged as early as the first and second decades of the 20th century (Aubury 1910; Waring 1919) and as late as the 1980s (Ramirez, pers. comm., 2013). It is possible that some of the land was re-dredged one or more times, as new machines with longer digging ladders were developed to reach deeper deposits as early as the 1910s (O'Brien 1952:150–151). The early and late tailings have become mixed together. The Goldfields are being substantially affected by the process of

aggregate and silica mining, and will continue to be substantially affected in the future. Because the proposed project would affect approximately 2.1 miles of hundreds of miles of dredge tailings in the Goldfields, this impact is considered to be less than significant.

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

Less-than-Significant Impact with Mitigation Incorporated. The cultural resource investigation conducted for the project included archival research and coordination with Native Americans. Archival research identified two previous cultural resources studies conducted within the one-quarter-mile search radius, and one on the project site. No historic-era archaeological sites were recorded within the one-quarter-mile search radius of the project site.

Consultation with the NAHC identified no Native American resources in the immediate project area that are listed on the Sacred Lands file and no Native American contact provided by the NAHC has responded to inquiries regarding the potential for Native American resources in the project area.

No new or previously recorded archaeological resources were identified. However, project earth-moving activities have the potential to inadvertently damage or destroy previously unknown subsurface cultural resources. Therefore, this impact would be potentially significant.

Mitigation Measure 3.5-1: Immediately Halt Construction Activities If Cultural Resources Are Encountered.

If archaeological resources are encountered during project-related ground-disturbing activities (e.g., unusual amounts of shell, midden, animal bone, bottle glass, ceramics, or structure/building remains), all work within 100 feet of the find shall cease until the find can be evaluated by a qualified archaeologist. If the archaeologist determines that the resources are significant, the archaeologist shall notify TRLIA and the resource shall be avoided if feasible.

Preservation in place is the preferred manner of mitigating impacts on an archaeological site and may be accomplished by planning construction to avoid archaeological sites; covering archaeological sites, or deeding a site into a permanent conservation easement. If avoidance is infeasible, a treatment plan that documents the research approach and methods for data recovery shall be prepared and implemented in consultation with TRLIA, the U.S. Army Corps of Engineers (if appropriate), and the California State Historic Preservation Officer, and with appropriate Native American representatives if the resources are prehistoric or Native American in nature. Work may proceed on other parts of the project area while treatment is being carried out.

Implementation of Mitigation Measure 3.5-1 would reduce project impacts on archaeological resources to a less-than-significant level because it requires that procedures be followed in case of the inadvertent discovery of archaeological resources during construction to avoid disturbing the site or to recover the available archaeological data from the site.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-Significant Impact. Before mining activities began in the 1800s, the project site was underlain by the Modesto, Riverbank, and Laguna Formations (ENGEO 2013:5–6). The Modesto and Riverbank Formations are paleontologically sensitive. However, the project site has been extensively and repeatedly mined over the last 100

years, to depths of up to 140 feet. The mechanical nature of the dredging activities would likely have destroyed any vertebrate fossils that originally may have been present. Therefore, construction-related earth-moving activities at the project site are unlikely to damage or destroy unique paleontological resources. This impact would be less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant Impact with Mitigation Incorporated. No evidence of human remains was found in documentary research, and dredging activities have affected the project area extensively without the discovery of intact human remains to date. However, the potential for future ground-disturbing activities on the project site to adversely affect presently unknown prehistoric burials still exists, although the likelihood is very low because of previous and ongoing dredging activities. California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. In light of the potential to uncover unknown or undocumented Native American burials, this impact would be potentially significant.

Mitigation Measure 3.5-2: Immediately Halt Construction Activities if Any Human Remains Are Discovered.

TRLIA will follow the procedures for the treatment of discovered human remains that are contained in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all such activities within 75 feet of the find will be halted immediately and TRLIA or its designated representative will be notified. TRLIA will immediately notify the county coroner and a qualified professional archaeologist. 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, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). TRLIA's responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.9 of the California Public Resources Code. TRLIA or its appointed representative and the professional archaeologist will consult with a Most Likely Descendant (MLD) identified by the NAHC regarding the removal or preservation and avoidance of the remains, and will determine whether additional burials could be present in the vicinity.

Assuming that an agreement could be reached between the MLD and TRLIA or its representative with the assistance of the archaeologist, these steps would minimize or eliminate adverse impacts on the uncovered human remains. Thus, implementation of Mitigation Measure 3.5-2 would reduce the potentially significant impact of the proposed project on any human remains that may be uncovered to a less-than-significant level.

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3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Geology and Soils. Would the project:				
a) Expose people or structures to 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.)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

3.6.1 ENVIRONMENTAL SETTING

The project site is located along the margin of the Great Valley and Sierra Nevada geomorphic provinces. The Great Valley consists of an elongated structural trough that has been filled with a sequence of sedimentary deposits ranging from Jurassic to recent in age. The Sierra Nevada, located east of the project site, is a fault-block mountain range trending generally north northwest along the eastern portion of California.

Before mining activities occurred in the 1800s and 1900s, the project site was composed of the Laguna, Modesto, and Riverbank Formations (ENGEO 2013:Figure A3). Jurassic-age volcanic rocks are also present on the project site at Daguerre Point, just south of Daguerre Point Dam.

Dredge mining for gold has occurred at the project site for more than 100 years and continues today. The dredging activities have resulted in large mounds up to 90 feet high, consisting mostly of sand, gravel, and cobble, that are located throughout the project site. The dredge piles are typically linear tailings mounds with side slopes that range from 3:1 (horizontal:vertical) to 1.5:1 (horizontal:vertical) toward the edges. Volcanic bedrock outcrops with a relatively thin veneer of native fine-grained soil are present in the Daguerre Point area just south of Daguerre Point Dam; this area appears to be relatively undisturbed. (ENGEO 2013:12.)

The project site is not located within an Alquist-Priolo Earthquake Fault Zone (CGS 2012), and no known faults cross or are located adjacent to the site (Jennings 1994; ENGEO 2013:Figure A22). The closest faults to the project site with evidence of displacement during Holocene time are the Cleveland Hills Fault and the Dunnigan Hills Fault, approximately 16 miles to the north and 40 miles to the southwest, respectively (Jennings 1994). The northern segment of the Cleveland Hills Fault near Lake Oroville was the source of a magnitude 5.7 earthquake that occurred on August 1, 1975; however, research conducted by the California Department of Water Resources indicates that this earthquake most likely resulted from reservoir-induced stress (DWR 1979). Active faults are generally located in the Coast Ranges to the west or in the Lake Tahoe area to the east, approximately 60 miles from the project site.

A review of soil survey data from the U.S. Natural Resources Conservation Service indicates that the project site consists primarily of mine tailings, with approximately 1.5 acres of Holillipah loamy sand 0–1% slopes (NRCS 2013).

3.6.2 DISCUSSION

a) Expose people or structures to 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.)

Less-than-Significant Impact. Surface ground rupture along faults is generally limited to a linear zone a few yards wide. Because no active faults are mapped across the project site, nor is the site located within an Alquist-Priolo Earthquake Fault Zone, fault ground rupture is unlikely (CGS 2012; Jennings 1994; ENGEO 2013:Figure A22). Therefore, this impact would be less than significant.

ii) Strong seismic ground shaking?

Less-than-Significant Impact. The intensity of ground shaking depends on the distance from the earthquake's epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristics of the source. Ground motions from seismic activity can be estimated by using the probabilistic method at specified hazard level and using a computer model to conduct site-specific design calculations. The peak horizontal ground acceleration was calculated by ENGEO (2013:38) based on U.S. Army Corps of Engineers guidelines for levee stability. Ground accelerations with a 50% probability of being exceeded in 75 years yielded an estimated design peak horizontal ground acceleration of 0.06*g* (where *g* is the percentage of gravity). Based on this calculation, very low levels of seismic ground shaking are projected to occur at the project site should an earthquake occur within the next 75 years. Therefore, this impact would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are the soil type, level and duration of seismic ground motions, type and consistency of soils, and depth to groundwater. In addition, lateral deformation may result from lateral spreading toward a sloping freeface, or from shear deformations caused by a reduction in the shear strength of the deposit. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass that lies over a layer of liquefied sands or weak soils.

The dredge deposits within the project site generally consist of gravels, cobbles, and sands, with areas of fine-grained slickens. These deposits are generally loose and have little cohesion. However, as described above, the calculated peak horizontal ground acceleration is only 0.06*g*, which indicates an extremely low level of anticipated seismic ground shaking, and the known active seismic sources are a long distance from the project site. Therefore, the potential hazard from liquefaction and associated lateral spreading is considered low (ENGEO 2013:32). This impact would be less than significant.

iv) Landslides?

Less-than-Significant Impact. The dredge tailings at the project site consist of mounds that are up to 90 feet tall. ENGEO performed slope stability analyses for both the existing dredge tailings mounds and the simulated levee embankment that would be constructed as part of the proposed project. The results of the analyses for the proposed 100-year embankment show that the recommended 3:1 (waterside) and 5:1 (landside) slopes would be stable under all simulated scenarios, with minimum static slope stability factors of safety well above 1.5 (ENGEO 2013:36–39). Therefore, this impact would be less than significant.

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

Less-than-Significant Impact with Mitigation Incorporated. Seepage beneath and through segments of the proposed embankment could result in soil erosion and would pose a risk to the stability and reliability of the embankment. Underseepage occurs below the visible (aboveground) prism of a levee or embankment; it results when water pressure builds up in subsurface foundation soils during high river stages on the waterside of the embankments. This pressure can be great enough to force water through the earthen foundation layers beneath the embankment, causing the water to find a pathway of least resistance and exit at the landside ground surface. Such seepage is not uncommon; when it is excessive and uncontrolled, however, underseepage can carry fine-grained material with the water flow, potentially undermining the embankment and subsequently leading to embankment failure. Soil erosion can also occur as a result of through-seepage, which is seepage through an embankment that can occur during periods of high river stage. When through-seepage occurs, soil on the land side of the embankment may erode.

ENGEO performed seepage analyses for existing conditions, the proposed 100-year embankment, and a high-ground alternative. The results show that the calculated exit gradients at the landside toe would have factors of safety against underseepage instability of 4.0 and greater, which is a high level of safety (USACE 2000). In addition, the recommended flattened (5:1) landside slopes would provide a resiliently reliable, stable configuration relative to the potential for progressive instability caused by through-seepage. (ENGEO 2013:34-36

and Appendix E-7.) Therefore, implementation of the 100-year embankment would result in a less-than-significant impact with regard to soil erosion.

The project site consists primarily of sand, gravel, and cobble. The gravel and cobble generally would not be subject to erosion from construction activities. However, where sand and fine silt would be exposed to the forces of wind and rainfall during construction, erosion could occur and be potentially significant.

Mitigation Measure: Implement Mitigation Measure 3.9-1 (Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices).

As discussed in detail in Section 3.9, "Hydrology and Water Quality," Mitigation Measure 3.9-1 requires that a storm water pollution prevention plan (SWPPP) or storm water management plan (SWMP) be prepared and submitted to the Central Valley Regional Water Quality Control Board for stormwater discharges associated with general construction activity. The SWPPP or SWMP would include detailed measures that are designed to prevent and control soil erosion from construction areas (e.g., silt fencing, erosion control blankets, and berms or settlement ponds). Therefore, implementation of Mitigation Measure 3.9-1 would reduce the impact from construction-related erosion to a less-than-significant level.

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

Less-than-Significant Impact. ENGEO anticipates that settlement of existing dredge tailings disturbed by the proposed project would be relatively low because of the primarily granular nature of the dredge tailings and would occur mainly during earthwork operations (ENGEO 2013:5-7). The results of ENGEO's stability analyses show that the recommended landside 5:1 slopes would be substantially stable under all modeled scenarios, with minimum static slope stability factors of safety well above 2.0 (ENGEO 2013:36–39). See also the responses to iii) and iv) 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 risks to life or property?

Less-than-Significant Impact. Based on soil data from the U.S. Natural Resources Conservation Service (NRCS 2013), soils in the Goldfields all have a low shrink-swell potential. Therefore, this impact would be less than significant.

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?

No Impact. The proposed project would entail construction of an embankment. If restrooms facilities are needed during construction, portable (non-discharging) restrooms would be used. No septic systems or alternative wastewater disposal systems would be required for the proposed project. Thus, no impact would occur.

3.7 GREENHOUSE GAS EMISSIONS

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

3.7.1 ENVIRONMENTAL SETTING

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. A portion of the solar radiation that enters the atmosphere is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. Infrared radiation (thermal heat) is absorbed by GHGs in the atmosphere; as a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth.

GHGs are present in the atmosphere naturally, released by natural sources, and formed from secondary reactions taking place in the atmosphere. GHG emissions associated with human activities are highly likely responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth's atmosphere and oceans, with corresponding effects on global circulation patterns and climate (IPCC 2007). The following GHGs are widely seen as the principal contributors to human-induced global climate change:

- Carbon dioxide (CO_2)
- Methane
- Nitrous oxide
- Hydrofluorocarbons
- Perfluorocarbons
- Sulfur hexafluoride

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere with that of CO_2. The GWP of a GHG is based on several factors, such as the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere (its "atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. GHGs with lower emissions rates than CO_2 may still contribute to climate change because they are more effective than CO_2 at absorbing outgoing infrared radiation (i.e., they have a high GWP). The concept of CO_2 equivalent (CO_2e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

Impacts of GHG emissions are borne globally, as opposed to the localized air quality effects caused by emissions of criteria air pollutants and toxic air contaminants. The quantity of GHGs that it takes to ultimately result in

climate change is not precisely known; suffice it to say, the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature, or to a global, local, or micro climate. From the standpoint of CEQA, GHG-related effects on global climate change are inherently cumulative.

With the passage of legislation including Senate bills and Assembly bills (ABs) and executive orders, California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the state level. The goal of Executive Order S-3-05, signed by former Governor Arnold Schwarzenegger on June 1, 2005, is to reduce California's GHG emissions to year 2000 levels by 2010, 1990 levels by 2020, and 80% below the 1990 levels by the year 2050. In 2006, this goal was reinforced with the passage of AB 32, the Global Warming Solutions Act. AB 32 further requires that the California Air Resources Board (ARB) create a plan that includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

3.7.2 DISCUSSION

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

Less-than-Significant Impact. Implementing the proposed project would generate construction-related GHG emissions that would cease after the project is constructed. Such emissions would come from vehicle engine exhaust from heavy-duty construction equipment, haul trips, and construction worker trips. As described in Section 3.3, "Air Quality," construction-related GHG emissions were modeled using CalEEMod. GHG emissions from construction of the proposed project would total 143 metric tons (MT) CO_2e.

The Feather River Air Quality Management District (FRAQMD) has not established quantitative significance thresholds for evaluating GHG emissions in CEQA analyses. Instead, FRAQMD recommends using the California Air Pollution Control Officers Association's (CAPCOA's) *CEQA and Climate Change* white paper when developing GHG evaluations (FRAQMD 2010). The *CEQA and Climate Change* paper provides a common platform of information and tools to support local governments and was prepared as a resource, not as a guidance document. However, Section 15064.4 of the State CEQA Guidelines expressly provides that a "lead agency shall have discretion to determine, in the context of a particular project," whether to "[u]se a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." A lead agency also has discretion under the State CEQA Guidelines to "[r]ely on a qualitative analysis or [quantitative] performance based standards."

In its 2008 white paper, CAPCOA analyzed various approaches and significance thresholds that a lead agency could choose to adopt. Therefore, to establish additional context for considering the magnitude of the project's construction-related GHG emissions, this analysis considers the following guidelines for the levels of GHG emissions that would constitute a cumulatively considerable incremental contribution to the ongoing significant cumulative impact on climate change:

- Any residential, commercial, or industrial project that would generate more than 900 MT CO_2e per year would make a cumulatively considerable incremental contribution to climate change (CAPCOA 2008).

- Facilities (i.e., stationary, continuous sources of GHG emissions) that generate more than 25,000 MT CO_2e per year must report their GHG emissions to ARB, pursuant to AB 32 (ARB 2013).

- Stationary sources that generate more than 10,000 MT CO_2 per year may be required to participate in the cap-and-trade program through the Western Climate Initiative (WCI 2009).

In light of the lack of a specific GHG threshold from FRAQMD, it is considered appropriate to refer to guidance from other agencies when discussing GHG emissions. All of the thresholds listed above are discussed in the CAPCOA white paper and were developed consistent with the goals of AB 32. However, this information is presented for informational purposes only; TRLIA does not specifically intend to adopt any of the above-listed emissions levels as a quantitative threshold. The intent of this analysis is to put project-generated GHG emissions into the appropriate statewide context to help determine whether the proposed project's contribution of GHG emissions would reach a level that would have a cumulatively considerable incremental contribution to global climate change.

The proposed project's total construction-related GHG emissions would be less than any of the proposed or adopted thresholds discussed above. The project would require only minimal operational activities for maintenance at the project site. These long-term operational activities would not exceed the existing maintenance and inspection activities for current infrastructure. Implementing the proposed project would not require or result in trips or activities for operations and maintenance beyond existing conditions. Therefore, the project would not generate any long-term GHG emissions that may have a cumulatively considerable incremental contribution to global climate change. This impact would be less than significant and would not constitute a cumulatively considerable incremental contribution to global climate change.

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

Less-than-Significant Impact. Although implementing the proposed project would cause temporary construction-related GHG emissions, the project's intent, purpose, and function align with the goals of the AB 32 Scoping Plan to protect against the detrimental effects of climate change. ARB's Scoping Plan includes measures that would indirectly address GHG emissions from construction activities, including the phasing-in of cleaner technology for diesel engine fleets (including construction equipment) and the development of a Low Carbon Fuel Standard. Policies formulated under the mandate of AB 32 that apply to construction-related activity, either directly or indirectly, are assumed to be implemented statewide and would affect the proposed project should those policies be implemented before construction begins. The proposed project's construction emissions would comply with any mandate or standards set forth by the Scoping Plan.

Neither TRLIA nor any other agency with jurisdiction over this project has adopted a climate change or GHG reduction plan with which the proposed project would conflict. As discussed previously, the proposed project would not emit GHGs at a level that would cause a significant impact on the environment or have a cumulatively considerable incremental contribution to a significant impact on the environment; consequently, the project would not be expected to substantially conflict with existing California legislation and GHG reduction plans adopted to reduce statewide GHG emissions. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHG emissions. This impact would be less than significant.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

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

3.8.1 ENVIRONMENTAL SETTING

PRIOR USES OF THE PROJECT AREA AND VICINITY

Land immediately north of the Yuba River in the project vicinity supports aggregate mining. Land east of the project area is vacant and used for cattle grazing. Land to the south and west of the project area, and north of Hammonton-Smartville Road, supports aggregate mining, agricultural production, and cattle grazing.

Western Aggregates holds vested mining rights on 3,900 acres of land in the Yuba Goldfields. Western Aggregates has structures and facilities in place such as a laboratory, an asphalt plant, and several permitted

aboveground storage tanks containing fuels and various materials used at the asphalt plant (Atkins 2013:5-74). In the asphalt processing plant area, Western Aggregates maintains processing equipment (e.g., crushers, screens, and conveyors, maintenance structures, fuel storage area, product stockpiles), a scale house, a shop building, fuel island, administrative offices, and equipment storage (Atkins 2013:2-17).

Western Aggregates' existing operations consist primarily of sand and gravel removal and processing. Current mining operations involve excavation using a clamshell dredge, excavators, draglines, and other equipment. Material is removed, transported, or conveyed to a processing plant, and then sorted; certain materials are crushed and/or washed and stockpiled for use in the manufacturing and/or sale of construction aggregates and road base and other aggregate material. Wash water and silts are pumped into a settling pond. (Atkins 2013:2-16 and 2-17.)

Cal Sierra Development, Inc. (Cal Sierra) owns the mineral rights to gold, precious metals, and other related assets within portions of the Goldfields. Cal Sierra's administrative offices are located in the southeastern portion of the project area. (Atkins 2013:2-16.)

HAZARDOUS MATERIALS

The project area consists primarily of dredger mine tailings up to 90 feet high that are composed of sand, cobble, and gravel. Gold mining activities in the 1800s entailed the use of mercury. Because the potential hazards of the project related to residual mercury (or generation of methylmercury that could occur from ponding) pertain primarily to water quality, mercury-related issues are addressed in Section 3.9, "Hydrology and Water Quality."

AECOM searched several publicly available databases maintained under California Public Resources Code (PRC) Section 65962.5 (i.e., the "Cortese List") to determine whether any known hazardous materials are present either within or immediately adjacent to the project area.

The State Water Resources Control Board (SWRCB) maintains the Geotracker database, an information management system for groundwater. Data on leaking underground storage tanks and other types of soil and groundwater contamination, along with associated cleanup activities, are part of the information that SWRCB must maintain under PRC Section 65962.5. A search of the Geotracker database (SWRCB 2013) indicated that there are no known open, active cases of contamination either within or immediately adjacent to the project area.

The Hazardous Waste and Substances Site List (the "EnviroStor" database) is maintained by the California Department of Toxic Substances Control (DTSC) as part of the requirements of PRC Section 65962.5. A search of the EnviroStor database indicated that there are no open, active cases of hazardous waste and substances sites either within or immediately adjacent to the project area (DTSC 2013).

A search of the U.S. Environmental Protection Agency's Envirofacts database (which includes records maintained under the Comprehensive Environmental Response, Compensation, and Liability Act) indicated that there are no known open, active cases of hazardous material contamination either within or immediately adjacent to the project area (EPA 2013).

AIRPORTS

A small airstrip, the Hammonton airstrip, is located east of the Goldfields, east of Hammonton Road, 3.5 miles north of Beale AFB. This airstrip was known to be active as of 2009 (Aerofiles 2009). Beale Air Force Base (AFB) is located approximately 2 miles southeast of the project area (south of Hammonton-Smartville Road). The

Airport Land Use Compatibility Plan (ALUCP) for Beale AFB was adopted in 2010 by the Airport Land Use Commission for Sacramento, Sutter, Yolo, and Yuba Counties and the Sacramento Area Council of Governments (SACOG). The intent of land use safety compatibility criteria in the ALUCP is to minimize the risks associated with an off-airport aircraft accident or emergency landing. Safety policies in the ALUCP focus on reducing the potential consequences of such events when they occur. Risks to both people and property near the airport and to people on board the aircraft are considered in the ALUCP. (ALUC and SACOG 2010:2-17 through 2-21.)

FIRE HAZARD

Wildland fires represent a substantial threat in California, particularly during the hot, dry summer months in more isolated areas where steep topography, limited access, and heavy fuel loading contribute to hazardous conditions. Wildland fires may be started by natural processes, primarily lightning, or by human activities. The California Department of Forestry and Fire Protection (CAL FIRE) has established a fire hazard severity classification system to assess the potential for wildland fires. The zones depicted on CAL FIRE maps take into account the potential fire intensity and speed, production and spread of embers, fuel loading, topography, and climate (e.g., temperature and the potential for strong winds). The classification system provides three classes of fire hazards: Moderate, High, and Very High. According to CAL FIRE (2007), the project area is located in a moderate fire hazard severity zone.

PRC Sections 4125–4137 require the designation of State Responsibility Areas (SRAs) (based on the amount and type of vegetative cover, beneficial water uses, probable erosion damage, fire risks, and hazards) where the financial responsibility of preventing and suppressing fires falls primarily on the State of California. Fire protection outside the SRAs is the responsibility of local or federal agencies. The project area is located within an SRA (CAL FIRE 2007). See Section 3.14, "Public Services," for detailed information about fire protection services.

3.8.2 DISCUSSION

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact with Mitigation Incorporated. Construction of the proposed project would involve the routine transport and handling of hazardous substances, such as diesel fuels and lubricants. Various state agencies regulate hazardous materials, including the California Environmental Protection Agency and the California Emergency Management Agency. The California Highway Patrol and California Department of Transportation enforce regulations for transport of hazardous materials. DTSC has primary regulatory authority for enforcing hazardous-materials regulations. State hazardous-waste regulations are contained primarily in Title 22 of the California Code of Regulations. The California Occupational Health and Safety Administration has developed rules and regulations regarding worker safety around hazardous and toxic substances. However, handling and transport of hazardous materials during construction could result in the exposure of workers and the environment to hazardous materials. Therefore, this impact is potentially significant.

Mitigation Measure: Implement Mitigation Measure 3.9-1 (Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices).

As discussed in detail in Section 3.9, "Hydrology and Water Quality," Mitigation Measure 3.9-1 requires that a storm water pollution prevention plan (SWPPP) or storm water management plan (SWMP) be prepared and

submitted to the Central Valley Regional Water Quality Control Board for stormwater discharges associated with general construction activity. The SWPPP or SWMP would include a spill prevention, control, and countermeasure plan and applicable hazardous materials business plans, and would identify the types of materials used for equipment operation (including fuel and hydraulic fluids), and 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, implementation of Mitigation Measure 3.9-1 would reduce the impact from exposure to hazardous materials during routine transport, use, or disposal to a less-than-significant level.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. To construct the proposed 100-year embankment, construction activities would be necessary in areas where mining and aggregate processing activities by Western Aggregates are occurring. The project would be constructed in partnership by TRLIA and Western Aggregates, and therefore coordination to ensure the safety of all on-site workers and to avoid accidentally damaging equipment and storage facilities and potentially releasing hazardous materials into the environment would occur as part of the project. Therefore, this impact would be less than significant.

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

No Impact. There are no existing or proposed schools within one-quarter mile of the project area. Thus, no impact would occur.

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

No Impact. A search of publicly available databases maintained by SWRCB (2013), DTSC (2013), and the U.S. Environmental Protection Agency (EPA 2013) indicates that there are no known active, open cases of hazardous materials contamination within the project area. Furthermore, construction and operation of the proposed 100-year embankment would not result in the creation of a substantial hazard to the public or environment. Thus, no impact would occur.

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 for people residing or working in the project area?

Less-than-Significant Impact. There are no public or private airports within 2 miles of the project area. However, the project area is within the overflight zone of Beale AFB. Although there are aircraft overflights, activities associated with constructing the proposed 100-year embankment would not result in a safety hazard for people working within the project area and would not conflict with the safety compatibility criteria listed in the Beale AFB ALUCP (ALUC and SACOG 2011:Table 2). Therefore, this impact would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airstrips within 2 miles of the project site. The Hammonton Air Strip is located approximately 3 miles northeast of the northern end of the project area, east of Hammonton Road. As discussed in item e) above, activities associated with constructing the proposed 100-year embankment would not result in a safety hazard for people working within the project area. There would be no impact.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact (Beneficial Impact). The proposed project would entail a very small number of temporary and short-term commute trips by construction workers to and from the project site. The project area is not developed and does not contain residential housing or any retail or commercial shopping areas where evacuation would be necessary. Project operation would not entail additional commute trips on local or regional roadways, nor would it alter any designated emergency access routes. Therefore, the project would not impair or interfere with adopted emergency response or evacuation plans, and no adverse impact would occur. The presence of the proposed 100-year embankment would result in a substantial increase in public safety in terms of flood protection, which is a beneficial impact.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less-than-Significant Impact. The project area consists of piles of sand, gravel, and cobble interspersed with waterways. The composition of the project area would not change as a result of project implementation. The amount of vegetation growing in the tailing piles is limited, the project area is not within a high fire hazard severity zone (CAL FIRE 2007), and adequate fire protection services are available. Therefore, construction of the proposed 100-year embankment would not expose people or structures to a substantial increased risk associated with wildland fires. This impact would be less than significant.

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3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

3.9.1 ENVIRONMENTAL SETTING

HYDROLOGY

The project site is located in Yuba County, approximately 45 miles north and slightly east of Sacramento (Exhibit 1-1). It lies south of the Yuba River, approximately 10 miles from Marysville and approximately 20 miles from Smartsville. The site is located north of Beale Air Force Base (AFB) and near the confluence of the Feather and Yuba Rivers. Daguerre Point Dam is located approximately 10.8 miles from the confluence, within

the project area. The dam is controlled by a compound broad-crested weir and does not regulate flow with gates or other structures.

Yuba River

The Yuba River drains the western slope of the Sierra Nevada and flows generally southwesterly to its confluence with the Feather River at Marysville. The main stem of the Yuba River forms at the juncture of the Middle and North Yuba Rivers just south of New Bullards Bar Reservoir and is joined by the South Yuba River just a few miles downstream near Bridgeport in Nevada County, approximately 1 mile east of Yuba County. The North Yuba River above New Bullards Bar Dam drains approximately 489 square miles. Large portions of the Yuba River drainage (Middle and South Forks) are largely unregulated with respect to flood flows. The main stem of the Yuba River in the Marysville vicinity drains approximately 1,390 square miles. (Yuba County 2011)

The mean monthly flows for the Yuba River are greatest in winter and early spring (January–March) and are at a minimum in late summer and early fall (July–October). The effects of reservoir storage capacity on flows are noticeable in extreme water years. Yuba River flows are greatly reduced in very dry years because of the limited carryover storage capacity of New Bullards Bar Reservoir.

Groundwater Conditions

The project site is located in the southern portion of the Sacramento River hydrologic region, within the South Yuba Subbasin (DWR 2006). The principal aquifers in the valley area consist of as much as 100 feet of Pleistocene sands and gravels overlain by as much as 125 feet of recent alluvial fan, floodplain, and stream channel deposits. The pre-Eocene formations in this area have relatively low permeability and are moderate water producers. Natural groundwater levels can vary substantially from year to year and seasonally. Groundwater levels are generally higher in winter and spring. The valley areas along the Feather and Yuba Rivers generally serve as groundwater recharge areas.

The South Yuba Subbasin has groundwater levels that range from about 25 feet above mean sea level (msl) along portions of State Route 70, to 140 feet above msl at the edge of the subbasin near the Yuba River and the project site. Near the center of the subbasin, groundwater is found at about 45 feet above msl (YCWA 2008a). Groundwater levels in the South Yuba Subbasin have shown a well-developed regional cone of depression (depression in water level caused by groundwater pumping) since as early as the 1940s. The cone of depression starts on the west side of Beale AFB and continues into the central region of the subbasin (YCWA 2008a). In 1960, nearly all water levels in the subbasin were well below adjacent river levels on the Bear, Feather, and Yuba Rivers because of reliance on groundwater pumping. By 1984, water levels in the center of the South Yuba cone of depression had fallen to 30 feet below msl. The water level contours adjacent to the Yuba and Bear Rivers indicated a large gradient and seepage from the rivers. By 1990, water levels in this cone of depression rose to 10 feet above msl because of increasing surface water irrigation supplies and reduced groundwater pumping. Current records maintained by the California Department of Water Resources indicate that groundwater levels continue to increase (DWR 2006).

The groundwater storage capacity for the North and South Yuba Subbasins was estimated to be 7.5 million acre-feet, although using this entire volume of freshwater would not be feasible because doing so would cause numerous adverse environmental impacts and could dewater shallow wells in the subbasins. An analysis of the volume of fresh groundwater present within 200 feet of the spring 2003 groundwater levels is estimated to be

about 2.8 million acre feet, but not all of this volume is usable because of the potential for impacts on shallow wells in the basin (YCWA 2008a).

Substantial groundwater recharge areas are found in stream channel and floodplain deposits, which are highly permeable and provide for large amounts of groundwater recharge. However, groundwater levels also vary seasonally with precipitation and runoff in this area and may rise closer to the ground surface during wet years. Pumping also influences local groundwater levels. Most local growers withdraw groundwater regularly during spring and summer and throughout the year for general use, and Yuba Basin water districts pump groundwater as part of a groundwater substitution transfer program (CH2M Hill 2012).

WATER QUALITY

Surface Water Quality

Under Section 303(d) of the federal Clean Water Act, states are required to develop lists of surface water bodies that are not attaining water quality objectives (are found to be polluted). The list is known as the 303(d) list of impaired waters. For each listed pollutant causing the impairment, the states must develop a total maximum daily load—the amount of loading that the water body can receive and still be in compliance with water quality objectives. The Yuba River is not listed on the 303(d) list (Central Valley RWQCB 2002).

The U.S. Geological Survey evaluated the water quality of the Yuba River as part of an overall analysis of conditions in the Sacramento River watershed (USGS 2000). The evaluation indicated that the river generally has excellent water quality and very low levels of contaminants. However, past gold mining activities have left a legacy of mercury contamination (because mercury was used extensively for ore extraction). The river is considered a major source of mercury loading in the Sacramento River watershed. The potential health risks associated with mercury include neurological dysfunction, particularly in children. Mercury is ingested by humans mainly through consumption of fish and other foods. It is persistent in the environment and will bioaccumulate (i.e., greatly magnify its concentration from water and sediments up the food chain to fish and other organisms).

Table 3.9-1 summarizes average concentrations from monthly water samples for conventional physical and inorganic chemical constituents, as measured from February 1996 through April 1998 in the Yuba River at Marysville. In general, the data indicate the river is low in total dissolved solids, as indicated by measurements of electrical conductivity, total hardness, and other parameters.

Table 3.9-1
Summary of Conventional Water Quality Constituents in the Yuba River

Constituent	Water Quality Objective	Yuba River at Marysville
Conventional Physical and Chemical Constituents		
Temperature	<2.5°F [a]	54.0°F
Flow (cfs)		125
EC (µS/cm)		72
DO (mg/L)	7.0 [a]	11.4
DO Saturation (%)	85 [a]	105
pH (standard units)	6.5 to 8.5 [b]	7.5
Alkalinity (mg/L $CaCO_3$)		28.4

Table 3.9-1
Summary of Conventional Water Quality Constituents in the Yuba River

Constituent	Water Quality Objective	Yuba River at Marysville
Total Hardness (mg/L $CaCO_3$)		31.4
Suspended Sediment (mg/L)	narrative [c]	30.0
Calcium (mg/L)		7.9
Magnesium (mg/L)		2.8
Sodium (mg/L)		2.2
Potassium (mg/L)		0.5
Chloride (mg/L)	500 [d]	1.1
Sulfate (mg/L)	500 [d]	4.2
Silica (mg/L)		12.1
NO_2+NO_3 (mg/L N)	NO_3<10 [e]	0.08
Total Phosphorus (mg/L)		0.03
Trace Metals		
Arsenic (µg/L)	50 [f]	1.0
Chromium (µg/L)	180 [f]	<MRL
Copper (µg/L)	5.1 [f]	1.5
Mercury (µg/L)	0.050 [g]	0.0069
Nickel (µg/L)	52 [f]	1.2
Zinc (µg/L)	120 [f]	2.3
Organic Pesticides		
Molinate (ng/L)	13,000 [h]	<60
Simazine (ng/L)	3,400 [i]	<22
Carbofuran (ng/L)	40,000 [d], 500 [h]	<31
Diazinon (ng/L)	51 [j]	<28
Carbaryl (ng/L)	700 [i]	<41
Thiobencarb (ng/L)	1,000 [k]	<38
Chlorpyrifos (ng/L)	14 [j]	<25
Methidathion (ng/L)		<38

Notes: °C = degrees Celsius; °F = degrees Fahrenheit; $CaCo_3$ = calcium carbonate; cfs = cubic feet per second; DO = dissolved oxygen; EC = electrical conductivity; µg/L = micrograms per liter; µS/cm = microsiemens per centimeter; mg/L = milligrams per liter; MRL = method reporting limit; N = nitrogen; ng/L = nanograms per liter; NO_2 = nitrogen dioxide; NO_3 = nitrogen trioxide

[a] Water quality objective in the Central Valley Regional Water Quality Control Board (RWQCB's) basin plan.

[b] Water quality objective in the Central Valley RWQCB's basin plan; <0.5 allowable change from controllable factors.

[c] Narrative objective in the Central Valley RWQCB's basin plan: Water shall not contain constituents in concentrations that would cause nuisance or adversely affect beneficial uses.

[d] Secondary drinking-water maximum contaminant level (MCL).

[e] Primary drinking-water MCL.

[f] California Toxics Rule aquatic life criteria for 4-day average dissolved concentration.

[g] California Toxics Rule human health maximum criteria total recoverable concentration.

[h] California Department of Fish and Wildlife's (CDFW's) hazard assessment value.

[i] U.S. Environmental Protection Agency Integrated Risk Information System reference dose for drinking-water quality.

[j] CDFW's aquatic life guidance value for 4-day average concentration.

[k] Water quality objective in the Central Valley RWQCB's basin plan for allowable change from controllable factors.

Sources: TRLIA 2006; constituent measurements from USGS 2000

The water in the Yuba River has neutral pH, moderate alkalinity, and adequate levels of dissolved oxygen for aquatic organisms. It is also generally low in nutrients (nitrogen and phosphorus) that can cause growth of nuisance algae and aquatic vascular plants, and trace metal content is low.

Mercury occurs in several geochemical forms, including elemental mercury and ionic (or oxidized), and in various organic compounds. It can occur as either a soluble or an insoluble compound. Methylmercury (one of the organic compounds) is the form of mercury that is the most readily available to biological tissues and the most toxic and bioaccumulative. Environments that are biologically active or organically rich can be conducive to the formation of methylmercury, but other factors also must be present. In the context of surface-water environments, mercury methylation is controlled by certain bacteria and microbes that tend to thrive in conditions of low dissolved oxygen, such as near the sediment/water interface or in algal mats. If mercury is present in sediments and is composed largely of the soluble form, it could bind to organic compounds and become available for methylation.

Although mercury is routinely detected, the concentrations have not exceeded ambient California Toxics Rule criteria. Mercury testing of sediment in the Goldfields in 2005 showed that mercury occurs in amounts below human health and ecological screening levels, and that mercury concentrations in the sediment are within the lower end of the background range and, below ecological screening levels and hazardous waste levels (MACTEC 2005). In addition, data indicate that soluble mercury is not present in on-site sediments. Pesticides have been detected in the Yuba River. With the exception of the drinking-water standard for carbofuran, no applicable regulatory criteria have been established for the pesticides that have been detected.

Groundwater Quality

Groundwater provides most water supplies for the Marysville, Linda, and Olivehurst areas and for rural properties in the project vicinity. Groundwater in the subbasins is generally considered to be of good quality, characterized by major cations (calcium, magnesium, sodium, and potassium) and anions (carbonate, bicarbonate, sulfate, and chloride). Most groundwater in Yuba County is considered to be calcium-magnesium or magnesium bicarbonate water, although sodium–calcium chloride groundwater can be found near Wheatland, and there have been reports of calcium–sodium bicarbonate water in some of the county's groundwater wells. A 2007 survey of groundwater monitoring wells found that none of the samples in the South Yuba Subbasin exceeded federal and state primary and secondary maximum contaminant levels (YCWA 2008b).

Beale AFB is situated on 22,944 acres of federally owned land south of the project site. There are multiple groundwater contamination plumes, two of which extend off base to the west and southwest of the base. No plumes are located directly under the project site. The primary environmental contaminants found at Beale AFB include solvents, metals, and fuels (CH2M Hill 2012).

3.9.2 DISCUSSION

a) Violate any water quality standards or waste discharge requirements?

Less-than-Significant Impact with Mitigation Incorporated. Both direct and indirect discharges associated with ground-disturbing construction activities for the proposed project could cause surface water to become contaminated by soil or construction substances. The proposed activities include relocating borrow material (mine tailings) from nearby resources. The fill material would be taken either from adjacent areas that exceed the

required flood protection elevation for the 100-year embankment, or from portions of the surrounding embankment located outside of the 100-year embankment geometry.

These activities could temporarily impair water quality should disturbed material, petroleum products, or construction-related wastes be discharged into receiving waters, or onto the ground where they could be carried into receiving waters. Accidental spills of construction-related substances such as oils and fuels could contaminate both surface water and groundwater. The extent of potential impacts on water quality would depend on several factors: the tendency toward erosion of soil types encountered and the chemical makeup of that soil, types of construction practices, extent of the disturbed area, duration of construction activities, timing of particular construction activities relative to the rainy season, proximity to receiving water bodies, and sensitivity of those water bodies to construction-related contaminants.

The project site is located in the Goldfields and is removed from the Yuba River in an area previously and currently affected by aggregate and gold mining. The Goldfields contain numerous groundwater-fed ponds created by former gold-dredging operations which generally keep surface drainage and disturbed soils separated from the river channel. Soils consist of sand and gravel stockpiles with varying degrees of seeded grasses and valleys made up of more silty materials. While Yuba River water quality would not be affected during project construction, because any soil erosion or stormwater runoff from disturbed mounds would continue to be trapped in the isolated pools in the Goldfields and would not leave the immediate area, water quality in the ponds, which qualify as waters of the State, could be affected. Therefore, this impact would be potentially significant.

Mitigation Measure 3.9-1: Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices.

TRLIA and its construction contractors will implement the following measures:

(1) During the development of grading permits and improvement plans, TRLIA will consult with Yuba County and the Central Valley RWQCB. The purpose of the consultation will be to acquire the regulatory approvals necessary to obtain either a statewide National Pollutant Discharge Elimination System stormwater permit for general construction activity from the State Water Resources Control Board, or obtain approval to complete construction under Order 5-00-107 and any other necessary site-specific waste discharge requirements or waivers under the Porter-Cologne Water Quality Control Act.

(2) TRLIA will prepare and implement the appropriate storm water pollution prevention plan (SWPPP) or storm water management plan (SWMP) to prevent and control pollution and to minimize and control runoff and erosion. The SWPPP or SWMP will identify the activities that may cause pollutant discharge (including sediment) during storms and the best management practices (BMPs) that will be employed to control pollutant discharge. Construction techniques that will be identified and implemented to reduce the potential for runoff may include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. In addition, the SWPPP or SWMP will include an erosion control plan and BMPs that specify the erosion and sedimentation control measures to be implemented, which may include silt fences, trench plugs, terraces, water bars, and seeding and mulching. The SWPPP or SWMP will also include a spill prevention, control, and countermeasure plan and applicable hazardous materials business plans, and will identify the types of materials used for equipment operation (including fuel and hydraulic fluids), and measures to prevent and materials available to clean up hazardous

material and waste spills. The SWPPP or SWMP will also identify emergency procedures for responding to spills.

(3) The best management practices (BMPs) presented in either document shall be clearly identified and maintained in good working condition, with sufficient backup stock on-site during all site work and construction activities.

(4) The construction contractor will retain a copy of the approved SWPPP or SWMP on the construction site and modify it as necessary to suit specific site conditions through amendments approved by the Central Valley RWQCB.

Implementing Mitigation Measure 3.9-1 would reduce the potentially significant impact related to violation of water quality standards or waste discharge requirements to a less-than-significant level because a SWPPP or SWMP would be prepared and implemented consistent with permit requirements that would prevent and control pollution and minimize and control runoff and erosion.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The proposed project would not require the use of groundwater or substantially interfere with groundwater recharge. Although the project site is located within an area of high groundwater recharge and permeable soils, project-related changes would have no effects on groundwater infiltration. No new development of impermeable surfaces (such as pavement or buildings) is proposed. Project features would not interfere with the overall movement of groundwater to and from the Yuba River by embankment changes proposed in either the borrow areas or the fill areas. Therefore, groundwater supplies and groundwater recharge capability would not be affected. There would be no impact.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on or off-site erosion or siltation?

Less-than-Significant Impact. The proposed project would not alter existing drainage patterns in a manner that would result in substantial on- or off-site erosion or siltation. Water moves through the Goldfields through a combination of surface flow, subsurface flow, and seepage through gravel/cobble mounds and siltier valleys. This process results in a complex hydraulic flow pattern through the Goldfields that continually changes as ongoing gold dredging and aggregate mining operations affect the topography and flow patterns. No new development of impermeable surfaces (such as pavement or buildings) is proposed that would substantially affect drainage patterns, and the embankment would not be located directly within or near the Yuba River.

The proposed project would result in a beneficial impact by reducing the potential for future erosion and scour that occurs under current conditions when high flows breach the channel and flow through the Goldfields. Two-dimensional modeling concluded that breakouts could occur along the left bank of the Yuba River at two locations during a 50-year flood event, at three locations during a 100-year, and at six locations during a 200-year event (USACE 2002). Construction of the proposed project elements would serve to alleviate breakouts up to the

100-year flood event, decreasing flows through an area that is continually disturbed by mining. This impact would be beneficial and less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?

Less-than-Significant Impact. See item c) above. The proposed project would serve to alleviate breakouts up to the 100-year flood event at critical erosion site B, decreasing flows through an area that is continually disturbed by aggregate and gold mining that occurs on much of the project site. The proposed project would result in a benefit by decreasing flood potential up to the 100-year flood event. This impact would be beneficial and less than significant.

e) 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?

Less-than-Significant Impact. See item c) above. The proposed project would serve to alleviate breakouts up to the 100-year flood event at critical erosion site B, decreasing flows through an area that is continually disturbed through aggregate and gold mining. The proposed project would result in a benefit by reducing the potential for polluted runoff associated with mining activities during flooding up to the 100-year event. The proposed project would not modify the capacity of any existing or planned stormwater drainage systems. This impact would be beneficial and less than significant.

f) Otherwise substantially degrade water quality?

Less-than-Significant Impact. Upon completion, the proposed project would not result in wastewater discharges or other point-source discharges subject to waste discharge requirements. The project site would continue to be surrounded by tall dredge tailing mounds that prevent stormwater from flowing off site. Stormwater drainage currently drains towards the existing mining operation pits and sedimentation ponds, or percolates quickly into the underlying groundwater. Storm water flows within the project site would remain disconnected from the Yuba River or any other surface water body other than existing mine pits and sedimentation ponds currently managed by Western Aggregates.

Upon project completion, the site would continue to operate under California Regional Water Quality Control Board Waste Discharge Requirements set forth in Order No. 5-00-107 for the discharge of wash water into an on-site siltation pond, which requires ongoing monitoring to assure that water quality is not impacted by sedimentation ponds. Therefore, the impact would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed project would not include, or indirectly cause, construction of any housing. Therefore, no impact would occur.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Less-than-Significant Impact. The project is designed to beneficially redirect flood flows up to the 100-year event. It would involve constructing a continuous embankment in the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. No new structures are proposed as part of the project. This impact would be beneficial and less than significant. See items c) and d) above for additional information.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less-than-Significant Impact. The project is designed to beneficially redirect flood flows up to the 100-year event. The proposed project would involve constructing a continuous embankment in the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. Therefore, the proposed project would improve flood protection in the project area. It would reduce the risk of loss, injury, or death involving flooding for areas protected by the RD 784 levee system. See items c) and d) above for additional information.

