

**ADDENDUM TO THE YUBA RIVER LEVEE REPAIR PROJECT
PHASE I AND II (2004) AND PHASE 4 (2006)
INITIAL STUDIES/ MITIGATED NEGATIVE DECLARATIONS**

YUBA COUNTY