A portion of the project site lies within the dam failure inundation area delineated for several dams located upstream of the site. Most of the dams located upstream are under the jurisdiction of the California Department of Water Resources' Division of Safety of Dams. Policies HS9.3, HS9.4, and Action HS9.1 in the Public Health and Safety Element of the *Yuba County 2030 General Plan* provide requirements for emergency access and evacuation routes throughout the county. These measures include coordination and collaboration with the Multi-Jurisdictional Multi-Hazard Mitigation Plan. Implementation of the general plan policies and action, combined with other relevant state and local regulations, would minimize the potential for effects from dam failure.

A portion of the project site is also located within the 100-year flood hazard area. Implementation of the proposed project would not expose people or structures to potential hazards related to flooding, because the work would be conducted outside the rainy season and the project would not involve construction of structures for long-term occupancy of the project site. The project would improve flood protection and would not expose people or structures to hazards related to flooding, This impact would be beneficial and less than significant.

j) Result in inundation by seiche, tsunami, or mudflow?

Less-than-Significant Impact. A tsunami is a series of large waves caused by earthquakes that occur on the seafloor or in coastal areas. The project site is not located in an area subject to such a hazard. Mudflows generally occur in areas having steep slopes of unstable soils. The project site is located in an area with gentle slopes on relatively flat undulating land, interspersed with dredge tailings made of highly permeable cobbles, sand, and gravel. Therefore, mudflows would not be a potential hazard at the project site.

Seiches are standing waves created by seismically induced ground shaking (or volcanic eruptions or explosions) that occur in large, freestanding large bodies of water. There are existing lakes within the project area, but they are relatively small and would not likely cause a significant wave to result in inundation hazards. Therefore, this impact would be less than significant.

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3.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Land Use and Planning. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.10.1 ENVIRONMENTAL SETTING

The project site is located within the Yuba Goldfields in Yuba County, California. The Goldfields encompass approximately 6,855 acres along the south side of the Yuba River near Daguerre Point Dam, approximately 10 miles northeast of Marysville (see Exhibit 1-1 in Chapter 1, "Introduction").

The northeast terminus of the Reclamation District (RD) 784 levee system has been tied into the southwestern end of the Goldfields under the assumption that the Goldfields serve as high ground. RD 784's service area consists of approximately 29,000 acres in urban southwest Yuba County, including part or all of the communities of Linda, Olivehurst, Arboga, and Plumas Lake. The Goldfields help to provide flood protection for approximately 10,000 homes; 11 schools; and numerous commercial, industrial, and agricultural facilities (TRLIA 2013:2).

As described in Chapter 2, "Project Description," the Goldfields contain irregular gravel/cobble mounds interspersed with ponds. The cobble mounds are covered with sparse ruderal vegetation; trees occur sporadically throughout the project area and scattered woody vegetation is present in upland areas. The Goldfields also contain large embankments, constructed in the early 1900s along both sides of the lower Yuba River's active main channel, to control the location of the river.

Current operations in the Goldfields include gold mining by Cal Sierra Development, Inc., and aggregate production by Western Aggregates, Inc. Western Aggregates has structures and facilities in place, such as a laboratory and an asphalt plant, that support ongoing aggregate production.

To the north and northwest of the Goldfields is the Yuba River, which is used primarily for recreational activities such as fishing and rafting. The lands east and northeast of the Goldfields are vacant and are used primarily for cattle grazing; the Hammonton airstrip is located east of the Goldfields, east of Hammonton Road. This airstrip was known to be active as of 2009 (Aerofiles 2009). Orchards and active agricultural fields are located adjacent to the southeastern end of the Goldfields along the south side of Brophy Road, and mature orchards are located adjacent to the westernmost end of the Goldfields along the north side of Simpson Dantoni Road.

The *Yuba County 2030 General Plan* (County General Plan) was adopted by the Yuba County Board of Supervisors on June 7, 2011. The County General Plan provides an inventory of the county's land supply, projects the amount and location of land and density, and identifies the intensity of development required to accommodate future populations and economic growth through 2030. The following goal and policy from the Public Health and Safety Element of the County General Plan (Yuba County 2011) regarding flooding and flood control apply to the proposed project:

- **Goal HS1:** Reduce flood risk for the County's people and property.

    - **Policy HS1.5:** The County will continue to collaborate with the Yuba County Water Agency, local reclamation districts, levee commissions, and U.S. Army Corps of Engineers to improve, certify, and maintain the levee system that protects developed and planned development areas in Linda and Olivehurst, including the Plumas Lake Specific Plan Area. Urban areas in Yuba County should have 200-year flood protection or greater.

The Goldfields, including the project site and lands east of the Goldfields, are designated by the County General Plan as Natural Resources. This designation is intended to conserve and provide natural habitat, watersheds, scenic resources, cultural resources, recreational amenities, agricultural and forest resources, wetlands, woodlands, minerals, and other resources for sustainable use, enjoyment, extraction, and processing (Yuba County 2011). The County General Plan identifies a variety of allowable uses within lands designated as Natural Resources, namely mining; agriculture; natural open space and nature preserves; public facilities and infrastructure, including levees, levee borrow areas, and related facilities; and mitigation banks, parks and recreational uses, and other natural resource–oriented uses.

The lands surrounding the Goldfields south of the Yuba River are zoned A/RR5 and lands northeast of the Goldfields are zoned A/RR5 and A/RR10 (Agriculture/Rural Residential – 5-acre and 10-acre minimum, respectively). Both land use designations are intended to preserve the rural character and amenities of lands best used for low-density residential development. These designations allow mixed agricultural land uses, game preserves and hunting clubs, ranching, and single-family dwelling units.

The project site and lands surrounding the project site within the Goldfields are zoned M-2 (Extractive Industrial). The M-2 zoning designation identifies areas used primarily for the extraction, processing, and distribution of minerals occurring naturally such as sand, gravel, ores, and precious metals. Allowable land uses include surface and underground mining, quarrying, dredging, oil and gas exploration and development, concrete and asphalt production and distribution, limited active and passive recreational uses, and agricultural uses.

Beale Air Force Base (AFB) is located approximately 2 miles south of the project area, south of Hammonton-Smartville Road. The Beale AFB Land Use Compatibility Plan (also now known as the Airport Land Use Compatibility Plan [ALUCP]) was adopted March 17, 2011, by the Airport Land Use Commission for Sacramento, Sutter, Yolo, and Yuba Counties and the Sacramento Area Council of Governments (SACOG). The basic function of the plan is to promote compatibility between Beale AFB and the land uses surrounding it to the extent that these areas have not already been devoted to incompatible uses. The plan accomplishes this function by establishing a set of compatibility criteria applicable to new development around the airport (ALUC and SACOG 2011). The project site is identified in the Beale AFB ALUCP as being located within Review Area 1. Review Area 1 includes areas that fall within the geographic extent of all four compatibility concerns: noise,

safety, airspace protection, and overflight. (See Section 3.8, "Hazards and Hazardous Materials," and Section 3.12, "Noise," for further discussion of potential conflicts with the safety and noise compatibility criteria listed in the Beale AFB ALUCP.)

3.10.2 DISCUSSION

a) Physically divide an established community?

No Impact. The proposed project would be constructed on land that already contains flood control features and is used for aggregate mining or gold dredging operations. Because there are no existing residences on or near the project site, implementing the proposed project would not physically divide an established community. Therefore, no impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. The County General Plan provides comprehensive guidance for growth and development in the unincorporated areas of the county, including RD 784. The proposed project would be consistent with goals, objectives, and policies contained in the County General Plan, including those that address flood protection for the county's residents and property (Goal HS1 in the Public Health and Safety Element). Policy HS1.5 directs Yuba County to work closely with the U.S. Army Corps of Engineers and other appropriate organizations and agencies to ensure that the levee system protects developed and planned development areas in Linda and Olivehurst, including the *Plumas Lake Specific Plan* area. TRLIA continues to coordinate with the U.S. Army Corps of Engineers, other federal and state agencies, and RD 784 regarding implementation of flood control projects in the RD 784 area.

As discussed above, the project site is designated by the County General Plan as Natural Resources and zoned M-2. The proposed project would involve constructing an embankment in the Goldfields. The improvements would occur on land that already contains flood control features. The proposed project would provide 100-year flood protection to the RD 784 service area while having minimal effects on aggregate mining operations, gold dredging operations, and the environment. The proposed project would not involve other changes in the existing environment that could result in inconsistencies with the Natural Resources land use designation or M-2 zoning. The project would not change the overall character or use of the project site. Because the proposed project would be consistent with Yuba County's land use designation and zoning for the project site, this impact would be less than significant.

Specific impacts associated with other resource and issue areas are addressed in each technical section of this IS/MND as appropriate. These technical sections provide a detailed analysis of other relevant environmental effects resulting from proposed project implementation.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. Yuba and Sutter Counties are developing a regional conservation plan that will be a joint federal natural community conservation plan and state habitat conservation plan, but it has not yet been approved. (See

Section 3.4, "Biological Resources," for further discussion.) Therefore, no adopted or approved habitat conservation or natural community conservation plans are in effect that would apply to the proposed project. No impact would occur.

3.11 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. 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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.11.1 ENVIRONMENTAL SETTING

Under the Surface Mining and Reclamation Act (SMARA), the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. The board's decision to designate an area is based on a classification report prepared by the California Geological Survey (CGS) (formerly California Division of Mines and Geology) and on input from agencies and the public. The project area lies within the designated Yuba City–Marysville Production-Consumption Region for Portland cement concrete-grade aggregate, which includes all designated lands within the marketing area of the active aggregate operations supplying the Yuba City–Marysville urban center.

In compliance with SMARA, CGS has established the classification system shown in Table 3.11-1 to denote both the location and significance of key extractive resources.

Table 3.11-1
California Division of Mines and Geology Mineral Land Classification System

Classification	Description
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated from existing data
MRZ-4	Areas where available data are inadequate for placement in any other mineral resource zone

Note: MRZ = Mineral Resource Zone
Source: Habel and Campion 1988

The Yuba River has been transporting sediment to the Sacramento Valley for millions of years. As the river exited the Sierra Nevada foothills, it fanned out into different channel alignments where coarse-grained sediments and gold were deposited.

As described in detail in Section 3.5, "Cultural Resources," and Section 3.6, "Geology and Soils," the project area has been extensively mined for gold over the last 100 years, and dredger gold mining operations are ongoing in the project vicinity by Cal Sierra Development, Inc. (Cal Sierra). In addition, as discussed in Section 3.8, "Hazards and Hazardous Materials," Western Aggregates holds vested mining rights on 3,900 acres of land in the Goldfields, and nearly the entire project area lies within this area of vested mining rights (see Exhibit 2-4 in Chapter 2, "Project Description"). Western Aggregates' existing operations consist primarily of sand and gravel removal and processing; however, they also hold certain limited gold, precious metals, and other related assets in a small portion of the project area.

The piles of cobbles deposited during dredging operations in the project vicinity are a valuable source of sand and gravel, which are used for construction. Construction aggregates are an important building material used in Portland cement concrete, asphalt concrete, plaster, and stucco, and as a road base material. In terms of volume and price, there is no economically feasible substitute for aggregate products in the construction industry.

The project area is classified as MRZ-2, areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists (Habel and Campion 1988).

3.11.2 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?

Less-than-Significant Impact. The Goldfields contain several thousand acres of economically valuable sand and gravel resources, as well as gold (and potentially other precious metals). Western Aggregates owns vested mining rights for aggregate extraction on 3,900 acres in the Goldfields as confirmed by the State Mining and Geology Board, Resolution 2010-04 (Atkins 2013:2–5). Cal Sierra also owns gold and other precious metal subsurface mining interests in the Goldfields (Atkins 2013:16–17). The project area is classified as MRZ-2, meaning that it contains known mineral resources that are of value to the region and the residents of the state. The 100-year embankment would be constructed to the west of the area currently identified for future dredger gold mining activity by Cal Sierra, but not within that area (see Figure 18, "Alternatives 12a and 12b Dredge Conflicts," MBK 2013:20-21). However, the dredge path is subject to change at any time, and could at some point in the future intersect the proposed 100-year embankment alignment. Even if the dredger gold mining path was altered, given the current position of the dredge within the Goldfields and the slow rate at which it moves, it is unlikely that it would reach the proposed location of the 100-year embankment within the next 10 to 15 years. Because the 100-year embankment is only intended to protect the area for 10 to 15 years, until such time as a permanent 200-year flood protection solution could be implemented, the 100-year embankment would not be expected to interfere with dredger gold mining activities. The alignment for the proposed 100-year embankment would be constructed within the area planned for aggregate extraction (Atkins 2013:42–43; MBK 2013). However, the amount of aggregate material required for construction of the 100-year embankment is minimal in comparison to the total amount of material in the area planned for aggregate extraction (Atkins 2013: 25). Also, aggregate resources are commonly used as a source of materials for construction of infrastructure such as bridges, roads, berms, and dams, and are a key ingredient in concrete. Because the 100-year embankment would not be expected to interfere with dredger gold mining activities or Western Aggregates' mining reclamation activities within the next 10 to 15 years, and construction of the embankment represents an appropriate use of aggregate resources at the project site, the impact related to loss of regionally important mineral resources would be less-than-significant.

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?

No Impact. The project area is delineated as an economically valuable source of mineral resources in the *Yuba County 2030 General Plan* (Yuba County 2008). The *Yuba County 2030 General Plan* contains policies directing that land so designated should be protected from preclusive and incompatible land uses so that the mineral resources within these lands are available when needed (Yuba County 2011). As described under item a) above, construction of the proposed 100-year embankment would not occur in an area where Cal Sierra is now conducting, or plans in the future to conduct, gold dredging activities, and use of the existing on-site aggregate to construct the 100-year embankment is an appropriate use of these mineral resources. Thus, there would be no impact from loss of availability of a locally-important mineral resource recovery site.

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3.12 NOISE

ENVIRONMENTAL ISSUES		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII.	**Noise. Would the project result in:**				
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

This section generally describes the ambient noise environment in the project vicinity, summarizes applicable noise- and vibration-related standards, and analyzes noise and vibration impacts of the proposed project. Mitigation measures are presented as required to reduce significant noise impacts to a less-than-significant level.

3.12.1 ENVIRONMENTAL SETTING

BASICS OF ENVIRONMENTAL ACOUSTICS AND VIBRATION

Sound, Noise, and Acoustics

Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as sound that is unwanted (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound.

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. A logarithmic scale is used to describe sound pressure level in terms of decibels (dB). The threshold of human hearing (near-total silence) is approximately 0 dB. A doubling of sound energy corresponds to an increase of 3 dB. In other words, when two sources at a given location are each producing sound of the same loudness, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level

produced by only one of the sources. For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The perception of loudness can be approximated by filtering frequencies using the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. All noise levels reported in this section are in terms of A-weighting.

As discussed above, doubling sound energy results in a 3-dB increase in sound. In typical noisy environments, noise-level changes of 1–2 dB are generally not perceptible by the healthy human ear; however, people can begin to detect 3-dB increases in noise levels. An increase of 5 dB is generally perceived as distinctly noticeable and a 10-dB increase is generally perceived as a doubling of loudness.

The following are the sound level descriptors most commonly used in environmental noise analysis:

- **Equivalent sound level (L_{eq})**: An average of the sound energy occurring over a specified time period. In effect, the L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour, A-weighted equivalent sound level ($L_{eq[h]}$) is the energy average of A-weighted sound levels occurring during a 1-hour period.
- **Maximum sound level (L_{max})**: The highest instantaneous sound level measured during a specified period.
- **Day-night average level (L_{dn})**: The energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during nighttime hours (10 p.m.–7 a.m.).

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB for each doubling of distance from a point/stationary source. Roadways and highways and, to some extent, moving trains consist of several localized noise sources on a defined path; these are treated as "line" sources, which approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Therefore, noise from a line source attenuates less with distance than noise from a point source with increased distance.

Groundborne Vibration

Groundborne vibration is energy transmitted in waves through the ground. Vibration attenuates at a rate of approximately 50% for each doubling of distance from the source. This approach considers only the attenuation from geometric spreading and tends to provide for a conservative assessment of vibration level at the receiver.

Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. Vibration is typically described by its peak and root-mean-square (RMS) amplitudes. The RMS value can be considered an average value over a given time interval. The peak vibration velocity is the same as the "peak particle velocity" (PPV), generally presented in units of inches per second. PPV is the maximum instantaneous positive or negative peak of the vibration signal and is generally used to assess the potential for damage to buildings and structures. The RMS amplitude is typically used to assess human annoyance to vibration.

EXISTING NOISE CONDITIONS

As described in Chapter 2, "Project Description," the project area is located within the Yuba Goldfields in unincorporated Yuba County, California. The project is generally located on the south side of the lower Yuba River approximately 10 miles northeast of Marysville, and north of Hammonton-Smartville Road and Beale Air Force Base (AFB) (Exhibits 1-1 and 2-2).

The closest noise-sensitive uses to the project area are rural/agricultural residential properties in two locations: along Walnut Avenue just north of the lower Yuba River opposite the northwest corner of the Goldfields, and south of the project area near the intersection of Brophy Road and Hammonton-Smartville Road. The residential structures closest to the project area are approximately 2,660–6,100 feet from the primary project construction areas.

Ambient noise levels were not measured for the proposed project. However, given the rural/agricultural nature of the land surrounding the project area, ambient noise levels are expected to be quite low—at or below 55 dBA L_{eq}, 50 dBA L_{eq}, and 45 dBA L_{eq} during the daytime, evening, and nighttime hours, respectively.

APPLICABLE PLANS, POLICIES AND ORDINANCES ADDRESSING NOISE AND VIBRATION

California Department of Transportation

The California Department of Transportation has developed guidelines for assessing the significance of vibration produced by transportation and construction sources (Table 3.12-1). These thresholds address the subjective reactions of people to both short-term vibration (e.g., from temporary construction activities) and long-term/permanent vibration (e.g., from transit operations).

Table 3.12-1
California Department of Transportation Guidelines on Potential Criteria for Vibration Annoyance

Human Response	Impact Levels, VdB re: 1 µin/sec (PPV, in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	80 (0.040)	68 (0.010)
Distinctly perceptible	96 (0.250)	80 (0.040)
Strongly perceptible	107 (0.900)	88 (0.100)
Severe	114 (2.000)	100 (0.400)

Notes: µin/sec = microinches per second; in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels
Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
Source: Caltrans 2004

Airport Land Use Compatibility Plans

In its capacity as the airport land use commission for Yuba County, the Sacramento Area Council of Governments develops and maintains comprehensive land use plans (CLUPs), also known as airport land use compatibility plans or simply land use compatibility plans, for the county. These plans are intended to protect public health and safety and ensure compatible land use in areas around public-use airports. Airport land use commissions work

with cities and counties to ensure consistency between local land-use plans and CLUPs for areas surrounding public-use airports.

The latest land use compatibility plan for Beale AFB was adopted in March 2011. Chapter 3, Section 1 (Noise) of this document establishes various land use compatibility criteria for new projects affected by aircraft noise, including a "Normally Compatible" limit of 80 dB CNEL for industrial, mining, and extraction operations. The Beale AFB land use compatibility plan contains the latest noise contours for the airport (Exhibit 3.12-1). As shown, a portion of the project area lies between the 60-dBA and 65-dBA CNEL aircraft noise contours for the "Current Mission" scenario, which would be applicable to the project.

Yuba County General Plan

The *Yuba County 2030 General Plan* was adopted on June 7, 2011. Relevant noise- and vibration-related policies presented in the Public Health & Safety Element of the general plan (Yuba County 2011) are summarized below.

- **Policy HS10.3:** New developments that would generate or be affected by non-transportation noise shall be located, designed, and, if necessary, mitigated below maximum levels specified in Table [3.12-2], as measured at outdoor activity areas of affected noise-sensitive land uses.

- **Policy HS10.4:** If existing noise levels exceed the maximum allowable levels listed in Table [3.12-2], projects are required to incorporate mitigation to reduce noise exposure in outdoor activity areas to the maximum extent feasible and include mitigation to achieve acceptable interior noise levels [defined as 45 dBA L_{dn} or less for residential uses].

- **Policy HS10.5:** The maximum noise level shall not exceed the performance standards shown in Table [3.12-3], as measured at outdoor activity areas of any affected noise-sensitive land use except:

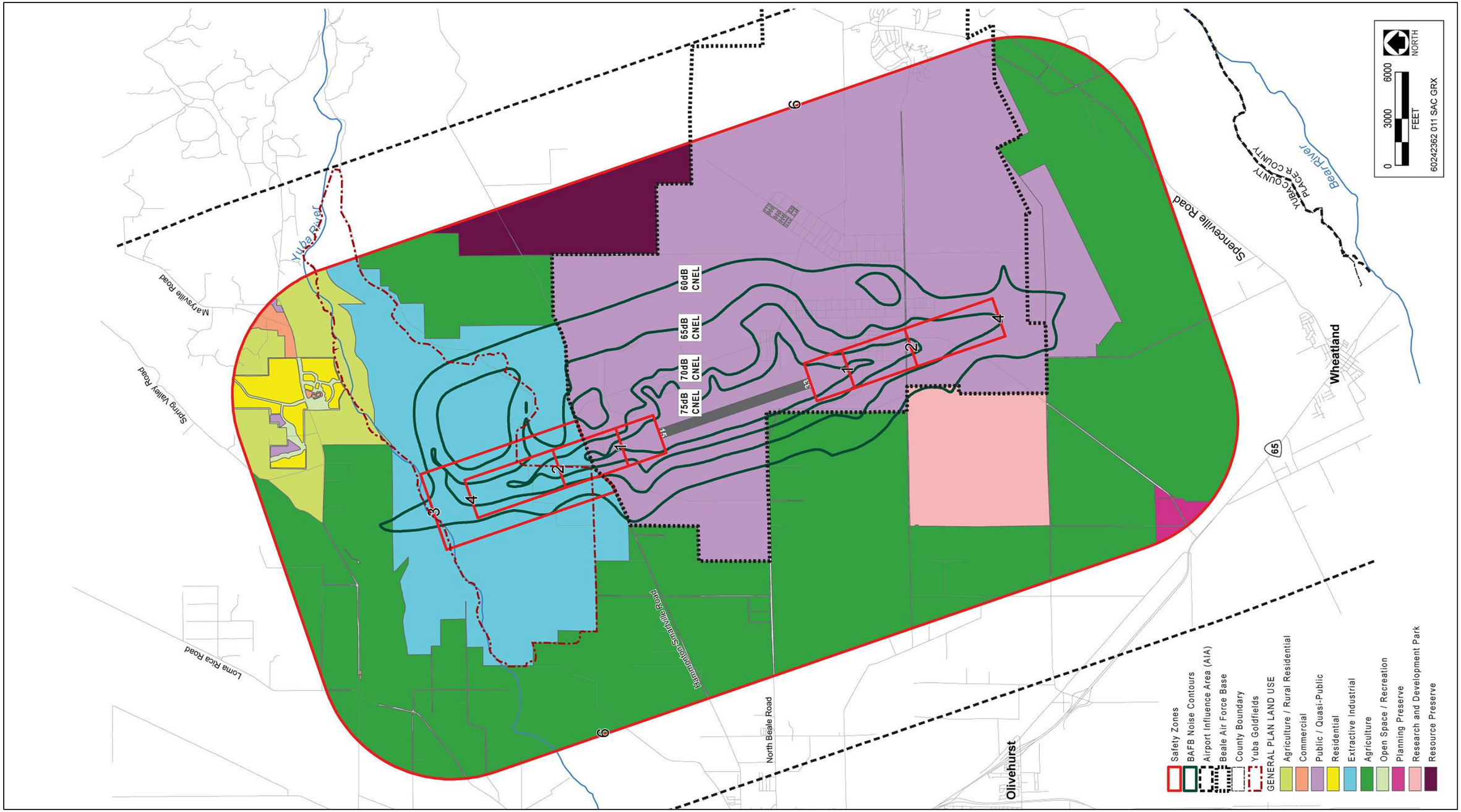
    - If the ambient noise level exceeds the standard in Table [3.12-3], the standard becomes the ambient level plus 5 dBA.

    - Reduce the applicable standards in Table [3.12-3] by 5 decibels if they exceed the existing ambient level by 10 or more dBA.

- **Policy HS10.6:** New developments shall provide all feasible noise mitigation to reduce construction and other short-term noise and vibration impacts as a condition of approval.

- **Policy HS10.7:** New developments shall ensure that construction equipment is properly maintained and equipped with noise control components, such as mufflers, in accordance with manufacturers' specifications.

- **Policy HS10.11:** Lands within the 65 [dBA] CNEL noise contour of Beale Air Force Base, Yuba County Airport, and Brownsville Airport shall be maintained in agricultural, open space, commercial, industrial, or other uses permitted by the subject airport's adopted Comprehensive Land Use Plan (CLUP) and consistent with the recommendations of the Beale Joint Land Use Study, including noise contours associated with future hypothetical missions, as appropriate.



Source: Yuba County, 2004; Sutter County, 2005; ESRI, 2009; and ESA, 2009; Adapted by AECOM 2013

Exhibit 3.12-1 **Beale Air Force Base Noise Contours with General Plan Land Uses**

- **Policy HS10.15:** New developments that would generate substantial long-term vibration shall provide analysis and mitigation, as feasible, to achieve velocity levels, as experienced at habitable structures of vibration-sensitive land uses, of less than 78 vibration decibels.

- **Policy HS10.16:** Mining, forestry, and agricultural noise will not be considered a nuisance when generated in areas designated by the General Plan for these uses.

Table 3.12-2
Maximum Allowable Noise Exposure from Nontransportation Noise Sources at Noise-Sensitive Land Uses (Yuba County 2030 General Plan)

Noise Level Descriptor	Daytime (7 a.m.–10 p.m.)	Nighttime (10 p.m.–7 a.m.)
Hourly L_{eq}	60 dBA	45 dBA
L_{max}	75 dBA	65 dBA

Notes: dBA = A-weighted decibel; L_{max} = maximum instantaneous sound level; $L_{eq[h]}$ = 1-hour equivalent sound level (the sound energy averaged over a continuous 1-hour period)
This table is adapted from *Yuba County 2030 General Plan* Table Public Health & Safety-2.
Each of the noise levels specified shall be lowered by 5 dBA for simple tone noises, noises consisting primarily of speech, music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). Noise sensitive land uses include schools, hospitals, rest homes, long-term care facilities, mental care facilities, residences, and other similar land uses.
Source: Yuba County 2011

Table 3.12-3
Performance Standards for Nontransportation Noise Sources (Yuba County 2030 General Plan)

Cumulative Duration of a Noise Event[1], Minutes (Noise Level Descriptor)	Exterior Noise Level, dBA	
	Daytime (7 a.m.–10 p.m.)[2]	Nighttime (10 p.m.–7 a.m.)[2]
30–60 (L_{50})	50	45
15–30 (L_{25})	55	50
5–15 (L_{8})	60	55
1–5 (L_{2})	65	60
0–1 (L_{max})	70	65

Notes: dBA = A-weighted decibel; L_{max} = maximum instantaneous sound level; L_n = sound level exceeded "n" percent of the time
This table is adapted from *Yuba County 2030 General Plan* Table Public Health & Safety-3.
[1] Cumulative duration refers to time within any 1-hour period.
[2] Each of the noise level standards specified may be reduced by 5 dBA for tonal noise (i.e., a signal which has a particular and unusual pitch) or for noises consisting primarily of speech of for recurring impulsive noises (i.e., sounds of short duration, usually less than one second, with an abrupt onset and rapid decay such as the discharge of firearms).
Source: Yuba County 2011

Yuba County Ordinance Code

Chapter 8.20, "Noise Regulations," of the Yuba County Ordinance Code includes standards aimed at controlling unnecessary, excessive, and annoying noise and vibration in the unincorporated county. In addition, a goal of the

noise regulations is to maintain quiet in areas exhibiting low noise levels, and to implement programs aimed at reducing noise in areas of Yuba County where noise levels are above acceptable limits.

The Yuba County Ordinance Code provides regulations that establish the maximum allowable noise levels based on the land use, time of the day, and ambient noise condition. The code also places restrictions on specific activities (e.g., construction, musical instruments, amplified sound). Lastly, the Yuba County Ordinance Code identifies exemptions to the noise regulations for specific activities or special events. The following sections of the noise regulations are applicable to the proposed project.

Section 8.20.140, "Ambient Base Noise Level"

According to Section 8.20.140, where the measured ambient noise level is less than that designated in Table 3.12-4, the maximum noise level is applicable. Where the measured ambient noise level is higher than that designated in Table 3.12-4, noise levels from the offending source(s) must not exceed the measured ambient level by 5 dB or more.

Table 3.12-4
Yuba County Code Section 8.20.140—Noise Level Standards

Zone Permitted	Time	Ambient Level (dBA L_{eq})	Maximum Noise Level (dBA L_{eq})
Single-family Residential	10 p.m. to 7 a.m.	45	55
	7 p.m. to 10 p.m.	50	60
	7 a.m. to 7 p.m.	55	65
Multi-family Residential	10 p.m. to 7 a.m.	50	60
	7 p.m. to 10 p.m.	55	65
Commercial—BP	10 p.m. to 7 a.m.	55	65
Commercial	7 p.m. to 10 p.m.	60	70
M1	Anytime	65	75
M2	Anytime	70	80

Notes: dBA = A-weighted decibel; L_{eq} = 1-hour equivalent sound level (the sound energy averaged over a continuous 1-hour period)
This table is adapted from Section 8.20.140 of the Yuba County Ordinance Code.
Sources: Yuba County Municipal Code; data compiled by AECOM in 2013

Section 8.20.310, "Construction of Buildings and Projects"

Section 8.20.310 of the Yuba County Ordinance Code prohibits unpermitted nighttime construction in or near residential zones:

> It shall be unlawful for any person within a residential zone, or within a radius of 500 feet there from, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device between the hours of 10 p.m. of one day and 7 a.m. of the following day in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance unless a permit has been duly obtained beforehand from the Director of the Planning and Building Services Department as set forth in Section 8.20.710 of the Municipal Code.

Therefore, it is assumed that noise produced by construction activities occurring between 7 a.m. and 10 p.m. would be exempt from Yuba County's noise level criteria. No permit is required to perform emergency work as defined in Article 1 of Chapter 8.20 of the Yuba County Ordinance Code.

3.12.2 DISCUSSION

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less-than-Significant Impact. The Yuba County planning standards presented in Table 3.12-2 were used for purposes of this analysis. Project-related construction noise at noise-sensitive residential properties (buildings) in the project vicinity would be considered significant if it would exceed 60 dBA $L_{eq[h]}$ during daytime hours (7 a.m.–10 p.m.) or 45 dBA $L_{eq[h]}$ during nighttime hours (10 p.m.–7 a.m.). These are seen as the most restrictive criteria established by Yuba County, and would provide the most conservative assessment of noise impacts at existing noise-sensitive uses in the project vicinity.

Project-related construction noise was estimated using the Federal Highway Administration's Roadway Construction Noise Model and a list of heavy equipment expected to be used. It was assumed that a dozer, front loader, excavator, dump truck, and water truck could be operated simultaneously at any given time and at any location in the project area. The unmitigated noise level produced by this combination of equipment would be approximately 87 dBA at a distance of 50 feet. Assuming standard spherical spreading loss (-6 dB per doubling of distance), the unmitigated construction noise level at the closest existing residential use, approximately 2,660 feet south of the construction area, was calculated to be 52 dBA L_{eq}. This result represents the worst-case, conservative noise exposure because it does not consider noise attenuation associated with ground and atmospheric absorption. Therefore, actual construction noise levels could be substantially less.

The project construction–related noise levels would not be expected to exceed Yuba County's daytime limit of 60 dBA L_{eq} at the closest residential use. Furthermore, project construction would not extend into the nighttime hours (10 p.m.–7 a.m.), and therefore, construction would not exceed the applicable nighttime threshold of 45 dBA L_{eq}. Therefore, this impact would be less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Project construction–related vibration would result from the use of heavy earth-moving equipment for area clearing, temporary roadway grading, excavation, and embankment improvement. These activities would produce a vibration level of approximately 87 vibration decibels (VdB) (0.089 inch per second PPV) at a distance of 25 feet (which is the reference vibration level for operation of a large bulldozer [FTA 2006; Caltrans 2004]). The distance between proposed construction activities and the closest acoustically sensitive uses would be approximately 2,660 feet. Assuming a standard reduction of 6 VdB per doubling of distance, the project-related construction vibration level at these receivers would be approximately 46 VdB. This is well below any established threshold of significance and would not likely be perceptible. Therefore, this impact would be less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The proposed project would involve short-term construction activities only, and would not introduce any permanent sources of noise. Additionally, the project would not alter the local environment, such as by increasing the noise production/exposure associated with existing, permanent sources of noise in the project area. Therefore, no impact would occur.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. Ambient noise levels at the existing rural residential properties in the project vicinity are expected to be approximately 55 dBA, 50 dBA, and 45 dBA $L_{eq[h]}$, respectively, during the daytime (7 a.m.–7 p.m.), evening (7 p.m.–10 p.m.), and nighttime (10 p.m.–7 a.m.) hours. A project-related construction noise level of +10 dB above the assumed ambient level ($L_{eq[h]}$) would be considered significant at residential receivers in the project vicinity. This is based on the *Interim Construction Noise Guideline* prepared by Australia's Department of Environment & Climate Change NSW (2009). This is considered to be an appropriate impact threshold for temporary noise exposure, like that caused by short-term construction activities.

As discussed under a) above, project-related construction noise levels could be as high as 52 dBA $L_{eq[h]}$ at residences closest to the project area. This noise level does not exceed the established threshold of 10 dB above ambient significance thresholds. Therefore, this impact would be less than significant.

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 expose people residing or working in the project area to excessive noise levels?

Less-than-Significant Impact. The project area is located approximately 2 miles north of Beale AFB, 6.4 miles north-northeast of the Yuba County Airport, and 6.6 miles east-northeast of the Sutter County Airport. The project area is located well outside of the areas of influence for both the Yuba County and Sutter County Airports. The project area, however, is within the area of influence of Beale AFB. As shown in Exhibit 3.12-1, portions of the project area are located within the 60-dBA CNEL and 65-dBA CNEL aircraft noise contours for Beale AFB.

The project does not propose the addition of any noise-sensitive receivers. Project construction workers would be exposed to typical noise levels from heavy construction equipment during their daily activities, which would be substantially louder than noise from aircraft operations at Beale AFB. It is expected that project construction workers would use hearing protection while working around heavy equipment, which would also reduce their exposure to aircraft operations noise. This impact would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less-than-Significant Impact. A small airstrip, the Hammonton airstrip, is located approximately 1 mile east of the Goldfields, east of Hammonton Road, and 3.5 miles north of Beale AFB. This airstrip was known to be active as of 2009 (Aerofiles 2009). However, the project does not propose the addition of any noise-sensitive receivers. Furthermore, exposure of construction workers to typical noise levels from heavy construction equipment during their daily activities would be greater than the noise levels from aircraft that may use the Hammonton airstrip, and

project construction workers would use hearing protection while working around heavy equipment further reducing their exposure to aircraft noise. Therefore, this impact would be less than significant.

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3.13 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Population and Housing. Would the project:				
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

This section summarizes existing population and housing conditions in Yuba County. It presents estimates of changes to those conditions that could be created with implementation of the proposed project, or changes that could trigger adverse physical effects on the region.

3.13.1 ENVIRONMENTAL SETTING

POPULATION

The project site is located within the Yuba Goldfields in unincorporated Yuba County. The Goldfields encompass approximately 6,855 acres along the south side of the Yuba River near Daguerre Point Dam, approximately 10 miles northeast of Marysville.

Yuba County has experienced population growth in the recent past, and this growth is forecast to continue. The California Department of Finance (DOF) estimates that Yuba County's total population increased from 60,219 in 2000 to 72,155 in 2010, or a 20% increase over the 10-year period (DOF 2012a, 2012b). Approximately 78% of the 2010 population resided in the unincorporated areas of the county and 22% in incorporated areas (DOF 2012b).

Yuba County's projected growth rate through 2060 is projected to be the second-highest in the state after neighboring Sutter County (Yuba County 2011a:4.10-10). Yuba County is expected to add 96,530 new residents by 2060, for a total of 168,685 (DOF 2013). This represents an increase of 134% over the 2010 estimated population.

HOUSING

According to DOF, the total number of housing units in Yuba County increased from 22,636 in 2000 to 27,635 in 2010 (DOF 2012b). The county's housing growth rate was approximately 22%, with the supply and composition of housing changing little in this period. Approximately 72% of housing units were single-family homes and the average household size was 2.92 (considered to be a relatively large household) (DOF 2012b).

In 2010, the total number of housing units in the unincorporated area of Yuba County was 21,116 units, which represents approximately 76% of the total housing units in the county as a whole (DOF 2012c). The bulk of new housing construction has occurred in the unincorporated communities of Linda, Olivehurst, Arboga, and Plumas Lake (Yuba County 2011a:4.10-10).

3.13.2 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)?

No Impact. Implementing the proposed project would involve constructing an embankment in the Goldfields. Construction activities would require up to 14 employees on peak construction days. The source of the construction labor force is unknown at this time, but workers would likely come from the local labor pool and union hiring halls. These jobs would not directly or indirectly induce substantial population growth.

The overall project purpose is to provide 100-year flood protection to the Reclamation District (RD) 784 service area, which consists of approximately 29,000 acres in urban southwest Yuba County, including part or all of the communities of Linda, Olivehurst, Arboga, and Plumas Lake. As discussed in Section 3.10, "Land Use and Planning," local land use decisions are within the jurisdiction of Yuba County, which has adopted a general plan consistent with state law. The *Yuba County 2030 General Plan* (County General Plan) (Yuba County 2011b) provides an overall framework for growth and development in the county, including RD 784. Flood protection provided by the proposed project would allow for growth and development within the RD 784 service area consistent with current and/or planned population growth patterns identified within the County General Plan and would not affect the population goals as outlined in the County General Plan. Because the proposed project would not involve constructing new homes or businesses or extending roadways or other infrastructure, it would not directly or indirectly induce population growth. Therefore, no impact would occur.

b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?

No Impact. Construction of the proposed project would occur on undeveloped land that already contains flood control features and is used for gold mining and aggregate production. Because there are no existing residences on or near the project site, implementing the proposed project would not displace existing housing or necessitate the construction of replacement housing elsewhere. Therefore, no impact would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Construction of the proposed project would occur on land that already contains flood control features and is used for gold mining and aggregate production. Because there are no existing residences on or near the project site, implementing the proposed project would not displace a substantial number of people or necessitate the construction of replacement housing elsewhere. Therefore, no impact would occur.

3.14 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
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 any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.14.1 ENVIRONMENTAL SETTING

The project site lies primarily within the Smartsville Fire Protection District (Yuba County 2009:IPS-17). The Yuba County Sheriff's Department and the California Highway Patrol provide law enforcement services in the unincorporated portions of Yuba County (Yuba County 2011:4.12-5).There are no schools, parks, or other public facilities at or near the project site.

3.14.2 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 any of the public services:

Fire protection?

No Impact. The project site would continue to be served by the Smartsville Fire Protection District (FPD). The closest fire station within the Smartsville FPD is Fire Station 41 located at 8459 Blue Gravel Road, Smartsville, California (Yuba County 2009:ISP-23). Fire Station 41 is located approximately 5 miles east of the easternmost point of the project site. Implementing the proposed project would involve constructing an embankment in the Goldfields, Project construction and operation would not create new housing or other structures, and therefore, would not require additional fire protection facilities. Furthermore, access to the site would be maintained during construction in accordance with Yuba County fire policies and regulations. Therefore, no impact would occur.

Police protection?

No Impact. The project site would continue to be served by the Yuba County Sheriff's Department and California Highway Patrol. The closest Sheriff's Department locations are the Sheriff's Office at 215 Fifth Street in Marysville and the West Linda Substation at 5829 Feather River Boulevard, also in Marysville. The main Sheriff's Office is located just over 5 miles west of the westernmost point of the project site. The West Linda Substation is located approximately 5.5 miles southwest of the westernmost point of the project site. Implementing the proposed project would involve constructing an embankment in the Goldfields, and would not require additional police protection facilities or services. Therefore, no impact would occur.

Schools?

No Impact. The proposed project would not provide any new housing or a large number of employment opportunities. Therefore, the project would not generate new students or increase the demand on the local school systems. No impact would occur.

Parks?

No Impact. The proposed project would not provide any new housing or a large number of employment opportunities. Therefore, the project would not generate new residents who would require new or expanded park facilities. No impact would occur.

Other public facilities?

No Impact. No public facilities exist in the project area that would be affected by construction or operation of the proposed project. Therefore, no impact on other public facilities would occur.

3.15 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. 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?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.15.1 ENVIRONMENTAL SETTING

The project area is located along the south side of the lower Yuba River approximately 10 miles northeast of Marysville. The City of Marysville operates 15 parks within the city limits—large community parks, neighborhood parks in residential areas, and passive parks on small landscaped parcels of city-owned property (City of Marysville 2013).

Other than the Olivehurst Public Utility District, which manages the park system in Olivehurst and in the *Plumas Lake Specific Plan* area, Yuba County government is the primary provider of park facilities in unincorporated Yuba County. Among these facilities are Friendship and Fernwood Parks in Linda (Yuba County 2008:10), about 5 miles from the project site. The Yuba County Department of Public Works operates several county parks, such as Hammon Grove Park, a regional day-use-only park. The park is located on just over 40 acres along the north side of the Yuba River where Dry Creek meets the river, just east (upstream) of the Goldfields, and provides general (non-boating) river access among other amenities. The land is a remnant of Wendell P. Hammon's vast dredging operation and thus retains signs of the quartz mining operation that occurred there (Yuba County 2013a). Regionally, the City of Wheatland has a few neighborhood parks, a community park, and a special-use park; some of the rural communities also maintain park facilities, such as Ponderosa Park, a large community park in Brownsville (Yuba County 2008:10).

The lower Yuba—the 24-mile stretch of river from downstream of Englebright Dam downstream to the confluence with the Feather River just south of Marysville—is home to a primarily catch-and-release fly fishing community. The river, particularly immediately above and below the State Route (SR) 20 bridge east of the Goldfields, supports a prolific wild rainbow trout fishery. The section closest to Daguerre Point Dam and the Goldfields supports rainbow trout, American shad, smallmouth and striped bass, as well as salmon at times (FishwithJD 2013; Milne 2013). Daguerre Point Dam is considered an obstacle to both boats and anadromous fish (Fly Fishing Specialties 2013). River access is limited and motor boating is prohibited above the dam (Center for Collaborative Policy 2008:2). Other recreational facilities for boaters, fishermen, campers, and other recreationists are available at New Bullards Bar Reservoir, Camp Far West Reservoir, Collins Lake, and Lake Francis Resort, located in eastern Yuba County farther afield from the project vicinity (Yuba County 2013b).

The lower Yuba River in the project vicinity is also a spot for casual rafting and tubing, and for canoes and kayaks. The river is considered suitable for whitewater paddlers with skill levels ranging from beginner with fast-water experience to intermediate (Class I–II) (Trails.com 2013). River access for rafting and tubing is available at the end of Hallwood Boulevard, located on the north side of the river just west (downstream) of the Goldfields, and at Parks Bar, located where SR 20 crosses the river near Smartsville (about 10 miles east [upstream] of the project site). Rafters who float downstream from Parks Bar must get out and go around Daguerre Point Dam, then get back onto the river for their final destination, Shad Pad under the E Street Bridge in Marysville. (Historic Downtown Marysville 2013.) Boat access to the Yuba River is available from Beckwourth Riverfront Park in Marysville. This large city-run complex includes a golf driving range, soccer fields, a nature area, a pavilion and picnicking area, a boat ramp, softball fields, and a BMX track (City of Marysville 2013).

Also part of the complex at Beckwourth Riverfront Park is E-Street MX, accessed off North Beale Road in Marysville, just east of SR 70 and south of the Yuba River. Amenities include an intermediate-level main track and beginner-level pee wee track for motorcycles and all-terrain vehicles, and a beginner-level track; the track also hosts special events such as motocross schools (RiderPlanet USA 2013; E-Street MX 2013). Other motorsports activities occur at Marysville Raceway Park on Simpson Lane in Marysville, which includes racing events and a go-kart track (VisitYubaSutter.com 2013). Farther afield is the Clay Pit State Vehicular Recreation Area in Oroville, located about 36 miles from the project site.

Recreational opportunities within the Goldfields are limited because much of the land is either in private ownership for current aggregate mining or is owned by the U.S. Army Corps of Engineers and not public. (See Section 2.4.1, "Land Ownership," and Exhibit 2-4 in Chapter 2, "Project Description.") Land owned by the U.S. Bureau of Land Management (BLM) is considered public land, and off-highway vehicle (OHV) use is believed to occur in the portion of the Goldfields that is owned by BLM. However, none of the officially designated OHV areas on BLM-managed lands in California are located in Yuba County (BLM 2013a), nor does the list of OHV authorized locations maintained by BLM's Mother Lode Field Office include any location in Yuba County (BLM 2013b). Thus, any OHV use on the BLM-owned portion of the Goldfields is considered an informal, tolerated use only.

The *Sierra Proposed Resource Management Plan* (RMP) (BLM 2007) provides direction for management of BLM lands in the Goldfields and elsewhere in the plan area, which includes BLM lands in Yuba County and 14 other central California counties. The plan notes that (as in the project area) parcels covered in the plan are thoroughly intermixed with private property, and that access to public land is often limited or nonexistent; such lack of legal access encourages trespass across private property to reach public land (BLM 2007:1-2 and 1-3). Participants in OHV use are finding it increasingly difficult to recreate where people do not object to their activities (BLM 2007:1-4). Furthermore, BLM's plan found alternatives to increase OHV use would be infeasible because they would exacerbate conflicts with adjacent private landowners (BLM 2007:2-2). The plan does not specifically prohibit or restrict OHV use on BLM land in the Goldfields.

Common to all alternatives analyzed in the RMP is BLM's aim to facilitate public use in the Yuba Goldfields through land exchanges, sales, or other appropriate means (BLM 2007:2-59). Similarly, the *Yuba County Parks Master Plan* proposes eventual creation of a regional trail system in the Goldfields as part of a future Yuba River Regional Park, once much of the land currently used for aggregate extraction has been reclaimed for other uses (Yuba County 2008:41, 43).

3.15.2 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?

Less-than-Significant Impact. Increases in permanent demand for recreational facilities typically are associated with substantial population increases, either because new residences have been constructed or because a major job generator has been created that would indirectly increase the number of residents in an area. As a flood protection project on a rural site, much of which is currently being mined for aggregate, the proposed project would not involve constructing new residences. The project also would not be a major job generator; only 14 employees would be required on peak construction days. These construction workers likely would be local residents. Project construction workers may use parks and recreational facilities in Marysville and elsewhere in the project vicinity. However, because such a small number of workers would be needed for the project, their use of area recreational facilities would not cause the demand for such facilities to increase substantially, thus accelerating the facilities' physical deterioration.

The proposed project also would not adversely affect existing recreational resources in a permanent manner. Recreation by rafters and tubers on and anglers along the lower Yuba River would not be affected by project construction because they typically access the river from off-site locations both upstream and downstream of the Goldfields, and no on-water construction work would be required. OHV riders are believed to use the portion of the Goldfields that is public land owned by BLM; however, as shown in Exhibit 2-4, "Yuba Goldfields Land Ownership," in Chapter 2, this portion of the Goldfields is located northeast of the project site. Thus, the area that may be used by OHV riders would not be affected by project construction. Furthermore, OHV riders can access other, more formalized (privately operated and state-operated) OHV facilities in Marysville and the region.

For these reasons, the proposed project would not have any long-term substantial effects on recreational facilities and uses. Existing recreational uses would not be permanently altered. This impact would be less than significant.

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

No Impact. The proposed project is a flood protection project. The project does not include proposals for new housing. Further, the project would not include any recreational facilities, nor would it require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Thus, no impact would occur.

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3.16 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

3.16.1 ENVIRONMENTAL SETTING

STATE HIGHWAYS

State Route (SR) 70, located approximately 6 miles from the project area, is the primary state highway providing access to the project area. Two other state highways are located in or near the project vicinity: SR 65, which meets SR 70 southwest of the project vicinity in Olivehurst and continues southeast into Placer County; and SR 20, which meets SR 70 west of the project vicinity in the city of Marysville and continues northeast across the Yuba River from the project site. Most of Yuba County's main areas of traffic congestion are located along SR 70, SR 65, SR 20, and bridges across the Yuba and Feather Rivers (Yuba County 2011a:Community Development-56).

LOCAL ROADWAYS

Local access to the project construction area would be provided by existing access roads to and within the Goldfields. Main access to the Goldfields would be from Hammonton-Smartville Road and then along Brophy

Road or Hammonton Road (main access) to the interior of the Goldfields (Exhibit 2-2). Hammonton-Smartville Road is a collector road, defined in the *Yuba County General Plan* as "a two-lane roadway that collects traffic from adjacent developments and delivers that traffic to Freeways, Highways, and Arterials" (Yuba County 2011a:Community Development-54). For major (rural) collector roads such as Hammonton-Smartville Road, the *Yuba County General Plan*'s threshold for peak-hour level of service is 120 trips for Level of Service A (free-flow travel) (Yuba County 2011a:Community Development-71). Brophy Road and Hammonton Road are both two-lane local roads.

Truck traffic represents a considerable amount of total traffic on certain state highways and county roads. The local roadways in the project vicinity are commonly used for access to and from gold mining and aggregate production operations conducted in the Goldfields by Cal Sierra Development, Inc., and Western Aggregates, and thus typically accommodate substantial truck traffic. For example, approximately 17% of traffic on Hammonton-Smartville Road east of Simpson Lane (thus, in the project vicinity) consists of trucks with three or more axles (Yuba County 2011b:4.13-8).

BICYCLE FACILITIES

The *Yuba County Bikeway Master Plan* calls for a future Class III Bike Route with multiuse shoulder along Hammonton-Smartville Road in the project vicinity (Yuba County 2012:Figure 9). Currently, however, the closest bicycle facility to the project area is a bicycle lane (Class II) located along portions of Hammonton-Smartville Road just east of Simpson Lane in Linda (Yuba County 2011b:Exhibit 4.13-6). This bicycle facility is located approximately 2.2 miles and 4.3 miles, respectively, southwest of the Brophy and Hammonton Road accesses to the interior of the Goldfields.

AIRPORTS

One military base and two general-aviation airports are located in the project vicinity. The project site is located approximately 2 miles north of Beale Air Force Base (AFB); 6.4 miles north-northeast of the general-aviation Yuba County Airport, located in Olivehurst; and 6.6 miles east-northeast of the Sutter County Airport. As noted in Section 3.12, "Noise," the project is located well outside of the areas of influence for both the Yuba County Airport and Sutter County Airport, but is within the area of influence of Beale AFB. Hammonton-Smartville Road is one of two access points to Beale AFB (the other is Beale Road, located to the south). A small airstrip, the Hammonton airstrip, is located east of the Goldfields, east of Hammonton Road, 3.5 miles north of Beale AFB. This airstrip was known to be active as of 2009 (Aerofiles 2009).

TRANSIT

No transit facilities are located in the project area. Yuba-Sutter Transit provides public transportation within the project vicinity, offering a combination of advance-reservation and scheduled bus services from selected rural cities and communities to the Marysville/Yuba City urban area. The closest bus route to the project area is Route 6, the Linda Shuttle, which provides service along Hammonton-Smartville Road as far east as Alberta Avenue (Yuba-Sutter Transit 2010), about 2.6 miles from the nearest (Brophy Road) access to the project site. Routes 1 and 3 also provide service along North Beale Road to Yuba College, located approximately 6 miles southwest of the Yuba Goldfields (Yuba-Sutter Transit 2010). In addition, one of the system's rural routes, the Wheatland Route, provides service on Tuesdays and Thursdays only to the North Beale Transit Center off SR 70 at North Beale Road, about 7.7 miles from the Brophy Road access to the Goldfields (Yuba-Sutter Transit 2013).

RAILROADS

The Union Pacific Railroad operates two freight lines in Yuba County. One of the lines parallels SR 70; the other parallels SR 65 (and then SR 70) from Placer County into Marysville and then northwesterly into Sutter and Butte Counties (Yuba County 2011a:Community Development-85). These lines are located approximately 5 miles from the project site at their closest point.

3.16.2 DISCUSSION

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less-than-Significant Impact. Work for the proposed 100-year embankment would occur within the existing Yuba Goldfields site. As described in Chapter 2, "Project Description," the fill material used for the proposed embankment would be taken from areas of the Goldfields that exceed the required flood protection elevation or from areas located outside of the 100-year embankment geometry. No long hauls of material would be necessary and public roadways would not be affected. Thus, truck trips off-site would likely be limited to those needed for initial construction staging and demobilization at the beginning and end of each construction season. Construction worker vehicles would use the local transportation network, including Hammonton-Smartville Road, but the project would require a maximum of only 14 construction workers at any given time. Thus, construction-related traffic would not conflict with thresholds established by the *Yuba County General Plan*, or with provisions of Chapter 9, "Vehicle Traffic Roads," of the Yuba County Code of Ordinances; the *Yuba County Bikeway Master Plan*; or any other existing traffic plans. Construction activities may marginally increase traffic on Hammonton-Smartville Road, Hammonton Road, and Brophy Road; however, the effects would be temporary and short term. This impact would be less than significant.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less-than-Significant Impact. Unlike some other counties, Yuba County does not have a congestion management program whose circulation policies must be followed (Yuba County 2011b:4.13-2). Furthermore, the increased traffic resulting from project construction would be short term and temporary. As mentioned under a) above, truck trips off-site would be limited to those needed at the start and conclusion of construction, and other trips would be limited to commute trips by up to 14 construction workers at a time. Therefore, the proposed project would not add sufficient trips to degrade levels of service and would not conflict with an applicable congestion management program. This impact would be less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The Yuba Goldfields are located approximately 2 miles north of Beale AFB and about 6.4 and 6.6 miles, respectively, from the Yuba County and Sutter County Airports. The project site is also located in the vicinity of the Hammonton airstrip. However, implementing the proposed project would not require the use of

helicopters or any other equipment that would result in substantial safety risks by increasing air traffic levels or changing the location of air traffic. Therefore, no impact would occur.

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

No Impact. As stated in a) above, project construction would occur entirely within the existing Goldfields site. Available borrow material is readily available from adjacent areas within the project site, so construction vehicles would not be required to haul materials from off-site. The proposed project would not result in alterations to existing public roadways such as Hammonton-Smartville Road. Thus, the safety of the local transportation network would not be affected. Project operation would not result in any changes in land uses and would not alter the compatibility of uses served by the roadway network. Therefore, no impact would occur.

e) Result in inadequate emergency access?

Less-than-Significant Impact. Construction work for the proposed project would occur only within the existing Goldfields site; therefore, there would be no need to interrupt traffic on any roadway. As described above, construction-related traffic increases would be minimal relative to roadway capacity, would be temporary, and would occur in an area with low levels of traffic. Therefore, the proposed project would not result in traffic delays that could substantially increase emergency response times or reduce emergency vehicle access. Therefore, this impact would be less than significant.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less-than-Significant Impact. No public transit or bicycle facilities are provided in the project area. The nearest bus and bicycle facilities extend along Hammonton-Smartville Road to within approximately 2.6 miles and 2.2 miles, respectively, of the nearest Goldfields access road (Brophy Road). As described above, truck trips off-site would be limited to those needed at the start and conclusion of construction, and other trips would be limited to commute trips by up to 14 construction workers at a time. Thus, construction-related traffic would be minimal and would not interfere with Yuba-Sutter Transit routes or service or with operation of bicycle facilities in the project vicinity. The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, nor would it otherwise decrease the performance of such facilities. This impact would be less than significant.

3.17 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Utilities and Service Systems. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

3.17.1 ENVIRONMENTAL SETTING

The project site does not currently require any water supply, nor does it generate any wastewater or solid waste.

Solid waste in Yuba County is disposed of at the Recology Ostrom Road landfill located in Wheatland, California (CalRecycle 2013). The facility is permitted to accept municipal solid waste, wastewater treatment sludge, construction and demolition debris, green waste and food waste, contaminated soils, and nonfriable asbestos (Recology 2013).

3.17.2 DISCUSSION

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. Implementing the proposed project would involve constructing an embankment in the Goldfields. Construction activities would require up to 14 employees on peak construction days. The source of the construction labor force is unknown at this time, but workers would likely come from the local labor pool and

union hiring halls. The project would not result in the development of housing or otherwise increase the population of Yuba County. No new structures would be erected on the site. There would be no need for water or wastewater service on site. Therefore, no expansion of existing or construction of new water or wastewater facilities would be required, and wastewater treatment requirements would not be exceeded. Therefore, no impact would occur.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. As discussed under a) above, the proposed project would not require water or wastewater service. Therefore, expansion of existing or construction of new water or wastewater facilities would not be required and no impact would occur.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. No stormwater drainage facilities are located on the project site. Stormwater flows along natural grades into existing dredge ponds. The proposed project would increase flood protection in the project area through the construction of an embankment designed to intercept and block breach flows. The proposed project would not introduce impervious surfaces to the area, and, therefore, would not produce substantial amounts of runoff while retaining all stormwater runoff on site. Therefore, no new or expanded storm drainage facilities would be required, and no impact would occur.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The proposed project would not construct uses that would require a public water supply. Application of water for dust control during construction would be required. However, water for this activity would be limited, and delivered by water trucks or pumped from on-site ponds. Therefore, no new or expanded water supply entitlements would be needed, and no impact would occur.

e) 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?

No Impact. As noted under a) and b) above, the proposed project would not generate any wastewater. Therefore, the proposed project would not exceed a wastewater treatment provider's capacity, and no impact would occur.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less-than-Significant Impact. Construction of the proposed project would not include any demolition or other similar activities that would generate solid waste. As discussed in Chapter 2, "Project Description," the fill material needed to construct the project would be taken either from adjacent areas that exceed the required flood protection elevation for the 100-year embankment, or from portions of the surrounding embankment located outside of the required embankment geometry. Thus, construction would not generate solid waste or fill material

that would require disposal. Operation of the proposed project would not generate solid waste. Any solid waste generated during construction would be incidental and disposed in a local landfill. The Recology Ostrom Road landfill would receive any solid waste from the project site. Because this facility has an expected closure date of 2066 (Recology 2013), it is anticipated that this facility could accommodate the small amount of solid waste that could be generated during construction of the proposed project. Therefore, this impact would be less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. As discussed under f) above, any solid waste generated by the proposed project would be disposed at the Recology Ostrom Road landfill. Transportation and disposal would be in accordance with all applicable federal, state, and local statutes and regulations. Because the proposed project would comply with all federal, state, and local statutes and regulations, no impact would occur.

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3.18 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	**Mandatory Findings of Significance.**				
	a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	☐	☒	☐	☐
	b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
	c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Authority: Public Resources Code Sections 21083, 21083.5.
Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

3.18.1 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?

Less-than-Significant Impact with Mitigation Incorporated. The analysis conducted in this IS concludes that the proposed project with mitigation would not have a significant effect on the environment. As evaluated in Section 3.4, "Biological Resources," the proposed project could have potential adverse effects on special-status animals, nesting birds, and sensitive habitat. However, with implementation of mitigation measures included in Section 3.4, these impacts would be reduced to a less-than-significant level.

Sections 3.5.4(b) and (d) above provide mitigation for the potential for undiscovered/unknown cultural remains or unknown prehistoric burials. Implementation of Mitigation Measures 3.5-1 and 3.5-2 would reduce potential prehistory impacts to less-than-significant levels.

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.)

Less-than-Significant Impact. Construction of the proposed project would result in temporary impacts that would be primarily limited to the project site. Although impacts related to resources such as air quality, greenhouse gas emissions, and traffic would contribute to regional impacts, these impacts when combined with other past, present, and reasonably foreseeable future projects in the project vicinity would not be cumulatively considerable, primarily because of the relative small size of the proposed project. Also, as noted in Section 3.3, "Air Quality," construction-generated and operational emissions would not exceed applicable thresholds established by the Feather River Air Quality Management District. Thus, the proposed project would not be expected to result in a cumulatively considerable incremental contribution to the significant cumulative impact associated with air pollutant emissions.

As discussed in this IS, the proposed project would result in less-than-significant impacts or no impacts on the following areas: aesthetics, agriculture and forestry resources, greenhouse gas emissions, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. Furthermore, mitigation measures have been included in this IS that would reduce impacts to a less-than-significant level in the following areas: air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality. Therefore, all impacts would be less than significant or would be reduced to a less-than-significant level through incorporation of required mitigation measures, and the proposed project would not make a cumulatively considerable incremental contribution to significant cumulative adverse impacts on those resource areas. The incremental effects of the proposed project would not be cumulatively considerable when viewed in connection with the effects of past, present, and reasonably foreseeable future projects. This impact would be less than significant.

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

Less-than-Significant Impact. As discussed throughout this IS, construction and operation of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. The proposed project is intended to provide 100-year flood protection. Mitigation measures are provided to reduce the proposed project's potentially significant effects on air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality to a less-than-significant level. Thus, construction and operation of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. This impact would be less than significant.

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No references cited.

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5 REPORT PREPARERS

This initial study (IS) was prepared by AECOM in cooperation with other members of the Yuba Goldfields Flood Protection Study Team. AECOM was responsible for IS preparation. The IS technical team provided technical expertise, as presented below.

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APPENDIX A

Air Quality Modeling Results

Yuba Goldfields (TRLIA)
Construction Emissions Summary (Mitigated)

	Emissions Summary					
	tons					MT
Construction Phase	**ROG**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**CO_2e**
Grading	***0.1***	***0.8***	***0.5***	-	-	***141.78***
Construction Equipment	0.10	0.77	0.39	0.03	0.03	111.44
Water Trucks	0.00	0.02	0.00	0.00	0.00	4.77
Worker Vehicles/Work Trucks	0.01	0.03	0.11	0.00	0.00	25.57
Fugitive Dust (lbs/day)				46.73	9.72	
Grading (avg daily lbs or max daily lbs)	3	25	16	48	11	

Yuba Goldfields (TRLIA)
Construction Emissions Summary

	Emissions Summary					
	tons					MT
Construction Phase	**ROG**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**CO_2e**
Grading	***0.1***	***0.8***	***0.5***	-	-	***141.78***
Construction Equipment	0.10	0.77	0.39	0.03	0.03	111.44
Water Trucks	0.00	0.02	0.00	0.00	0.00	4.77
Worker Vehicles/Work Trucks	0.01	0.03	0.11	0.00	0.00	25.57
Fugitive Dust (lbs/day)				186.91	38.88	
Grading (avg daily lbs or max daily lbs)	3	25	16	188	40	

Yuba Goldfields
Construction Exhaust Emissions

OFF-ROAD CONSTRUCTION EQUIPMENT

					Emissions Summary (tons)						
Equipment	**Equipment Category**	**Number**	**Total Hours**	**Total Days**	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**MT CO_2e**	
Project Grading	See CalEEMod outputs				0.10	0.77	0.39	0.03	0.03	111.44	CalEEMod
Total Emisisons					**0.28**	**2.01**	**1.08**	**0.09**	**0.09**	**313.73**	

WATER TRUCKS

					Pollutants (total tons)					
Phase/Activity	**Vehicle Types**	**Operational Time**	**Average Speed**	**Total Mileage**	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**MT CO_2e**
Project Grading										
	Water Truck	8	5	2,592	0.00	0.02	0.00	0.00	0.00	5
Total Emissions					**0.00**	**0.04**	**0.01**	**0.00**	**0.00**	**9.01**

WORKER VEHICLES

					Total Emission (tons)						Total Daily Emissions (lbs/day)					
Category	**Average Daily Workers**	**Distance**	**Average Daily Mileage**	**Total Mileage**	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**CO2e**	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**CO2e**
Project Grading																
Worker Vehicles	10	40	800	51,840	0.00	0.03	0.09	0.00	0.00	19.67						
Work Trucks	2	120	240	15,552	0.00	0.01	0.03	0.00	0.00	5.90						

Yuba Goldfields
Construction Fugitive PM Dust Emissions

Construction Parameter	Units	Project
Total Acres Disturbed	acres	101.6
Maximum Daily Acres Disturbed	acres/day	0.91
On-Site Cut/Fill	cubic yards	442,873
Off-Site Cut/Fill	cubic yards	400,044
Average Haul Distance	feet	400
Average Push Distance	feet	100

			Proposed Project	
Emission Factors	**Value**	**Units**	**Emissions PM_{10} (lbs/day)**	**Emissions $PM_{2.5}$ (lbs/day)**
High Level of Detail				
Standard	0.13	lb/ac-work hr	0.95	0.20
Onsite Cut/Fill	0.21	lb/ton-mile	15.88	3.30
Offsite Cut/Fill	0.62	lb/ton-mile	170.08	35.38
		Total Unmitigated	186.91	38.88
		Full Mitigation	46.73	9.72

Estimated Ton-Miles of Exported Soil
(Input for High-Level of Detail for Fugitive Dust from Off-Site Haulage in URBEMIS)

Project Name:	Input	Yuba Goldfields (On-Site Cut/Fill [movement by scraper])	
Building ID:	Input	On-Site Cut/Fill	

Soil Type	Dry Density (g/cm3)
Sand	1.52
Sandy Loam	1.44
Loam	1.36
Silt Loam	1.28
Clay Loam	1.28
Clay	1.20

Note: Dry density in most soils varies within the range 1.1 to 1.6

Excavation
Number of Haul Trucks per Day

Total Cut/Fill Volume	Input	442,873	CY
Total Number of Haul Trucks		-	
Number of Months for Excavation	Input	5	
Cubic Yard Moved Per Day		3947	

Ton-Mile per Day Calculation

Soil Type	Input	Clay	
Soil Density (g/m3)		1.20	g/cm3
Soil Density (lbs/CY)		2,023	lbs/CY
Soil Density (tons/CY)		1.01	tons/CY
Haul Distance (Round Trip On-Site)	Input	0.02	Miles
Ton-Miles per Day		75.6	<----------> Haul truck trips per day * 20 CY/truck * tons/CY * miles/trip

Estimated Ton-Miles of Exported Soil
(Input for High-Level of Detail for Fugitive Dust from Off-Site Haulage in URBEMIS)

Project Name:	Input	Yuba Goldfields (Off-Site Cut/Fill [movement by truck])	
Building ID:	Input	Off-Site Cut/Fill	

Excavation
Number of Haul Trucks per Day

Total Cut/Fill Volume	Input	400,044	CY
Total Number of Haul Trucks		20,003	
Number of Months for Excavation	Input	5	
Haul Truck Trips per Day		179	

Soil Type	Dry Density (g/cm3)
Sand	1.52
Sandy Loam	1.44
Loam	1.36
Silt Loam	1.28
Clay Loam	1.28
Clay	1.20

Note: Dry density in most soils varies within the range 1.1 to 1.6

Ton-Mile per Day Calculation

Soil Type	Input	Clay	
Soil Density (g/m3)		1.20	g/cm3
Soil Density (lbs/CY)		2,023	lbs/CY
Soil Density (tons/CY)		1.01	tons/CY
Haul Distance (Round Trip On-Site)	Input	0.08	Miles
Ton-Miles per Day		274.3	<----------> Haul truck trips per day * 20 CY/truck * tons/CY * miles/trip

Yuba Goldfields

Feather River AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Utility Company**	
Climate Zone	3	**Precipitation Freq (Days)**	67		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD

Off-road Equipment - PD

Off-road Equipment - pD

Off-road Equipment - PD

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

3.2 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.10	0.77	0.39	0.00		0.03	0.03		0.03	0.03	0.00	111.27	111.27	0.01	0.00	111.44
Total	**0.10**	**0.77**	**0.39**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**111.27**	**111.27**	**0.01**	**0.00**	**111.44**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	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	0.00	0.00
Vendor	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	0.00	0.00
Worker	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	0.00	0.00
Total	**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**	**0.00**	**0.00**

APPENDIX B

USFWS Species List for Goldfields 100-Year Flood Protection Project

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

August 13, 2013

Document Number: 130813115255

Nick Tomera
AECOM
2020 L Street Suite 400
Sacramento, CA 95811

Subject: Species List for Goldfields 100-Year Flood Protection Project

Dear: Interested party

We are sending this official species list in response to your August 13, 2013 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 11, 2013.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found here.

Endangered Species Division

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 130813115255

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio
- Conservancy fairy shrimp (E)

Branchinecta lynchi
- Critical habitat, vernal pool fairy shrimp (X)
- vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
- valley elderberry longhorn beetle (T)

Lepidurus packardi
- Critical habitat, vernal pool tadpole shrimp (X)
- vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
- green sturgeon (T) (NMFS)

Hypomesus transpacificus
- delta smelt (T)

Oncorhynchus mykiss
- Central Valley steelhead (T) (NMFS)
- Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
- Central Valley spring-run chinook salmon (T) (NMFS)
- Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
- winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii
- California red-legged frog (T)

Reptiles

Thamnophis gigas
- giant garter snake (T)

Plants

Pseudobahia bahiifolia
- Hartweg's golden sunburst (E)

Candidate Species

Birds

Coccyzus americanus occidentalis

Western yellow-billed cuckoo (C)

Quads Containing Listed, Proposed or Candidate Species:

SMARTVILLE (543A)
BROWNS VALLEY (543B)
WHEATLAND (543C)
CAMP FAR WEST (543D)
YUBA CITY (544A)
OLIVEHURST (544D)
LOMA RICA (559C)
OREGON HOUSE (559D)
HONCUT (560D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the

list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to

listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 11, 2013.

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4.20 SECTION 3.18, "MANDATORY FINDINGS OF SIGNIFICANCE"

No references cited.

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COMMENT LETTERS ON THE PUBLIC IS/MND AND RESPONSES

Commenting Organization/Agency	Date
The United Auburn Indian Community of the Auburn Rancheria	February 12, 2014
Feather River Air Quality Management District	February 14, 2014
Anderson Dragline, Inc.	February 19, 2014
Central Valley Water Quality Control Board	February 20, 2014
Central Valley Flood Protection Board	February 21, 2014
California Department of Fish and Wildlife	March 6, 2014
South Yuba River Citizens League	March 6, 2014
United States Army Corps of Engineers	March 24, 2014

MIWOK MAIDU United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairman | John L. Williams, Vice Chairman | Danny Rey, Secretary | Brenda Adams, Treasurer | Calvin Moman, Council Member

KB 2/25/2014
Leslie —
Please scan. Send copies to Andrea Clark Andrea Shepard (AECOM) AND LARRY DAENS
Paul

February 12, 2014

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FEB 24 2014
TRLIA

Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Subject: Notice of Availability and Intent to Consider Adoption of a Proposed Mitigated negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project

Dear Paul Brunner,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and whose service area includes El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction.

In order to ascertain whether or not the project could affect cultural resources that may be of importance to the UAIC, we would like to receive copies of any archaeological reports that have been, or will be, completed for the project. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The UAIC would also like the opportunity to have our tribal monitors accompany you during the field survey. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes.

The UAIC's preservation committee has identified cultural resources within your project area and in close proximity, and would like to request a site visit to confirm their locations and meet with you regarding this project. Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the aforementioned documents as requested. Please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or by email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

Gene Whitehouse,
Chairman

CC: Marcos Guerrero, CRM

From: Shephard, Andrea
To: "Sondra Spaethe"
Cc: "George Lu (georgeclu48@gmail.com)"; Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project
Date: Thursday, February 20, 2014 8:35:00 AM

Sondra,

Here are the additional responses to your other questions.

First, the model indicates that there will be three phases: Phase 1 (4/1/2014 to 6/14/2014); Phase 2 (4/1/2015 to 6/06/2015); and Site J Plug (6/7/2015 to 8/15/2015). However, the IS/MND says that the construction should only last less than 5.5 months, beginning as early as April 1 and lasting no later than November 1. (Section 2.4.3 Construction Schedule page 2-10). Can you confirm that the phases entered into CalEEMod are correct and if so why the inconsistency with the language in the IS/MND

The AQ analysis was done with the most recent information from the client's construction contractor. The 5.5 months in the IS/MND is out of date and the work days entered into CalEEMod for Phase 1 (65 days) and stated in Table 3.3-2 in the IS/MND are correct. The information in Section 2.4.3 Construction Schedule on page 2-10 should have been updated with this same information.

Also, the phases and the construction equipment have been modified from the default settings. The user is directed to indicate in the "Remarks" box what assumptions were used to generate the changes. The only Remarks I can see are the letters "PD." Can you confirm whether this was the entire intended Remarks statement? And if so, can you please provide some clarification as to why the default settings were changed (what "PD" means)?

"PD" refers to the project description. The client's construction contractor provided the amount and types of construction equipment that would be used for each of the three phases that was entered into the model. So the modifications are associated with overriding the CalEEMod defaults with project-specific construction equipment information.

And finally, the model indicates that mitigation in the form of tier 3 engines has been applied to all of the excavators, off-highway trucks, and tractors/backhoes/loaders. Can you please confirm whether this was the intent of the project to use this mitigation? Because if it was, then this should have been included in the mitigation measures listed on the IS/MND. I did not notice that using tier 3 engines in these construction equipment was a mitigation measure in the IS/MND.

Because of the glitches in the previous CalEEMod, specifically that the construction phases would shift every time you reopened a project and you would lose some of the changes that you made, we preemptively added Tier 3 engines as potential mitigation for the proposed project. This way, if construction emissions were found to exceed the FRAQMD thresholds of significance, we would have a potential mitigation measure to reduce emissions without having to rerun the entire model because changes would be lost when reopened. However, because the unmitigated emissions would not exceed the FRAQMD thresholds, these mitigated emissions were not used in the analysis. As shown in the Appendix, only the unmitigated emissions are used in the analysis.

Best regards,

Andrea L Shephard, PhD
Senior Project Manager, Associate
Design + Planning
D +1 916.414.5822 M +1 916.396.2170

From:	Shephard, Andrea
To:	"Sondra Spaethe"
Cc:	George Lu (georgeclu48@gmail.com); Paukovits, Jason
Subject:	RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project
Date:	Wednesday, February 19, 2014 8:52:00 AM

Sondra,

I am checking with George. I think I can address the first of your three questions. I believe the output you received was for the original project we evaluated. I should have explained that the original project contemplated 3 separate phases. However, the client determined (after the AQ analysis was done, but before the IS/MND was finalized) that Phases 2 and 3 would never be constructed, so the project was revised to include just the Phase 1 component. Since each phase was autonomous (no overlap), the output from the initial modeling for Phase 1 was valid for the revised project and is what was used in the IS/MND.

Andrea L Shephard, PhD
Senior Project Manager, Associate
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www.aecom.com

From: Sondra Spaethe [mailto:sspaethe@fraqmd.org]
Sent: Tuesday, February 18, 2014 3:41 PM
To: Shephard, Andrea
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Andrea,

Thank you for submitting the CalEEMod file used for this project. Opening the older file in the current model created some interesting results in the reporting page. If you don't mind, I'd like to confirm a few things with you since it is not a clear comparison.

First, the model indicates that there will be three phases: Phase 1 (4/1/2014 to 6/14/2014); Phase 2 (4/1/2015 to 6/06/2015); and Site J Plug (6/7/2015 to 8/15/2015). However, the IS/MND says that the construction should only last less than 5.5 months, beginning as early as April 1 and lasting no later than November 1. (Section 2.4.3 Construction Schedule page 2-10). Can you confirm that the phases entered into CalEEMod are correct and if so why the inconsistency with the language in the IS/MND?

Also, the phases and the construction equipment have been modified from the default settings. The user is directed to indicate in the "Remarks" box what assumptions were used to generate the changes. The only Remarks I can see are the letters "PD." Can you confirm whether this was the entire intended Remarks statement? And if so, can you please provide some clarification as to why

the default settings were changed (what "PD" means)?

And finally, the model indicates that mitigation in the form of tier 3 engines has been applied to all of the excavators, off-highway trucks, and tractors/backhoes/loaders. Can you please confirm whether this was the intent of the project to use this mitigation? Because if it was, then this should have been included in the mitigation measures listed on the IS/MND. I did not notice that using tier 3 engines in these construction equipment was a mitigation measure in the IS/MND.

Thank you very much for your assistance. I'm sorry that the two model versions resulted in such a convoluted result. The model should be able to open and correctly display older file created with the previous versions.

Regards,

Sondra

Sondra Spaethe
Air Quality Planner II
Feather River Air Quality Management District
1007 Live Oak Blvd., Suite B-3
Yuba City, CA 95991
(530) 634-7659 ext 210
(530) 634-7660 FAX

From: Shephard, Andrea [mailto:Andrea.Shephard@aecom.com]
Sent: Tuesday, February 18, 2014 8:36 AM
To: Sondra Spaethe
Cc: 'Chris Brown'; pbrunner@co.yuba.ca.us; Lu, George; Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Sondra,

The data you requested is attached.

AECOM began and completed the AQ/GHG analysis for the Yuba Goldfields 100-year Flood Protection Project prior to the availability of CalEEMod Version 2013.2 (July 26, 2013) and Version 2013.2.2 (October 2, 2013). As shown in the CalEEMod modeling outputs in Appendix A, AQ/GHG modeling was completed by July 17, 2013, at which time neither CalEEMod Version 2013.2 nor 2013.2.2 was available. When Version 2013.2 was released, AECOM was in the process of completing the draft report and made a decision to proceed with the version of the model that was initially used for the analysis (i.e., Version 2011.1.1)."

I've attached the CalEEMod run that corresponds to Appendix A; however, please note that when installing CalEEMod Version 2013.2.2, you have to delete Version 2011.1.1. Thus, we're not sure how this will work if you try to open a v2011.1.1 file using 2013.2.2.

Andrea L Shephard, PhD

Senior Project Manager, Associate
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www.aecom.com

From: Sondra Spaethe [mailto:sspaethe@fraqmd.org]
Sent: Friday, February 14, 2014 2:47 PM
To: Shephard, Andrea
Cc: 'Chris Brown'; pbrunner@co.yuba.ca.us
Subject: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Andrea,

Thank you for submitting the Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project to the Feather River Air Quality Management District for review and comment. I would like to request the air quality modeling information used to generate the data in Appendix A Air Quality Modeling Results. Could you please email me the CalEEMod file that was used to generate these results and the complete report?

Also note that the most recent revision of the CalEEMod model (2013.2.2) was released on October 2, 2013. A significant update to the CalEEMod program (2013.2) was released on July 26, 2013, that updated off road construction equipment emission factors according to the Air Resources Board OFFROAD 2011 model. I noticed that the CalEEMod model version used to generate the emissions summary report in this MND was an older version, 2011.1.1.

Thank you,

Sondra Spaethe
Air Quality Planner II
Feather River Air Quality Management District
1007 Live Oak Blvd., Suite B-3
Yuba City, CA 95991
(530) 634-7659 ext 210
(530) 634-7660 FAX

Anderson Dragline, Inc.
P.O. Box 968
Gridley, CA 95948
Phone (530) 695-1352
Fax (530) 695-3131
License No. 748514
www.andersondragline.com

February 19, 2014

Mr. Paul Brunner, P.E.
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

SUBJECT: Yuba Goldfields 100-Year Flood Protection Project

Dear Mr. Brunner,

Anderson Dragline, Inc. has reviewed the Initial Study/Mitigated Negative Declaration for the subject project, and as a licensed General Engineering Contractor, is interested in bidding on the construction of the project.

Will this project be publicly advertised for bid? If yes, when do you anticipate the project will bid?

If the project is not publicly advertised for bid, which private property owners would TRLIA consider partnering with to construct the project?

Sincerely,

ANDERSON DRAGLINE, INC.

Mark E. Johnson

Mark E. Johnson
Construction Manager

From: Brunner, Paul
To: Clark, Andrea
Cc: Shephard, Andrea
Subject: FW: Yuba Goldfields 100-Year Flood Protection Project
Date: Thursday, February 27, 2014 3:56:08 PM

FYI

Paul G. Brunner
Executive Director
Three Rivers Levee Improvement Authority (TRLIA)
530-749-5679 (office)
916-765-4981 (cell)

From: Mark Johnson [mailto:markj@andersondragline.com]
Sent: Thursday, February 27, 2014 3:43 PM
To: Brunner, Paul
Subject: RE: Yuba Goldfields 100-Year Flood Protection Project

Thanks Paul

Mark Johnson
Construction Manager
Anderson Dragline, Inc.
www.andersondragline.com
P.O. Box 968
Gridley, CA 95948
(530) 695-1352 office
(530) 695-3131 fax
(530) 682-8462 cell

From: Brunner, Paul [mailto:PBrunner@CO.YUBA.CA.US]
Sent: Thursday, February 27, 2014 3:29 PM
To: Mark Johnson
Subject: RE: Yuba Goldfields 100-Year Flood Protection Project

Hi Mark – thank you for your letter and inquiry on the construction of the proposed 100-yr TRLIA Goldfields Flood Protection project. At this time the construction details are still being worked out. It is anticipated that the project will be accomplished as a TRLIA partnership with the mining companies that currently own the land, or have vested rights in the project location. A public advertised bid process may not be used. It is possible that the contemplated partnership could utilize non mining activities contractor services. I will keep your company's information on file should this need come up.

Thanks, Paul

Paul G. Brunner
Executive Director
Three Rivers Levee Improvement Authority (TRLIA)
530-749-5679 (office)
916-765-4981 (cell)

From: Mark Johnson [mailto:markj@andersondragline.com]
Sent: Wednesday, February 19, 2014 10:26 AM
To: Brunner, Paul
Subject: Yuba Goldfields 100-Year Flood Protection Project

Mr. Brunner,

Please review and reply to the attached inquiry regarding the Yuba Goldfields project.

Thank you.

Mark Johnson
Construction Manager
Anderson Dragline, Inc.
www.andersondragline.com
P.O. Box 968
Gridley, CA 95948
(530) 695-1352 office
(530) 695-3131 fax
(530) 682-8462 cell

Leslie — Send to Andrea Clark, Andrea Sheppard (AECOM) & Larry. Thanks, Paul 2/26/2014

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

RECEIVED
FEB 25 2014
TRLIA

Sent Certified mail

20 February 2014

Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

CERTIFIED MAIL
7013 1710 0002 3644 0953

COMMENTS TO DRAFT MITIGATED NEGATIVE DECLARATION, YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT, SCH NO. 2014022010, YUBA COUNTY

Pursuant to the State Clearinghouse's 5 February 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Draft Mitigated Negative Declaration* for the Yuba Goldfields 100-year Flood Protection Project, located in Yuba County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

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[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

February 21, 2014

RECEIVED
FEB 24 2014
TRLIA

Mr. Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, California 95901

Subject: Yuba Goldfields 100-Year Flood Protection
SCH Number: 2014022010
Document Type: Mitigated Negative Declaration

Dear Mr. Brunner:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to or within the Yuba River and is therefore under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway. The project should include mitigation measures to avoid decreasing floodway channel capacity.

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at http://gis.bam.water.ca.gov/bam/.

If you have any questions, please contact me by phone at (916) 574-0651, or via e-mail at James.Herota@water.ca.gov.

Sincerely,

James Herota
Senior Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667
(916) 358-2900
http://www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

March 6, 2014

Paul Brunner
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901
E-mail: PBrunner@co.yuba.ca.us

Subject: Comments on the Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project, SCH # 2014022010

Dear Mr. Brunner:

The California Department of Fish and Wildlife (Department) has reviewed the Three Rivers Levee Improvement Authority's (TRLIA) Initial Study/Proposed Mitigated Negative Declaration (IS/MND) for the Yuba Goldfields 100-Year Flood Protection Project (proposed project). Pursuant to Section 15082(b) of the California Environmental Quality Act (CEQA) Guidelines, the Department offers the following comments on the IS/MND in our roles both as a trustee agency and as a responsible agency. As trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species. The Department may also be a responsible agency for a project affecting biological resources where we will exercise our discretion after the lead agency to approve or carry out a proposed project or some facet thereof.

TRLIA is proposing to approve construction of a levee embankment in the Yuba Goldfields in order to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project is located within the Yuba Goldfields along the south side of the Yuba River near Daguerre Point Dam, within the Browns Valley U.S. Geological Survey (USGS) 7.5-minute quadrangle. The Yuba Goldfields is a valley of 10,000 acres on both sides of the Yuba River in Yuba County, California, located northeast of Marysville. 1

The proposed project consists of constructing an embankment in the Yuba Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles within the Yuba Goldfields. Approximately 453,373 cubic yards of fill material would be needed to construct the 100-year embankment geometry within the alignment. TRLIA intends to build the embankment using the Yuba Goldfields' existing dredge tailings. Construction of the proposed project would require less than 6 months. Construction is anticipated to begin in spring 2014, no earlier than April 1st, and would be completed no later than November 1st of the same year.

The Department is primarily concerned with the proposed project's impacts to special-status species, including the State-threatened Swainson's hawk (*Buteo swainsoni*), the California species of special concern tricolored blackbird (*Agelaius tricolor*), and the federally threatened

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), as well as riparian resources that may be impacted with implementation of the proposed project.

The process the Department recommends for identifying and analyzing impacts to sensitive species and habitats begins with scoping, followed by surveys and mitigation development. The impact analysis in the IS/MND relies heavily on a California Natural Diversity Database (CNDDB) record search instead of a habitat assessment to determine which species may occur on the project site or be adversely affected by the proposed project. The IS/MND states that a search for CNDDB records was conducted within a five-mile radius of the project boundaries. Although CNDDB is one tool that may identify potential sensitive resources in the area, the dataset should not be regarded as complete data on the elements or areas being considered. Other sources for identification of species and habitats near or adjacent to the project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System (CWHR), California Native Plant Society (CNPS) Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations. 1 cont.

The IS/MND should address the proposed project's impact on State or federally listed rare, threatened, endangered, or other special-status species. According to the IS/MND, a site visit was conducted on August 8, 2013 and would not likely detect the species listed above or others. The Department recommends that on-site scoping and surveys be conducted at the time of year when species are both evident and identifiable, so that the impact analysis may include the results of the scoping and/or surveys. Surveys should be scheduled to coincide with the appropriate breeding or other life history stage of animals, when they are likely to be evident, or with peak flowering periods and/or during periods of phenological development that are necessary to identify a plant species of concern. The surveys to analyze what may be on the project site have been deferred until prior to the start of construction activities. 2

The IS/MND states that "Swainson's hawk, white-tailed kite, and tricolored blackbird—could nest on or near the project site," and that impacts to these species will be avoided with the implementation of Mitigation Measures 3.4-1b, 3.4-1c, 3.4-1d, and 3.4-1e. These measures require either removing vegetation prior to the nesting season or conducting pre-construction surveys and non-disturbance buffers if nests are found. These measures may not be adequate to reduce potential impacts from the proposed project to special-status species to a less-than-significant level, as outlined in the following discussion. Any activity resulting in loss of habitat, decreased reproductive success, or other negative effects on population levels of special-status species should be addressed in the IS/MND. There should be a clear impact assessment that outlines the temporary and permanent effects of the proposed project on all biological resources within and surrounding the project site. If it is not possible to avoid environmental impacts, mitigation should be provided which mitigates project impacts to a less than significant level. 3

Swainson's Hawk

Surveys conducted for the proposed project did not determine if nests for Swainson's hawk or other raptors are present within the potential area of disturbance. Raptors and other migratory birds are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the Fish and Game Code; therefore, potential impacts would be considered potentially significant unless mitigation is incorporated. Swainson's hawks are also listed as threatened under the California Endangered Species Act (CESA) and are thereby afforded additional protection. Removal or disturbance of a Swainson's hawk nest may constitute take under CESA and should be evaluated in the IS/MND. 4

All measures to protect raptors should be performance-based. While some birds may tolerate disturbance caused by construction activities, other birds may have a different disturbance threshold and "take"[1] (FGC §2081 and §3503.5) could occur if the temporary disturbance buffers are not designed to reduce stress to that individual pair. The Department recommends including performance-based protection measures for avoiding all nests protected under the MBTA and FGC §3503.5. A 250-foot exclusion buffer may be sufficient; however, that buffer may need to be increased based on the birds' tolerance level to the disturbance. An example of a performance-based protection measure is provided: Should construction activities cause the nesting migratory bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then increase the exclusionary buffer such that activities are far enough from the nest to stop this agitated behavior by the raptor. The exclusionary buffer should remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. 4 cont.

Additionally, a CESA, FGC §2081(b)) permit should be obtained if the proposed project has the potential to result in take of State-listed plants or wildlife over the life of the proposed project. Issuance of a CESA permit is subject to CEQA documentation; therefore the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed project will impact CESA listed species, early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA permit. A CESA permit may only be obtained if the impacts of the authorized take of the species are minimized and fully mitigated and adequate funding has been ensured to implement the mitigation measures. The Department may only issue a CESA permit if the Department determines that issuance of the permit does not jeopardize the continued existence of the species. The Department will make this determination based on the best scientific information available, and shall include consideration of the species' capability to survive and reproduce, including the species known population trends and known threats to the species. Issuance of a CESA permit may take up to 180 days from receipt of an application from the applicant. 5

Tricolored Blackbirds

The proposed project has the potential to impact tricolored blackbird, a California species of special concern. The IS/MND states that "several CNDDB records of [tricolored blackbirds] occur near the project site; however, the majority of these records are from the 1930s and the colonies are possibly extirpated." Tricolored blackbirds have high site fidelity and return to nesting sites after decades of undocumented use (Hosea 1986). Furthermore, colonially nesting birds are especially vulnerable to extinction. Removal of tricolored blackbird nest habitat, even if conducted after nesting season, could be considered regionally significant. Loss of breeding and foraging habitats is believed to be the most important cause of the documented population declines (Tricolored Blackbird Working Group 2007). 6

The Department recommends that surveys are conducted at the correct time of year (early March), when both males and females are present at the nesting location. During incubation, males form all-male flocks and may spend the day several kilometers from colonies. Females

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[1] Pursuant to Fish and Game Code Section 86, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

on nests are quiet during incubation, and active colonies may appear to be largely deserted (Beedy 1997). Observation of the flight direction of adults with food in their bills is recommended, as once incubation has begun, detection probability decrease significantly. If it is determined that tricolored blackbirds are nesting in the proposed project area, potential impacts should be properly analyzed and mitigated in the IS/MND. 6 cont.

Valley Elderberry Longhorn Beetle
According to the U.S. Fish and Wildlife Service (Service)'s *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (1999), complete avoidance (i.e., no adverse effects) may only be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. The proposed buffer of 20-feet in the IS/MND is not adequate to reduce impacts to a less-then-significant level. Indirect impacts through vibration or dust could occur and should be analyzed in the IS/MND. The Department recommends that the Service be consulted before any disturbances within the 100-foot buffer area are considered. 7

Riparian Vegetation Removal
The proposed project will have an impact on riparian habitat. Due to the ecological importance of riparian habitat, the Department recommends that the mitigation is based on the concept of no-net-loss of riparian habitat acreage or value. The proposed replacement ratio of 1:1 (Mitigation Measure 3.4-2) does not account for the temporal loss of riparian habitat. Riparian trees and associated vegetation may take a long time to mature and that loss is not accounted for in a 1:1 ratio. The Department recommends replacing mature riparian habitat at a higher ratio to address temporal loss.

Additionally, we recommend revising Mitigation Measure 3.4-2 s to include performance standards including evaluating the success of the proposed mitigation, providing a range of options to achieve the performance standards, and ensures successful completion of the mitigation. The Department recommends that the IS/MND include measurable success criteria for growth and establishment of new plantings (such as an 80 percent survival of replacement plantings five years following site revegetation); and additional plantings if the success criteria are not met. Inlcude the success criteria and the riparian restoration design in a restoration plan and ensure compliance through the Mitigation Monitoring and Reporting Program (MMRP). 8

Jurisdictional Riparian Habitat
In the event implementation of the proposed project involves activities which will result in a substantial alteration of the bed, bank, and/or channel of a river, stream or lake, the project applicant shall submit to the Department a Notification of Lake or Streambed Alteration (LSA) (pursuant to FGC §1602), and if necessary obtain a LSA Agreement prior to commencing work. This Agreement would include measures to minimize and restore riparian habitat. As a responsible agency under CEQA, the Department must rely on the CEQA analysis for the proposed project when exercising our discretion after the lead agency to approve or carry out some facet of a project, such as the issuance of a LSA Agreement. Therefore, the IS/MND should include specific, enforceable measures that will avoid, minimize and/or mitigate for project impacts to the natural resources within the same stream system. 9

Summary
The proposed project will have an impact to fish and/or wildlife habitat and should include measures to reduce its impacts to biological resources. Assessment of fees under Public Resources Code §21089 and as defined by FGC §711.4 is necessary. Fees are payable by the project applicant upon filing of the Notice of Determination by the lead agency. 10

Pursuant to Public Resources Code §21092 and §21092.2, the Department requests written notification of proposed actions and pending decisions regarding the proposed Project. Written notifications shall be directed to: California Department of Fish and Wildlife Region 2, 1701 Nimbus Road, Rancho Cordova, CA 95670.

10 cont.

Thank you for considering our concerns for the proposed project. Department personnel are available for consultation regarding biological resources and strategies to minimize impacts. If you have questions please contact Tanya Sheya, Environmental Scientist, by e-mail at Tanya.Sheya@wildlife.ca.gov or by phone at (916) 358-2953.

Sincerely,

Tina Bartlett

Tina Bartlett
Regional Manager

ec: Jeff Drongesen, Jeff.Drongesen@wildlife.ca.gov
Isabel Baer, Isabel.Baer@wildlife.ca.gov
Tanya Sheya, Tanya.Sheya@wildlife.ca.gov

State Clearinghouse

References

Beedy, E.C. and W. J. Hamilton III 1997. *Tricolored Blackbird Status Update and Management Guidelines* (Jones and Stokes Associates, Inc. 97-099.) Sacramento, CA. Prepared for U.S. Fish and Wildlife Service, Portland, OR and California Department of Fish and Game, Sacramento, CA.

Hosea, R. C. 1986. A population census of the Tricol¬ored Blackbird, Agelaius tricolor (Audubon), in four counties in the northern Central Valley of California. Master's thesis, Calif. State Univ., Sacramento.

Tricolored Blackbird Working Group. 2007. Conservation Plan for the Tricolored Blackbird (Agelaius tricolor). Susan Kester (ed.). Sustainable Conservation. San Francisco, CA.

U.S. Fish and Wildlife Service (Service). July 1999. *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*. Sacramento, CA.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901
Office (530) 749-7841 Fax (530) 749-6990

March 26, 2014

Tina Bartlett
Regional Manager
California Department of Fish and Wildlife
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667

Subject: Response to Comments from California Department of Fish and Wildlife on the Public Draft Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project (SCH#2014022010)

Dear Ms. Bartlett,

Thank you for your interest in the above referenced project. This letter is in response to your comment letter on the Public Draft Initial Study/Proposed Mitigated Negative Declaration (IS/MND) dated March 6, 2014. Below are responses to your specific comments in the order in which they appear in your March 6, 2014 letter, which is also attached for reference.

Response to Comment 1

The Department summarizes the proposed project and generally describes its concerns and the process the Department recommends for identifying and analyzing impacts to sensitive species and habitats.

Comment noted.

Response to Comment 2

The Department states that a site visit was conducted on August 8, 2013, and that surveys conducted at this time of year would not likely detect sensitive species that could be affected by the project. The Department recommends that surveys should be scheduled to coincide with appropriate breeding or other life history stage when plants and animals of concern are identifiable.

The Department is correct in stating that a survey was conducted on August 8, 2013. However, additional surveys were conducted for valley elderberry longhorn beetle and nesting raptors in the biological study area for the project in 2012 (August 23, 24; October 11) and 2013 (February 28; March 1, 8, 15, 28), as referenced on Page 3.4-2 of the IS/MND. The 1,729-acre biological study area includes the project site as well as surrounding land in the Yuba Goldfields. Survey results were presented in a number of survey reports that can be provided to the Department upon their request. While these surveys were not conducted at a level of intensity to determine presence or absence, they were conducted by qualified botanists and wildlife biologists that noted all incidental observations of sensitive plants and animals.

Response to Comment 3

The Department states that mitigation measures proposed to protect sensitive species may not be adequate to reduce potential impacts to a less-than-significant level. The Department states that any activity resulting

in the loss of habitat, decreased reproductive success, or other negative effects on population levels of special-status species should be addressed in the IS/MND.

The IS/MND complies with CEQA by adequately addressing impacts to all potentially-occurring special-status plants and animals. Proposed mitigation measures to reduce those impacts to less-than-significant levels are also in accordance with CEQA requirements. The Department contends that mitigation may not be adequate but does not provide any additional information regarding the presence of special-status species and/or potential impacts to those species that support this contention.

Response to Comment 4

The Department expresses concern about potential impacts to Swainson's hawks and other raptors and states that removal or disturbance of a Swainson's hawk nest may constitute take under the California Endangered Species Act (CESA) and should be evaluated in the IS/MND. The Department provides an example of a performance-based measure to reduce impacts to nesting raptors.

The IS/MND complies with CEQA by addressing potential impacts to Swainson's hawks and other raptors. Although no Swainson's hawk nests have been found, and the Department does not provide any information that such nests are present in the project area, the IS/MND takes a conservative (i.e., protective) approach in determining that impacts to this species are potentially significant. The proposed mitigation is specifically designed to reduce potential disturbance and reduce the risk of take should the project area become occupied by nesting Swainson's hawks prior to construction. TRLIA believes that the proposed mitigation is adequate to avoid take of any Swainson's hawks as defined under CESA. The performance measures recommended by the Department to provide additional protection for nesting raptors will be incorporated into Mitigation Measure 3.4-1c of the IS/MND and included in the Mitigation Monitoring and Reporting Plan (MMRP) for the proposed project.

Response to Comment 5

The Department describes the process for obtaining a CESA permit for take of listed species and states that a permit should be obtained if the proposed project has the potential to result in take.

We do not anticipate that implementation of the proposed project, and the mitigation proposed in the IS/MND, would result in take of any State-listed plants or animals.

Response to Comment 6

The Department restates information presented in the IS/MND regarding potential impacts to tricolored blackbird and provides additional information on the life history of this California species of special concern. The Department recommends that surveys are conducted at the correct time of year when both males and females are present at the nesting locations.

Potential impacts on tricolored blackbird were assessed in the IS/MND at a sufficient level of detail to comply with CEQA. The IS/MND concluded that very little suitable habitat exists in or near the project site (see page 3.4-9). The Department provides no information on any tricolored blackbirds nesting colonies in the vicinity of the project site. The IS/MND provides mitigation that would ensure that no active tricolored blackbird colonies would be needlessly destroyed in the unlikely event that a colony is found during preconstruction surveys.

Response to Comment 7

The Department briefly summarizes the conservation guidelines issued by the U.S. Fish and Wildlife Service (USFWS) for the valley elderberry longhorn beetle and states that the proposed buffer of 20 feet is inadequate to reduce impacts to a less-than-significant level. The Department recommends that the USFWS should be consulted before any disturbance within the 100-foot buffer area is considered.

The approach for protecting elderberry shrubs that could provide habitat for the valley elderberry beetle is described on page 2-10 of the IS/MND. This approach includes establishing and maintaining a 20-foot

buffer around each shrub with construction fencing for all shrubs located in the construction area. The Department does not provide any information to support its conclusion that the buffer distance is not adequate. The comment that indirect impacts (i.e., vibration and dust) should be analyzed in the IS/MND also lacks information on how these impacts are relevant to the impact conclusion. As stated in the IS/MND, we believe the project would provide adequate protection for the valley elderberry longhorn beetle so that impacts would be less than significant as defined under CEQA. Adherence to the USFWS conservation guidelines is not required to comply with CEQA. The Department's recommendation to consult with USFWS regarding potential impacts to valley elderberry longhorn beetle is noted.

Response to Comment 8

The Department restates information presented in the IS/MND regarding impacts to riparian habitat and describes the ecological value of this sensitive plant community. The Department states that the replacement ratio of 1:1 does not account for temporal loss of riparian habitat and recommends replacing mature riparian habitat at a higher ratio to address temporal loss. Additionally, the Department recommends revising Mitigation Measure 3.4-2 to include performance standards and ensure successful completion of the mitigation.

The IS/MND recognizes riparian habitat on the project as a sensitive habitat and concludes that impacts to riparian vegetation would be significant under CEQA. However, as described in the document, riparian habitat affected by the project is limited to thin strips of vegetation that occur at the periphery of the dredge ponds. The total amount of riparian habitat affected by the project would be less than 6 acres, which is a relatively small amount given the amount of similar quality habitat in the project vicinity. Given the magnitude of the impact and the fact that no high-quality riparian woodland or forest habitat would be affected, compensation exceeding a 1:1 ratio and compensating for temporal loss is not necessary to reduce this impact to less than significant as defined under CEQA.

In the MMRP, TRLIA will include the following revised but equivalent mitigation measure in place of Mitigation Measure 3.4-2 from the IS/MND:

TRLIA and its construction contractor(s) will implement the following measures to reduce effects of the proposed project on riparian habitats:

- Impacts on riparian habitat will be avoided wherever possible by considering the location of habitat patches during development of the final project footprint, including the embankment or levee, on-site borrow locations, and construction staging areas. A fenced, 50-foot protective buffer will be erected and maintained during construction to minimize impacts on riparian habitat that will be preserved adjacent to the construction footprint.

- Unavoidable impacts on riparian habitat will be compensated for with in-kind replacement by vegetation type (e.g., willow scrub, riparian scrub, riparian forest) at a 1:1 replacement ratio, based on the acreage removed. Replacement planting may occur on-site or at a nearby suitable location in the project vicinity that will not be subject to future vegetation removal.

- A mitigation plan will be prepared detailing how the loss of riparian habitats that cannot be avoided will be compensated. The mitigation plan will describe compensation ratios for acres lost, mitigation sites, a monitoring protocol, annual performance standards and final success criteria for created or restored habitats, and corrective measures to be applied if performance standards are not met.

Response to Comment 9

The Department states that, in the event implementation of the proposed project involves activities which will result in a substantial alteration of bed, bank, and/or channel of a river, stream or lake, a Lake or Streambed Alteration (LSA) Agreement would be required prior to the commencement of work.

TRLIA has determined that no habitat protected under Section 1602 of the California Fish and Game Code would be affected by the proposed project and will not be seeking a LSA Agreement from the Department.

Response to Comment 10

The Department requests written notification of proposed actions and pending decisions regarding the proposed project and concludes the letter.

TRLIA appreciates comments provided by the Department and looks forward to continuing to work with the Department.

Thank you again for your interest in this project. If you have any additional questions or concerns regarding this project, please contact me at (530) 749-7841, or pbrunner@co.yuba.ca.us.

Sincerely,

Paul G. Brunner
Executive Director

Attachment:

20140306 CDFW Bracketed to match TRLIA Responses

Ec: Jeff Drongesen, jeff.Drongesen@wildlife.ca.gov
Isabel Baer, Isabel.Baer@wildlife.ca.gov
Tanya Sheya, Tanya.Sheya@wildlife.ca.gov

SOUTH YUBA RIVER CITIZENS LEAGUE

March 6, 2014

Paul Brunner, P.E.
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Re: Yuba Goldfields 100-Year Flood Protection Project

Dear Mr. Brunner

The South Yuba River Citizens League (SYRCL) appreciates the opportunity to review a Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project. SYRCL is a 501(c)(3) community organization with the mission of uniting the community to protect and restore the Yuba River. SYRCL's work involves several projects and programs on the lower Yuba River, including collaborative management of flows and fisheries evaluations with the Yuba Accord River Management Team, a pilot riparian enhancement project at Hammon Bar, planning of floodplain restoration on the lower Yuba River through grants from the U.S. Fish and Wildlife Service and other sources, planning of a conservation easement with Western Aggregates at the uppermost extent of the Goldfields, and construction of an interpretive trail and kiosk in the Goldfields with the Bureau of Land Management.

SYRCL acknowledges the important projects completed by the Three Rivers Levee Improvement Authority (TRLIA) in providing protection from floods to the people of Yuba County. The staff and Directors at SYRCL place great value on responsible flood protection projects that provide necessary public safety while addressing the need for improving riparian and aquatic habitat along our rivers. We see TRLIA as a leader in the kind of work and we intend on continuing our history of collaboration.

I understand that new information about the risk of flooding through the Goldfields and into Reclamation District 784 necessitate a project with the purpose of the Yuba Goldfields 100-Year Flood Protection Project. I have reviewed the documents distributed by AECOM, and have a few comments.

The Public Draft of the Initial Study and Proposed Mitigated Negative Declaration does not make clear to what extent the proposed project will adequately address the flood risk, and what subsequent projects or actions will be needed to achieve desired levels of flood protection. Exhibit 2-1 identifies four "Tier 1 Problem Sites" on the Yuba River where south tailings mounds were identified for having the greatest

risk of a breach and where flood waters could enter the Goldfields. However, the proposed project is described with reference to only Site B, one of the four Tier 1 sites. There is no explanation provided regarding how the proposed project would reduce flood risk associated with breach at Sites D, F and J, the other Tier 1 sites located upstream. It seems reasonable, therefore, to expect TRLIA to propose additional work in the Goldfields following the completion of this proposed project.

The CEQA Guidelines explain that the lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect. IF TRLIA were indeed planning subsequent actions to address the flood risk in the Goldfields, as is reasonable, then the environmental documents for this proposed project may be inadequate because they would represent a "piecemeal" approach, or the segmenting of project components.

The Yuba Goldfields area is historic floodplain habitat, disconnected from the Yuba River by the tailings mounds. The new information that TRLIA has developed regarding flood risk in the Goldfields points to the need for a comprehensive planning for both flood risk management and habitat restoration. The Yuba River is one of the most important rivers in California for the recovery of Central Valley spring-run Chinook salmon and steelhead trout, two species Threatened with extinction and for which recovery scenarios include the enhancement of functional floodplain habitat.[1] Additional environmental considerations for a larger Yuba Goldfields Flood Protection Project would include the recreational opportunities that SYRCL is just beginning to work on in collaboration with local landowners.

Please keep us on your contact list for project updates, and consider when we can meet to discuss the details of your project and how any subsequent phases may effect habitat restoration and public access opportunities in the Goldfields. SYRCL's Executive Director, Caleb Dardick, would like to be part of that meeting. We applaud your collaborative work with landowners in the Goldfields area and would be happy to provide our own update on that topic. I can be reached at (530)265-5962 ext.208 or gary@syrcl.org.

Sincerely,

Gary Reedy
Science Program Director

[1] National Marine Fisheries Service. 2009. Public Draft Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of Central Valley Steelhead. Sacramento Protected Resources Division. October 2009.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

RECEIVED
MAR 24 2014

March 20, 2014

Regulatory Division (SPK-2014-00202)

Mr. Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, California 95901-4838

Dear Mr. Brunner:

We are responding to your February 5, 2014, request for comments on the Initial Study/proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project. This project is located in the Yuba Gold Fields of the Yuba River in Section 11, Township 15 North, Range 4 East, MDB&M, Latitude 39.1695366096693°, Longitude -121.478827058137°, Yuba County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, tailing ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetlands Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

If waters of the United States are going to be impacted, cultural resource sites within the defined federal permit area will need to be evaluated according to the standards of the National Environmental Policy Act. All eligible or potentially eligible cultural resource sites to the National Register of Historic Places within the permit area will be subject to Section 106 of the National Historic Preservation Act, 1966, as amended. The Corps of Engineers considers the Yuba Goldfields themselves to be features of historical interest that will need evaluation at the federal

level in regards to these laws. The Corps of Engineers must also comply with the terms and conditions of the Federal Endangered Species Act with regards to our permitting process. You may need to supply a recent biological assessment of the project site for us to comply with the federal Endangered Species Act.

Please refer to identification number SPK-2014-00202 in any correspondence concerning this project. If you have any questions, please contact me at the letterhead address, Room 1350, by email at *Kathy.Norton@usace.army.mil*, or telephone at 916-557-5260. For more information regarding our Regulatory Program, please visit our website located at *www.spk.usace.army.mil/Missions/Regulatory.aspx.*

Sincerely,

Kathy Norton
Sr. Project Manager
California North Branch

cc:

✓Ms. Andrea Shepard, AECOM, 2020 L Street, Suite 400, Sacramento, California 95811-4267
Ms. Anna Ewing, FERC Program Coordinator, California Department of Fish and Wildlife, 1701 Nimbus Road, Rancho Cordova, California 95670-4503
Ms. Elizabeth Lee, California Regional Water Quality Control Board, 11020 Sun Center Drive, #200, Sacramento, California 95670-6114
Ms. Kellie Berry, U.S. Fish and Wildlife Service, Endangered Species Division, 2800 Cottage Way, W-2605, Sacramento, CA 95825-1888

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
Yuba County Government Center, Board Chambers
915 Eighth Street, Suite 109A
Marysville, California

APRIL 1, 2014 – 3:30 P.M.

CALL TO ORDER: Welcome to the Three Rivers Levee Improvement Authority (TRLIA) meeting. As a courtesy to others, please turn off cell phones, pagers, or other electronic devices which might disrupt the meeting. Thank you.

I **ROLL CALL** – Directors Atwal, Brown, Crippen, Griego, Nicoletti

II **PUBLIC COMMUNICATIONS: Any person may speak about any subject of concern provided it is within the jurisdiction of the Levee Improvement Authority and is not already on today's agenda. The total amount of time allotted for receiving such public communication shall be limited to a total of 15 minutes and each individual or group will be limited to no more than 5 minutes. Prior to this time, speakers are requested to fill out a "Request to Speak" card and submit it to the secretary.**

III **CONSENT AGENDA: Matters listed are considered to be routine and can be enacted by one motion.**

A. Approve minutes of the meeting of February 18, 2014.

IV **ACTION ITEMS**

A. Adopt resolution adopting the final mitigated negative declaration and mitigation monitoring program, approving notice of determination, and giving final approval for Yuba Goldfields 100-year flood protection project.

B. Approve Amendment No. 12 in the amount of $313,570 to the agreement with Bender Rosenthal, Inc. for right-of-way services through June 30, 2016, and authorize Executive Director to execute upon Counsel review and approval.

V **BOARD AND STAFF MEMBER REPORTS**

VI **CLOSED SESSION**

A. Conference with Real Property Negotiator pursuant to Government Code §54956.8 - Property: APN 020-080-009,010; 018-220-053, 056,057; 021-021-001. Negotiating Parties: Western Aggregates/Dunning Properties, LLC/Richard Wilbur/TRLIA/Kelly Pope. Negotiations: Price and Terms of Payment

B. Pending litigation pursuant to Government Code 54956.9 (a) – Richard Wilbur Case No. YCSCCVED 10-0000951

VII **ADJOURN**

The complete agenda is available at the Yuba County Government Center, 915 8th Street, Suite 109 Marysville, and www.trlia.org. Any disclosable public record related to an open session item on the agenda and distributed to all or a majority of the Board less than 72 hours prior to the meeting is available at Suite 109 during normal business hours. In compliance with the Americans with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available. If you have a disability and need disability-related modifications or accommodations to participate in this meeting, please contact the Clerk of the Board's office at (530) 749-7510 or (530) 749-7353 (fax). Requests must be made one full business day before the start of the meeting.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

FEBRUARY 18, 2014

MINUTES

A meeting of the Board of Directors of the Three Rivers Levee Improvement Authority (TRLIA) was held on the above date, commencing at 2:05 p.m., within the Government Center, Marysville, California, with a quorum being present as follows: Directors Sarbdeep Atwal, Rick Brown, Jerry Crippen, Mary Jane Griego, and John Nicoletti. Also present were Executive Director Paul Brunner, Counsel Andrea Clark, and Secretary/Clerk of the Board of Supervisors Donna Stottlemeyer. Chair Griego presided.

I ROLL CALL – Directors Atwal, Brown, Crippen, Griego, Nicoletti – All Present

II ELECTION OF OFFICERS – Chair and Vice Chair (Conducted by the Secretary)

MOTION: Move to appoint Director Griego Chair for 2014
MOVED: John Nicoletti SECOND: Jerry Crippen
AYES: Sarbdeep Atwal, Rick Brown, Jerry Crippen, Mary Jane Griego, John Nicoletti
NOES: None ABSTAIN: None ABSENT: None

MOTION: Move to appoint Director Brown Vice Chair for 2014
MOVED: Sarbdeep Atwal SECOND: Jerry Crippen
AYES: Sarbdeep Atwal, Rick Brown, Jerry Crippen, Mary Jane Griego, John Nicoletti
NOES: None ABSTAIN: None ABSENT: None

III PUBLIC COMMUNICATIONS: None.

IV CONSENT AGENDA: Matters listed are considered to be routine and can be enacted by one motion.

MOTION: Move to approve MOVED: John Nicoletti SECOND: Rick Brown
AYES: Sarbdeep Atwal, Rick Brown, Jerry Crippen, Mary Jane Griego, John Nicoletti
NOES: None ABSTAIN: None ABSENT: None

A. Approve minutes of the meeting of January 21, 2014. Approved.

V ACTION ITEMS

A. Receive and consider bids for purchase of Sohal surplus real property located on south side of Upper Yuba River Levee identified as APN 018-190-111 and 018-190-112 and take action as appropriate. Special Counsel Kelly Pope recapped the property and procedures for opening written bids and the oral bid process.

MOTION: Move to accept highest oral bid from Kashmir Rai of $400,000
MOVED: Jerry Crippen SECOND: John Nicoletti
AYES: Sarbdeep Atwal, Rick Brown, Jerry Crippen, Mary Jane Griego, John Nicoletti
NOES: None ABSTAIN: None ABSENT: None

B. Adopt resolution of necessity for acquisition of certain property interest identified as APN 014-360-011 and 014-360-013 (Latigo Farms LLC) consisting of 23.066 acres in fee necessary and 5.173 acre-remnant for operation and maintenance of the Western Pacific Interceptor Canal Levee. Special Counsel Kelly Pope and Project Manager Larry Dacus recapped the property, project, and purpose of acquisition through Power Point presentation.

The following individuals spoke:
- Mr. Bruce Burrow, Latigo Farms LLC
- Ms. Frances Hofman

General Manager Steve Fordice, RD 784, responded to inquiries.

MOTION: Move to adopt MOVED: John Nicoletti SECOND: Jerry Crippen
AYES: Sarbdeep Atwal, Rick Brown, Jerry Crippen, Mary Jane Griego, John Nicoletti
NOES: None ABSTAIN: None ABSENT: None

Adopted Resolution No. 2014-2, which is on file in the Clerk of the Board of Supervisors office.

VI BOARD AND STAFF MEMBER REPORTS

Executive Director Paul Brunner:
- Yuba Goldfield 100-Year Flood Protection Project Initial Study/Proposed Mitigated Negative Declaration
- American Society Awards Dinner March 14, 2014
- Continued audit of early implementation program
- Broadway entrance vandalism

VII ADJOURN: 3:27 p.m.

_____
Chair

ATTEST: DONNA STOTTLEMEYER
CLERK OF THE BOARD OF SUPERVISORS
AND SECRETARY OF THE PUBLIC AUTHORITY

_____ Approved: _____

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901
Office (530) 749-7841 Fax (530) 749-6990

April 1, 2014

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul Brunner, Executive Director
Larry Dacus, Design Manager
SUBJECT: Goldfields 100-Year Flood Protection Project, Initial Study and Mitigated Negative Declaration

Recommended Action

Staff recommends that the Three Rivers Levee Improvement Authority Board (Board) adopt the attached resolution adopting the Yuba Goldfields 100-Year Flood Protection Project (100-Year Project) Final Initial Study/Mitigated Negative Declaration (IS/MND) and Mitigation Monitoring and Reporting Program (MMRP), approving the 100-Year Flood Protection Project, and authorizing the Executive Director to sign and file the Notice of Determination (NOD) in compliance with the California Environmental Quality Act (CEQA).

Background

The Three Rivers Levee Improvement Authority (TRLIA) has been evaluating the Yuba Goldfields (Goldfields) to identify flooding potential and ways to reduce the potential for flooding of Reclamation District (RD) 784. The potential for flooding of RD 784 through the Goldfields from the 100-year flood on the Yuba River has been identified due to erosion at identified sites along the south bank of the Yuba River and due to topographical changes within the Goldfields as a result of ongoing mining activities. In 2011, TRLIA constructed three short embankments to raise critical low areas in the Goldfields dredge tailings embankments and reduce the potential for flooding. TRLIA continues to pursue a long term sustainable solution that will meet the State's Urban Level of Flood Protection Requirements (200-year). In the interim however, a 100-year solution has been developed as a means of reducing the flooding potential and meeting FEMA's requirements until the 200 year solution can be completed.

TRLIA has identified the potential for flooding from either overtopping or eventual breaching (due to erosion) at several sites along the south bank tailings mounds of the Yuba River within the Goldfields. The 100-Year Project addresses the potential for flooding of RD 784 from these sites through the construction of a 2 mile long embankment and monitoring of several of the erosion sites.

Discussion

In accordance with CEQA, an IS/MND has been prepared for the 100-Year Project documenting environmental impacts. The draft IS/MND was circulated for public review between February 5, 2014 and March 6, 2014. TRLIA received 8 comment letters (see Attachment) in response to the Draft IS/MND, which have been fully considered and addressed as appropriate in the Final IS/MND.

Comment letters received included those from the following entities: Anderson Dragline Inc., Auburn Rancheria, California Department of Fish and Wildlife, the Central Valley Flood Protection Board, the Central Valley Regional Water Quality Control Board, the Feather River Air Quality Management District, South Yuba River Citizens League and the United States Army Corps of Engineers (USACE). Below is a summary of how each letter was considered.

- The United Auburn Indian Community (Auburn Rancheria) – The letter from Auburn Rancheria is its standard response letter. Auburn Rancheria has requested to receive copies of any future archaeological reports and environmental documents prepared for the project; to have a tribal representative monitor field surveys; and to conduct a site visit because Auburn Rancheria has identified resources in the general project area. TRLIA is aware of these sites, which are understood to be associated primarily with Beale Air Force Base or otherwise outside of the proposed project area. Because the 100-Year Project would not affect that area and historic and ongoing activities (mining, agriculture, development) have substantially altered the footprint areas, a site visit has not been scheduled. No further action is required.

- Feather River Air Quality Management District (District) – The District requested additional clarification of the air quality modeling assumptions and results. AECOM addressed the District's questions to its satisfaction. No further action is required.

- Anderson Dragline, Inc. – This letter did not include comments on the IS/MND, but was inquiring about the construction bidding process. TRLIA responded by email stating that TRLIA was anticipating the property owners (mining interests) would construct the proposed project, but that TRLIA would keep this letter on file should the need arise for other contractor services to complete the work.

- Central Valley Regional Water Quality Control Board (CVRWQCB) – The CVRWQCB letter outlined the potential permits and approvals that may be required to protect surface water and groundwater and how to obtain additional information, if needed. TRLIA understands what permits and approvals may apply to the 100-Year Project. No response was required and no further action was taken.

- Central Valley Flood Protection Board (CVFPB) – CVFPB asserts that it has jurisdiction over the 100-Year Project. TRLIA met with CVFPB to explain its disagreement with CVFPB's assertion. CVFPB was asked to provide additional supporting information but has not yet responded.

- California Department of Fish and Wildlife (CDFW) – CDFW indicated that it was primarily concerned with the proposed project's impacts to special-status species (Swainson's hawk, tri-colored blackbird, other migratory birds, and Valley Elderberry Longhorn Beetle) and riparian habitat. AECOM prepared responses to each comment and these were included in TRLIA's letter response to CDFW. Some minor modifications were also incorporated into the Final IS/MND and MMRP to address CDFW comments. These minor modifications do not result in any changes to significance conclusions, nor do they constitute substantial changes in the mitigation proposed.

- South Yuba River Citizens League (SYRCL) – SYRCL suggested that future actions to address the flood risk in the Goldfields may need to be considered together with the 100-Year Project to avoid piecemealing under CEQA. However, the 100-Year Project has independent

utility. Therefore, a separate environmental document for the 100-Year Project is appropriate under CEQA. SYRCL also expressed an interest in continuing to engage with TRLIA on actions affecting the Yuba River. TRLIA will continue to meet with SYRCL regarding future flood protection efforts involving the Goldfields.

- United States Army Corps of Engineers (USACE) – USACE's letter was received approximately 3 weeks after the close of the public comment period on the IS/MND. After careful review and consideration, TRLIA does not believe that USACE's comments warrant any changes to the 100-Year Project IS/MND or MMRP. TRLIA plans to meet with USACE to further discuss Clean Water Act 404 permitting and Section 106 compliance as they relate to the project area.

The Final IS/MND concludes that the 100-Year Project would not have any significant effects on the environment once mitigation measures are implemented. Key areas of mitigation for this project include air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality. TRLIA has developed the MMRP in order to provide for the implementation of the mitigation measures identified in the IS/MND. Copies of the Final IS/MND, the MMRP, and the Draft IS/MND have been distributed to the TRLIA Board Members and are on file at the Clerk of the Board's Office at 915 8th Street, Marysville, CA.

Fiscal Impact

There is no fiscal impact of this action. The project will be funded using prior TRLIA funds still available for the TRLIA Program.

Attachments

1. Resolution Adopting the Yuba Goldfields 100-Year Flood Protection Project IS/MND and Mitigation Monitoring and Reporting Program, Approving the Project, and Authorizing Filing of a Notice of Determination.

2. Final Yuba Goldfields 100-Year Flood Protection Project IS/MND, March 2014(Copy can be seen at Board Office)

3. Mitigation, Monitoring, and Reporting Program for the Yuba Goldfields 100-Year Flood Protection Project

4. Notice of Determination for the Yuba Goldfields 100-Year Flood Protection Project

5. Comment letters

Attachment 1

RESOLUTION NO. 2014-___

**RESOLUTION BY
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
ADOPTING MITIGATED NEGATIVE DECLARATION,
APPROVING NOTICE OF DETERMINATION,
AND GIVING FINAL APPROVAL FOR
YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT**

WHEREAS, the Three Rivers Levee Improvement Authority ("TRLIA") proposes to construct an embankment in the Yuba Goldfields designed to intercept and block flood flows, for the purpose of providing 100-year flood protection to areas downstream of the Yuba Goldfields along the Yuba and Feather Rivers (the "Project");

WHEREAS, pursuant to the California Environmental Quality Act, Cal. Public Resources Code Section 21000 *et seq.* ("CEQA") and CEQA Guidelines Section 15063, TRLIA as the lead agency for the Project conducted an initial evaluation of the potential effects of the Project on the environment (the "Initial Study");

WHEREAS, based on the Initial Study, TRLIA determined that the Project would have potentially significant impacts on air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality, but that feasible mitigation measures will be incorporated into the Project to reduce these potential impacts to less-than-significant levels;

WHEREAS, pursuant to CEQA Guidelines Section 15097, TRLIA has prepared a mitigation monitoring program for the Project;

WHEREAS, based on the Initial Study, TRLIA determined that there is no substantial evidence, in light of the whole record before the agency, that the Project, as mitigated, may have a significant effect on the environment;

WHEREAS, pursuant to CEQA Guidelines Section 15070, based on its determination that there is no substantial evidence that the Project, as mitigated, may have a significant effect on the environment, TRLIA prepared a proposed Mitigated Negative Declaration for the Project;

WHEREAS, pursuant to CEQA Guidelines Sections 15072 and 15105, TRLIA provided a public review period for the proposed Mitigated Negative Declaration that ran from February 5, 2014 to March 6, 2014;

WHEREAS, during the public review period TRLIA received written comments about the Project, to which TRLIA has responded, and which do not change TRLIA's conclusions about the Project; and

WHEREAS pursuant to CEQA Guidelines Section 15074, TRLIA has considered the Initial Study, proposed Mitigated Negative Declaration, and public comments, and finds on the basis of the record before it that there is no substantial evidence that the Project, as mitigated, will have a significant effect on the environment and the Mitigated Negative Declaration reflects

the TRLIA's independent judgment and analysis;

NOW, THEREFORE, BE IT RESOLVED THAT:

The Board of Directors of the Three Rivers Levee Improvement Authority hereby adopts the final Mitigated Negative Declaration and mitigation monitoring program prepared for the Project and approves the Project.

The documents which constitute the record of proceedings upon which TRLIA's decision is based are located at the TRLIA's main office at 1114 Yuba Street Suite 218, Marysville, California, and TRLIA's Executive Director is the custodian of such documents; and

TRLIA's Executive Director is hereby instructed to execute the Notice of Determination, a copy of which is attached hereto, and is directed to file it promptly, in accordance with applicable law.

Approved this 1st day of April, 2014.

Ayes: _____

Noes: _____

Absent: _____

_____
Mary Jane Griego, Chair

Approved As to Form:

_____
General Counsel, TRLIA

Certification

I, _____, hereby certify that I am and at all times mentioned herein was duly elected, qualified and acting Secretary of the Three Rivers Levee Improvement Authority organized and existing under and by virtue of the laws of the State of California, that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of TRLIA's Board of Directors duly held on April 1, 2014, a majority and quorum of the members of said Board of Directors being present and voting in favor of said Resolution; and that said Resolution has not been modified, rescinded, altered or amended and is now in full force and effect.

_____
TRLIA Secretary

Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Yuba
Address: 915 8th Street, Suite 107
Marysville, CA 95901

From:

Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):

Address:

Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a 2.1-mile-long embankment within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on April 1, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): _____ Title: Executive Director, TRLIA

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Attachment 2

On Internet at www.trlia.org

(Can Be Seen at Board Office)

Attachment 3

Mitigation Monitoring and Reporting Program

Yuba Goldfields 100-Year Flood Protection Project

State Clearinghouse No. 2014022010

Prepared for:

Three Rivers Levee Improvement Authority

AECOM

March 2014

Mitigation Monitoring and Reporting Program

Yuba Goldfields 100-Year Flood Protection Project

State Clearinghouse No. 2014022010

Prepared for:

Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Contact:

Paul G. Brunner, P.E.
Executive Director
530/749-7841

Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

Andrea Shephard
Project Manager
916/414-5800

AECOM

March 2014

60242362
03.24.14

TABLE OF CONTENTS

Table

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MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA), the Three Rivers Levee Improvement Authority (TRLIA) has prepared an initial study/proposed mitigated negative declaration (IS/MND) that identifies potentially significant impacts related to the construction and operation of the Yuba Goldfields 100-Year Flood Protection Project (proposed project). The IS/MND also identifies mitigation measures that would be implemented to reduce impacts to a less-than-significant level.

Section 21081.6 of the California Public Resources Code, and Sections 15091(d) and 15097 of the State CEQA Guidelines, require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." A mitigation monitoring and reporting program (MMRP) is required for the proposed project because the IS/MND identifies potentially significant adverse impacts related to construction and implementation activities, and mitigation measures have been identified to mitigate those impacts.

TRLIA is the lead agency that must adopt the MMRP for the proposed project. Adoption of this MMRP would occur along with approval of the proposed project.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the project. The MMRP may be modified by TRLIA during project implementation, as necessary, in response to changing conditions or other refinements. **Table 1** has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation measures, monitoring/mitigation timing, the person and/or agency responsible for implementing the measure, the monitoring and reporting procedure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the IS/MND.

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, TRLIA is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure, and for demonstrating that the action has been successfully completed. TRLIA, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor or other designated agent as long as TRLIA maintains final responsibility for ensuring that the actions are taken.

TRLIA would be responsible for overall administration of the MMRP and for verifying that TRLIA staff members and/or the construction contractor has completed the necessary actions for each measure.

ANNUAL REPORTING

The project manager for TRLIA shall prepare monitoring reports annually that describe the compliance of the activity with the required mitigation measures. Annual reporting on implementation of these measures will end when construction is completed. Information regarding inspections and other requirements shall be compiled and explained in each report. The report shall be designed to simply and clearly describe whether mitigation measures have been adequately implemented. At a minimum, each report shall identify the mitigation measures or conditions to be monitored for implementation, whether compliance with the mitigation measures or conditions has occurred, the procedures used to assess compliance, and whether further action is required. The monitoring report shall be presented to TRLIA for review and decisions regarding any required action or determination.

MITIGATION MONITORING PLAN

The annual report will verify the implementation of mitigation measures. **Table 1** should guide TRLIA in its evaluation and should be the basis for annual reporting.

The column categories identified in **Table 1** are described below:

- **Mitigation Number**—This column lists the mitigation measures according to the number in the IS/MND.
- **Mitigation Measure**—This column provides the text of the mitigation measures identified in the IS/MND.
- **Mitigation Implementation Timeframe**—This column lists the time frame in which the mitigation will take place.
- **Monitoring Timeframe**—This column lists the time frame in which mitigation implementation will be monitored.
- **Responsibility for Verification of Compliance**—This column identifies the entity(ies) responsible for verifying compliance with the requirements of the mitigation measure.
- **Performance Criteria**—This column describes what action(s) are needed to verify implementation.
- **Date Compliance Completed**—The "Date Completed" column is to be dated and initialed by the project manager or his/her designee, based on the documentation provided by the construction contractors, its agents (qualified individuals), or through personal verification by TRLIA.

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
Air Quality						
3.3-1a	**Implement Feather River Air Quality Management District Standard Mitigation Measures** TRLIA and its construction contractor will implement the following measures required by Feather River Air Quality Management District (FRAQMD): ▸ Develop and submit a fugitive dust control plan to FRAQMD. ▸ Control exhaust emissions from construction equipment, so that they do not exceed FRAQMD Regulation II, Rule 3.0, "Visible Emissions Limitations" (40% opacity or Ringelmann 2.0). ▸ Ensure that all construction equipment is properly tuned and maintained before and during all on-site operations. ▸ Limit idling time to 5 minutes. (State of California idling rule: commercial diesel vehicles—Title 13, Section 2485 of the California Code of Regulations [13 CCR 2485], effective 2/1/2005; off-road diesel vehicles—13 CCR 2449, effective 5/1/2008.) ▸ Use existing power sources (e.g., power poles) or clean fuel generators rather than temporary sources of power generation whenever possible. ▸ Register portable engines and portable engine-driven equipment units used at the same project worksite, with the exception of on-road and off-road motor vehicles, as required by the California Air Resources Board (ARB) Portable Equipment Registration Program.	Before the start of ground-disturbing activities and during construction	Throughout construction period	TRLIA	Fugitive dust control plan is developed and submitted to FRAQMD, and FRAQMD measures are implemented such that pollutant emissions are minimized	
3.3-1b	**Implement Best-Available Mitigation Measures for the Construction Phase** TRLIA and its construction contractor will ensure that the following applicable FRAQMD best-available mitigation measures for the construction phase are implemented during all project construction activities:	During construction	Throughout construction period	TRLIA	Identified FRAQMD measures are implemented such that pollutant emissions are minimized	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
	► All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered as needed to prevent visible emissions violations and off-site dust impacts. ► All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ► All vehicle speeds on unpaved roads will be limited to 15 miles per hour. ► A publicly visible sign will be posted at the project site within FRAQMD, with the telephone number and person to contact at FRAQMD regarding dust complaints. This person will respond and take corrective action within 48 hours. FRAQMD's phone number also will be visible, to ensure compliance with applicable regulations. ► All excavation, grading, and/or demolition activities will be suspended when average wind speeds exceed 20 miles per hour. ► The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time will be limited. Activities will be phased to reduce the amount of disturbed surfaces at any one time. ► All trucks and equipment, including their tires, will be washed off before leaving the site. ► Site accesses to a distance of 100 feet from the paved road will be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. ► Sandbags or other erosion control measures will be installed to prevent silt runoff to public roadways from sites with a slope greater than 1%.					

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
3.3-2	**Implement Mitigation Measures 3.3-1a and 3.3-1b.**	Before the start of ground-disturbing activities and during construction	Throughout construction period	TRLIA	Fugitive dust control plan is submitted to FRAQMD, and compliance with identified measures is achieved	
3.3-3	**Implement Mitigation Measures 3.3-1a and 3.3-1b.**	Before the start of ground-disturbing activities and during construction	Throughout construction period	TRLIA	Fugitive dust control plan is developed and submitted to FRAQMD, and FRAQMD measures are implemented such that pollutant emissions are minimized	
Biological Resources						
3.4-1a	**Develop and Implement Worker Environmental Awareness Program** TRLIA will develop and implement a worker environmental awareness program (WEAP) in coordination with a qualified biologist, and all personnel involved in project implementation will be trained before starting work in the project area. The WEAP will include relevant identification, habitat, and life history information regarding the sensitive species and habitats on-site, and will provide relevant regulatory information to explain why the training is necessary. The WEAP will discuss appropriate avoidance and minimization measures for each species that has the potential to occur on the project site and will outline what to do and whom to contact if any protected species is encountered.	Before the start of ground-disturbing activities and during construction	During WEAP implementation	TRLIA	WEAP is developed and implemented, and compliance with WEAP avoidance and minimization measures is maintained such that there are no impacts to potentially occurring special-status and nesting birds species	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
3.4-1b	**Remove Riparian and Marsh Vegetation between September 16 and January 31 if Possible to Avoid Affecting Active Bird Nests** TRLIA will attempt to time the removal of riparian and marsh vegetation to occur between September 16 and January 31, outside of the nesting season of special-status and migratory bird species. If all vegetation removal occurs at these times outside of the nesting season of special-status and migratory birds, no further mitigation for these species will be necessary. If vegetation cannot be removed outside of the nesting season, TRLIA will implement Mitigation Measures 3.4-1c through MM 3.4-1e below.	Before the start of construction	During activities identified under "Mitigation Measure"	TRLIA	Vegetation is removed between September 16 and January 31, outside of the nesting season	
3.4-1c	**Conduct Surveys for Swainson's Hawk and Other Nesting Raptors and, if Found, Implement Avoidance Measures** If project activity is scheduled to occur during the raptor nesting season (February 1–September 15), focused surveys for Swainson's hawk will be conducted in accordance with Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). Other raptors, including white-tailed kite and non-special-status raptors, will also be included because their nesting habitat is similar to that of Swainson's hawk. Surveys for raptors will be conducted by a qualified biologist before the start of project construction to identify active nests on the project site and in the vicinity. Surveys for Swainson's hawk nests will include all accessible areas of suitable nesting habitat located within 0.25 mile of the project site. Surveys for other raptors will include accessible suitable nesting habitat located within 500 feet of the areas where construction would occur. If no active nests are found, no further mitigation will be required. If active Swainson's hawk nests are located, TRLIA will maintain a buffer of 0.25 mile or consult with California Department of Fish and Wildlife (CDFW) to determine appropriate buffers. If nests of other raptor species are found during the surveys, appropriate buffers will be established by a CDFW-authorized biologist to minimize impacts. No project activity will commence in the buffer area until a qualified	Before the start of ground-disturbing activities	During activities identified under "Mitigation Measure"	TRLIA and CDFW (if active Swainson's hawk nests are located)	A qualified biologist completes focused surveys for Swainson's hawk and other raptors in accordance with Swainson's Hawk Technical Advisory Committee guidelines and verifies absence of active nests, or if active nests are located, active nest disturbance is avoided	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
	biologist confirms that the chicks have fledged or the nest is otherwise no longer active. The size of the buffers may be adjusted, depending on the project activity and stage of the nest, if a qualified biologist determines that activity within a reduced buffer would not be likely to adversely affect the adults or their young. Monitoring will be conducted to evaluate the effects of any buffer reductions. Should construction activities cause the nesting raptor to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, the buffer will be adjusted to ensure project activities are far enough from the nest to avoid such agitation.					
3.4-1d	**Conduct Preconstruction Survey for Nesting Tricolored Blackbird if Vegetation will be Removed during the Nesting Season (March 15 to August 15) for the Species** Within 30 days of project construction, a qualified biologist will conduct a focused survey for breeding tricolored blackbirds within suitable habitat on the project site. If no breeding tricolored blackbirds are found, the results of the survey will be documented in a memorandum to TRLIA and no further action will be necessary. If any breeding colony of tricolored blackbirds is documented, an appropriate buffer of up to 500 feet will be established around the colony, depending on site-specific conditions at the discretion of a qualified biologist, and any construction-related activities will be excluded from the buffer until the end of the breeding season.	Before the start of ground-disturbing activities	During activities identified under "Mitigation Measure"	TRLIA	A qualified biologist completes focused survey for breeding tricolored blackbirds and verifies absence of breeding tricolored blackbirds, or if any breeding tricolored blackbird colony is located, colony disturbance is avoided until the end of the breeding season	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
3.4-1e	**Conduct Preconstruction Nesting Bird Survey before Removal of Potential Nesting Habitat within the Nesting Season** A qualified biologist will conduct a preconstruction survey no longer than 1 week before the removal of riparian vegetation and emergent marsh vegetation occurring within the nesting season (February 1–September 15) to avoid impacts on nesting birds. If an active nest is located during the preconstruction survey, an appropriate buffer will be determined by the biologist. The no-disturbance buffer will be observed until it has been determined that the nest is no longer active.	Before the start of ground-disturbing activities	During activities identified under "Mitigation Measure"	TRLIA	A qualified biologist completes preconstruction survey and verifies absence of nesting birds, or if an active nest is located, active nest disturbance is avoided	
3.4-1f	**Implement Mitigation Measure 3.4-1a.**	Before the start of ground-disturbing activities and during construction	During WEAP implementation	TRLIA	WEAP is developed and implemented, and compliance with WEAP avoidance and minimization measures is maintained such that there are no impacts to potentially occurring special-status and nesting birds species	
3.4-1g	**Avoid Impacts on Pacific Pond Turtle** Within 15–30 days of construction, a qualified biologist retained by TRLIA will conduct a preconstruction survey to determine whether Pacific pond turtles are present within the aquatic habitat on the project site. Any turtle encountered on the project site will be relocated to an appropriate area within the Yuba Goldfields by a qualified biologist before the start of project construction.	Before the start of ground-disturbing	During activities identified under "Mitigation Measure"	TRLIA	A qualified biologist completes preconstruction survey and verifies absence of Pacific pond turtles, and any encountered turtles are relocated to an appropriate area within the Yuba Goldfields prior to construction	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
3.4-2	**Minimize Impacts on Riparian Habitat during Construction and Replace Any Affected Riparian Habitat** TRLIA and its construction contractor(s) will implement the following measures to reduce effects of the proposed project on riparian habitats: ► Impacts on riparian habitat will be avoided wherever possible by considering the location of habitat patches during development of the final project footprint, including the embankment or levee, on-site borrow locations, and construction staging areas. A fenced, 50-foot protective buffer will be erected and maintained during construction to minimize impacts on riparian habitat that will be preserved adjacent to the construction footprint. ► Unavoidable impacts on riparian habitat will be compensated for with in-kind replacement by vegetation type (e.g., willow scrub, riparian scrub, riparian forest) at a 1:1 replacement ratio, based on the acreage removed. Replacement planting may occur on-site or at a nearby suitable location in the project vicinity that will not be subject to future vegetation removal. ► A mitigation plan will be prepared detailing how the loss of riparian habitats that cannot be avoided will be compensated. The mitigation plan will describe compensation ratios for acres lost, mitigation sites, a monitoring protocol, annual performance standards and final success criteria for created or restored habitats, and corrective measures to be applied if performance standards are not met.	Before the start of ground-disturbing activities and after construction (for replacement planting)	During activities identified under "Mitigation Measure"	TRLIA	Disturbance to riparian habitat is prevented to the extent feasible and practical. Riparian planting is completed and maintained so no net loss of habitat occurs.	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
Cultural Resources						
3.5-1	**Immediately Halt Construction Activities if Cultural Resources are Encountered** If archaeological resources are encountered during project-related ground-disturbing activities (e.g., unusual amounts of shell, midden, animal bone, bottle glass, ceramics, or structure/building remains), all work within 100 feet of the find shall cease until the find can be evaluated by a qualified archaeologist. If the archaeologist determines that the resources are significant, the archaeologist shall notify TRLIA and the resource shall be avoided if feasible. Preservation in place is the preferred manner of mitigating impacts on an archaeological site and may be accomplished by planning construction to avoid archaeological sites; covering archaeological sites, or deeding a site into a permanent conservation easement. If avoidance is infeasible, a treatment plan that documents the research approach and methods for data recovery shall be prepared and implemented in consultation with TRLIA, the U.S. Army Corps of Engineers (if appropriate), and the California State Historic Preservation Officer, and with appropriate Native American representatives if the resources are prehistoric or Native American in nature. Work may proceed on other parts of the project area while treatment is being carried out.	During construction	Throughout construction period	TRLIA, the U.S. Army Corps of Engineers (if appropriate), the California State Historic Preservation Officer, and appropriate Native American representatives if the resources are prehistoric or Native American in nature	Finds of undocumented archaeological resources are reported and protected until evaluated by an archaeologist. Recommenda-tions of treatment plan are implemented.	
3.5-2	**Immediately Halt Construction Activities if Any Human Remains are Discovered** TRLIA will follow the procedures for the treatment of discovered human remains that are contained in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all such activities within 75 feet of the find will be halted immediately and TRLIA or its designated representative will be notified. TRLIA will immediately notify the county coroner and a qualified professional archaeologist. 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	During construction	Throughout construction period	TRLIA, Yuba County Coroner, NAHC (if applicable)	Finds of potential human remains are reported and protected until evaluated by appropriate individuals. Remains are treated or disposed of in accordance with direction received from the county coroner and from the NAHC	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
	7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). TRLIA's responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.9 of the California Public Resources Code. TRLIA or its appointed representative and the professional archaeologist will consult with a Most Likely Descendant (MLD) identified by the NAHC regarding the removal or preservation and avoidance of the remains, and will determine whether additional burials could be present in the vicinity.				and Native American representatives as appropriate.	
Geology and Soils						
3.6-1	**Implement Mitigation Measure 3.9-1.**	Before the start of ground-disturbing activities and during construction	During activities identified under "Mitigation Measure"	TRLIA, Yuba County, Central Valley RWQCB	Yuba County and Central Valley RWQCB waste discharge requirements are implemented, and BMPs are implemented and maintained such that contaminants are isolated from drainages to the extent practical	
Hazards and Hazardous Materials						
3.8-1	**Implement Mitigation Measure 3.9-1.**	Before the start of ground-disturbing activities and during construction	During activities identified under "Mitigation Measure"	TRLIA, Yuba County, Central Valley RWQCB	Yuba County and Central Valley RWQCB waste discharge requirements are implemented, and BMPs are implemented and	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
					maintained such that contaminants are isolated from drainages to the extent practical	
Hydrology and Water Quality						
3.9-1	**Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices** TRLIA and its construction contractors will implement the following measures: (1) During the development of grading permits and improvement plans, TRLIA will consult with Yuba County and the Central Valley Regional Water Quality Control Board (RWQCB). The purpose of the consultation will be to acquire the regulatory approvals necessary to obtain either a statewide National Pollutant Discharge Elimination System stormwater permit for general construction activity from the State Water Resources Control Board, or obtain approval to complete construction under Order 5-00-107 and any other necessary site-specific waste discharge requirements or waivers under the Porter-Cologne Water Quality Control Act. (2) TRLIA will prepare and implement the appropriate storm water pollution prevention plan (SWPPP) or storm water management plan (SWMP) to prevent and control pollution and to minimize and control runoff and erosion. The SWPPP or SWMP will identify the activities that may cause pollutant discharge (including sediment) during storms and the best management practices (BMPs) that will be employed to control pollutant discharge. Construction techniques that will be identified and implemented to reduce the potential for runoff may include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. In addition, the SWPPP or SWMP will include an	Before the start of ground-disturbing activities and during construction	During activities identified under "Mitigation Measure"	TRLIA, Yuba County, Central Valley RWQCB	Yuba County and Central Valley RWQCB waste discharge requirements are implemented, and BMPs are implemented and maintained such that contaminants are isolated from drainages to the extent practical	

Table 1
Mitigation Monitoring and Reporting Plan for the Yuba Goldfields 100-Year Flood Protection Project

Mit. No.	Mitigation Measure	Mitigation Implementation Timeframe	Monitoring Timeframe	Responsibility for Verification of Compliance	Performance Criteria	Date Compliance Completed
	erosion control plan and BMPs that specify the erosion and sedimentation control measures to be implemented, which may include silt fences, trench plugs, terraces, water bars, and seeding and mulching. The SWPPP or SWMP will also include a spill prevention, control, and countermeasure plan and applicable hazardous materials business plans, and will identify the types of materials used for equipment operation (including fuel and hydraulic fluids), and measures to prevent and materials available to clean up hazardous material and waste spills. The SWPPP or SWMP will also identify emergency procedures for responding to spills. (3) The best management practices (BMPs) presented in either document shall be clearly identified and maintained in good working condition, with sufficient backup stock on-site during all site work and construction activities. (4) The construction contractor will retain a copy of the approved SWPPP or SWMP on the construction site and modify it as necessary to suit specific site conditions through amendments approved by the Central Valley RWQCB.					

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Attachment 3

(Can Be Seen at Board Office)

Print Form

Attachment 4

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Yuba
Address: 915 8th Street, Suite 107
Marysville, CA 95901

From:
Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a 2.1-mile-long embankment within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on April 1, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): _____ Title: Executive Director, TRLIA

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

COMMENT LETTERS ON THE PUBLIC IS/MND AND RESPONSES

Commenting Organization/Agency	Date
The United Auburn Indian Community of the Auburn Rancheria	February 12, 2014
Feather River Air Quality Management District	February 14, 2014
Anderson Dragline, Inc.	February 19, 2014
Central Valley Water Quality Control Board	February 20, 2014
Central Valley Flood Protection Board	February 21, 2014
California Department of Fish and Wildlife	March 6, 2014
South Yuba River Citizens League	March 6, 2014
United States Army Corps of Engineers	March 24, 2014

MIWOK MAIDU United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairman | John L. Williams, Vice Chairman | Danny Rey, Secretary | Brenda Adams, Treasurer | Calvin Moman, Council Member

LAB 2/25/2014
Leslie —
Please scan. Send copies to Andrea Clark, Andrea Skipper (AECOM) AND LARRY DACHE.
Paul

February 12, 2014

RECEIVED
FEB 24 2014
TRLIA

Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Subject: Notice of Availability and Intent to Consider Adoption of a Proposed Mitigated negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project

Dear Paul Brunner,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and whose service area includes El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction.

In order to ascertain whether or not the project could affect cultural resources that may be of importance to the UAIC, we would like to receive copies of any archaeological reports that have been, or will be, completed for the project. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The UAIC would also like the opportunity to have our tribal monitors accompany you during the field survey. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes.

The UAIC's preservation committee has identified cultural resources within your project area and in close proximity, and would like to request a site visit to confirm their locations and meet with you regarding this project. Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the aforementioned documents as requested. Please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or by email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

Gene Whitehouse,
Chairman

CC: Marcos Guerrero, CRM

From: Shephard, Andrea
To: "Sondra Spaethe"
Cc: "George Lu (georgeclu48@gmail.com)"; Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project
Date: Thursday, February 20, 2014 8:35:00 AM

Sondra,

Here are the additional responses to your other questions.
First, the model indicates that there will be three phases: Phase 1 (4/1/2014 to 6/14/2014); Phase 2 (4/1/2015 to 6/06/2015); and Site J Plug (6/7/2015 to 8/15/2015). However, the IS/MND says that the construction should only last less than 5.5 months, beginning as early as April 1 and lasting no later than November 1. (Section 2.4.3 Construction Schedule page 2-10). Can you confirm that the phases entered into CalEEMod are correct and if so why the inconsistency with the language in the IS/MND
The AQ analysis was done with the most recent information from the client's construction contractor. The 5.5 months in the IS/MND is out of date and the work days entered into CalEEMod for Phase 1 (65 days) and stated in Table 3.3-2 in the IS/MND are correct. The information in Section 2.4.3 Construction Schedule on page 2-10 should have been updated with this same information.
Also, the phases and the construction equipment have been modified from the default settings. The user is directed to indicate in the "Remarks" box what assumptions were used to generate the changes. The only Remarks I can see are the letters "PD." Can you confirm whether this was the entire intended Remarks statement? And if so, can you please provide some clarification as to why the default settings were changed (what "PD" means)?
"PD" refers to the project description. The client's construction contractor provided the amount and types of construction equipment that would be used for each of the three phases that was entered into the model. So the modifications are associated with overriding the CalEEMod defaults with project-specific construction equipment information.
And finally, the model indicates that mitigation in the form of tier 3 engines has been applied to all of the excavators, off-highway trucks, and tractors/backhoes/loaders. Can you please confirm whether this was the intent of the project to use this mitigation? Because if it was, then this should have been included in the mitigation measures listed on the IS/MND. I did not notice that using tier 3 engines in these construction equipment was a mitigation measure in the IS/MND.
Because of the glitches in the previous CalEEMod, specifically that the construction phases would shift every time you reopened a project and you would lose some of the changes that you made, we preemptively added Tier 3 engines as potential mitigation for the proposed project. This way, if construction emissions were found to exceed the FRAQMD thresholds of significance, we would have a potential mitigation measure to reduce emissions without having to rerun the entire model because changes would be lost when reopened. However, because the unmitigated emissions would not exceed the FRAQMD thresholds, these mitigated emissions were not used in the analysis. As shown in the Appendix, only the unmitigated emissions are used in the analysis.
Best regards,

Andrea L Shephard, PhD
Senior Project Manager, Associate
Design + Planning
D +1 916.414.5822 M +1 916.396.2170

From: Shephard, Andrea
To: "Sondra Spaethe"
Cc: George Lu (georgeclu48@gmail.com); Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project
Date: Wednesday, February 19, 2014 8:52:00 AM

Sondra,

I am checking with George. I think I can address the first of your three questions. I believe the output you received was for the original project we evaluated. I should have explained that the original project contemplated 3 separate phases. However, the client determined (after the AQ analysis was done, but before the IS/MND was finalized) that Phases 2 and 3 would never be constructed, so the project was revised to include just the Phase 1 component. Since each phase was autonomous (no overlap), the output from the initial modeling for Phase 1 was valid for the revised project and is what was used in the IS/MND.

Andrea L Shephard, PhD
Senior Project Manager, Associate
Design + Planning
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andrea.shephard@aecom.com

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www.aecom.com

From: Sondra Spaethe [mailto:sspaethe@fraqmd.org]
Sent: Tuesday, February 18, 2014 3:41 PM
To: Shephard, Andrea
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Andrea,

Thank you for submitting the CalEEMod file used for this project. Opening the older file in the current model created some interesting results in the reporting page. If you don't mind, I'd like to confirm a few things with you since it is not a clear comparison.

First, the model indicates that there will be three phases: Phase 1 (4/1/2014 to 6/14/2014); Phase 2 (4/1/2015 to 6/06/2015); and Site J Plug (6/7/2015 to 8/15/2015). However, the IS/MND says that the construction should only last less than 5.5 months, beginning as early as April 1 and lasting no later than November 1. (Section 2.4.3 Construction Schedule page 2-10). Can you confirm that the phases entered into CalEEMod are correct and if so why the inconsistency with the language in the IS/MND?

Also, the phases and the construction equipment have been modified from the default settings. The user is directed to indicate in the "Remarks" box what assumptions were used to generate the changes. The only Remarks I can see are the letters "PD." Can you confirm whether this was the entire intended Remarks statement? And if so, can you please provide some clarification as to why

the default settings were changed (what "PD" means)?

And finally, the model indicates that mitigation in the form of tier 3 engines has been applied to all of the excavators, off-highway trucks, and tractors/backhoes/loaders. Can you please confirm whether this was the intent of the project to use this mitigation? Because if it was, then this should have been included in the mitigation measures listed on the IS/MND. I did not notice that using tier 3 engines in these construction equipment was a mitigation measure in the IS/MND.

Thank you very much for your assistance. I'm sorry that the two model versions resulted in such a convoluted result. The model should be able to open and correctly display older file created with the previous versions.

Regards,

Sondra

Sondra Spaethe
Air Quality Planner II
Feather River Air Quality Management District
1007 Live Oak Blvd., Suite B-3
Yuba City, CA 95991
(530) 634-7659 ext 210
(530) 634-7660 FAX

From: Shephard, Andrea [mailto:Andrea.Shephard@aecom.com]
Sent: Tuesday, February 18, 2014 8:36 AM
To: Sondra Spaethe
Cc: 'Chris Brown'; pbrunner@co.yuba.ca.us; Lu, George; Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Sondra,

The data you requested is attached.

AECOM began and completed the AQ/GHG analysis for the Yuba Goldfields 100-year Flood Protection Project prior to the availability of CalEEMod Version 2013.2 (July 26, 2013) and Version 2013.2.2 (October 2, 2013). As shown in the CalEEMod modeling outputs in Appendix A, AQ/GHG modeling was completed by July 17, 2013, at which time neither CalEEMod Version 2013.2 nor 2013.2.2 was available. When Version 2013.2 was released, AECOM was in the process of completing the draft report and made a decision to proceed with the version of the model that was initially used for the analysis (i.e., Version 2011.1.1)."

I've attached the CalEEMod run that corresponds to Appendix A; however, please note that when installing CalEEMod Version 2013.2.2, you have to delete Version 2011.1.1. Thus, we're not sure how this will work if you try to open a v2011.1.1 file using 2013.2.2.

Andrea L Shephard, PhD

Senior Project Manager, Associate
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www.aecom.com

From: Sondra Spaethe [mailto:sspaethe@fraqmd.org]
Sent: Friday, February 14, 2014 2:47 PM
To: Shephard, Andrea
Cc: 'Chris Brown'; pbrunner@co.yuba.ca.us
Subject: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Andrea,

Thank you for submitting the Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project to the Feather River Air Quality Management District for review and comment. I would like to request the air quality modeling information used to generate the data in Appendix A Air Quality Modeling Results. Could you please email me the CalEEMod file that was used to generate these results and the complete report?

Also note that the most recent revision of the CalEEMod model (2013.2.2) was released on October 2, 2013. A significant update to the CalEEMod program (2013.2) was released on July 26, 2013, that updated off road construction equipment emission factors according to the Air Resources Board OFFROAD 2011 model. I noticed that the CalEEMod model version used to generate the emissions summary report in this MND was an older version, 2011.1.1.

Thank you,

Sondra Spaethe
Air Quality Planner II
Feather River Air Quality Management District
1007 Live Oak Blvd., Suite B-3
Yuba City, CA 95991
(530) 634-7659 ext 210
(530) 634-7660 FAX

Anderson Dragline, Inc.
P.O. Box 968
Gridley, CA 95948
Phone (530) 695-1352
Fax (530) 695-3131
License No. 748514
www.andersondragline.com

February 19, 2014

Mr. Paul Brunner, P.E.
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

SUBJECT: Yuba Goldfields 100-Year Flood Protection Project

Dear Mr. Brunner,

Anderson Dragline, Inc. has reviewed the Initial Study/Mitigated Negative Declaration for the subject project, and as a licensed General Engineering Contractor, is interested in bidding on the construction of the project.

Will this project be publicly advertised for bid? If yes, when do you anticipate the project will bid?

If the project is not publicly advertised for bid, which private property owners would TRLIA consider partnering with to construct the project?

Sincerely,

ANDERSON DRAGLINE, INC.

Mark E. Johnson

Mark E. Johnson
Construction Manager

From: Brunner, Paul
To: Clark, Andrea
Cc: Shephard, Andrea
Subject: FW: Yuba Goldfields 100-Year Flood Protection Project
Date: Thursday, February 27, 2014 3:56:08 PM

FYI

Paul G. Brunner
Executive Director
Three Rivers Levee Improvement Authority (TRLIA)
530-749-5679 (office)
916-765-4981 (cell)

From: Mark Johnson [mailto:markj@andersondragline.com]
Sent: Thursday, February 27, 2014 3:43 PM
To: Brunner, Paul
Subject: RE: Yuba Goldfields 100-Year Flood Protection Project

Thanks Paul

Mark Johnson
Construction Manager
Anderson Dragline, Inc.
www.andersondragline.com
P.O. Box 968
Gridley, CA 95948
(530) 695-1352 office
(530) 695-3131 fax
(530) 682-8462 cell

From: Brunner, Paul [mailto:PBrunner@CO.YUBA.CA.US]
Sent: Thursday, February 27, 2014 3:29 PM
To: Mark Johnson
Subject: RE: Yuba Goldfields 100-Year Flood Protection Project

Hi Mark – thank you for your letter and inquiry on the construction of the proposed 100-yr TRLIA Goldfields Flood Protection project. At this time the construction details are still being worked out. It is anticipated that the project will be accomplished as a TRLIA partnership with the mining companies that currently own the land, or have vested rights in the project location. A public advertised bid process may not be used. It is possible that the contemplated partnership could utilize non mining activities contractor services. I will keep your company's information on file should this need come up.

Thanks, Paul

Paul G. Brunner
Executive Director
Three Rivers Levee Improvement Authority (TRLIA)
530-749-5679 (office)
916-765-4981 (cell)

From: Mark Johnson [mailto:markj@andersondragline.com]
Sent: Wednesday, February 19, 2014 10:26 AM
To: Brunner, Paul
Subject: Yuba Goldfields 100-Year Flood Protection Project

Mr. Brunner,

Please review and reply to the attached inquiry regarding the Yuba Goldfields project.

Thank you.

Mark Johnson
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Leslie — Send to Andrea Clark, Andrea Sheppard (accom) & Larry. Thanks, Paul 2/26/2014

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR ENVIRONMENTAL PROTECTION

CALIFORNIA
Water Boards

Central Valley Regional Water Quality Control Board

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FEB 25 2014
TRLIA

20 February 2014

Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

CERTIFIED MAIL
7013 1710 0002 3644 0953

COMMENTS TO DRAFT MITIGATED NEGATIVE DECLARATION, YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT, SCH NO. 2014022010, YUBA COUNTY

Pursuant to the State Clearinghouse's 5 February 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Draft Mitigated Negative Declaration* for the Yuba Goldfields 100-year Flood Protection Project, located in Yuba County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

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[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

February 21, 2014

RECEIVED
FEB 24 2014
TRLIA

Mr. Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, California 95901

Subject: Yuba Goldfields 100-Year Flood Protection
SCH Number: 2014022010
Document Type: Mitigated Negative Declaration

Dear Mr. Brunner:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to or within the Yuba River and is therefore under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway. The project should include mitigation measures to avoid decreasing floodway channel capacity.

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at http://gis.bam.water.ca.gov/bam/.

If you have any questions, please contact me by phone at (916) 574-0651, or via e-mail at James.Herota@water.ca.gov.

Sincerely,

James Herota
Senior Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667
(916) 358-2900
http://www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

March 6, 2014

Paul Brunner
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901
E-mail: PBrunner@co.yuba.ca.us

Subject: Comments on the Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project, SCH # 2014022010

Dear Mr. Brunner:

The California Department of Fish and Wildlife (Department) has reviewed the Three Rivers Levee Improvement Authority's (TRLIA) Initial Study/Proposed Mitigated Negative Declaration (IS/MND) for the Yuba Goldfields 100-Year Flood Protection Project (proposed project). Pursuant to Section 15082(b) of the California Environmental Quality Act (CEQA) Guidelines, the Department offers the following comments on the IS/MND in our roles both as a trustee agency and as a responsible agency. As trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species. The Department may also be a responsible agency for a project affecting biological resources where we will exercise our discretion after the lead agency to approve or carry out a proposed project or some facet thereof.

TRLIA is proposing to approve construction of a levee embankment in the Yuba Goldfields in order to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project is located within the Yuba Goldfields along the south side of the Yuba River near Daguerre Point Dam, within the Browns Valley U.S. Geological Survey (USGS) 7.5-minute quadrangle. The Yuba Goldfields is a valley of 10,000 acres on both sides of the Yuba River in Yuba County, California, located northeast of Marysville. 1

The proposed project consists of constructing an embankment in the Yuba Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles within the Yuba Goldfields. Approximately 453,373 cubic yards of fill material would be needed to construct the 100-year embankment geometry within the alignment. TRLIA intends to build the embankment using the Yuba Goldfields' existing dredge tailings. Construction of the proposed project would require less than 6 months. Construction is anticipated to begin in spring 2014, no earlier than April 1st, and would be completed no later than November 1st of the same year.

The Department is primarily concerned with the proposed project's impacts to special-status species, including the State-threatened Swainson's hawk (*Buteo swainsoni*), the California species of special concern tricolored blackbird (*Agelaius tricolor*), and the federally threatened

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), as well as riparian resources that may be impacted with implementation of the proposed project.

The process the Department recommends for identifying and analyzing impacts to sensitive species and habitats begins with scoping, followed by surveys and mitigation development. The impact analysis in the IS/MND relies heavily on a California Natural Diversity Database (CNDDB) record search instead of a habitat assessment to determine which species may occur on the project site or be adversely affected by the proposed project. The IS/MND states that a search for CNDDB records was conducted within a five-mile radius of the project boundaries. Although CNDDB is one tool that may identify potential sensitive resources in the area, the dataset should not be regarded as complete data on the elements or areas being considered. Other sources for identification of species and habitats near or adjacent to the project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System (CWHR), California Native Plant Society (CNPS) Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations. 1 cont.

The IS/MND should address the proposed project's impact on State or federally listed rare, threatened, endangered, or other special-status species. According to the IS/MND, a site visit was conducted on August 8, 2013 and would not likely detect the species listed above or others. The Department recommends that on-site scoping and surveys be conducted at the time of year when species are both evident and identifiable, so that the impact analysis may include the results of the scoping and/or surveys. Surveys should be scheduled to coincide with the appropriate breeding or other life history stage of animals, when they are likely to be evident, or with peak flowering periods and/or during periods of phenological development that are necessary to identify a plant species of concern. The surveys to analyze what may be on the project site have been deferred until prior to the start of construction activities. 2

The IS/MND states that "Swainson's hawk, white-tailed kite, and tricolored blackbird—could nest on or near the project site," and that impacts to these species will be avoided with the implementation of Mitigation Measures 3.4-1b, 3.4-1c, 3.4-1d, and 3.4-1e. These measures require either removing vegetation prior to the nesting season or conducting pre-construction surveys and non-disturbance buffers if nests are found. These measures may not be adequate to reduce potential impacts from the proposed project to special-status species to a less-than-significant level, as outlined in the following discussion. Any activity resulting in loss of habitat, decreased reproductive success, or other negative effects on population levels of special-status species should be addressed in the IS/MND. There should be a clear impact assessment that outlines the temporary and permanent effects of the proposed project on all biological resources within and surrounding the project site. If it is not possible to avoid environmental impacts, mitigation should be provided which mitigates project impacts to a less than significant level. 3

Swainson's Hawk
Surveys conducted for the proposed project did not determine if nests for Swainson's hawk or other raptors are present within the potential area of disturbance. Raptors and other migratory birds are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the Fish and Game Code; therefore, potential impacts would be considered potentially significant unless mitigation is incorporated. Swainson's hawks are also listed as threatened under the California Endangered Species Act (CESA) and are thereby afforded additional protection. Removal or disturbance of a Swainson's hawk nest may constitute take under CESA and should be evaluated in the IS/MND. 4

All measures to protect raptors should be performance-based. While some birds may tolerate disturbance caused by construction activities, other birds may have a different disturbance threshold and "take"[1] (FGC §2081 and §3503.5) could occur if the temporary disturbance buffers are not designed to reduce stress to that individual pair. The Department recommends including performance-based protection measures for avoiding all nests protected under the MBTA and FGC §3503.5. A 250-foot exclusion buffer may be sufficient; however, that buffer may need to be increased based on the birds' tolerance level to the disturbance. An example of a performance-based protection measure is provided: Should construction activities cause the nesting migratory bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then increase the exclusionary buffer such that activities are far enough from the nest to stop this agitated behavior by the raptor. The exclusionary buffer should remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. 4 cont.

Additionally, a CESA, FGC §2081(b)) permit should be obtained if the proposed project has the potential to result in take of State-listed plants or wildlife over the life of the proposed project. Issuance of a CESA permit is subject to CEQA documentation; therefore the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed project will impact CESA listed species, early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA permit. A CESA permit may only be obtained if the impacts of the authorized take of the species are minimized and fully mitigated and adequate funding has been ensured to implement the mitigation measures. The Department may only issue a CESA permit if the Department determines that issuance of the permit does not jeopardize the continued existence of the species. The Department will make this determination based on the best scientific information available, and shall include consideration of the species' capability to survive and reproduce, including the species known population trends and known threats to the species. Issuance of a CESA permit may take up to 180 days from receipt of an application from the applicant. 5

Tricolored Blackbirds

The proposed project has the potential to impact tricolored blackbird, a California species of special concern. The IS/MND states that "several CNDDB records of [tricolored blackbirds] occur near the project site; however, the majority of these records are from the 1930s and the colonies are possibly extirpated." Tricolored blackbirds have high site fidelity and return to nesting sites after decades of undocumented use (Hosea 1986). Furthermore, colonially nesting birds are especially vulnerable to extinction. Removal of tricolored blackbird nest habitat, even if conducted after nesting season, could be considered regionally significant. Loss of breeding and foraging habitats is believed to be the most important cause of the documented population declines (Tricolored Blackbird Working Group 2007). 6

The Department recommends that surveys are conducted at the correct time of year (early March), when both males and females are present at the nesting location. During incubation, males form all-male flocks and may spend the day several kilometers from colonies. Females

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[1] Pursuant to Fish and Game Code Section 86, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

on nests are quiet during incubation, and active colonies may appear to be largely deserted (Beedy 1997). Observation of the flight direction of adults with food in their bills is recommended, as once incubation has begun, detection probability decrease significantly. If it is determined that tricolored blackbirds are nesting in the proposed project area, potential impacts should be properly analyzed and mitigated in the IS/MND. 6 cont.

Valley Elderberry Longhorn Beetle
According to the U.S. Fish and Wildlife Service (Service)'s *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (1999), complete avoidance (i.e., no adverse effects) may only be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. The proposed buffer of 20-feet in the IS/MND is not adequate to reduce impacts to a less-then-significant level. Indirect impacts through vibration or dust could occur and should be analyzed in the IS/MND. The Department recommends that the Service be consulted before any disturbances within the 100-foot buffer area are considered. 7

Riparian Vegetation Removal
The proposed project will have an impact on riparian habitat. Due to the ecological importance of riparian habitat, the Department recommends that the mitigation is based on the concept of no-net-loss of riparian habitat acreage or value. The proposed replacement ratio of 1:1 (Mitigation Measure 3.4-2) does not account for the temporal loss of riparian habitat. Riparian trees and associated vegetation may take a long time to mature and that loss is not accounted for in a 1:1 ratio. The Department recommends replacing mature riparian habitat at a higher ratio to address temporal loss.

Additionally, we recommend revising Mitigation Measure 3.4-2 s to include performance standards including evaluating the success of the proposed mitigation, providing a range of options to achieve the performance standards, and ensures successful completion of the mitigation. The Department recommends that the IS/MND include measurable success criteria for growth and establishment of new plantings (such as an 80 percent survival of replacement plantings five years following site revegetation); and additional plantings if the success criteria are not met. Inlcude the success criteria and the riparian restoration design in a restoration plan and ensure compliance through the Mitigation Monitoring and Reporting Program (MMRP). 8

Jurisdictional Riparian Habitat
In the event implementation of the proposed project involves activities which will result in a substantial alteration of the bed, bank, and/or channel of a river, stream or lake, the project applicant shall submit to the Department a Notification of Lake or Streambed Alteration (LSA) (pursuant to FGC §1602), and if necessary obtain a LSA Agreement prior to commencing work. This Agreement would include measures to minimize and restore riparian habitat. As a responsible agency under CEQA, the Department must rely on the CEQA analysis for the proposed project when exercising our discretion after the lead agency to approve or carry out some facet of a project, such as the issuance of a LSA Agreement. Therefore, the IS/MND should include specific, enforceable measures that will avoid, minimize and/or mitigate for project impacts to the natural resources within the same stream system. 9

Summary
The proposed project will have an impact to fish and/or wildlife habitat and should include measures to reduce its impacts to biological resources. Assessment of fees under Public Resources Code §21089 and as defined by FGC §711.4 is necessary. Fees are payable by the project applicant upon filing of the Notice of Determination by the lead agency. 10

Pursuant to Public Resources Code §21092 and §21092.2, the Department requests written notification of proposed actions and pending decisions regarding the proposed Project. Written notifications shall be directed to: California Department of Fish and Wildlife Region 2, 1701 Nimbus Road, Rancho Cordova, CA 95670. 10 cont.

Thank you for considering our concerns for the proposed project. Department personnel are available for consultation regarding biological resources and strategies to minimize impacts. If you have questions please contact Tanya Sheya, Environmental Scientist, by e-mail at Tanya.Sheya@wildlife.ca.gov or by phone at (916) 358-2953.

Sincerely,

Tina Bartlett

Tina Bartlett
Regional Manager

ec: Jeff Drongesen, Jeff.Drongesen@wildlife.ca.gov
Isabel Baer, Isabel.Baer@wildlife.ca.gov
Tanya Sheya, Tanya.Sheya@wildlife.ca.gov

State Clearinghouse

References

Beedy, E.C. and W. J. Hamilton III 1997. *Tricolored Blackbird Status Update and Management Guidelines* (Jones and Stokes Associates, Inc. 97-099.) Sacramento, CA. Prepared for U.S. Fish and Wildlife Service, Portland, OR and California Department of Fish and Game, Sacramento, CA.

Hosea, R. C. 1986. A population census of the Tricol¬ored Blackbird, Agelaius tricolor (Audubon), in four counties in the northern Central Valley of California. Master's thesis, Calif. State Univ., Sacramento.

Tricolored Blackbird Working Group. 2007. Conservation Plan for the Tricolored Blackbird (Agelaius tricolor). Susan Kester (ed.). Sustainable Conservation. San Francisco, CA.

U.S. Fish and Wildlife Service (Service). July 1999. *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*. Sacramento, CA.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901
Office (530) 749-7841 Fax (530) 749-6990

March 26, 2014

Tina Bartlett
Regional Manager
California Department of Fish and Wildlife
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667

Subject: Response to Comments from California Department of Fish and Wildlife on the Public Draft Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project (SCH#2014022010)

Dear Ms. Bartlett,

Thank you for your interest in the above referenced project. This letter is in response to your comment letter on the Public Draft Initial Study/Proposed Mitigated Negative Declaration (IS/MND) dated March 6, 2014. Below are responses to your specific comments in the order in which they appear in your March 6, 2014 letter, which is also attached for reference.

Response to Comment 1

The Department summarizes the proposed project and generally describes its concerns and the process the Department recommends for identifying and analyzing impacts to sensitive species and habitats.

Comment noted.

Response to Comment 2

The Department states that a site visit was conducted on August 8, 2013, and that surveys conducted at this time of year would not likely detect sensitive species that could be affected by the project. The Department recommends that surveys should be scheduled to coincide with appropriate breeding or other life history stage when plants and animals of concern are identifiable.

The Department is correct in stating that a survey was conducted on August 8, 2013. However, additional surveys were conducted for valley elderberry longhorn beetle and nesting raptors in the biological study area for the project in 2012 (August 23, 24; October 11) and 2013 (February 28; March 1, 8, 15, 28), as referenced on Page 3.4-2 of the IS/MND. The 1,729-acre biological study area includes the project site as well as surrounding land in the Yuba Goldfields. Survey results were presented in a number of survey reports that can be provided to the Department upon their request. While these surveys were not conducted at a level of intensity to determine presence or absence, they were conducted by qualified botanists and wildlife biologists that noted all incidental observations of sensitive plants and animals.

Response to Comment 3

The Department states that mitigation measures proposed to protect sensitive species may not be adequate to reduce potential impacts to a less-than-significant level. The Department states that any activity resulting

in the loss of habitat, decreased reproductive success, or other negative effects on population levels of special-status species should be addressed in the IS/MND.

The IS/MND complies with CEQA by adequately addressing impacts to all potentially-occurring special-status plants and animals. Proposed mitigation measures to reduce those impacts to less-than-significant levels are also in accordance with CEQA requirements. The Department contends that mitigation may not be adequate but does not provide any additional information regarding the presence of special-status species and/or potential impacts to those species that support this contention.

Response to Comment 4

The Department expresses concern about potential impacts to Swainson's hawks and other raptors and states that removal or disturbance of a Swainson's hawk nest may constitute take under the California Endangered Species Act (CESA) and should be evaluated in the IS/MND. The Department provides an example of a performance-based measure to reduce impacts to nesting raptors.

The IS/MND complies with CEQA by addressing potential impacts to Swainson's hawks and other raptors. Although no Swainson's hawk nests have been found, and the Department does not provide any information that such nests are present in the project area, the IS/MND takes a conservative (i.e., protective) approach in determining that impacts to this species are potentially significant. The proposed mitigation is specifically designed to reduce potential disturbance and reduce the risk of take should the project area become occupied by nesting Swainson's hawks prior to construction. TRLIA believes that the proposed mitigation is adequate to avoid take of any Swainson's hawks as defined under CESA. The performance measures recommended by the Department to provide additional protection for nesting raptors will be incorporated into Mitigation Measure 3.4-1c of the IS/MND and included in the Mitigation Monitoring and Reporting Plan (MMRP) for the proposed project.

Response to Comment 5

The Department describes the process for obtaining a CESA permit for take of listed species and states that a permit should be obtained if the proposed project has the potential to result in take.

We do not anticipate that implementation of the proposed project, and the mitigation proposed in the IS/MND, would result in take of any State-listed plants or animals.

Response to Comment 6

The Department restates information presented in the IS/MND regarding potential impacts to tricolored blackbird and provides additional information on the life history of this California species of special concern. The Department recommends that surveys are conducted at the correct time of year when both males and females are present at the nesting locations.

Potential impacts on tricolored blackbird were assessed in the IS/MND at a sufficient level of detail to comply with CEQA. The IS/MND concluded that very little suitable habitat exists in or near the project site (see page 3.4-9). The Department provides no information on any tricolored blackbirds nesting colonies in the vicinity of the project site. The IS/MND provides mitigation that would ensure that no active tricolored blackbird colonies would be needlessly destroyed in the unlikely event that a colony is found during preconstruction surveys.

Response to Comment 7

The Department briefly summarizes the conservation guidelines issued by the U.S. Fish and Wildlife Service (USFWS) for the valley elderberry longhorn beetle and states that the proposed buffer of 20 feet is inadequate to reduce impacts to a less-than-significant level. The Department recommends that the USFWS should be consulted before any disturbance within the 100-foot buffer area is considered.

The approach for protecting elderberry shrubs that could provide habitat for the valley elderberry beetle is described on page 2-10 of the IS/MND. This approach includes establishing and maintaining a 20-foot

buffer around each shrub with construction fencing for all shrubs located in the construction area. The Department does not provide any information to support its conclusion that the buffer distance is not adequate. The comment that indirect impacts (i.e., vibration and dust) should be analyzed in the IS/MND also lacks information on how these impacts are relevant to the impact conclusion. As stated in the IS/MND, we believe the project would provide adequate protection for the valley elderberry longhorn beetle so that impacts would be less than significant as defined under CEQA. Adherence to the USFWS conservation guidelines is not required to comply with CEQA. The Department's recommendation to consult with USFWS regarding potential impacts to valley elderberry longhorn beetle is noted.

Response to Comment 8

The Department restates information presented in the IS/MND regarding impacts to riparian habitat and describes the ecological value of this sensitive plant community. The Department states that the replacement ratio of 1:1 does not account for temporal loss of riparian habitat and recommends replacing mature riparian habitat at a higher ratio to address temporal loss. Additionally, the Department recommends revising Mitigation Measure 3.4-2 to include performance standards and ensure successful completion of the mitigation.

The IS/MND recognizes riparian habitat on the project as a sensitive habitat and concludes that impacts to riparian vegetation would be significant under CEQA. However, as described in the document, riparian habitat affected by the project is limited to thin strips of vegetation that occur at the periphery of the dredge ponds. The total amount of riparian habitat affected by the project would be less than 6 acres, which is a relatively small amount given the amount of similar quality habitat in the project vicinity. Given the magnitude of the impact and the fact that no high-quality riparian woodland or forest habitat would be affected, compensation exceeding a 1:1 ratio and compensating for temporal loss is not necessary to reduce this impact to less than significant as defined under CEQA.

In the MMRP, TRLIA will include the following revised but equivalent mitigation measure in place of Mitigation Measure 3.4-2 from the IS/MND:

TRLIA and its construction contractor(s) will implement the following measures to reduce effects of the proposed project on riparian habitats:

- Impacts on riparian habitat will be avoided wherever possible by considering the location of habitat patches during development of the final project footprint, including the embankment or levee, on-site borrow locations, and construction staging areas. A fenced, 50-foot protective buffer will be erected and maintained during construction to minimize impacts on riparian habitat that will be preserved adjacent to the construction footprint.

- Unavoidable impacts on riparian habitat will be compensated for with in-kind replacement by vegetation type (e.g., willow scrub, riparian scrub, riparian forest) at a 1:1 replacement ratio, based on the acreage removed. Replacement planting may occur on-site or at a nearby suitable location in the project vicinity that will not be subject to future vegetation removal.

- A mitigation plan will be prepared detailing how the loss of riparian habitats that cannot be avoided will be compensated. The mitigation plan will describe compensation ratios for acres lost, mitigation sites, a monitoring protocol, annual performance standards and final success criteria for created or restored habitats, and corrective measures to be applied if performance standards are not met.

Response to Comment 9

The Department states that, in the event implementation of the proposed project involves activities which will result in a substantial alteration of bed, bank, and/or channel of a river, stream or lake, a Lake or Streambed Alteration (LSA) Agreement would be required prior to the commencement of work.

TRLIA has determined that no habitat protected under Section 1602 of the California Fish and Game Code would be affected by the proposed project and will not be seeking a LSA Agreement from the Department.

Response to Comment 10

The Department requests written notification of proposed actions and pending decisions regarding the proposed project and concludes the letter.

TRLIA appreciates comments provided by the Department and looks forward to continuing to work with the Department.

Thank you again for your interest in this project. If you have any additional questions or concerns regarding this project, please contact me at (530) 749-7841, or pbrunner@co.yuba.ca.us.

Sincerely,

Paul G. Brunner
Executive Director

Attachment:

20140306 CDFW Bracketed to match TRLIA Responses

Ec: Jeff Drongesen, jeff.Drongesen@wildlife.ca.gov
Isabel Baer, Isabel.Baer@wildlife.ca.gov
Tanya Sheya, Tanya.Sheya@wildlife.ca.gov

SOUTH YUBA RIVER CITIZENS LEAGUE

March 6, 2014

Paul Brunner, P.E.
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Re: Yuba Goldfields 100-Year Flood Protection Project

Dear Mr. Brunner

The South Yuba River Citizens League (SYRCL) appreciates the opportunity to review a Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project. SYRCL is a 501(c)(3) community organization with the mission of uniting the community to protect and restore the Yuba River. SYRCL's work involves several projects and programs on the lower Yuba River, including collaborative management of flows and fisheries evaluations with the Yuba Accord River Management Team, a pilot riparian enhancement project at Hammon Bar, planning of floodplain restoration on the lower Yuba River through grants from the U.S. Fish and Wildlife Service and other sources, planning of a conservation easement with Western Aggregates at the uppermost extent of the Goldfields, and construction of an interpretive trail and kiosk in the Goldfields with the Bureau of Land Management.

SYRCL acknowledges the important projects completed by the Three Rivers Levee Improvement Authority (TRLIA) in providing protection from floods to the people of Yuba County. The staff and Directors at SYRCL place great value on responsible flood protection projects that provide necessary public safety while addressing the need for improving riparian and aquatic habitat along our rivers. We see TRLIA as a leader in the kind of work and we intend on continuing our history of collaboration.

I understand that new information about the risk of flooding through the Goldfields and into Reclamation District 784 necessitate a project with the purpose of the Yuba Goldfields 100-Year Flood Protection Project. I have reviewed the documents distributed by AECOM, and have a few comments.

The Public Draft of the Initial Study and Proposed Mitigated Negative Declaration does not make clear to what extent the proposed project will adequately address the flood risk, and what subsequent projects or actions will be needed to achieve desired levels of flood protection. Exhibit 2-1 identifies four "Tier 1 Problem Sites" on the Yuba River where south tailings mounds were identified for having the greatest

216 Main Street, Nevada City, CA 95959 | ph (530) 265-5961 | fax (530) 265-6232 | www.yubariver.org

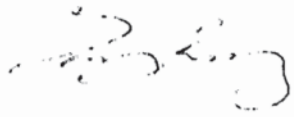
risk of a breach and where flood waters could enter the Goldfields. However, the proposed project is described with reference to only Site B, one of the four Tier 1 sites. There is no explanation provided regarding how the proposed project would reduce flood risk associated with breach at Sites D, F and J, the other Tier 1 sites located upstream. It seems reasonable, therefore, to expect TRLIA to propose additional work in the Goldfields following the completion of this proposed project.

The CEQA Guidelines explain that the lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect. IF TRLIA were indeed planning subsequent actions to address the flood risk in the Goldfields, as is reasonable, then the environmental documents for this proposed project may be inadequate because they would represent a "piecemeal" approach, or the segmenting of project components.

The Yuba Goldfields area is historic floodplain habitat, disconnected from the Yuba River by the tailings mounds. The new information that TRLIA has developed regarding flood risk in the Goldfields points to the need for a comprehensive planning for both flood risk management and habitat restoration. The Yuba River is one of the most important rivers in California for the recovery of Central Valley spring-run Chinook salmon and steelhead trout, two species Threatened with extinction and for which recovery scenarios include the enhancement of functional floodplain habitat.[1] Additional environmental considerations for a larger Yuba Goldfields Flood Protection Project would include the recreational opportunities that SYRCL is just beginning to work on in collaboration with local landowners.

Please keep us on your contact list for project updates, and consider when we can meet to discuss the details of your project and how any subsequent phases may effect habitat restoration and public access opportunities in the Goldfields. SYRCL's Executive Director, Caleb Dardick, would like to be part of that meeting. We applaud your collaborative work with landowners in the Goldfields area and would be happy to provide our own update on that topic. I can be reached at (530)265-5962 ext.208 or gary@syrcl.org.

Sincerely,



Gary Reedy
Science Program Director

[1] National Marine Fisheries Service. 2009. Public Draft Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of Central Valley Steelhead. Sacramento Protected Resources Division. October 2009.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

RECEIVED
MAR 24 2014

March 20, 2014

Regulatory Division (SPK-2014-00202)

Mr. Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, California 95901-4838

Dear Mr. Brunner:

We are responding to your February 5, 2014, request for comments on the Initial Study/proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project. This project is located in the Yuba Gold Fields of the Yuba River in Section 11, Township 15 North, Range 4 East, MDB&M, Latitude 39.1695366096693°, Longitude -121.478827058137°, Yuba County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, tailing ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetlands Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

If waters of the United States are going to be impacted, cultural resource sites within the defined federal permit area will need to be evaluated according to the standards of the National Environmental Policy Act. All eligible or potentially eligible cultural resource sites to the National Register of Historic Places within the permit area will be subject to Section 106 of the National Historic Preservation Act, 1966, as amended. The Corps of Engineers considers the Yuba Goldfields themselves to be features of historical interest that will need evaluation at the federal

level in regards to these laws. The Corps of Engineers must also comply with the terms and conditions of the Federal Endangered Species Act with regards to our permitting process. You may need to supply a recent biological assessment of the project site for us to comply with the federal Endangered Species Act.

Please refer to identification number SPK-2014-00202 in any correspondence concerning this project. If you have any questions, please contact me at the letterhead address, Room 1350, by email at *Kathy.Norton@usace.army.mil*, or telephone at 916-557-5260. For more information regarding our Regulatory Program, please visit our website located at *www.spk.usace.army.mil/Missions/Regulatory.aspx.*

Sincerely,

Kathy Norton
Sr. Project Manager
California North Branch

cc:

✓Ms. Andrea Shepard, AECOM, 2020 L Street, Suite 400, Sacramento, California 95811-4267
Ms. Anna Ewing, FERC Program Coordinator, California Department of Fish and Wildlife, 1701 Nimbus Road, Rancho Cordova, California 95670-4503
Ms. Elizabeth Lee, California Regional Water Quality Control Board, 11020 Sun Center Drive, #200, Sacramento, California 95670-6114
Ms. Kellie Berry, U.S. Fish and Wildlife Service, Endangered Species Division, 2800 Cottage Way, W-2605, Sacramento, CA 95825-1888

Print Form

Attachment 4

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Yuba
Address: 915 8th Street, Suite 107
Marysville, CA 95901

From:
Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a 2.1-mile-long embankment within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on April 1, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): _____ Title: Executive Director, TRLIA

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Attachment 5

COMMENT LETTERS ON THE PUBLIC IS/MND AND RESPONSES

Commenting Organization/Agency	Date
The United Auburn Indian Community of the Auburn Rancheria	February 12, 2014
Feather River Air Quality Management District	February 14, 2014
Anderson Dragline, Inc.	February 19, 2014
Central Valley Water Quality Control Board	February 20, 2014
Central Valley Flood Protection Board	February 21, 2014
California Department of Fish and Wildlife	March 6, 2014
South Yuba River Citizens League	March 6, 2014
United States Army Corps of Engineers	March 24, 2014

HJB 2/25/2014
Leslie —
Please scan. Send copies to Andrea Clark, Andrea Sheppard (AECOM) AND LARRY DACUS.
Paul

MIWOK MAIDU United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairman | John L. Williams, Vice Chairman | Danny Rey, Secretary | Brenda Adams, Treasurer | Calvin Moman, Council Member

February 12, 2014

RECEIVED
FEB 24 2014
TRLIA

Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Subject: Notice of Availability and Intent to Consider Adoption of a Proposed Mitigated negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project

Dear Paul Brunner,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and whose service area includes El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction.

In order to ascertain whether or not the project could affect cultural resources that may be of importance to the UAIC, we would like to receive copies of any archaeological reports that have been, or will be, completed for the project. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The UAIC would also like the opportunity to have our tribal monitors accompany you during the field survey. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes.

The UAIC's preservation committee has identified cultural resources within your project area and in close proximity, and would like to request a site visit to confirm their locations and meet with you regarding this project. Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the aforementioned documents as requested. Please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or by email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

Gene Whitehouse,
Chairman

CC: Marcos Guerrero, CRM

Tribal Office 10720 Indian Hill Road Auburn, CA 95603 (530) 883-2390 FAX (530) 883-2380

From: Shephard, Andrea
To: "Sondra Spaethe"
Cc: "George Lu (georgeclu48@gmail.com)"; Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project
Date: Thursday, February 20, 2014 8:35:00 AM

Sondra,

Here are the additional responses to your other questions.

First, the model indicates that there will be three phases: Phase 1 (4/1/2014 to 6/14/2014); Phase 2 (4/1/2015 to 6/06/2015); and Site J Plug (6/7/2015 to 8/15/2015). However, the IS/MND says that the construction should only last less than 5.5 months, beginning as early as April 1 and lasting no later than November 1. (Section 2.4.3 Construction Schedule page 2-10). Can you confirm that the phases entered into CalEEMod are correct and if so why the inconsistency with the language in the IS/MND

The AQ analysis was done with the most recent information from the client's construction contractor. The 5.5 months in the IS/MND is out of date and the work days entered into CalEEMod for Phase 1 (65 days) and stated in Table 3.3-2 in the IS/MND are correct. The information in Section 2.4.3 Construction Schedule on page 2-10 should have been updated with this same information.

Also, the phases and the construction equipment have been modified from the default settings. The user is directed to indicate in the "Remarks" box what assumptions were used to generate the changes. The only Remarks I can see are the letters "PD." Can you confirm whether this was the entire intended Remarks statement? And if so, can you please provide some clarification as to why the default settings were changed (what "PD" means)?

"PD" refers to the project description. The client's construction contractor provided the amount and types of construction equipment that would be used for each of the three phases that was entered into the model. So the modifications are associated with overriding the CalEEMod defaults with project-specific construction equipment information.

And finally, the model indicates that mitigation in the form of tier 3 engines has been applied to all of the excavators, off-highway trucks, and tractors/backhoes/loaders. Can you please confirm whether this was the intent of the project to use this mitigation? Because if it was, then this should have been included in the mitigation measures listed on the IS/MND. I did not notice that using tier 3 engines in these construction equipment was a mitigation measure in the IS/MND.

Because of the glitches in the previous CalEEMod, specifically that the construction phases would shift every time you reopened a project and you would lose some of the changes that you made, we preemptively added Tier 3 engines as potential mitigation for the proposed project. This way, if construction emissions were found to exceed the FRAQMD thresholds of significance, we would have a potential mitigation measure to reduce emissions without having to rerun the entire model because changes would be lost when reopened. However, because the unmitigated emissions would not exceed the FRAQMD thresholds, these mitigated emissions were not used in the analysis. As shown in the Appendix, only the unmitigated emissions are used in the analysis.

Best regards,

Andrea L Shephard, PhD
Senior Project Manager, Associate
Design + Planning
D +1 916.414.5822 M +1 916.396.2170

From: Shephard, Andrea
To: "Sondra Spaethe"
Cc: George Lu (georgeclu48@gmail.com); Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project
Date: Wednesday, February 19, 2014 8:52:00 AM

Sondra,

I am checking with George. I think I can address the first of your three questions. I believe the output you received was for the original project we evaluated. I should have explained that the original project contemplated 3 separate phases. However, the client determined (after the AQ analysis was done, but before the IS/MND was finalized) that Phases 2 and 3 would never be constructed, so the project was revised to include just the Phase 1 component. Since each phase was autonomous (no overlap), the output from the initial modeling for Phase 1 was valid for the revised project and is what was used in the IS/MND.

Andrea L Shephard, PhD
Senior Project Manager, Associate
Design + Planning
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andrea.shephard@aecom.com

AECOM
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T +1 916.414.5800 F +1 916.414.5850
www.aecom.com

From: Sondra Spaethe [mailto:sspaethe@fraqmd.org]
Sent: Tuesday, February 18, 2014 3:41 PM
To: Shephard, Andrea
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Andrea,

Thank you for submitting the CalEEMod file used for this project. Opening the older file in the current model created some interesting results in the reporting page. If you don't mind, I'd like to confirm a few things with you since it is not a clear comparison.

First, the model indicates that there will be three phases: Phase 1 (4/1/2014 to 6/14/2014); Phase 2 (4/1/2015 to 6/06/2015); and Site J Plug (6/7/2015 to 8/15/2015). However, the IS/MND says that the construction should only last less than 5.5 months, beginning as early as April 1 and lasting no later than November 1. (Section 2.4.3 Construction Schedule page 2-10). Can you confirm that the phases entered into CalEEMod are correct and if so why the inconsistency with the language in the IS/MND?

Also, the phases and the construction equipment have been modified from the default settings. The user is directed to indicate in the "Remarks" box what assumptions were used to generate the changes. The only Remarks I can see are the letters "PD." Can you confirm whether this was the entire intended Remarks statement? And if so, can you please provide some clarification as to why

the default settings were changed (what "PD" means)?

And finally, the model indicates that mitigation in the form of tier 3 engines has been applied to all of the excavators, off-highway trucks, and tractors/backhoes/loaders. Can you please confirm whether this was the intent of the project to use this mitigation? Because if it was, then this should have been included in the mitigation measures listed on the IS/MND. I did not notice that using tier 3 engines in these construction equipment was a mitigation measure in the IS/MND.

Thank you very much for your assistance. I'm sorry that the two model versions resulted in such a convoluted result. The model should be able to open and correctly display older file created with the previous versions.

Regards,

Sondra

Sondra Spaethe
Air Quality Planner II
Feather River Air Quality Management District
1007 Live Oak Blvd., Suite B-3
Yuba City, CA 95991
(530) 634-7659 ext 210
(530) 634-7660 FAX

From: Shephard, Andrea [mailto:Andrea.Shephard@aecom.com]
Sent: Tuesday, February 18, 2014 8:36 AM
To: Sondra Spaethe
Cc: 'Chris Brown'; pbrunner@co.yuba.ca.us; Lu, George; Paukovits, Jason
Subject: RE: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Sondra,

The data you requested is attached.

AECOM began and completed the AQ/GHG analysis for the Yuba Goldfields 100-year Flood Protection Project prior to the availability of CalEEMod Version 2013.2 (July 26, 2013) and Version 2013.2.2 (October 2, 2013). As shown in the CalEEMod modeling outputs in Appendix A, AQ/GHG modeling was completed by July 17, 2013, at which time neither CalEEMod Version 2013.2 nor 2013.2.2 was available. When Version 2013.2 was released, AECOM was in the process of completing the draft report and made a decision to proceed with the version of the model that was initially used for the analysis (i.e., Version 2011.1.1)."

I've attached the CalEEMod run that corresponds to Appendix A; however, please note that when installing CalEEMod Version 2013.2.2, you have to delete Version 2011.1.1. Thus, we're not sure how this will work if you try to open a v2011.1.1 file using 2013.2.2.

Andrea L Shephard, PhD

Senior Project Manager, Associate
Design + Planning
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andrea.shephard@aecom.com

AECOM
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www.aecom.com

From: Sondra Spaethe [mailto:sspaethe@fraqmd.org]
Sent: Friday, February 14, 2014 2:47 PM
To: Shephard, Andrea
Cc: 'Chris Brown'; pbrunner@co.yuba.ca.us
Subject: Air Quality Modeling for Yuba Goldfields 100-Year Flood Protection Project

Hi Andrea,

Thank you for submitting the Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project to the Feather River Air Quality Management District for review and comment. I would like to request the air quality modeling information used to generate the data in Appendix A Air Quality Modeling Results. Could you please email me the CalEEMod file that was used to generate these results and the complete report?

Also note that the most recent revision of the CalEEMod model (2013.2.2) was released on October 2, 2013. A significant update to the CalEEMod program (2013.2) was released on July 26, 2013, that updated off road construction equipment emission factors according to the Air Resources Board OFFROAD 2011 model. I noticed that the CalEEMod model version used to generate the emissions summary report in this MND was an older version, 2011.1.1.

Thank you,

Sondra Spaethe
Air Quality Planner II
Feather River Air Quality Management District
1007 Live Oak Blvd., Suite B-3
Yuba City, CA 95991
(530) 634-7659 ext 210
(530) 634-7660 FAX

Anderson Dragline, Inc.
P.O. Box 968
Gridley, CA 95948
Phone (530) 695-1352
Fax (530) 695-3131
License No. 748514
www.andersondragline.com

February 19, 2014

Mr. Paul Brunner, P.E.
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

SUBJECT: Yuba Goldfields 100-Year Flood Protection Project

Dear Mr. Brunner,

Anderson Dragline, Inc. has reviewed the Initial Study/Mitigated Negative Declaration for the subject project, and as a licensed General Engineering Contractor, is interested in bidding on the construction of the project.

Will this project be publicly advertised for bid? If yes, when do you anticipate the project will bid?

If the project is not publicly advertised for bid, which private property owners would TRLIA consider partnering with to construct the project?

Sincerely,

ANDERSON DRAGLINE, INC.

Mark E. Johnson

Mark E. Johnson
Construction Manager

From: Brunner, Paul
To: Clark, Andrea
Cc: Shephard, Andrea
Subject: FW: Yuba Goldfields 100-Year Flood Protection Project
Date: Thursday, February 27, 2014 3:56:08 PM

FYI

Paul G. Brunner
Executive Director
Three Rivers Levee Improvement Authority (TRLIA)
530-749-5679 (office)
916-765-4981 (cell)

From: Mark Johnson [mailto:markj@andersondragline.com]
Sent: Thursday, February 27, 2014 3:43 PM
To: Brunner, Paul
Subject: RE: Yuba Goldfields 100-Year Flood Protection Project

Thanks Paul

Mark Johnson
Construction Manager
Anderson Dragline, Inc.
www.andersondragline.com
P.O. Box 968
Gridley, CA 95948
(530) 695-1352 office
(530) 695-3131 fax
(530) 682-8462 cell

From: Brunner, Paul [mailto:PBrunner@CO.YUBA.CA.US]
Sent: Thursday, February 27, 2014 3:29 PM
To: Mark Johnson
Subject: RE: Yuba Goldfields 100-Year Flood Protection Project

Hi Mark – thank you for your letter and inquiry on the construction of the proposed 100-yr TRLIA Goldfields Flood Protection project. At this time the construction details are still being worked out. It is anticipated that the project will be accomplished as a TRLIA partnership with the mining companies that currently own the land, or have vested rights in the project location. A public advertised bid process may not be used. It is possible that the contemplated partnership could utilize non mining activities contractor services. I will keep your company's information on file should this need come up.

Thanks, Paul

Leslie — Send to
Andrea Clark, Andrea Sheppard (Secon)
& Larry. Thanks, Paul
2/25/2014

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

RECEIVED
FEB 25 2014
TRLIA

20 February 2014

Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

CERTIFIED MAIL
7013 1710 0002 3644 0953

COMMENTS TO DRAFT MITIGATED NEGATIVE DECLARATION, YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT, SCH NO. 2014022010, YUBA COUNTY

Pursuant to the State Clearinghouse's 5 February 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Draft Mitigated Negative Declaration* for the Yuba Goldfields 100-year Flood Protection Project, located in Yuba County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

February 21, 2014

RECEIVED
FEB 24 2014
TRLIA

Mr. Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, California 95901

Subject: Yuba Goldfields 100-Year Flood Protection
SCH Number: 2014022010
Document Type: Mitigated Negative Declaration

Dear Mr. Brunner:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to or within the Yuba River and is therefore under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway. The project should include mitigation measures to avoid decreasing floodway channel capacity.

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at http://gis.bam.water.ca.gov/bam/.

If you have any questions, please contact me by phone at (916) 574-0651, or via e-mail at James.Herota@water.ca.gov.

Sincerely,

James Herota
Senior Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667
(916) 358-2900
http://www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

March 6, 2014

Paul Brunner
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901
E-mail: PBrunner@co.yuba.ca.us

Subject: Comments on the Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project, SCH # 2014022010

Dear Mr. Brunner:

The California Department of Fish and Wildlife (Department) has reviewed the Three Rivers Levee Improvement Authority's (TRLIA) Initial Study/Proposed Mitigated Negative Declaration (IS/MND) for the Yuba Goldfields 100-Year Flood Protection Project (proposed project). Pursuant to Section 15082(b) of the California Environmental Quality Act (CEQA) Guidelines, the Department offers the following comments on the IS/MND in our roles both as a trustee agency and as a responsible agency. As trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species. The Department may also be a responsible agency for a project affecting biological resources where we will exercise our discretion after the lead agency to approve or carry out a proposed project or some facet thereof.

TRLIA is proposing to approve construction of a levee embankment in the Yuba Goldfields in order to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project is located within the Yuba Goldfields along the south side of the Yuba River near Daguerre Point Dam, within the Browns Valley U.S. Geological Survey (USGS) 7.5-minute quadrangle. The Yuba Goldfields is a valley of 10,000 acres on both sides of the Yuba River in Yuba County, California, located northeast of Marysville. 1

The proposed project consists of constructing an embankment in the Yuba Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles within the Yuba Goldfields. Approximately 453,373 cubic yards of fill material would be needed to construct the 100-year embankment geometry within the alignment. TRLIA intends to build the embankment using the Yuba Goldfields' existing dredge tailings. Construction of the proposed project would require less than 6 months. Construction is anticipated to begin in spring 2014, no earlier than April 1st, and would be completed no later than November 1st of the same year.

The Department is primarily concerned with the proposed project's impacts to special-status species, including the State-threatened Swainson's hawk (*Buteo swainsoni*), the California species of special concern tricolored blackbird (*Agelaius tricolor*), and the federally threatened

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), as well as riparian resources that may be impacted with implementation of the proposed project.

The process the Department recommends for identifying and analyzing impacts to sensitive species and habitats begins with scoping, followed by surveys and mitigation development. The impact analysis in the IS/MND relies heavily on a California Natural Diversity Database (CNDDB) record search instead of a habitat assessment to determine which species may occur on the project site or be adversely affected by the proposed project. The IS/MND states that a search for CNDDB records was conducted within a five-mile radius of the project boundaries. Although CNDDB is one tool that may identify potential sensitive resources in the area, the dataset should not be regarded as complete data on the elements or areas being considered. Other sources for identification of species and habitats near or adjacent to the project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System (CWHR), California Native Plant Society (CNPS) Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations. 1 cont.

The IS/MND should address the proposed project's impact on State or federally listed rare, threatened, endangered, or other special-status species. According to the IS/MND, a site visit was conducted on August 8, 2013 and would not likely detect the species listed above or others. The Department recommends that on-site scoping and surveys be conducted at the time of year when species are both evident and identifiable, so that the impact analysis may include the results of the scoping and/or surveys. Surveys should be scheduled to coincide with the appropriate breeding or other life history stage of animals, when they are likely to be evident, or with peak flowering periods and/or during periods of phenological development that are necessary to identify a plant species of concern. The surveys to analyze what may be on the project site have been deferred until prior to the start of construction activities. 2

The IS/MND states that "Swainson's hawk, white-tailed kite, and tricolored blackbird—could nest on or near the project site," and that impacts to these species will be avoided with the implementation of Mitigation Measures 3.4-1b, 3.4-1c, 3.4-1d, and 3.4-1e. These measures require either removing vegetation prior to the nesting season or conducting pre-construction surveys and non-disturbance buffers if nests are found. These measures may not be adequate to reduce potential impacts from the proposed project to special-status species to a less-than-significant level, as outlined in the following discussion. Any activity resulting in loss of habitat, decreased reproductive success, or other negative effects on population levels of special-status species should be addressed in the IS/MND. There should be a clear impact assessment that outlines the temporary and permanent effects of the proposed project on all biological resources within and surrounding the project site. If it is not possible to avoid environmental impacts, mitigation should be provided which mitigates project impacts to a less than significant level. 3

Swainson's Hawk
Surveys conducted for the proposed project did not determine if nests for Swainson's hawk or other raptors are present within the potential area of disturbance. Raptors and other migratory birds are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the Fish and Game Code; therefore, potential impacts would be considered potentially significant unless mitigation is incorporated. Swainson's hawks are also listed as threatened under the California Endangered Species Act (CESA) and are thereby afforded additional protection. Removal or disturbance of a Swainson's hawk nest may constitute take under CESA and should be evaluated in the IS/MND. 4

All measures to protect raptors should be performance-based. While some birds may tolerate disturbance caused by construction activities, other birds may have a different disturbance threshold and "take"[1] (FGC §2081 and §3503.5) could occur if the temporary disturbance buffers are not designed to reduce stress to that individual pair. The Department recommends including performance-based protection measures for avoiding all nests protected under the MBTA and FGC §3503.5. A 250-foot exclusion buffer may be sufficient; however, that buffer may need to be increased based on the birds' tolerance level to the disturbance. An example of a performance-based protection measure is provided: Should construction activities cause the nesting migratory bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then increase the exclusionary buffer such that activities are far enough from the nest to stop this agitated behavior by the raptor. The exclusionary buffer should remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. 4 cont.

Additionally, a CESA, FGC §2081(b)) permit should be obtained if the proposed project has the potential to result in take of State-listed plants or wildlife over the life of the proposed project. Issuance of a CESA permit is subject to CEQA documentation; therefore the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed project will impact CESA listed species, early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA permit. A CESA permit may only be obtained if the impacts of the authorized take of the species are minimized and fully mitigated and adequate funding has been ensured to implement the mitigation measures. The Department may only issue a CESA permit if the Department determines that issuance of the permit does not jeopardize the continued existence of the species. The Department will make this determination based on the best scientific information available, and shall include consideration of the species' capability to survive and reproduce, including the species known population trends and known threats to the species. Issuance of a CESA permit may take up to 180 days from receipt of an application from the applicant. 5

Tricolored Blackbirds

The proposed project has the potential to impact tricolored blackbird, a California species of special concern. The IS/MND states that "several CNDDB records of [tricolored blackbirds] occur near the project site; however, the majority of these records are from the 1930s and the colonies are possibly extirpated." Tricolored blackbirds have high site fidelity and return to nesting sites after decades of undocumented use (Hosea 1986). Furthermore, colonially nesting birds are especially vulnerable to extinction. Removal of tricolored blackbird nest habitat, even if conducted after nesting season, could be considered regionally significant. Loss of breeding and foraging habitats is believed to be the most important cause of the documented population declines (Tricolored Blackbird Working Group 2007). 6

The Department recommends that surveys are conducted at the correct time of year (early March), when both males and females are present at the nesting location. During incubation, males form all-male flocks and may spend the day several kilometers from colonies. Females

[1] Pursuant to Fish and Game Code Section 86, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

on nests are quiet during incubation, and active colonies may appear to be largely deserted (Beedy 1997). Observation of the flight direction of adults with food in their bills is recommended, as once incubation has begun, detection probability decrease significantly. If it is determined that tricolored blackbirds are nesting in the proposed project area, potential impacts should be properly analyzed and mitigated in the IS/MND. 6 cont.

Valley Elderberry Longhorn Beetle
According to the U.S. Fish and Wildlife Service (Service)'s *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (1999), complete avoidance (i.e., no adverse effects) may only be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. The proposed buffer of 20-feet in the IS/MND is not adequate to reduce impacts to a less-then-significant level. Indirect impacts through vibration or dust could occur and should be analyzed in the IS/MND. The Department recommends that the Service be consulted before any disturbances within the 100-foot buffer area are considered. 7

Riparian Vegetation Removal
The proposed project will have an impact on riparian habitat. Due to the ecological importance of riparian habitat, the Department recommends that the mitigation is based on the concept of no-net-loss of riparian habitat acreage or value. The proposed replacement ratio of 1:1 (Mitigation Measure 3.4-2) does not account for the temporal loss of riparian habitat. Riparian trees and associated vegetation may take a long time to mature and that loss is not accounted for in a 1:1 ratio. The Department recommends replacing mature riparian habitat at a higher ratio to address temporal loss.

Additionally, we recommend revising Mitigation Measure 3.4-2 s to include performance standards including evaluating the success of the proposed mitigation, providing a range of options to achieve the performance standards, and ensures successful completion of the mitigation. The Department recommends that the IS/MND include measurable success criteria for growth and establishment of new plantings (such as an 80 percent survival of replacement plantings five years following site revegetation); and additional plantings if the success criteria are not met. Inlcude the success criteria and the riparian restoration design in a restoration plan and ensure compliance through the Mitigation Monitoring and Reporting Program (MMRP). 8

Jurisdictional Riparian Habitat
In the event implementation of the proposed project involves activities which will result in a substantial alteration of the bed, bank, and/or channel of a river, stream or lake, the project applicant shall submit to the Department a Notification of Lake or Streambed Alteration (LSA) (pursuant to FGC §1602), and if necessary obtain a LSA Agreement prior to commencing work. This Agreement would include measures to minimize and restore riparian habitat. As a responsible agency under CEQA, the Department must rely on the CEQA analysis for the proposed project when exercising our discretion after the lead agency to approve or carry out some facet of a project, such as the issuance of a LSA Agreement. Therefore, the IS/MND should include specific, enforceable measures that will avoid, minimize and/or mitigate for project impacts to the natural resources within the same stream system. 9

Summary
The proposed project will have an impact to fish and/or wildlife habitat and should include measures to reduce its impacts to biological resources. Assessment of fees under Public Resources Code §21089 and as defined by FGC §711.4 is necessary. Fees are payable by the project applicant upon filing of the Notice of Determination by the lead agency. 10

Pursuant to Public Resources Code §21092 and §21092.2, the Department requests written notification of proposed actions and pending decisions regarding the proposed Project. Written notifications shall be directed to: California Department of Fish and Wildlife Region 2, 1701 Nimbus Road, Rancho Cordova, CA 95670. 10 cont.

Thank you for considering our concerns for the proposed project. Department personnel are available for consultation regarding biological resources and strategies to minimize impacts. If you have questions please contact Tanya Sheya, Environmental Scientist, by e-mail at Tanya.Sheya@wildlife.ca.gov or by phone at (916) 358-2953.

Sincerely,

Tina Bartlett

Tina Bartlett
Regional Manager

ec: Jeff Drongesen, Jeff.Drongesen@wildlife.ca.gov
Isabel Baer, Isabel.Baer@wildlife.ca.gov
Tanya Sheya, Tanya.Sheya@wildlife.ca.gov

State Clearinghouse

References

Beedy, E.C. and W. J. Hamilton III 1997. *Tricolored Blackbird Status Update and Management Guidelines* (Jones and Stokes Associates, Inc. 97-099.) Sacramento, CA. Prepared for U.S. Fish and Wildlife Service, Portland, OR and California Department of Fish and Game, Sacramento, CA.

Hosea, R. C. 1986. A population census of the Tricol¬ored Blackbird, Agelaius tricolor (Audubon), in four counties in the northern Central Valley of California. Master's thesis, Calif. State Univ., Sacramento.

Tricolored Blackbird Working Group. 2007. Conservation Plan for the Tricolored Blackbird (Agelaius tricolor). Susan Kester (ed.). Sustainable Conservation. San Francisco, CA.

U.S. Fish and Wildlife Service (Service). July 1999. *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*. Sacramento, CA.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901
Office (530) 749-7841 Fax (530) 749-6990

March 26, 2014

Tina Bartlett
Regional Manager
California Department of Fish and Wildlife
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667

Subject: Response to Comments from California Department of Fish and Wildlife on the Public Draft Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project (SCH#2014022010)

Dear Ms. Bartlett,

Thank you for your interest in the above referenced project. This letter is in response to your comment letter on the Public Draft Initial Study/Proposed Mitigated Negative Declaration (IS/MND) dated March 6, 2014. Below are responses to your specific comments in the order in which they appear in your March 6, 2014 letter, which is also attached for reference.

Response to Comment 1

The Department summarizes the proposed project and generally describes its concerns and the process the Department recommends for identifying and analyzing impacts to sensitive species and habitats.

Comment noted.

Response to Comment 2

The Department states that a site visit was conducted on August 8, 2013, and that surveys conducted at this time of year would not likely detect sensitive species that could be affected by the project. The Department recommends that surveys should be scheduled to coincide with appropriate breeding or other life history stage when plants and animals of concern are identifiable.

The Department is correct in stating that a survey was conducted on August 8, 2013. However, additional surveys were conducted for valley elderberry longhorn beetle and nesting raptors in the biological study area for the project in 2012 (August 23, 24; October 11) and 2013 (February 28; March 1, 8, 15, 28), as referenced on Page 3.4-2 of the IS/MND. The 1,729-acre biological study area includes the project site as well as surrounding land in the Yuba Goldfields. Survey results were presented in a number of survey reports that can be provided to the Department upon their request. While these surveys were not conducted at a level of intensity to determine presence or absence, they were conducted by qualified botanists and wildlife biologists that noted all incidental observations of sensitive plants and animals.

Response to Comment 3

The Department states that mitigation measures proposed to protect sensitive species may not be adequate to reduce potential impacts to a less-than-significant level. The Department states that any activity resulting

in the loss of habitat, decreased reproductive success, or other negative effects on population levels of special-status species should be addressed in the IS/MND.

The IS/MND complies with CEQA by adequately addressing impacts to all potentially-occurring special-status plants and animals. Proposed mitigation measures to reduce those impacts to less-than-significant levels are also in accordance with CEQA requirements. The Department contends that mitigation may not be adequate but does not provide any additional information regarding the presence of special-status species and/or potential impacts to those species that support this contention.

Response to Comment 4

The Department expresses concern about potential impacts to Swainson's hawks and other raptors and states that removal or disturbance of a Swainson's hawk nest may constitute take under the California Endangered Species Act (CESA) and should be evaluated in the IS/MND. The Department provides an example of a performance-based measure to reduce impacts to nesting raptors.

The IS/MND complies with CEQA by addressing potential impacts to Swainson's hawks and other raptors. Although no Swainson's hawk nests have been found, and the Department does not provide any information that such nests are present in the project area, the IS/MND takes a conservative (i.e., protective) approach in determining that impacts to this species are potentially significant. The proposed mitigation is specifically designed to reduce potential disturbance and reduce the risk of take should the project area become occupied by nesting Swainson's hawks prior to construction. TRLIA believes that the proposed mitigation is adequate to avoid take of any Swainson's hawks as defined under CESA. The performance measures recommended by the Department to provide additional protection for nesting raptors will be incorporated into Mitigation Measure 3.4-1c of the IS/MND and included in the Mitigation Monitoring and Reporting Plan (MMRP) for the proposed project.

Response to Comment 5

The Department describes the process for obtaining a CESA permit for take of listed species and states that a permit should be obtained if the proposed project has the potential to result in take.

We do not anticipate that implementation of the proposed project, and the mitigation proposed in the IS/MND, would result in take of any State-listed plants or animals.

Response to Comment 6

The Department restates information presented in the IS/MND regarding potential impacts to tricolored blackbird and provides additional information on the life history of this California species of special concern. The Department recommends that surveys are conducted at the correct time of year when both males and females are present at the nesting locations.

Potential impacts on tricolored blackbird were assessed in the IS/MND at a sufficient level of detail to comply with CEQA. The IS/MND concluded that very little suitable habitat exists in or near the project site (see page 3.4-9). The Department provides no information on any tricolored blackbirds nesting colonies in the vicinity of the project site. The IS/MND provides mitigation that would ensure that no active tricolored blackbird colonies would be needlessly destroyed in the unlikely event that a colony is found during preconstruction surveys.

Response to Comment 7

The Department briefly summarizes the conservation guidelines issued by the U.S. Fish and Wildlife Service (USFWS) for the valley elderberry longhorn beetle and states that the proposed buffer of 20 feet is inadequate to reduce impacts to a less-than-significant level. The Department recommends that the USFWS should be consulted before any disturbance within the 100-foot buffer area is considered.

The approach for protecting elderberry shrubs that could provide habitat for the valley elderberry beetle is described on page 2-10 of the IS/MND. This approach includes establishing and maintaining a 20-foot

buffer around each shrub with construction fencing for all shrubs located in the construction area. The Department does not provide any information to support its conclusion that the buffer distance is not adequate. The comment that indirect impacts (i.e., vibration and dust) should be analyzed in the IS/MND also lacks information on how these impacts are relevant to the impact conclusion. As stated in the IS/MND, we believe the project would provide adequate protection for the valley elderberry longhorn beetle so that impacts would be less than significant as defined under CEQA. Adherence to the USFWS conservation guidelines is not required to comply with CEQA. The Department's recommendation to consult with USFWS regarding potential impacts to valley elderberry longhorn beetle is noted.

Response to Comment 8

The Department restates information presented in the IS/MND regarding impacts to riparian habitat and describes the ecological value of this sensitive plant community. The Department states that the replacement ratio of 1:1 does not account for temporal loss of riparian habitat and recommends replacing mature riparian habitat at a higher ratio to address temporal loss. Additionally, the Department recommends revising Mitigation Measure 3.4-2 to include performance standards and ensure successful completion of the mitigation.

The IS/MND recognizes riparian habitat on the project as a sensitive habitat and concludes that impacts to riparian vegetation would be significant under CEQA. However, as described in the document, riparian habitat affected by the project is limited to thin strips of vegetation that occur at the periphery of the dredge ponds. The total amount of riparian habitat affected by the project would be less than 6 acres, which is a relatively small amount given the amount of similar quality habitat in the project vicinity. Given the magnitude of the impact and the fact that no high-quality riparian woodland or forest habitat would be affected, compensation exceeding a 1:1 ratio and compensating for temporal loss is not necessary to reduce this impact to less than significant as defined under CEQA.

In the MMRP, TRLIA will include the following revised but equivalent mitigation measure in place of Mitigation Measure 3.4-2 from the IS/MND:

TRLIA and its construction contractor(s) will implement the following measures to reduce effects of the proposed project on riparian habitats:

- Impacts on riparian habitat will be avoided wherever possible by considering the location of habitat patches during development of the final project footprint, including the embankment or levee, on-site borrow locations, and construction staging areas. A fenced, 50-foot protective buffer will be erected and maintained during construction to minimize impacts on riparian habitat that will be preserved adjacent to the construction footprint.

- Unavoidable impacts on riparian habitat will be compensated for with in-kind replacement by vegetation type (e.g., willow scrub, riparian scrub, riparian forest) at a 1:1 replacement ratio, based on the acreage removed. Replacement planting may occur on-site or at a nearby suitable location in the project vicinity that will not be subject to future vegetation removal.

- A mitigation plan will be prepared detailing how the loss of riparian habitats that cannot be avoided will be compensated. The mitigation plan will describe compensation ratios for acres lost, mitigation sites, a monitoring protocol, annual performance standards and final success criteria for created or restored habitats, and corrective measures to be applied if performance standards are not met.

Response to Comment 9

The Department states that, in the event implementation of the proposed project involves activities which will result in a substantial alteration of bed, bank, and/or channel of a river, stream or lake, a Lake or Streambed Alteration (LSA) Agreement would be required prior to the commencement of work.

TRLIA has determined that no habitat protected under Section 1602 of the California Fish and Game Code would be affected by the proposed project and will not be seeking a LSA Agreement from the Department.

Response to Comment 10

The Department requests written notification of proposed actions and pending decisions regarding the proposed project and concludes the letter.

TRLIA appreciates comments provided by the Department and looks forward to continuing to work with the Department.

Thank you again for your interest in this project. If you have any additional questions or concerns regarding this project, please contact me at (530) 749-7841, or pbrunner@co.yuba.ca.us.

Sincerely,

Paul G. Brunner
Executive Director

Attachment:

20140306 CDFW Bracketed to match TRLIA Responses

Ec: Jeff Drongesen, jeff.Drongesen@wildlife.ca.gov
Isabel Baer, Isabel.Baer@wildlife.ca.gov
Tanya Sheya, Tanya.Sheya@wildlife.ca.gov

SOUTH YUBA RIVER CITIZENS LEAGUE

March 6, 2014

Paul Brunner, P.E.
Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Re: Yuba Goldfields 100-Year Flood Protection Project

Dear Mr. Brunner

The South Yuba River Citizens League (SYRCL) appreciates the opportunity to review a Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project. SYRCL is a 501(c)(3) community organization with the mission of uniting the community to protect and restore the Yuba River. SYRCL's work involves several projects and programs on the lower Yuba River, including collaborative management of flows and fisheries evaluations with the Yuba Accord River Management Team, a pilot riparian enhancement project at Hammon Bar, planning of floodplain restoration on the lower Yuba River through grants from the U.S. Fish and Wildlife Service and other sources, planning of a conservation easement with Western Aggregates at the uppermost extent of the Goldfields, and construction of an interpretive trail and kiosk in the Goldfields with the Bureau of Land Management.

SYRCL acknowledges the important projects completed by the Three Rivers Levee Improvement Authority (TRLIA) in providing protection from floods to the people of Yuba County. The staff and Directors at SYRCL place great value on responsible flood protection projects that provide necessary public safety while addressing the need for improving riparian and aquatic habitat along our rivers. We see TRLIA as a leader in the kind of work and we intend on continuing our history of collaboration.

I understand that new information about the risk of flooding through the Goldfields and into Reclamation District 784 necessitate a project with the purpose of the Yuba Goldfields 100-Year Flood Protection Project. I have reviewed the documents distributed by AECOM, and have a few comments.

The Public Draft of the Initial Study and Proposed Mitigated Negative Declaration does not make clear to what extent the proposed project will adequately address the flood risk, and what subsequent projects or actions will be needed to achieve desired levels of flood protection. Exhibit 2-1 identifies four "Tier 1 Problem Sites" on the Yuba River where south tailings mounds were identified for having the greatest

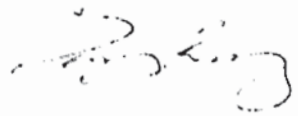
risk of a breach and where flood waters could enter the Goldfields. However, the proposed project is described with reference to only Site B, one of the four Tier 1 sites. There is no explanation provided regarding how the proposed project would reduce flood risk associated with breach at Sites D, F and J, the other Tier 1 sites located upstream. It seems reasonable, therefore, to expect TRLIA to propose additional work in the Goldfields following the completion of this proposed project.

The CEQA Guidelines explain that the lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect. IF TRLIA were indeed planning subsequent actions to address the flood risk in the Goldfields, as is reasonable, then the environmental documents for this proposed project may be inadequate because they would represent a "piecemeal" approach, or the segmenting of project components.

The Yuba Goldfields area is historic floodplain habitat, disconnected from the Yuba River by the tailings mounds. The new information that TRLIA has developed regarding flood risk in the Goldfields points to the need for a comprehensive planning for both flood risk management and habitat restoration. The Yuba River is one of the most important rivers in California for the recovery of Central Valley spring-run Chinook salmon and steelhead trout, two species Threatened with extinction and for which recovery scenarios include the enhancement of functional floodplain habitat.[1] Additional environmental considerations for a larger Yuba Goldfields Flood Protection Project would include the recreational opportunities that SYRCL is just beginning to work on in collaboration with local landowners.

Please keep us on your contact list for project updates, and consider when we can meet to discuss the details of your project and how any subsequent phases may effect habitat restoration and public access opportunities in the Goldfields. SYRCL's Executive Director, Caleb Dardick, would like to be part of that meeting. We applaud your collaborative work with landowners in the Goldfields area and would be happy to provide our own update on that topic. I can be reached at (530)265-5962 ext.208 or gary@syrcl.org.

Sincerely,



Gary Reedy
Science Program Director

[1] National Marine Fisheries Service. 2009. Public Draft Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of Central Valley Steelhead. Sacramento Protected Resources Division. October 2009.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

RECEIVED
MAR 24 2014

March 20, 2014

Regulatory Division (SPK-2014-00202)

Mr. Paul Brunner
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, California 95901-4838

Dear Mr. Brunner:

We are responding to your February 5, 2014, request for comments on the Initial Study/proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project. This project is located in the Yuba Gold Fields of the Yuba River in Section 11, Township 15 North, Range 4 East, MDB&M, Latitude 39.1695366096693°, Longitude -121.478827058137°, Yuba County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, tailing ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetlands Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

If waters of the United States are going to be impacted, cultural resource sites within the defined federal permit area will need to be evaluated according to the standards of the National Environmental Policy Act. All eligible or potentially eligible cultural resource sites to the National Register of Historic Places within the permit area will be subject to Section 106 of the National Historic Preservation Act, 1966, as amended. The Corps of Engineers considers the Yuba Goldfields themselves to be features of historical interest that will need evaluation at the federal

level in regards to these laws. The Corps of Engineers must also comply with the terms and conditions of the Federal Endangered Species Act with regards to our permitting process. You may need to supply a recent biological assessment of the project site for us to comply with the federal Endangered Species Act.

Please refer to identification number SPK-2014-00202 in any correspondence concerning this project. If you have any questions, please contact me at the letterhead address, Room 1350, by email at *Kathy.Norton@usace.army.mil*, or telephone at 916-557-5260. For more information regarding our Regulatory Program, please visit our website located at *www.spk.usace.army.mil/Missions/Regulatory.aspx.*

Sincerely,

Kathy Norton
Sr. Project Manager
California North Branch

cc:

✓Ms. Andrea Shepard, AECOM, 2020 L Street, Suite 400, Sacramento, California 95811-4267
Ms. Anna Ewing, FERC Program Coordinator, California Department of Fish and Wildlife, 1701 Nimbus Road, Rancho Cordova, California 95670-4503
Ms. Elizabeth Lee, California Regional Water Quality Control Board, 11020 Sun Center Drive, #200, Sacramento, California 95670-6114
Ms. Kellie Berry, U.S. Fish and Wildlife Service, Endangered Species Division, 2800 Cottage Way, W-2605, Sacramento, CA 95825-1888

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

1114 Yuba Street, Suite 218
Marysville, CA 95901
Office (530) 749-7841 Fax (530) 749-6990

April 1, 2014

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul Brunner, Executive Director PMB
Larry Dacus, Design Manager
SUBJECT: Consider Contractual Amendment 12 with Bender Rosenthal, Inc. (BRI) for various TRLIA Projects requiring Right of Way Services

Recommended Action

Approve a $313,570 Contract Amendment 12 (Attachment 1) to the existing contract with BRI for the EIP Upper Yuba Levee Improvement Project (UYLIP), Feather River Levee EIP Segments 1 & 3, and Prior Levee Work (WPIC, Upper Bear, and Yuba River Levee from Hwy 70 to Simpson Lane) for Right of Way Services associated with acquisition of toe access corridors and land transfer to the State and authorize Executive Director to sign and execute upon review of General Counsel.

Discussion

The purpose of this amendment is to amend the contract budget by $313,570 from $5,384,321 to $5,697,891 to cover ongoing Right of Way consultant services required on the EIP UYLIP, Feather River Levee EIP Segments 1 & 3, and Prior Levee Work (WPIC, Bear Setback, Upper Bear, and Yuba River Levee from Hwy 70 to Simpson Lane) required by Central Valley Flood Protection Board (CVFPB) encroachment permits, new DWR interim levee criteria, and EIP Funding Agreements.

This amendment also extends the BRI contract to June 30, 2016.

BRI is currently working with TRLIA on a number of right of way projects. Those projects include:

1. Upper Yuba Levee Improvement Project	Cost Code 3121-3514
2. Feather River – Segment 1 Toe Access Corridor	Cost Code 3109-3292
3. Feather River – Segment 3 Toe Access Corridor	Cost Code 3105-3253
4. Upper Bear / WPIC Toe Access Corridor	Cost Code 3006-3084
5. Feather River Setback Land Transfer	Cost Code 3102-3213
6. Bear River Setback Land Transfer	Cost Code 3006-3084
7. Lower Yuba Toe Access Corridor & Land Transfer	Cost Code 3006-3084

The revised scope of work for right of way services listed above cannot be completed within the current budget. Exhibit 1(Attachment 2) details the additional services required for these efforts and the budget to complete for each.

Fiscal Impact

The expenses for these remaining right of way services will be funded by two different sources:

- The State will provide Prop 1E funding per the Feather River and UYLIP EIP Funding Agreements (Feather River Segments 1, 2, and 3; the UYLIP; and the WPIC [Agreement recently reached with DWR to add remaining WPIC efforts to the UYLIP EIP]).

- Local funds will be used for the Prior Levee work (Bear River, and Yuba River from HWY 70 to Simpson Lane). Local Funding Sources are those local funds that came from developer advance funding used to cash flow TRLIA's levee improvement work prior to the EIP Projects and the Yuba Levee Financing Authority Joint Financing. Recently received reimbursements and future received reimbursements to be received from the State represent those Local Funding Sources coming back to TRLIA after having cash flowed current projects.

Attachments:
1. Amendment 12
2. Exhibit 1

TWELFTH AMENDMENT
TO
AGREEMENT BETWEEN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
AND
BENDER ROSENTHAL, INC.

THIS TWELFTH AMENDATORY AGREEMENT is made and entered into this _____ day of April 2014 by and between the THREE RIVERS LEVEE IMPROVEMENT AUTHORITY ("TRLIA"), a Joint Powers Authority, and BENDER ROSENTHAL, INC. ("CONSULTANT")

RECITALS:

WHEREAS, TRLIA and CONSULTANT entered into an agreement to provide basic services dated March 1, 2005, ("AGREEMENT"):

WHEREAS, TRLIA and CONSULTANT entered into the first Amendatory Agreement, to provide basic services dated March 1, 2006.

WHEREAS, TRLIA and CONSULTANT entered into the second Amendatory Agreement to provide basic services dated May 16, 2006.

WHEREAS, TRLIA and CONSULTANT entered into the third Amendatory Agreement to provide basic services dated September 26, 2006.

WHEREAS, TRLIA and CONSULTANT entered into the fourth Amendatory Agreement to provide basic services dated January 16, 2007.

WHEREAS, TRLLA and CONSULTANT entered into the fifth Amendatory Agreement to provide basic services dated February 6, 2007.

WHEREAS, TRLIA and CONSULTANT entered into the sixth Amendatory Agreement to provide basic services dated March 27, 2007.

WHEREAS, TRLIA and CONSULTANT entered into the seventh Amendatory Agreement to provide basic services dated August 19, 2008.

WHEREAS, TRLIA and CONSULTANT entered into the eighth Amendatory Agreement to provide basic services dated June 16, 2009.

WHEREAS, TRLIA and CONSULTANT entered into the ninth Amendatory Agreement to provide basic services dated February 15, 2011.

WHEREAS, TRLIA and CONSULTANT entered into the tenth Amendatory Agreement to provide basic services dated February 10, 2012.

WHEREAS, TRLIA and CONSULTANT entered into the eleventh Amendatory Agreement to provide basic services dated December 18, 2012.

WHEREAS, Provision B.l of the AGREEMENT, states that modifications or amendments to the terms of the AGREEMENT shall be in writing and executed by both parties;

WHEREAS, TRLIA and CONSULTANT desire to amend the Agreement:

NOW, THEREFORE, TRLIA and CONSULTANT agree as follows:

1. Article 2 of the AGREEMENT shall be revised to extend the "TERM" of the agreement to June 30, 2016.

2. Exhibit A of the AGREEMENT shall be amended to perform those additional services described in Exhibit 1 attached to this twelfth AMENDMENT.

3. Article 4 and Provision B.1 of the AGREEMENT shall be revised to increase the price ceiling for basic services by $313,570 from: $5,384,321 to $5,697,891.

All other terms and conditions contained in the Agreement shall remain in full force and effort.

This Amended agreement is hereby executed on this _____ day of _____ 2014.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

BY: _____
Paul G. Brunner, Executive Director

BENDER ROSENTHAL, INC.

BY: _____
Bob Morrison, Vice-President

APPROVED AS TO FORM:

_____
ANDREA CLARK
TRLIA Assistant General Counsel

Exhibit 1

March 3, 2014

Paul Brunner, PE, Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

RE: Bender Rosenthal, Inc. Contract Amendment Number 12

Dear Mr. Brunner:

Please accept this letter as Bender Rosenthal, Inc.'s (BRI) request for an amendment to our contract with TRLIA for Right of Way Services.

Bender Rosenthal, Inc began working with TRLIA in March 2005, and continues to enjoy being a part of the TRLIA Team. We are currently working with TRLIA on a number of right of way projects. Those projects include:

1. Upper Yuba Levee Improvement Project
2. Feather River – Segment 1 Toe Access Corridor
3. Feather River – Segment 3 Toe Access Corridor
4. Upper Bear / WPIC Toe Access Corridor
5. Feather River Setback Land Transfer
6. Bear River Setback Land Transfer
7. Lower Yuba Toe Access Corridor & Land Transfer

In February 2012, BRI's contract with TRLIA was extended to December of 2013. The budget was updated in November of 2012 to reflect the current workload project through the end of the contract. As of February 1, 2014, BRI has $140,380 remaining on the contract.

The discussion below outlines the remaining work in each project area.

1. Upper Yuba Levee Improvement Project (UYLIP)

The right of way phase of the project will extend well into 2015 due to the land transfer process the State has established. The number of parcels initially identified to acquire within the original

contract was 26 parcels. That number has increase to 47 parcels. The scope and fee were amended in 2012. The remaining scope of services within the UYLIP contract includes:

1. Right of Way (ROW) Planning and Management
1A. DWR Coordination
2. Title and Escrow Support

Attachment A shows the remaining effort required to complete the UYLIP right of way and land transfer process is $178,100.

2. *Feather River – Segment 1 Toe Access Corridor*

BRI has acquired one of three parcels identified in this segment. The estimated budget to complete the two remaining acquisitions and coordinate the Final Accounting Packages is $13,800.

3. *Feather River – Segment 3 Toe Access Corridor*

In February 2011, TRLIA approved a budget increase to negotiate with the owners and tenants of 55 parcels for a DWR granted easement to the owners; appraise and acquire additional right of way for the toe access corridor from up to 4 property owners, and coordinate with DWR for reimbursement. In December 2012, TRLIA approved the scope of the appraisal and acquisition increase from 4 to 14 owners. (Steward, Linda County Water, Wilbur, Smith, E-Street Mix, Roth (2 parcels), Capital Loans, Tindel, Salvation Army, Miller, Adams, Wessels).

We are requesting a budget of $58,750 to complete the Final Accounting Packages, the land transfer process with the State for the 14 parcels, and provision of final real estate documents to the State for the DWR granted easement.

4. *Upper Bear / WPIC Toe Access Corridor*

In February 2011, TRLIA approved a budget of $105,000 to complete the ROW services for the toe access corridor along the WPIC and Upper Bear. To date, ROW work one parcel was initiated. The remaining effort is $102,350.

5. *Feather River Setback Land Transfer (Segment 2)*

Coordination efforts continue. DWR recently finalized their expectations for Final Accounting Packages but have not published their final land transfer requirements. To ensure a timely transfer, BRI is meeting with DWR on a monthly basis to resolve any issues. We request a budget of $32,150 to complete these efforts.

This scope specifically excludes coordination efforts with DWR as it relates to conservation easement language, long term management of the setback area, and establishment of an endowment for the setback area. This scope focuses purely on the FAP process and land transfer mechanics once all project stakeholder issues are resolved.

6. Bear River Setback Land Transfer

This work was initiated in 2005 prior to the Proposition 1E EIP program. This land still needs to be transferred to DWR. A formal mechanism has not been established by DWR for non-Prop 1E lands. Our assumption is DWR will want a Final Accounting Package prior to the lands being transferred.

Coordination efforts continue. DWR recently finalized their expectations for Final Accounting Packages but have not published their final land transfer requirements. To ensure a timely transfer, BRI is meeting with DWR on a monthly basis to resolve any issues. We request a budget of $34,400 to complete these efforts.

This scope specifically excludes coordination efforts with DWR as it relates to conservation easement language, long term management of the setback area, and establishment of an endowment for the setback area. This scope focuses purely on the FAP process and land transfer mechanics once all project stakeholder issues are resolved.

7. Lower Yuba Toe Access Corridor & Land Transfer

This work was initiated in 2005 prior to the Proposition 1E EIP program. This land still needs to be transferred to DWR. A formal mechanism has not been established by DWR for non-Prop 1E lands. Our assumption is DWR will want a Final Accounting Package prior to the lands being transferred.

Coordination efforts continue. DWR has not published their final land transfer requirements. To ensure a timely transfer, BRI is meeting with DWR on a monthly basis to resolve any issues. We request a budget of $34,400 to complete these efforts.

Conclusion

Below is a summary of the estimate to complete for the remaining work, the remaining budget, and our requested amount for the contract amendment.

	February 2014 Estimate to Complete
UYLIP	$178,100
Segment 1	$13,800
Segment 3	$58,750
WPIC – Upper Bear	$102,350
Segment 2	$32,150
Bear Setback	$34,400
Lower Yuba	$34,400
Sub-Total	$453,950
Remaining Budget	$140,380
Requested Amount	$313,570

We request a contract budget amendment of $313,570.

We have enjoyed working on this important levee improvement project, and look forward to seeing the project through to completion

Sincerely,

Bob Morrison, PE, PMP
Vice President

RESOLUTION NO. 2014- 3

RESOLUTION BY
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
ADOPTING MITIGATED NEGATIVE DECLARATION,
APPROVING NOTICE OF DETERMINATION,
AND GIVING FINAL APPROVAL FOR
YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT

WHEREAS, the Three Rivers Levee Improvement Authority ("TRLIA") proposes to construct an embankment in the Yuba Goldfields designed to intercept and block flood flows, for the purpose of providing 100-year flood protection to areas downstream of the Yuba Goldfields along the Yuba and Feather Rivers (the "Project");

WHEREAS, pursuant to the California Environmental Quality Act, Cal. Public Resources Code Section 21000 *et seq.* ("CEQA") and CEQA Guidelines Section 15063, TRLIA as the lead agency for the Project conducted an initial evaluation of the potential effects of the Project on the environment (the "Initial Study");

WHEREAS, based on the Initial Study, TRLIA determined that the Project would have potentially significant impacts on air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality, but that feasible mitigation measures will be incorporated into the Project to reduce these potential impacts to less-than-significant levels;

WHEREAS, pursuant to CEQA Guidelines Section 15097, TRLIA has prepared a mitigation monitoring program for the Project;

WHEREAS, based on the Initial Study, TRLIA determined that there is no substantial evidence, in light of the whole record before the agency, that the Project, as mitigated, may have a significant effect on the environment;

WHEREAS, pursuant to CEQA Guidelines Section 15070, based on its determination that there is no substantial evidence that the Project, as mitigated, may have a significant effect on the environment, TRLIA prepared a proposed Mitigated Negative Declaration for the Project;

WHEREAS, pursuant to CEQA Guidelines Sections 15072 and 15105, TRLIA provided a public review period for the proposed Mitigated Negative Declaration that ran from February 5, 2014 to March 6, 2014;

WHEREAS, during the public review period TRLIA received written comments about the Project, to which TRLIA has responded, and which do not change TRLIA's conclusions about the Project; and

WHEREAS pursuant to CEQA Guidelines Section 15074, TRLIA has considered the Initial Study, proposed Mitigated Negative Declaration, and public comments, and finds on the basis of the record before it that there is no substantial evidence that the Project, as mitigated, will have a significant effect on the environment and the Mitigated Negative Declaration reflects

the TRLIA's independent judgment and analysis;

NOW, THEREFORE, BE IT RESOLVED THAT:

The Board of Directors of the Three Rivers Levee Improvement Authority hereby adopts the final Mitigated Negative Declaration and mitigation monitoring program prepared for the Project and approves the Project.

The documents which constitute the record of proceedings upon which TRLIA's decision is based are located at the TRLIA's main office at 1114 Yuba Street Suite 218, Marysville, California, and TRLIA's Executive Director is the custodian of such documents; and

TRLIA's Executive Director is hereby instructed to execute the Notice of Determination, a copy of which is attached hereto, and is directed to file it promptly, in accordance with applicable law.

Approved this 1st day of April, 2014.

Ayes: Directors Atwal, Brown, Crippen, Griego, Nicoletti

Noes: None

Absent: None

Mary Jane Griego, Chair

Approved As to Form:

General Counsel, TRLIA

Certification

I, Donna Stottlemeyer, hereby certify that I am and at all times mentioned herein was duly elected, qualified and acting Secretary of the Three Rivers Levee Improvement Authority organized and existing under and by virtue of the laws of the State of California, that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of TRLIA's Board of Directors duly held on April 1, 2014, a majority and quorum of the members of said Board of Directors being present and voting in favor of said Resolution; and that said Resolution has not been modified, rescinded, altered or amended and is now in full force and effect.

TRLIA Secretary

1364700 1

Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Yuba
Address: 915 8th Street, Suite 107
Marysville, CA 95901

From:
Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a 2.1-mile-long embankment within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on April 1, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): _____ Title: Executive Director, TRLIA

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Yuba
Address: 915 8th Street, Suite 107
Marysville, CA 95901

From:
Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

ENDORSED FILED
APR 04 2014
TERRY A. HANSEN, County Clerk
BY ERICA JACKSON
Deputy Clerk

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a 2.1-mile-long embankment within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on April 1, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): Paul G. Brunner Title: Executive Director, TRLIA

Date: 4/2/2014 Date Received for filing at OPR:

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

2014FG-00012

State of California—Natural Resources Agency
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

2014 ENVIRONMENTAL FILING FEE CASH RECEIPT

RECEIPT# 58-2014-012

STATE CLEARING HOUSE # *(If applicable)* 2014022010

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY

LEAD AGENCY: TRLIA

DATE: 04/04/2014

COUNTY/STATE AGENCY OF FILING: Yuba

DOCUMENT NUMBER: 2014FG-00012

PROJECT TITLE: YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT

PROJECT APPLICANT NAME: THREE RIVERS LEVEE IMPROVEMENT AUTHORITY (TRLIA)

PHONE NUMBER: (530) 749-7841

PROJECT APPLICANT ADDRESS: 1114 YUBA STREET SUITE 218

CITY: MARYSVILLE

STATE: CA

ZIP CODE: 95901

PROJECT APPLICANT *(Check appropriate box):*

☒ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,029.75	$	0.00
☒ Mitigated/Negative Declaration (MND)(ND)	$2,181.25	$	2,181.25
☐ Application Fee Water Diversion *(State Water Resources Control Board only)*	$850.00	$	0.00
☐ Projects Subject to Certified Regulatory Programs (CRP)	$1,030.25	$	0.00
☒ County Administrative Fee	$50.00	$	50.00
☐ Project that is exempt from fees			
☐ Notice of Exemption (attach)			
☐ CDFW No Effect Determination (attach)			
☐ Other _____		$	

PAYMENT METHOD:

☐ Cash ☐ Credit ☒ Check ☐ Other _____ TOTAL RECEIVED $ 2,231.25

SIGNATURE: X [signature]

PRINTED NAME AND TITLE: Erica Jackson, DEPUTY

ORIGINAL - PROJECT APPLICANT COPY - CDFW/ASB COPY - LEAD AGENCY COPY - COUNTY CLERK FG 753.5a (Rev. 12/13)

NOTICE

Each project applicant shall remit to the county clerk on or before filing a Notice of Determination (see Pub. Resources Code §21152) the fee required under Fish and Game Code section 711.4, subdivision (d). Without the appropriate fee, statutory or categorical exemption, or a valid No Effect Determination issued by the California Department of Fish and Wildlife (CDFW), the Notice of Determination is not operative, vested, or final, and shall not be accepted by the county clerk. **Please note that this form will replace the receipt books currently available by year 2015.**

COLLECTION PROCEDURES FOR COUNTY GOVERNMENTS

1. The original cash receipt is to be issued to a project applicant when payment is made in conjunction with filing a Notice of Determination. The second copy is to be submitted to the CDFW on a monthly basis. The remaining copies will be retained by the county (one for the lead agency and one for the county clerk).
2. For projects that are statutorily exempt or categorically exempt (Cal. Code Regs., tit 14, §§15260-15285, 15300-15333) and are filed with the county clerk, the cash receipt shall be completed and attached to the Notice of Exemption. No fee is due for statutorily exempt or categorically exempt projects.
3. For projects that CDFW has found to have no effect, the cash receipt shall be completed, and attached to the Notice of Determination; it is mandatory that a copy of CDFW No Effect Determination be attached to the Notice of Determination. If the project applicant does not have a No Effect Determination from CDFW, then the appropriate filing fee is due.
4. Within 30 days after the end of each month in which the filing fees are collected, each county will summarize and record the amount collected on the monthly State of California Form No. CA25 (TC31) and remit the amount collected to the State Treasurer.

Identify the remittance on the State of California Form No. CA25 (TC31) as "Environmental Document Filing Fees" per Fish and Game Code section 711.4.

DO NOT COMBINE THE ENVIRONMENTAL FEES WITH THE STATE SHARE OF FISH AND WILDLIFE FINES.

The following documents are to be mailed by the county clerk to CDFW on a monthly basis:

(A) A photocopy of the monthly State of California Form No. CA25 (TC31);
(B) CDFW/ASB copies of all cash receipts (including all voided receipts);
(C) A copy of all CDFW No Effect Determinations filed in lieu of fee payment;
(D) A copy of all Notices of Determination filed with the county during the preceding month; and
(E) A list of the complete name, address and telephone number of all project applicants for which a Notice of Determination has been filed.
If this information is contained on the cash receipt filed with CDFW under California Code of Regulations, title 14, section 753.5, subdivision (e)(6), no additional information is required.

RECEIPT NUMBERING PROCEDURE

Receipts shall be numbered using the two numbers assigned to each county/agency in the table below, followed by the current year and a 3 digit number. For example the first environmental filling fee receipt issued by the County of Alameda (Code 01) in 2014 shall be numbered 01-2014-001.

County/Agency	Code	County/Agency	Code	County/Agency	Code
CDFW	00	Marin	21	Santa Barbara	42
Alameda	01	Mariposa	22	Santa Clara	43
Alpine	02	Mendocino	23	Santa Cruz	44
Amador	03	Merced	24	Shasta	45
Butte	04	Modoc	25	Sierra	46
Calaveras	05	Mono	26	Siskiyou	47
Colusa	06	Monterey	27	Solano	48
Contra Costa	07	Napa	28	Sonoma	49
Del Norte	08	Nevada	29	Stanislaus	50
El Dorado	09	Orange	30	Sutter/Yuba	51
Fresno	10	Placer	31	Tehama	52
Glenn	11	Plumas	32	Trinity	53
Humboldt	12	Riverside	33	Tulare	54
Imperial	13	Sacramento	34	Tuolumne	55
Inyo	14	San Benito	35	Ventura	56
Kern	15	San Bernardino	36	Yolo	57
Kings	16	San Diego	37	Yuba	58
Lake	17	San Francisco	38	OPR	59
Lassen	18	San Joaquin	39	SWRCB	60
Los Angeles	19	San Luis Obispo	40		
Madera	20	San Mateo	41		

Mail to:
California Department of Fish and Wildlife
Accounting Services Branch
1416 Ninth Street, Box 944209
Sacramento, California 94244-2090

State of California—Natural Resources Agency
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

2014 ENVIRONMENTAL FILING FEE CASH RECEIPT

RECEIPT# 58-2014-012

STATE CLEARING HOUSE # *(If applicable)* 2014022010

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY

LEAD AGENCY			DATE
TRLIA			04/04/2014
COUNTY/STATE AGENCY OF FILING			**DOCUMENT NUMBER**
Yuba			2014FG-00012

PROJECT TITLE
YUBA GOLDFIELDS 100-YEAR FLOOD PROTECTION PROJECT

PROJECT APPLICANT NAME			PHONE NUMBER
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY (TRLIA)			(530) 749-7841
PROJECT APPLICANT ADDRESS	**CITY**	**STATE**	**ZIP CODE**
1114 YUBA STREET SUITE 218	MARYSVILLE	CA	95901

PROJECT APPLICANT *(Check appropriate box):*

☒ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,029.75	$	0.00
☒ Mitigated/Negative Declaration (MND)(ND)	$2,181.25	$	2,181.25
☐ Application Fee Water Diversion *(State Water Resources Control Board only)*	$850.00	$	0.00
☐ Projects Subject to Certified Regulatory Programs (CRP)	$1,030.25	$	0.00
☒ County Administrative Fee	$50.00	$	50.00
☐ Project that is exempt from fees			
☐ Notice of Exemption (attach)			
☐ CDFW No Effect Determination (attach)			
☐ Other _____		$	

PAYMENT METHOD:

☐ Cash ☐ Credit ☒ Check ☐ Other _____ TOTAL RECEIVED $ 2,231.25

SIGNATURE	PRINTED NAME AND TITLE
X	Erica Jackson, DEPUTY

ORIGINAL - PROJECT APPLICANT COPY - CDFW/ASB COPY - LEAD AGENCY COPY - COUNTY CLERK FG 753.5a (Rev. 12/13)

04/04/2014 11:20AM
VITALS CUSTOMER
TRANSACTION # 129291
DOCUMENT # 2014FG-00012

NOTES: FG - TRLIA
ENVIR ADMIN FEE: $50.00
ENVIR FILING FEE: $2181.25
TOTAL: $2,231.25
CHECK: $2181.25
CHECK: $50.00 505322
DEPUTY INITIALS: EJ

THANK YOU
TERRY A. HANSEN
COUNTY RECORDER
COUNTY OF YUBA
MARYSVILLE, CA 95901

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
Yuba County Government Center, Board Chambers
915 Eighth Street, Suite 109A
Marysville, California

JULY 14, 2015 – 2:00 P.M.
SPECIAL MEETING

CALL TO ORDER: Welcome to the Three Rivers Levee Improvement Authority (TRLIA) meeting. As a courtesy to others, please turn off cell phones, pagers, or other electronic devices which might disrupt the meeting. The public will be give an opportunity to comment on action items on the agenda when the item is heard. Thank you.

I **ROLL CALL** – Directors Atwal, Brown, Crippen, Griego, Nicoletti

II **CONSENT AGENDA: Matters listed are considered to be routine and can be enacted by one motion.**

A. Approve minutes of the meeting of June 16, 2015.

III **ACTION ITEMS**

A. Approve Amendment No. 9 with AECOM Technical Services not to exceed $22,800 for additional CEDQA documentation for the Goldfields 100 Year Interim project and authorize the Executive Director to negotiate and execute the final amendment upon review by General Counsel

B. Approve addendum for Crossing 21 to the Goldfields' 100 Year Flood Protection project Final Initial Study/Mitigate Negative Declaration and authorize the Executive Director to execute and file attached Notice of Determination in compliance with California Environmental Quality Act.

IV **BOARD AND STAFF MEMBER REPORTS**

V **ADJOURN**

The complete agenda is available at the Yuba County Government Center, 915 8th Street, Suite 109 Marysville, and www.trlia.org. Any disclosable public record related to an open session item on the agenda and distributed to all or a majority of the Board less than 72 hours prior to the meeting is available at Suite 109 during normal business hours. In compliance with the Americans with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available. If you have a disability and need disability-related modifications or accommodations to participate in this meeting, please contact the Clerk of the Board's office at (530) 749-7510 or (530) 749-7353 (fax). Requests must be made one full business day before the start of the meeting.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901
Office (530) 749-7841 Fax (530) 749-6990

July 14, 2015

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul Brunner, Executive Director
Larry Dacus, Design Manager
Andrea Clark, Legal Counsel
SUBJECT: Addendum for Crossing 21 to the Goldfields 100-Year Flood Protection Project, Initial Study and Mitigated Negative Declaration

Recommended Action:
Staff recommends that the Three Rivers Levee Improvement Authority Board (Board) adopt the attached Addendum to the Yuba Goldfields 100-Year Flood Protection Project (100-Year Project) Final Initial Study/Mitigated Negative Declaration (IS/MND) and authorize the Executive Director to sign and file the attached Notice of Determination (NOD) in compliance with the California Environmental Quality Act (CEQA).

Background:
In response to flood threats from the Yuba Goldfields (Goldfields), the Three Rivers Levee Improvement Authority (TRLIA) developed an Interim 100-Year Project to reduce the potential for flooding of Reclamation District (RD) 784. TRLIA prepared an IS/MND for the 100-Year project which was adopted by the TRLIA Board on April 2, 2014. Since that time, some additional work for the 100-Year project has been identified at Crossing 21 within the Goldfields. The crossing would be raised an additional four feet and constructed with a 5horizontal:1vertical landside slope. This effort was not described or evaluated in the original IS/MND and currently does not meet CEQA compliance.

Discussion:
In accordance with CEQA, an Addendum to the IS/MND for the 100-Year Project has been prepared describing the Crossing 21 construction and documenting environmental impacts of the proposed additional construction. The Addendum does not require circulation for public review.

The Addendum concludes that the additional construction at Crossing 21:

- would not result in any new significant environmental effects,
- would not substantially increase the severity of previously identified effects,
- would not result in mitigation measures or alternatives previously found to be infeasible becoming feasible, or
- would not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

These conclusions confirm that the Addendum to the 2014 IS/MND is the appropriate CEQA document to evaluate and record this minor project addition and resulting environmental impacts of Crossing 21 as described in the Addendum.

Fiscal Impact:
There is no fiscal impact of this action. The project will be funded using prior TRLIA funds still available for the TRLIA Program.

Attachments:

1. Addendum, July 2015 to the Final Yuba Goldfields 100-Year Flood Protection Project IS/MND, March 2014
2. Notice of Determination for the Yuba Goldfields 100-Year Flood Protection Project

Attachment 1

Addendum

Yuba Goldfields 100-Year Flood Protection Project

State Clearinghouse No. 2014022010

Prepared for:

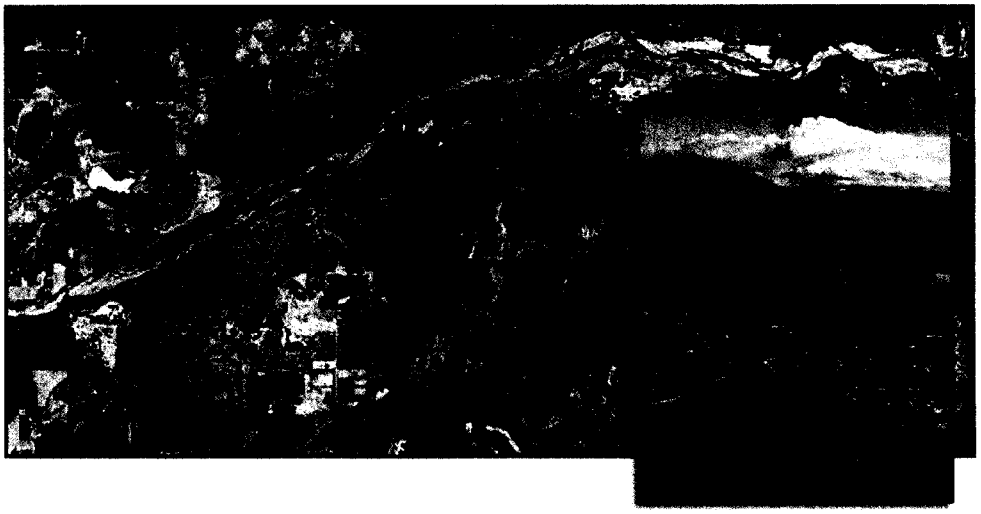
Three Rivers Levee Improvement Authority

AECOM

July 2015

Addendum

Yuba Goldfields 100-Year Flood Protection Project



State Clearinghouse No. 2014022010

Prepared for:

Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Contact:

Paul G. Brunner, P.E.
Executive Director
530/749-7841

Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

Andrea Shephard
Project Manager
916/414-5800

AECOM

60242362
07.7.15

July 2015

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Exhibits

Tables

Appendices

ACRONYMS AND OTHER ABBREVIATIONS

2014 IS/MND	Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project
Cal Sierra	Cal Sierra Development, Inc.
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	CDFW's Natural Diversity Database
CWA	Clean Water Act
FRAQMD	Feather River Air Quality Management District
GHG	greenhouse gas
Leq[h]	ambient level
MMRP	Mitigation Monitoring and Reporting Plan
MND	mitigated negative declaration
MT CO2e	metric tons of carbon dioxide equivalent
ND	negative declaration
O&M	operations and maintenance
PRC	Public Resources Code
RD	Reclamation District
SPFC	State Plan of Flood Control
TAC	toxic air contaminant
TRLIA	Three Rivers Levee Improvement Authority
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels

1 INTRODUCTION

1.1 BACKGROUND

On February 5, 2014, the Three Rivers Levee Improvement Authority (TRLIA), as lead agency under the California Environmental Quality Act (CEQA), publically distributed the Initial Study/Proposed Mitigated Negative Declaration for the Yuba Goldfields 100-Year Flood Protection Project (2014 IS/MND). All comments received on the 2014 IS/MND were considered by TRLIA and incorporated into the 2014 IS/MND (TRLIA 2014a). TRLIA adopted the 2014 MND and associated Mitigation Monitoring and Reporting Plan (MMRP) (TRLIA (2014b), and approved the proposed project, on April 2, 2014. The 2014 IS/MND and MMRP were prepared on behalf of TRLIA in accordance with CEQA Statutes (Public Resources Code [PRC] Sections 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). TRLIA is a joint powers authority composed of Yuba County and Reclamation District (RD) 784 that was formed to address funding and implementation of levee repairs for the RD 784 service area.

TRLIA is implementing a program of repairs to the RD 784 levee system to provide 200-year flood protection to properties within the RD 784 service area in southwest Yuba County. As part of this program, TRLIA completed various improvements along the south levee of the Yuba River in 2004–2012. The final phase of repairs along the Yuba River south levee (completed in summer 2012) extends from Simpson Lane to the Yuba Goldfields. This last reach of levee protection was tied into the Goldfields with the assumption that the Goldfields serve as high ground and prevent floods in the Yuba River from flanking the levee system. Contrary to this assumption, however, TRLIA has determined that flood flows could enter the Goldfields through potential breaches in the tailings mound embankments at one or more critical erosion sites along the south bank of the Yuba River, resulting in a continued flood risk in the RD 784 service area. To reduce this flood risk, TRLIA will implement a project in the Goldfields that would prevent Yuba River flood flows from flowing through the Goldfields and flanking the existing State Plan of Flood Control (SPFC) levee system.

As described in the 2014 IS/MND, TRLIA proposed to enhance flood protection of properties within the RD 784 service area by constructing an embankment in the Goldfields, which is located along the south side of the Yuba River near Daguerre Point Dam, within the Browns Valley U.S. Geological Survey (USGS) 7.5-minute quadrangle in Yuba County. The project would create a continuous embankment, which would address the most critical erosion site within the Goldfields to provide a 100-year level of flood protection to southwest Yuba County. The embankment would be designed to intercept and block breach flood flows along the Yuba River, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would extend continuously for approximately 2.1 miles on property owned by Western Aggregates within the Goldfields (see Exhibits 1-1 and 1-2). TRLIA intends to build the embankment using the Goldfields' existing dredge tailings; therefore, TRLIA is coordinating closely with Western Aggregates, which would partner with TRLIA to construct the project.

As is typical of conceptual planning and design processes, minor technical changes to the project have occurred since adoption of the 2014 IS/MND. CEQA Guidelines Section 15164 state that minor technical changes or additions may be addressed by a supplement to the negative declaration or an addendum, depending on whether such changes or additions result in new or substantially more severe changes in environmental impacts. Since adoption of the 2014 IS/MND, TRLIA has determined that a second short stretch of embankment is necessary at a location referred to as "Crossing 21" (see Exhibits 1-2 and 1-3) to meet the project objectives of providing 100-

year flood protection. The details of the proposed additional stretch of embankment are described in this Addendum. TRLIA has determined that this small additional stretch of embankment at Crossing 21 constitutes a minor addition to the 2014 IS/MND and none of the conditions described in CEQA Guidelines Section 15162 requiring preparation of a subsequent EIR or negative declaration have occurred. Therefore, TRLIA has prepared this Addendum in accordance with Section 15164 of the State CEQA Guidelines.

The proposed project changes considered in this Addendum are entirely located within the Crossing 21 site, which is physically distinct from the original project area, as shown in Exhibits 1-1 and 1-2. Exhibit 1-3 presents the Crossing 21 embankment plan and cross-section.

1.2 REGULATORY CONTEXT

If, after adoption of a negative declaration (ND) or mitigated negative declaration (MND), altered conditions or changes or additions to a project occur, CEQA provides two mechanisms to address these changes: a subsequent negative declaration or an addendum to a negative declaration.

Section 15162 of the State CEQA Guidelines describes the conditions under which preparation of a subsequent negative declaration (or EIR) would be appropriate. When an ND or MND has been adopted for a project, preparation of a subsequent ND or MND (or EIR) would be appropriate if the lead agency determines, on the basis of substantial evidence in light of the whole record, that one or more of the following conditions is met:

1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

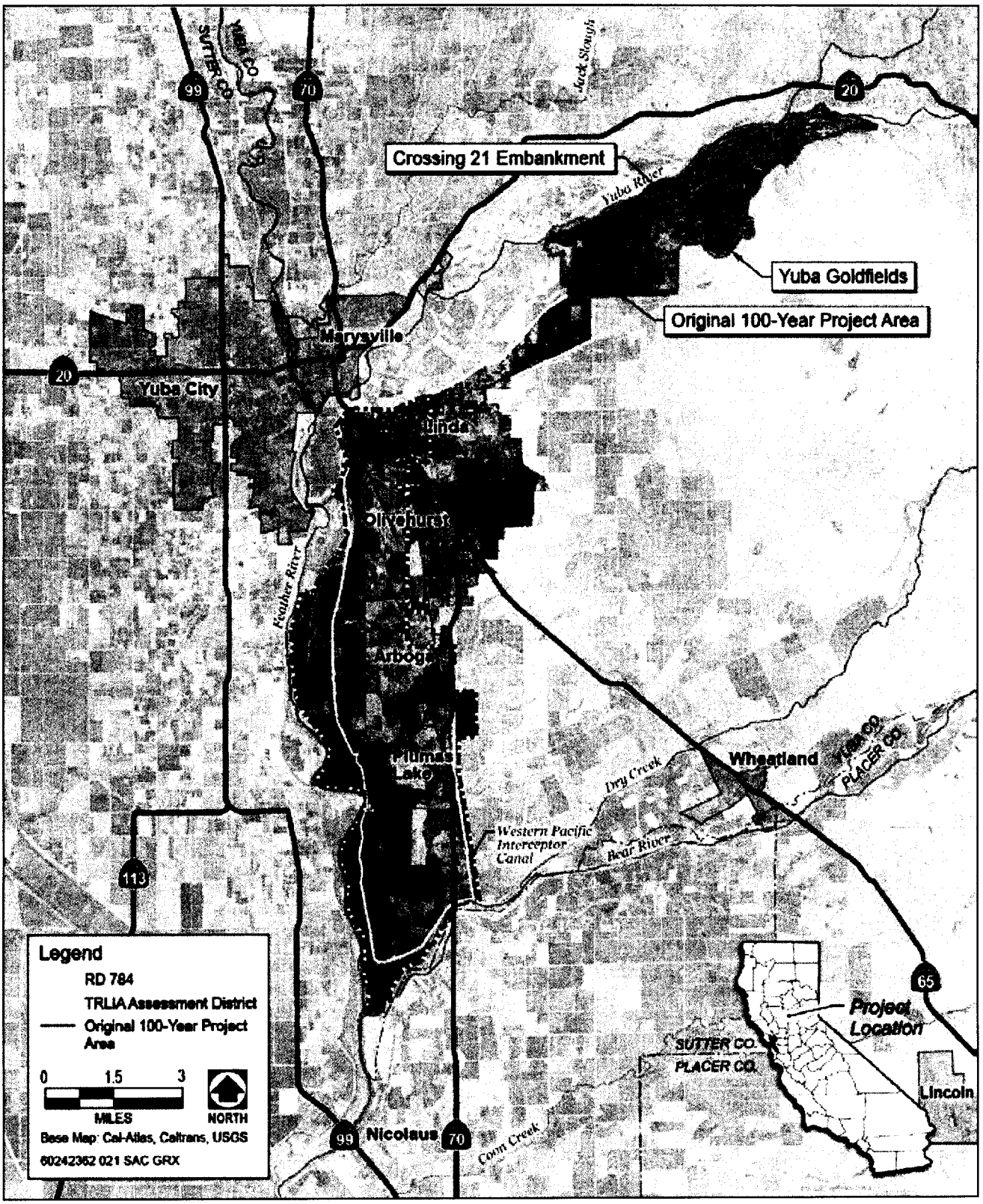
2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

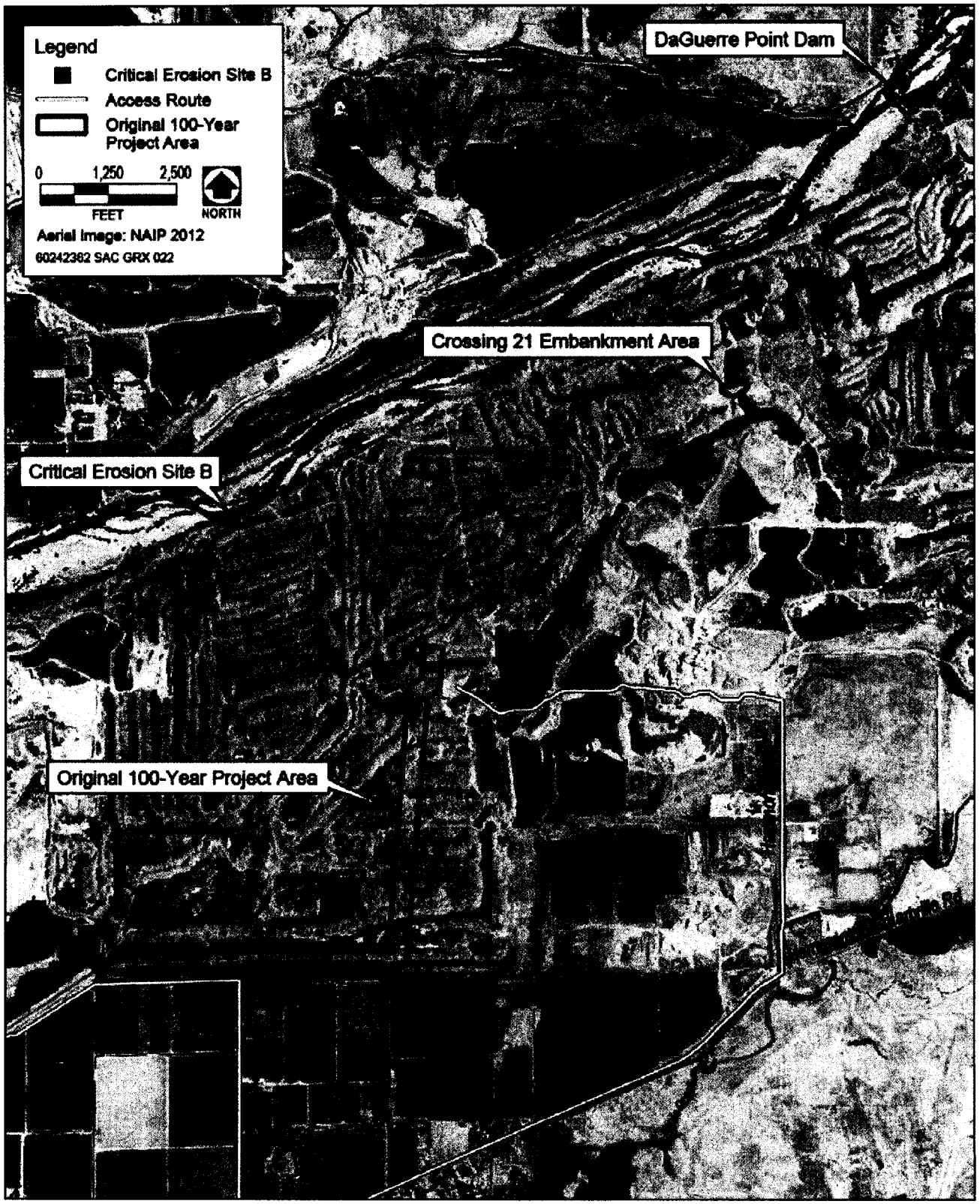
    b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or



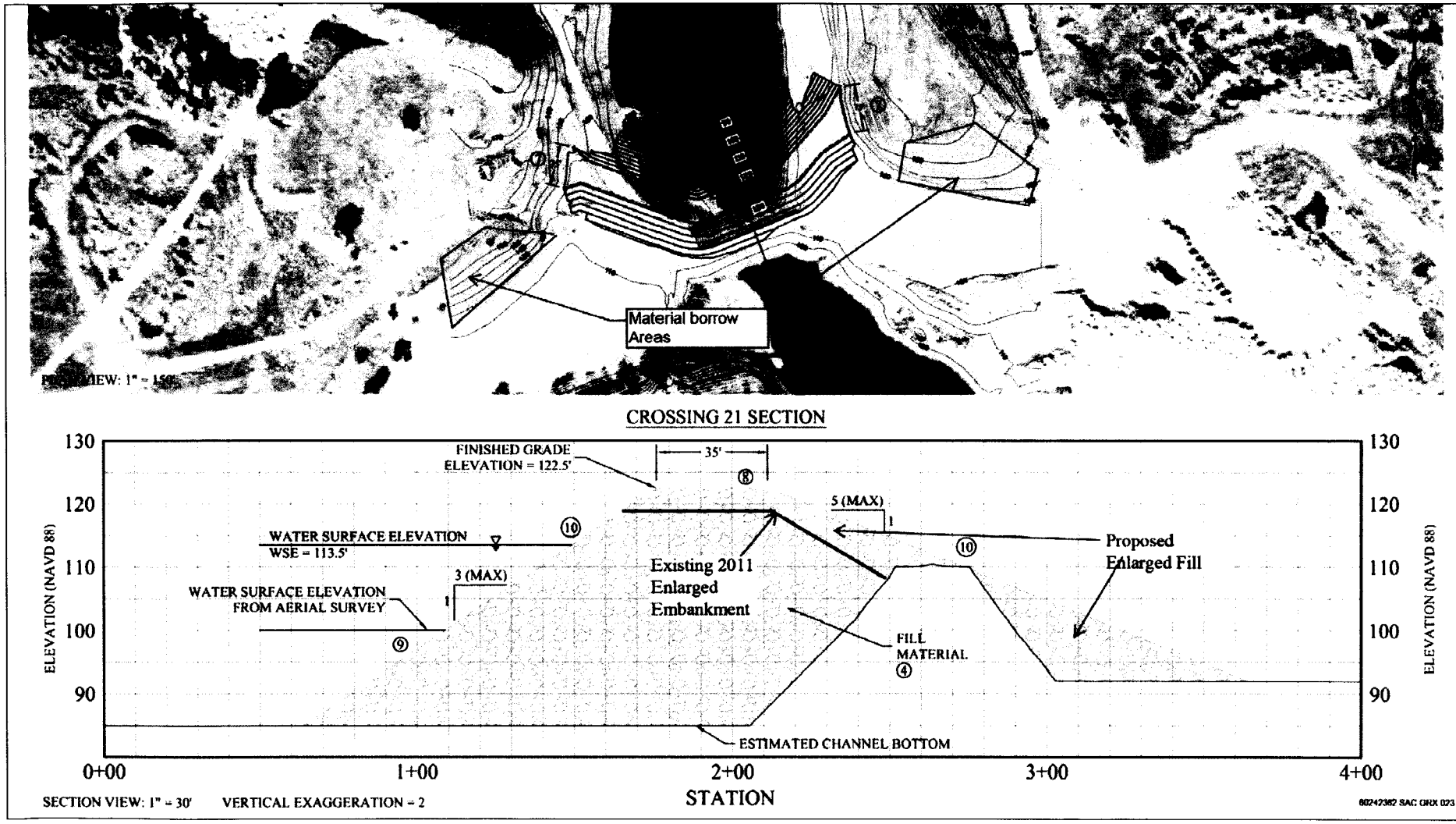
Source: TRLIA 2013, adapted by AECOM 2015

Exhibit 1-1 **Project Location and Vicinity Map**



Source: TRILIA 2013, adapted by AECOM in 2015

Exhibit 1-2 **Yuba Goldfields 100-Year Flood Protection Project—Original Project Area and Crossing 21 Embankment Area**



Source: MBK Engineers 2011, Adapted by AECOM 2015

Exhibit 1-3

Crossing 21 Embankment Plan and Cross-Section

c) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15164 of the State CEQA Guidelines states that a lead agency may prepare an addendum to an adopted negative declaration if only minor technical changes or additions are necessary or none of the conditions described above in Section 15162 calling for the preparation of a subsequent negative declaration have occurred.

The analysis below demonstrates that the minor technical change of adding the Crossing 21 embankment to the project description:

- would not result in any new significant environmental effects, and
- would not substantially increase the severity of previously identified effects.

In addition, no new information of substantial importance has arisen that shows that:

- the project would have new significant effects,
- the project would have substantially more severe effects,
- mitigation measures previously found to be infeasible would in fact be feasible, or
- mitigation measures that are considerably different from those analyzed in the 2014 IS/MND would substantially reduce one or more significant effects on the environment.

Because none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent negative declaration have occurred, an Addendum to the 2014 MND, consistent with Section 15164 of the State CEQA Guidelines, is the appropriate mechanism to document the minor addition to the Yuba Goldfields 100-Year Flood Protection Project. The purpose of this Addendum, therefore, is to provide the additional CEQA analysis necessary to address the minor changes to the project and provide documentation for the record that these changes are consistent with the 2014 MND.

2 CHANGES TO THE PROJECT

2.1 PROJECT CONSTRUCTION

TRLIA is proposing to construct an additional embankment at Crossing 21 using the Goldfields' existing dredge tailings. Approximately 10,000 cubic yards of borrow material would be needed to construct the 100-year embankment geometry for the Crossing 21 embankment. This borrow material would be obtained from areas immediately adjacent to both sides of the proposed embankment (see Exhibit 1-3). The embankment would have a minimum top width of 35 feet, a waterside slope of 3:1 (horizontal:vertical), and a landside slope of 5:1 (horizontal:vertical). The crown of the embankment would be located 3 feet above the elevation of the 100-year water surface elevation in the Goldfields (see Exhibit 1-3). Approximately 2 acres within the Goldfields would be disturbed as part of the proposed Crossing 21 embankment.

The borrow material for the embankment would have similar properties to the existing dredge tailings embankments and therefore would not require stringent earthwork engineering controls. Borrow material would be required to be primarily granular (based on U.S. Natural Resources Conservation Service classification) and limited to a maximum particle size of 10 inches. Borrow materials would be spread in maximum 18-inch-thick lifts and compacted by the weight of the scrapers and dozers used for material movement. At least one pass of either a vibratory or other compaction roller would occur so that the resulting mixture achieves the minimum strength requirements. Borrow material would be pushed into the pond and then tracked when the fill is above the water level. These standards would result in a stable embankment capable of holding back the design water surface elevations.

A 16-foot-wide patrol road would be constructed on the crest of the embankment. Six (6) inches of aggregate base rock would be used to construct the patrol road. The embankment crown would be graded to allow travel along the crown of the embankment with maximum 10 percent grades.

Construction of the proposed Crossing 21 embankment, which includes the patrol road, would require approximately 6 work days. Construction is anticipated to occur in late summer 2015. Work would occur Monday through Saturday during normal working hours (7 a.m. to 7 p.m.), with no nighttime construction. TRLIA may partner with private property owners to construct the proposed embankment. Construction activities would require up to 14 employees on peak construction days. One excavator, one tractor/loader/backhoe, one compactor, one water truck, and one work truck would be needed to implement earthmoving operations on peak construction days.

Crossing 21 is located on mining property that is regulated by the State Mining and Geology Board. Cal Sierra Development, Inc. (Cal Sierra) holds mineral vested rights over the Crossing 21 embankment alignment. Rather than obtaining the land in fee or obtaining an easement for the 100-year embankment footprint (including Crossing 21), TRLIA has signed (or will soon sign) a Co-operation Agreement with Cal Sierra. The Co-operation Agreement allows TRLIA to construct and maintain the 100-year embankment (including the Crossing 21 embankment) for the next 10 years (there are extension options within the Agreement).

2.2 PROJECT OPERATIONS AND MAINTENANCE

TRLIA would be responsible for the regular operations and maintenance (O&M) activities, which would consist of inspections, weed abatement, and patrol road maintenance along the embankments. Inspections to verify the maintenance of embankment integrity, to remove any trash that may be dumped on the site, or to repair damage caused by vandalism along the embankment as a result of unauthorized access would be conducted periodically by one person driving the length of the embankment. To prevent potential weed establishment, herbicides would be applied occasionally along the patrol road in accordance with applicable rules and regulations. Grading and replacement of patrol road aggregate would occur in areas along the embankment as needed. It is expected that periodic replacement of aggregate would result in replacement of all of the aggregate along the patrol road once every 20 years. In addition to these regular O&M activities, the embankment would be patrolled during high-flow periods, which would be expected to occur once every 10 years, to look for and address potential flooding issues. The length of the embankment would be traveled every 4 hours during a high-flow event, which would be expected to last 5 days on average.

3 ENVIRONMENTAL ANALYSIS

This section provides the analysis to verify that: (1) the minor additions to the Yuba Goldfields 100-Year Flood Protection Project described in Chapter 2 of this document and the resulting environmental impacts described in this chapter do not meet any of the criteria in Sections 15162 of the State CEQA Guidelines for preparation of a subsequent negative declaration and meet the criteria of 15164 of the State CEQA Guidelines for preparation of an addendum to the adopted 2014 MND; and, (2) the analysis in the 2014 IS/MND and this Addendum are sufficient to meet CEQA requirements.

The evaluation below is provided in the form of a narrative discussion addressing each environmental topic area included in the 2014 IS.

3.1 ANALYSIS BY RESOURCE TOPIC

Table 3-1 contains a comparison of overall project impacts identified in the 2014 IS/MND with the proposed changes to the project description outlined in Chapter 2 above. Included in Table 3-1 are those environmental topic areas where there is clearly no change in the impact analysis, conclusions, or mitigation measures relative to the 2014 IS/MND. Construction and operations and maintenance of the Crossing 21 embankment would occur in an isolated and small portion of the Yuba Goldfields. Construction activities would last only approximately 6 days, and ongoing O&M activities would be minor. Therefore, the Crossing 21 embankment (which includes the patrol road) would have no impact, or negligible impacts that would be less than significant on resource areas presented in Table 3-1, and would not result in any new or substantially greater impacts than described in the 2014 IS/MND.

More detailed discussions related to air quality, biological resources, cultural and paleontological resources, greenhouse gas emissions, and noise are provided after Table 3-1 because these resource areas are more sensitive to site-specific impacts and therefore require additional analyses.

3.1.1 AIR QUALITY

The 2014 IS/MND determined the proposed project's air quality impacts would be less than significant with implementation of Mitigation Measures 3.3-1a and 3.3-1b. This addendum is intended to evaluate the air quality impacts of the Crossing 21 component of the proposed project. Similar to the 2014 IS/MND, the construction-related emissions associated with the Crossing 21 embankment were quantified using the same methods as those described in Chapter 3.3, "Air Quality," of the 2014 IS and compared with the Feather River Air Quality Management District's (FRAQMD's) thresholds of significance. O&M activities associated with the Crossing 21 embankment would be infrequent and low intensity with respect to construction activities and therefore would result in nominal air quality impacts. Therefore, this Addendum only addresses the Crossing 21 embankment's potential construction-related air quality impacts.

Construction of the Crossing 21 component would generate exhaust- and fugitive dust-related air quality emissions. Exhaust-related emissions would be generated by heavy-duty construction equipment, dump trucks, work trucks, and construction worker vehicles. Fugitive dust-related emissions would be generated from earthmoving activities to construct the Crossing 21 embankment and import of aggregate base for the patrol road. As shown in Table 3-2, construction-related emissions from the Crossing 21 embankment were quantified and

Table 3-1 Qualitative Impacts from the Crossing 21 Embankment			
Resource Area	**Potential Impacts in the 2014 IS/MND**	**Adopted Mitigation Measures in the 2014 IS/MND**	**New Impact with the Addition of Crossing 21 Embankment**
Aesthetics	Short-temporary views of construction equipment would be minor in nature; operational effects of the embankment would be similar in nature to the existing mounds in the Goldfields; the project would not be visible from a state scenic highway; no new sources of glare and no new operational sources of nighttime lighting would be created; short-term temporary nighttime lighting of construction staging areas would occur but the nearest residence is approximately 0.5 mile from the site.	None required	The proposed project changes would not result in any new or substantially greater impacts to aesthetics.
Agriculture and Forestry Resources	No impacts to agricultural and forestry resources were identified.	None required	The proposed project changes would not result in any new or substantially greater impacts to agriculture and forestry resources.
Geology and Soils	The project site is located a long distance from active seismic sources, and the levee has been appropriately engineered for stability and resistance to through-seepage and waterside erosion. These impacts would be less than significant.	None required	The proposed project changes would not result in any new or substantially greater impacts to geology and soils.
	Temporary impacts related to soil disturbance and erosion during construction activities could occur.	Mitigation Measure 3.9-1: Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices	

Table 3-1 Qualitative Impacts from the Crossing 21 Embankment			
Resource Area	**Potential Impacts in the 2014 IS/MND**	**Adopted Mitigation Measures in the 2014 IS/MND**	**New Impact with the Addition of Crossing 21 Embankment**
Hazards and Hazardous Materials	The project would be constructed in partnership with mining interests in the Goldfields to ensure coordination regarding on-site hazards; the project would not result in an airport or aircraft safety hazard; the amount of vegetation within the Goldfields is limited and the embankment would not create or increase an existing wildland fire hazard.	None required	The proposed project changes would not result in any new or substantially greater impacts to hazards and hazardous materials.
	Handling and transport of hazardous materials during construction could create a temporary hazard to people or the environment.	Mitigation Measure 3.9-1: Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices (includes a Spill Prevention, Control, and Countermeasure Plan)	
Hydrology and Water Quality	Project operation would result in beneficial impacts by reducing the potential for future erosion, scour, flooding, and transport of pollutants that could occur under current conditions when high flows breach the channel and flow through the Goldfields.	None required	The proposed project changes would not result in any new or substantially greater impacts to hydrology and water quality.
	Direct and indirect discharges associated with ground-disturbing construction activities could cause surface water to become contaminated by soil or construction substances.	Mitigation Measure 3.9-1: Prepare and Implement a Storm Water Pollution Prevention Plan or a Storm Water Management Plan and Associated Best Management Practices(includes a Spill Prevention, Control, and Countermeasure Plan)	
Land Use and Planning	The project would be consistent with Yuba County's land use designation and zoning for the project site, would not physically divide an established community, and would not conflict with an adopted HCP.	None required	The proposed project changes would not result in any new or substantially greater impacts to land use and planning.

Table 3-1 Qualitative Impacts from the Crossing 21 Embankment			
Resource Area	**Potential Impacts in the 2014 IS/MND**	**Adopted Mitigation Measures in the 2014 IS/MND**	**New Impact with the Addition of Crossing 21 Embankment**
Mineral Resources	The embankment would not interfere with mining activities within the next 10 to 15 years (TRLIA and affected mining interests would execute a co-operation agreement), and construction of the embankment represents an appropriate use of aggregate resources at the project site.	None required	The proposed project changes would not result in any new or substantially greater impacts to mineral resources.
Population and Housing	No impacts to population and housing were identified.	None required	The proposed project changes would not result in any new or substantially greater impacts to population and housing.
Public Services	No impacts to public services were identified.	None required	The proposed project changes would not result in any new or substantially greater impacts to public services.
Recreation	The project would not entail new housing that could bring new residents, and therefore would not cause an increase in demand for recreational facilities; the project would not affect OHV riding opportunities on adjacent land managed by BLM; recreationists on the Yuba River would be unaffected because river access is not provided through the Goldfields (which is an active mining area).	None required	The proposed project changes would not result in any new or substantially greater impacts to recreation.
Transportation and Traffic	The project would require a maximum of only 14 construction workers at any given time; construction activities would only marginally increase traffic on local roadways, and the effects would be temporary and short term; the project would not result in traffic delays that could substantially increase emergency response times or reduce emergency vehicle access; and there are no public transit or bicycle facilities provided in the project area.	None required	The proposed project changes would not result in any new or substantially greater impacts to transportation and traffic.

Table 3-1
Qualitative Impacts from the Crossing 21 Embankment

Resource Area	Potential Impacts in the 2014 IS/MND	Adopted Mitigation Measures in the 2014 IS/MND	New Impact with the Addition of Crossing 21 Embankment
Utilities and Service Systems	The Recology Ostrom Road landfill would receive any solid waste from the project site, and the landfill has capacity until the year 2066; no other impacts to utilities and service systems were identified.	None required	The proposed project changes would not result in any new or substantially greater impacts to utilities and service systems.

Notes: HCP = habitat conservation plan; OHV = off-highway vehicle; BLM = Bureau of Land Management
Source: Data compiled by AECOM in 2015

Table 3-2
Unmitigated Construction-Related Emissions from Crossing 21

Construction Phase	Pollutants			
	ROG [a]	NO_X [a]	PM_{10} [b]	$PM_{2.5}$ [b]
Construction Equipment	0.00	0.03	0.60	0.55
Heavy-Duty Trucks	0.00	0.01	0.03	0.02
Worker Vehicles	0.00	0.04	0.16	0.10
Fugitive Dust	-	-	13.10	2.73
Total Emissions (tons)	**0.00**	**0.06**	**13.90**	**3.40**
Average or Maximum Daily Emissions (lb/day)[c]	**2**	**19**	**14**	**3**
FRAQMD Thresholds (average or maximum lb/day)[d]	25	25	80	–
Exceeds FRAQMD Threshold?	No	No	No	–

Notes: lb/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 micrometers; PM_{10} = particulate matter with aerodynamic diameter less than 10 micrometers; ROG = reactive organic gases

[a] FRAQMD's thresholds of significance for ROG and NO_X are in units of average pounds per day. The total tons of ROG and NO_X are divided by the total number of work days to calculate average daily ROG and NO_X emissions to compare to the FRAQMD threshold

[b] FRAQMD's threshold of significance for PM_{10} is in units of maximum daily pounds. PM_{10} emissions include both exhaust and fugitive dust emissions. FRAQMD has not developed a threshold for $PM_{2.5}$ emissions. $PM_{2.5}$ emissions are shown for informational purposes.

[c] Emissions of ROG and NO_X are in units of average daily emissions, which are the same units as the FRAQMD thresholds of significance. Average daily emissions were estimated assuming that the proposed construction activities would last 6 work days. Emissions of PM_{10} and $PM_{2.5}$ are in units of maximum daily emissions, which are the same units as the FRAQMD threshold of significance. FRAQMD has not developed a threshold for $PM_{2.5}$.

[d] FRAQMD's thresholds of significance for ROG and NO_X are in units of average pounds per day, while the threshold of significance for PM_{10} is in units of maximum daily pounds.

Source: Modeled by AECOM in 2015

compared with the FRAQMD's thresholds of significance. It should be noted that Crossing 21embankment construction would not occur simultaneously with other construction associated with the 100-Year Flood Protection Project and therefore would not contribute to the average and maximum daily emission values presented in Chapter 3.3, "Air Quality," in the 2014 IS.

Table 3-2 shows the unmitigated emissions associated with construction of the Crossing 21 embankment. Additional modeling assumptions and details are provided in Appendix A. Similar to the determination in the 2014 IS/MND, the air quality emissions from the Crossing 21 embankment construction would not exceed any of FRAQMD's thresholds of significance and, therefore, construction of the Crossing 21 component of the 100-Year project would not substantially impede achievement of the region's air quality goals or conflict with or obstruct implementation of air quality planning efforts or violate or contribute substantially to an existing or project air quality violation. This impact would be less than significant.

Furthermore, with respect to cumulative air quality impacts, because emissions associated with construction of the Crossing 21 embankment would be less than FRAQMD thresholds of significance, the Crossing 21 embankment's construction emissions would not be considered a cumulatively considerable incremental contribution to a significant cumulative impact on regional air quality.

With respect to toxic air contaminant (TAC) emissions, the nearest sensitive receptor to the Crossing 21 construction site would be located approximately 1.2 miles north of the project site, which is substantially more than the recommended 500-foot buffer that sensitive receptors should be located from major pollutant sources

(ARB 2005). Considering the relatively short construction period associated with the Crossing 21 component (i.e., 6 construction work days) and the substantial distance from sensitive receptors, the Crossing 21 construction emissions would not expose sensitive receptors to substantial pollutant concentrations and this impact would be less than significant.

Odors emissions associated with construction would be generated from diesel-fueled construction equipment and heavy-duty trucks. Considering the relatively short-term construction activities and the substantial distance from sensitive receptors that would help disperse and dilute any potential odor emissions, the Crossing 21 construction activities would not generate odors that would expose a substantial number of receptors and this impact would be less than significant.

3.1.2 BIOLOGICAL RESOURCES

Information on biological resources at the Crossing 21 site is based on a reconnaissance survey conducted on June 2, 2015 and on updated database searches of regionally-occurring special-status species maintained by the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS). The database searches consisted of reviewing the CDFW's Natural Diversity Database (CNDDB) (CNDDB 2015) for reported occurrences of special-status species within a 5-mile radius of the project boundaries and the USFWS list of federal endangered and threatened species (USFWS 2015). The database search was conducted primarily for the purpose of identifying any special-status species with the potential to occur on the project site or in the immediate vicinity that would not have been evaluated in the 2014 IS/MND due to a variety of reasons (including a species recently attaining federal or state listing status, a recent change in the listing status of a species, or a newly reported occurrence of a special-status species on the project site or in the vicinity).

The reconnaissance survey included the following elements:

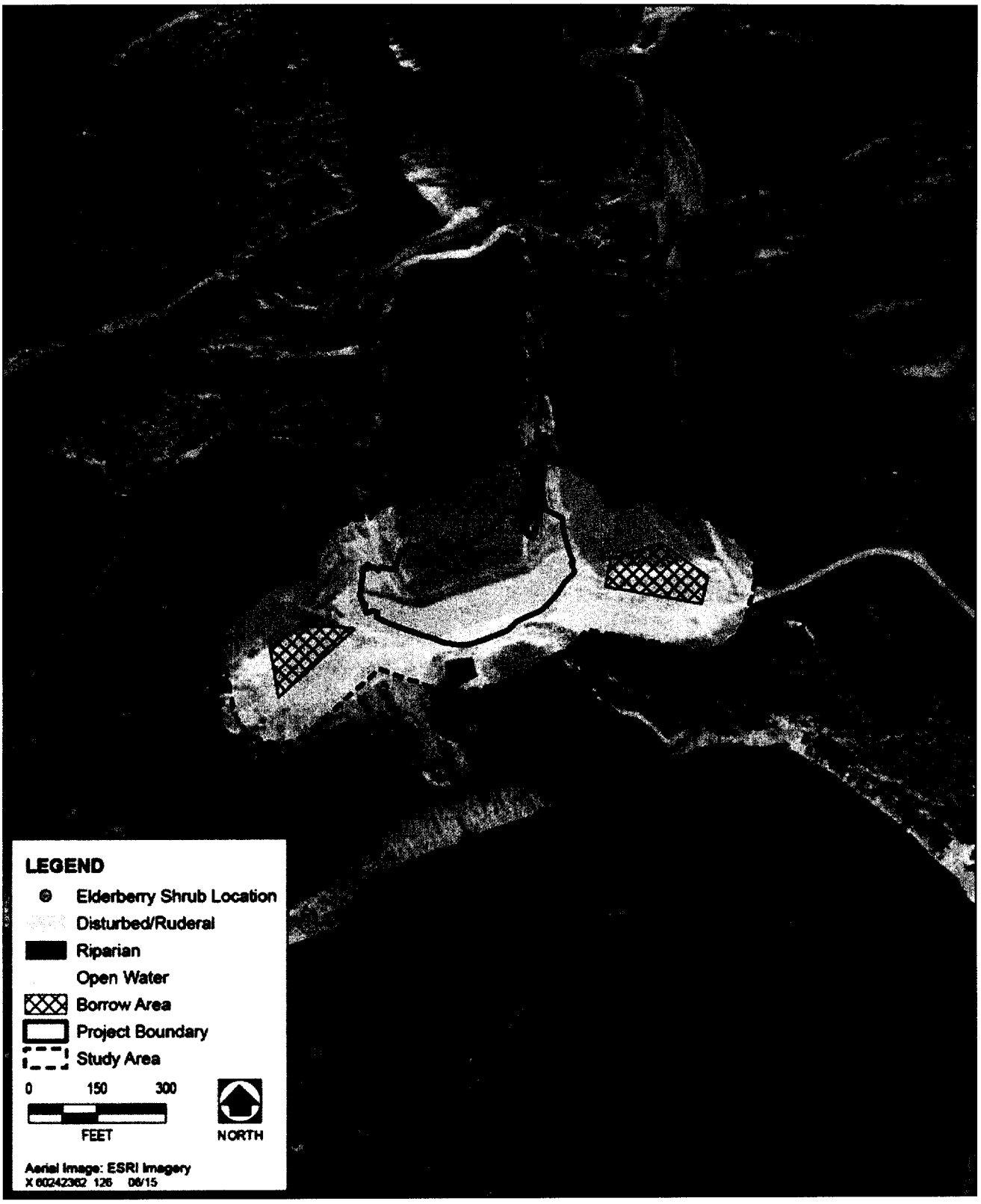
- an evaluation of current habitat conditions in the project site, including plant and wildlife species observed;
- an evaluation of the potential for occurrence on the project site of sensitive natural communities including potential waters of the U.S. that would be subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the federal Clean Water Act (CWA);
- a search for special-status species or their habitats that may be present on the project site; and,
- a search for nests of raptors or other migratory birds.

HABITATS/SENSITIVE PLANT COMMUNITIES

The habitat types at the project site are similar to those at the original project site, as described in Section 3.4 of the 2014 IS, and consist of riparian habitat, open water, and disturbed/ruderal areas. The project site is characterized by dredge tailing mounds, and a dredge pond separated by a rock dam. The location and extent of the habitat types in the project area are shown in Exhibit 3-1.

Disturbed/ruderal areas predominate on the project site. Plant species identified during the reconnaissance survey consist of common annual ruderal species including wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), yellow star thistle (*Centaurea solstitialis*), and clover (*Trifolium* sp.). The dredge pond is mostly unvegetated, and therefore is classified as open-water habitat. Two sections along the edges of the dredge pond support patches of riparian vegetation. Common species located in the riparian habitat include willow (*Salix* sp.), coyote bush (*Baccharis pilularis*), rushes (*Juncus* spp.), flatsedge (*Cyperus* sp.), edible fig (*Ficus carica*), and Himalayan blackberry (*Rubus armeniacus*).

Construction activities would affect 0.58 acre of open water, and less than 0.01 acre (436 square feet) of riparian habitat at the northeast portion of the project site. As described on page 3.4-5 of the 2014 IS, the dredge pond on the project site is not considered a waters of the United States subject to USACE jurisdiction under Section 404 of the CWA. The determination was based on previous discussions between USACE, the Central Valley Regional Water Quality Control Board, and Western Aggregates, Inc. However, the pond contains surface water and qualifies as waters of the state, which is subject to permitting requirements under the State's Porter-Cologne Water Quality Control Act. The riparian vegetation at the project site is isolated and patchy, but provides similar functions and values as riparian vegetation associated with natural streams, and is therefore treated as a sensitive natural community. Permanent loss of less than 0.01 acre of riparian habitat associated with construction of the Crossing 21 embankment, combined with the 5.517 acres of impact to riparian habitat due to construction of the original project, is a potentially significant impact. Implementing Mitigation Measure 3.4-2 (Minimize Impacts on Riparian Habitat during Construction and Replace Any Affected Riparian Habitat) in the 2014 MND will reduce the potentially significant impact on riparian habitat to a less-than-significant level because riparian habitat would be avoided or replaced in kind and maintained until established.



Source: ENGEO adapted by AECOM 2014

Exhibit 3-1 **Habitat Types at the Crossing 21 Project Site**

SPECIAL-STATUS SPECIES

Wildlife species observed during the reconnaissance survey at the Crossing 21 site consisted of a valley garter snake (*Thamnophis sirtalis fitchi*) and a few bird species commonly observed in the region including belted kingfisher (*Megaceryle alcyon*), great egret (*Ardea alba*), California quail (*Callipepla californica*), and northern rough-winged swallow (*Stelgidopteryx serripennis*). No special-status plant or wildlife species were observed at the Crossing 21 site during the reconnaissance survey.

The habitat conditions in the project vicinity do not appear to have changed since the 2014 IS/MND was prepared, and some of the special-status species described in those documents also have potential to be affected with implementation of the embankment at Crossing 21. In addition, the updated database search (USFWS 2015) identified bald eagle (*Haliaeetus leucocephalus*) as having potential to occur in the project vicinity, a species which was not discussed in the 2014 IS/MND. Bald eagles are listed as an endangered and fully protected species in California. This species was delisted from federal threatened status in 2007, but is protected by the federal Bald and Golden Eagle Protection Act. In California, bald eagles typically nest in large trees with open branches in mountain and foothill forests or woodlands near reservoirs, lakes, and rivers. The closest bald eagle nesting record is near the South Fork Yuba River in Bridgeport State Park, approximately 17 miles to the northeast (Beedy, pers. comm., 2015). This species is regularly seen in winter in the Yuba Goldfields, and forages in the Yuba River all year, but no nest sites have been reported in the Yuba Goldfields (Beedy, pers. comm., 2015). The project area, including the Crossing 21 site and vicinity, does not provide suitable nesting or foraging habitat for bald eagles, and the proposed project including the Crossing 21 embankment would have no adverse effects on this species.

The following special-status wildlife species were determined to have the potential to occur on the Crossing 21 site and/or be impacted by the proposed improvement: Valley elderberry longhorn beetle (VELB; *Desmocerus californicus dimorphus*), Pacific pond turtle (*Actinemys marmorata*), tricolored blackbird (*Agelaius tricolor*), Swainson's hawk (*Buteo swainsonii*), white-tailed kite (*Elanus leucurus*) and other raptors, and nesting migratory birds. The potential impacts of construction and O&M of the proposed Crossing 21 embankment on these species are described below.

Two blue elderberry (*Sambucus mexicana*) shrubs, the host plant for the VELB, were observed near the Crossing 21 site (Exhibit 3-1). Both shrubs were within 10 feet of each other and evidence of beaver damage on two stems was observed on the larger shrub during the reconnaissance survey. The larger shrub had five stems with a diameter greater than 1 inch but less than 3 inches and 15 stems with a diameter less than 1 inch. The smaller shrub had four stems with diameter less than 1 inch and is therefore too small to provide habitat for VELB (USFWS 1999). Both shrubs are located more than 100 feet south of the Crossing 21site limits and would not be disturbed as a result of construction and O&M of the proposed embankment. Therefore, the Crossing 21 embankment would result in a less than significant impact to VELB.

No Swainson's hawk, white-tailed kite, or other raptor or migratory bird nests were observed on the Crossing 21 site and no potential nest trees occur on the site. However, a few potential nest trees are present in adjacent areas. Swainson's hawk, white-tailed kite, and other raptors and migratory birds could potentially begin nesting on or adjacent to the Crossing 21 site prior to commencement of construction. Construction-related activities could potentially result in disturbance of nesting Swainson's hawk, white-tailed kite, tricolored blackbird, or other raptors and migratory birds if they were nesting on the Crossing 21 site or vicinity at the time of project construction. Construction-related disturbances to any nesting raptors and migratory birds could potentially lead

to mortality of young as a result of nest abandonment or forced fledging, and would be a potentially significant impact. Implementation of the following mitigation measures in the 2014 MND would reduce this potential impact to less-than-significant:

- Mitigation Measure 3.4-1a: Develop and Implement Worker Environmental Awareness Program.
- Mitigation Measure 3.4-1b: Remove Riparian and Marsh Vegetation between September 16 and January 31 if Possible to Avoid Affecting Active Bird Nests.
- Mitigation Measure 3.4-1c: Conduct Surveys for Swainson's Hawk and Other Nesting Raptors and, if Found, Implement Avoidance Measures.
- Mitigation Measure 3.4-1d: Conduct Preconstruction Survey for Nesting Tricolored Blackbird if Vegetation will be Removed during the Nesting Season (March 15 to August 15) for the Species.
- Mitigation Measure 3.4-1e: Conduct Preconstruction Nesting Bird Survey before Removal of Potential Nesting Habitat within the Nesting Season.

Pacific pond turtles may occur on the Crossing 21 site in the dredge ponds and in uplands surrounding the ponds. This species could be disturbed during construction of the proposed embankment, potentially resulting in mortality of individuals present during construction. This impact would be potentially significant, but would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.4-1a (Develop and Implement Worker Environmental Awareness Program), and Mitigation Measure 3.4-1g (Avoid Impacts on Pacific Pond Turtle) from the 2014 MND.

With the implementation of the mitigation measures identified above from the 2014 MND, potential impacts on VELB, Pacific pond turtle, tricolored blackbird, Swainson's hawk, white-tailed kite, other raptors and migratory birds, and riparian habitat would be reduced to a less-than-significant level. No additional mitigation is necessary.

Furthermore, the proposed Crossing 21 embankment is not expected to:

- 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 CDFW or USFWS;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA through direct removal, filling, hydrologic interruption or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and,
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.1.3 CULTURAL AND PALEONTOLOGICAL RESOURCES

CULTURAL RESOURCES

Methods employed for addressing cultural resources in this Addendum consisted of reviewing records search materials and Native American consultation conducted as part of the 2014 IS/MND in light of the proposed changes to the project description. A field survey was not conducted as the Crossing 21 site is located entirely on privately held land. No previously recorded historic resources were identified within the Crossing 21 site or within a one-quarter-mile buffer area. The previous Native American consultation included a letter of inquiry to the Native American Heritage Commission as well as letters to individuals or tribes that may have knowledge of cultural resources in the area. Marcos Guerrero, Cultural Resources Manager of the United Auburn Indian Community of the Auburn Rancheria, responded via email and inquired as to the ethnographic and historic background information. No other responses have been received to date.

Impacts to cultural resources that are discussed within the 2014 IS would not be increased by the Crossing 21 embankment. Similarly, proposed mitigation for cultural resources presented in the 2014 MND would also apply to the Crossing 21 embankment. With mitigation in the 2014 MND, all potential impacts to cultural resources at the Crossing 21 site would be less than significant. .

PALEONTOLOGICAL RESOURCES

Before mining activities occurred in the 1800s and 1900s, the area that is now the Goldfields was composed of the Modesto, Riverbank, and Laguna Formations (ENGEO 2013:6), which consisted of interbedded gravel, sand, and silt (Helley and Harwood 1985). The Modesto and Riverbank Formations are paleontologically sensitive given the large number of vertebrate fossils that have been recovered from these formations throughout the Central Valley.

In 1904, bucket-line dredge mining began and continued throughout the Goldfields, including the Crossing 21 site. Large floating dredges excavated into the hydraulic mine sediment and natural deposits to extract the fine gold embedded in the gravel and sand. These dredges excavated to depths of 60–140 feet, processed the sediments to extract gold, and created enormous piles of granular tailings, consisting mostly of sand, gravel, and cobble, that are located throughout the project area, including the Crossing 21 site. Cal Sierra continues to actively mine for gold and other minerals at the Crossing 21 site, with excavation depths that reach 125–140 feet.

The mechanical nature of the dredging activities that have occurred in the past at the Crossing 21 site would likely have destroyed any vertebrate fossils that originally may have been present. Therefore, construction-related earth-moving activities at the Crossing 21 site are unlikely to damage or destroy unique paleontological resources, and this potential impact would be less than significant.

3.1.4 GREENHOUSE GAS EMISSIONS

The 2014 IS determined the proposed project's greenhouse gas (GHG) impacts would be less than significant. This analysis evaluates the GHG impacts of the Crossing 21 embankment. Similar to the 2014 IS, the construction-related emissions associated with the Crossing 21 embankment were quantified using the same methods as those described in Chapter 3.3, "Air Quality," of the 2014 IS. At the time of this Addendum, FRAQMD has not developed a quantitative threshold of significance for GHG emissions. Therefore, this Addendum considers the same thresholds of significance identified in Chapter 3.7, "Greenhouse Gases," of the

2014 IS. O&M activities associated with the Crossing 21 embankment are anticipated to be infrequent and low intensity with respect to construction activities and therefore would result in nominal GHG emissions. Therefore, this Addendum only addresses the proposed Crossing 21 embankment's potential construction-related GHG emissions.

Construction of the proposed Crossing 21 embankment would generate approximately 20 metric tons of carbon dioxide equivalent (MT CO2e) over the total construction schedule. As described above, the Crossing 21 embankment would not be constructed simultaneously with construction of any other component of the proposed 100-year Flood Protection Project. However, conversely to the air quality analysis where the average or maximum daily emissions are evaluated, GHG emissions are concerned with the total amount of GHG emissions. Therefore, the 20 MT CO_2e associated with construction of the Crossing 21 embankment should be added with the 143 MT CO_2e associated with the previously evaluated 100-Year Flood Protection Project to calculate the total construction-related emissions. The total construction-related GHG emissions with the Crossing 21 embankment would be 163 MT CO_2e. This is substantially below any of the proposed or adopted thresholds of significance listed in Chapter 3.7, "Greenhouse Gases," of the 2014 IS. Therefore, the proposed construction emissions from the 100-year project, with incorporation of the Crossing 21 embankment, would not be considered a cumulatively considerable incremental contribution to the significant cumulative impact on global climate change. This impact would be less than significant.

Because the proposed project's construction-related GHG emissions, with incorporation of the Crossing 21 embankment, would be substantially less than any proposed or adopted threshold of significance, the proposed project, including the Crossing 21 embankment, would not be expected to conflict with any existing California legislation and GHG reduction plan adopted to reduce statewide GHG emissions.

3.1.5 NOISE

The 2014 IS determined that the proposed project's noise impacts would be less than significant and no mitigation measures were required. This analysis evaluates noise impacts of the Crossing 21 embankment component of the proposed project. Similar to the 2014 IS, the construction-related noise associated with the Crossing 21 embankment were quantified using the same methods as those described in Chapter 3.12, "Noise," of the 2014 IS and compared with the CEQA thresholds of significance. The O&M activities associated with the Crossing 21 embankment would be infrequent and low intensity with respect to construction activities and therefore would not result in noise impacts. Therefore, this analysis only addresses the Crossing 21 embankment's potential construction noise and vibration impacts.

Project-related construction noise was estimated using the Federal Highway Administration's Roadway Construction Noise Model (FHWA 2006) and a list of heavy equipment expected to be used to construct the Crossing 21 embankment. The unmitigated noise level produced by the Crossing 21 embankment construction equipment would be approximately 89 dBA at a distance of 50 feet. Assuming standard spherical spreading loss (-6 dB per doubling of distance), the unmitigated construction noise level at the closest existing residential use, approximately 6,000 feet north of the construction area, was calculated to be 48 dBA Leq. This result represents the worst-case, conservative noise exposure because it does not consider noise attenuation associated with ground and atmospheric absorption. Therefore, actual construction noise levels could be substantially less.

The Yuba County planning standards presented in Table 3.12-2 of the 2014 IS were used for purposes of the construction noise analysis for Crossing 21 embankment construction activities. Project-related construction noise at noise-sensitive residential properties (buildings) in the Crossing 21 vicinity would be considered significant if it would exceed 60 dBA Leq[h] during daytime hours (7 a.m.–10 p.m.) or 45 dBA Leq[h] during nighttime hours (10 p.m.–7 a.m.). These are seen as the most restrictive criteria established by Yuba County, and would provide the most conservative assessment of noise impacts at existing noise-sensitive uses in the Crossing 21 vicinity.

The project construction–related noise levels would not be expected to exceed Yuba County's daytime limit of 60 dBA Leq at the closest residential use. There would be no construction during nighttime hours (10 p.m.–7 a.m.).

A 5 dB increase in noise level above the assumed ambient level (Leq[h]) at residential receivers in the project vicinity would also be considered a significant impact. Ambient noise levels at the existing rural residential properties in the Crossing 21 vicinity are expected to be approximately 55 dBA, 50 dBA, and 45 dBA Leq[h], respectively, during the daytime (7 a.m.–7 p.m.), evening (7 p.m.–10 p.m.), and nighttime (10 p.m.–7 a.m.) hours. As discussed above, project-related construction noise levels could be as high as 48 dBA Leq[h] at residences closest to the Crossing 21 site. This noise level does not exceed the established threshold of 5 dB above ambient noise levels. Also, construction truck traffic would not expose noise sensitive uses to roadway traffic noise in the Crossing 21 vicinity because the borrow material would be obtained from areas immediately adjacent to both sides of the proposed embankment.

The Crossing 21 site is not located within 2 miles of any airport/airstrips and therefore the Crossing 21 embankment would not cause exposure to aircraft noise.

With respect to construction vibration, the distance between proposed construction activities and the closest acoustically sensitive uses would be approximately 6,000 feet. Assuming a standard reduction of 6 vibration decibels (VdB) per doubling of distance, the project-related construction vibration level at these receivers would be approximately 40 VdB. This is well below any established threshold of significance and would not likely be perceptible.

Furthermore, construction of the Crossing 21 embankment would not occur simultaneously with or at the same location as the rest of the proposed project; therefore, there would not be a cumulatively considerable incremental contribution to a significant cumulative noise impact.

Therefore, considering the relatively short construction period associated with the Crossing 21 component (i.e., 6 construction work days) and the substantial distance from sensitive receptors, the Crossing 21 construction noise and vibration would not expose sensitive receptors to substantial noise and vibration impacts. Thus, noise and vibration impacts would be less than significant.

3.2 CONCLUSIONS

As described in the preceding sections, the proposed changes to the project analyzed in the 2014 IS would not result in changes to any of the impact conclusions of the 2014 MND and would not result in new or substantially more severe environmental impacts.

Based on the analysis of the environmental impacts evaluated above, implementing the Crossing 21 embankment described in this Addendum would result in none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent negative declaration. In summary, there are no altered circumstances or new information of substantial importance since adoption of the 2014 MND, and the proposed minor addition evaluated in this Addendum:

- would not result in any new significant environmental effects,
- would not substantially increase the severity of previously identified effects,
- would not result in mitigation measures or alternatives previously found to be infeasible becoming feasible, or
- would not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

These conclusions confirm that this Addendum to the 2014 MND is the appropriate CEQA document to evaluate and record the minor project addition and resulting environmental impacts thereof as described in this document.

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APPENDIX A

Air Quality and Greenhouse Gas Emissions Modeling Results

Yuba Goldfields (Crossing 21)

Yuba County, Summer

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	72
Climate Zone	3			**Operational Year**	2015
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - MBK Eng

Off-road Equipment - PD

Construction Off-road Equipment Mitigation - potential mitigation (Tier 3 equipment)

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	HorsePower	162.00	157.00
tblOffRoadEquipment	HorsePower	80.00	84.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblProjectCharacteristics	OperationalYear	2014	2015
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.9164	9.4924	6.4325	9.1100e-003	0.0000	0.5662	0.5662	0.0000	0.5495	0.5495	0.0000	956.5457	956.5457	0.2856	0.0000	962.5427
Total	0.9164	9.4924	6.4325	9.1100e-003	0.0000	0.5662	0.5662	0.0000	0.5495	0.5495	0.0000	956.5457	956.5457	0.2856	0.0000	962.5427

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.6390	2.4412	6.9827	9.1100e-003	0.0000	0.4814	0.4814	0.0000	0.4523	0.4523	0.0000	956.5457	956.5457	0.2856	0.0000	962.5427
Total	0.6390	2.4412	6.9827	9.1100e-003	0.0000	0.4814	0.4814	0.0000	0.4523	0.4523	0.0000	956.5457	956.5457	0.2856	0.0000	962.5427

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	30.27	74.28	-8.71	0.00	0.00	19.26	19.26	0.00	17.55	17.55	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	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	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	8/3/2015	8/8/2015	6	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Excavators	1	8.00	157	0.38
Building Construction	Rollers	1	6.00	84	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	75	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	0.00		0.00	16.80	6.60				

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9164	9.4924	6.4325	9.1100e-003		0.5662	0.5662		0.5485	0.5485		956.5457	956.5457	0.2956		962.6427
Total	0.9164	9.4924	6.4325	9.1100e-003		0.5662	0.5662		0.5485	0.5485		956.5457	956.5457	0.2956		962.6427

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.2 Building Construction - 2015

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.6380	2.4412	6.8627	9.1100e-003		0.4814	0.4814		0.4523	0.4523	0.0000	956.5457	956.5457	0.2896		962.5427
Total	0.6380	2.4412	6.8627	9.1100e-003		0.4814	0.4814		0.4523	0.4523	0.0000	956.5457	956.5457	0.2896		962.5427

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.437886	0.048803	0.228948	0.168950	0.073291	0.008412	0.010736	0.009087	0.001550	0.001412	0.007316	0.000727	0.002913

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Yuba Goldfields (Crossing 21)

Yuba County, Winter

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	72
Climate Zone	3			**Operational Year**	2015
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - MBK Eng

Off-road Equipment - PD

Construction Off-road Equipment Mitigation - potential mitigation (Tier 3 equipment)

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	HorsePower	162.00	157.00
tblOffRoadEquipment	HorsePower	80.00	84.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblProjectCharacteristics	OperationalYear	2014	2015
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.9164	9.4624	6.4325	0.1100	0.0000	0.5662	0.5662	0.0000	0.5495	0.5495	0.0000	956.5457	956.5457	0.2956	0.0000	962.5427
Total	0.9164	9.4624	6.4325	0.1100	0.0000	0.5662	0.5662	0.0000	0.5495	0.5495	0.0000	956.5457	956.5457	0.2956	0.0000	962.5427

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.6390	2.4412	6.9827	0.1100	0.0000	0.4914	0.4914	0.0000	0.4523	0.4523	0.0000	956.5457	956.5457	0.2956	0.0000	962.5427
Total	0.6390	2.4412	6.9827	0.1100	0.0000	0.4914	0.4914	0.0000	0.4523	0.4523	0.0000	956.5457	956.5457	0.2956	0.0000	962.5427

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	30.27	74.20	-8.71	0.00	0.00	13.24	13.24	0.00	17.55	17.55	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	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	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	8/3/2015	8/8/2015	6	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Excavators	1	8.00	157	0.38
Building Construction	Rollers	1	6.00	84	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	75	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	0.00		0.00	16.80	6.60				

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.9164	9.4924	6.4325	9.1100e-003		0.5862	0.5862		0.5495	0.5495		956.5457	956.5457	0.2956		962.5427
Total	0.9164	9.4924	6.4325	9.1100e-003		0.5862	0.5862		0.5495	0.5495		956.5457	956.5457	0.2956		962.5427

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.2 Building Construction - 2015

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.6360	2.4412	6.9827	9.1100e-003		0.4914	0.4914		0.4523	0.4523	0.0000	956.5457	956.5457	0.2896		962.5427
Total	0.6360	2.4412	6.9827	9.1100e-003		0.4914	0.4914		0.4523	0.4523	0.0000	956.5457	956.5457	0.2896		962.5427

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.437886	0.048803	0.228948	0.168950	0.073261	0.008412	0.010736	0.009087	0.001550	0.001412	0.007316	0.000727	0.002913

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Yuba Goldfields (Crossing 21)

Yuba County, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	72
Climate Zone	3			**Operational Year**	2015
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - MBK Eng

Off-road Equipment - PD

Construction Off-road Equipment Mitigation - potential mitigation (Tier 3 equipment)

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	HorsePower	162.00	157.00
tblOffRoadEquipment	HorsePower	80.00	84.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblProjectCharacteristics	OperationalYear	2014	2015
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	2.7500e-003	0.0285	0.0193	3.0000e-005	0.0000	1.7900e-003	1.7900e-003	0.0000	1.6500e-003	1.6500e-003	0.0000	2.6033	2.6033	7.9000e-004	0.0000	2.6196
Total	2.7500e-003	0.0285	0.0193	3.0000e-005	0.0000	1.7900e-003	1.7900e-003	0.0000	1.6500e-003	1.6500e-003	0.0000	2.6033	2.6033	7.9000e-004	0.0000	2.6196

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.6200e-003	7.3200e-003	0.0210	3.0000e-005	0.0000	1.4400e-003	1.4400e-003	0.0000	1.3600e-003	1.3600e-003	0.0000	2.6033	2.6033	7.9000e-004	0.0000	2.6196
Total	1.6200e-003	7.3200e-003	0.0210	3.0000e-005	0.0000	1.4400e-003	1.4400e-003	0.0000	1.3600e-003	1.3600e-003	0.0000	2.6033	2.6033	7.9000e-004	0.0000	2.6196

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	39.18	74.36	-8.79	0.00	0.00	19.55	19.55	0.00	17.58	17.58	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	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	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	8/3/2015	8/8/2015	6	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Excavators	1	8.00	157	0.38
Building Construction	Rollers	1	8.00	84	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	75	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	0.00		0.00	16.80	6.60				

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.7500e-003	0.0295	0.0193	3.0000e-005		1.7900e-003	1.7900e-003		1.6500e-003	1.6500e-003	0.0000	2.6033	2.6033	7.8000e-004	0.0000	2.6198
Total	2.7500e-003	0.0295	0.0193	3.0000e-005		1.7900e-003	1.7900e-003		1.6500e-003	1.6500e-003	0.0000	2.6033	2.6033	7.8000e-004	0.0000	2.6198

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.2 Building Construction - 2015

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	PM10 Total	PM10 Exhaust	PM10 Dust	PM2.5 Total	PM2.5 Exhaust	PM2.5 Dust	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	1.8200e-003	7.3200e-003	0.0210	3.0000e-005		1.4400e-003	1.4400e-003		1.3600e-003	1.3600e-003	0.0000	2.6033	2.6033	7.8000e-004	0.0000	2.6198
Total	1.8200e-003	7.3200e-003	0.0210	3.0000e-005		1.4400e-003	1.4400e-003		1.3600e-003	1.3600e-003	0.0000	2.6033	2.6033	7.8000e-004	0.0000	2.6198

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	PM10 Total	PM10 Exhaust	PM10 Dust	PM2.5 Total	PM2.5 Exhaust	PM2.5 Dust	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.437886	0.048803	0.228948	0.168950	0.073281	0.008412	0.010736	0.009087	0.001550	0.001412	0.007316	0.000727	0.002913

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Yuba Goldfields 100-Year Project Addendum (Crossing 21)
Unmitigated Construction Emissions Summary

Construction Phase/Activity				Max Daily (lbs/day)		MT CO_2e
				PM_{10}	$PM_{2.5}$	
Crossing 21						
Phase 1						
Construction Equipment	0.00	0.03	0.02	0.60	0.55	10
Heavy-Duty Trucks	0.00	0.01	0.02	0.03	0.02	0.82
Worker Vehicles	0.00	0.02	0.06	0.16	0.10	4.01
Fugitive Dust	-	-	-	13.10	2.73	-
Crossing 21 Total	0.00	0.06	0.10	13.90	3.40	14.96
Crossing 21 Daily Emissions	1.57	18.61	31.79	13.90	3.40	

Yuba Goldfields Addendum (Crossing 21)
Construction Exhaust Emissions

OFF-ROAD CONSTRUCTION EQUIPMENT (UNMITIGATED)

Equipment	Equipment Category	Number	Total Hours	Total Days				Max Daily (lbs/day)		MT CO_2e
								PM_{10}	$PM_{2.5}$	
Alternative 1										
Phase 1	See CalEEMod outputs	-	-	-	0.00	0.03	0.02	0.60	0.55	10

HEAVY DUTY TRUCKS

Phase/Activity	Number of Trucks	Operational Time	Average Daily Mileage	Total Mileage				Max Daily (lbs/day)		MT CO_2e
								PM_{10}	$PM_{2.5}$	
Alternative 1										
Water Truck	1	8	40	240	0.00	0.00	0.00	0.01	0.01	0
Dump Truck	2	4	40	240	0.00	0.00	0.00	0.01	0.01	0
Aggregate Base Delivery			45	540	0.00	0.00	0.01	0.01	0.01	0
Total Emissions					0.00	0.01	0.02	0.03	0.02	0.02

Note: Assumes each water truck operates for a total 8 hours per day and travels at an average speed of 5 mph
Assumes Aggregate Base Delivery imports 90 cubic yards of aggregate base, 10 cy/truck, and 30 miles one-way trip distance.

WORKER VEHICLES

Category	Average Daily Workers	Total Distance Per Vehicle	Average Daily Mileage	Total Mileage				Max Daily (lbs/day)		MT CO_2e
								PM_{10}	$PM_{2.5}$	
Alternative 1										
Phase 1					*0.00*	*0.02*	*0.06*	*0.16*	*0.10*	*4*
Worker Vehicles	14	34	470	2,822	0.00	0.02	0.05	0.13	0.08	3
Work Trucks	1	120	120	720	0.00	0.00	0.01	0.03	0.02	1

Note:
Assumes the work trucks (i.e., pick trucks) operate for 8 hours per day at an average speed of 15 mph.
Construction worker vehicle trip distance obtained from CalEEMod defaults

Yuba Goldfields Addendum (Crossing 21)
Construction Fugitive PM Dust Emissions

Construction Parameter	Units	100-Year Parameters	Crossing 21	
Total Acres Disturbed	acres	-	2	
Maximum Daily Acres Disturbed	acres/day	-	0.50	
On-Site Cut/Fill	cubic yards		10,000	
Off-Site Cut/Fill	cubic yards		90	
Average Haul Distance	feet	400	400	
Average Push Distance	feet	100	100	
Months of Excavation (for FD)			0.50	
Work Days			6	
Daily Material Movement (cy/day)				
On-Site			1,667	
Off-Site			90	
Emission Factors	Value	Units	Emissions PM_{10} (lbs/day)	Emissions $PM_{2.5}$ (lbs/day)
High Level of Detail				
Standard	0.13	lb/ac-work hr	0.52	0.11
Onsite Cut/Fill	0.21	lb/ton-mile	6.70	1.39
Offsite Cut/Fill	0.62	lb/ton-mile	4.28	0.89
Pickup Trucks			1.60	0.33
		Total Unmitigated	13.10	2.73
		Full Mitigation	3.28	0.68

Yuba Goldfields 100-Year Project Assumptions

On-Site Cut/Fill (scraper)	53%	
Off-Site Cut/Fill (truck)	47%	
Average Haul Distance	400	feet
Average Push Distance	100	feet

Unpaved Road Fugitive Dust

$E = k(s/12)^a(W/3)^b$	AP-42 Chapter 13.2.2-4 (Equation 1a)	
E = lb/VMT	0.013	lbs/VMT
s = surface material silt content %	0.085	
W = mean vehicle weight (tons)	2	Pickup Trucks
k (PM10)	1.5	Industrial road
a (PM10)	0.9	Industrial road
b (PM10)	0.45	Industrial road

Estimated Ton-Miles of Exported Soil
(Input for High-Level of Detail for Fugitive Dust from Off-Site Haulage in URBEMIS)

Project Name:	Input	Yuba Goldfields - Crossing 21
Building ID:	Input	On-Site Cut/Fill

Excavation
Number of Haul Trucks per Day

Total Cut/Fill Volume	Input	10,000	CY
Total Number of Haul Trucks		-	
Number of Months for Excavation	Input	1	
Cubic Yard Moved Per Day		1667	

Soil Type	Dry Density (g/cm3)
Sand	1.52
Sandy Loam	1.44
Loam	1.36
Silt Loam	1.28
Clay Loam	1.28
Clay	1.20

Note: Dry density in most soils varies within the range 1.1 to 1.6

Ton-Mile per Day Calculation

Soil Type	Input	Clay	
Soil Density (g/m3)		1.20	g/cm3
Soil Density (lbs/CY)		2,023	lbs/CY
Soil Density (tons/CY)		1.01	tons/CY
Haul Distance (Round Trip On-Site)	Input	0.02	Miles
Ton-Miles per Day		31.9	<-------> Haul truck trips per day * 20 CY/truck * tons/CY * miles/trip

Estimated Ton-Miles of Exported Soil
(Input for High-Level of Detail for Fugitive Dust from Off-Site Haulage in URBEMIS)

Project Name:	Input	Yuba Goldfields - Crossing 21
Building ID:	Input	Aggregate Base

Excavation
Number of Haul Trucks per Day

Total Cut/Fill Volume	Input	90	CY
Total Number of Haul Trucks		-	
Number of Months for Excavation	Input	1	
Cubic Yard Moved Per Day		90	

Soil Type	Dry Density (g/cm3)
Sand	1.52
Sandy Loam	1.44
Loam	1.36
Silt Loam	1.28
Clay Loam	1.28
Clay	1.20

Note: Dry density in most soils varies within the range 1.1 to 1.6

Ton-Mile per Day Calculation

Soil Type	Input	Clay	
Soil Density (g/m3)		1.20	g/cm3
Soil Density (lbs/CY)		2,023	lbs/CY
Soil Density (tons/CY)		1.01	tons/CY
Haul Distance (Round Trip On-Site)	Input	0.08	Miles
Ton-Miles per Day		6.9	<----------> Haul truck trips per day * 20 CY/truck * tons/CY * miles/trip

Yuba Goldfields 100-Year Project Addendum (Crossing 21)
On-Road Emission Factors (EMFAC2011)

		Emission Factors (grams/mile)					
Construction Year	**Vehicle Type**	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
2015							
	LDA/LDT Average	0.070	0.407	1.358	0.065	0.036	307.538
	T7	0.388	5.432	15.123	0.127	0.078	1,132.706

Note: LDA/LDT Average represents construction worker vehicles. T7 vehicle class represents material haul trucks.

Print Form

Attachment 2

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Yuba
Address: 915 8th Street, Suite 107
Marysville, CA 95901

From:
Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a continous 2.1-mile-long embankment and additional embankment at Crossing 21 within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on July 14, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): _____ Title: Executive Director, TRLIA

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

ENDORSED FILED

JUL 16 2015

TERRY A. HANSEN, County Clerk
BY ASHLEY STOTTLEMEYER
Deputy Clerk

Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail:
P.O. Box 3044
Sacramento, CA 95812-3044

Street Address:
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Public Agency: TRLIA
Address: 1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, Executive Director
Phone: 530/749-7841

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014022010

Project Title: Addendum 1 to Yuba Goldfields 100-Year Flood Protection Project

Project Applicant: Three Rivers Levee Improvement Authority (TRLIA)

Project Location (include county): Yuba County

Project Description:
TRLIA is proposing to approve construction of facilities in the Yuba Goldfields required to provide 100-year flood protection to the Reclamation District 784 service area. The proposed project would involve constructing a continous 2.1-mile-long embankment and additional embankment at Crossing 21 within the Goldfields designed to intercept and block breach flows, holding them long enough to allow flood peaks to pass. The blocked flows would then return to the Yuba River or percolate into underlying groundwater aquifers. The embankment would be built using the Goldfields' existing dredge tailings.

This is to advise that the Three Rivers Levee Improvement Authority (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on July 14, 2014 (date) and has made the following determinations regarding the above described project.

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2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Yuba County Library, 303 Second Street, Marysville, CA 95901

Signature (Public Agency): Paul G. Brunner Title: Executive Director, TRLIA

Date: 7/15/2015 Date Received for filing at OPR:

2015 FG - 00023

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011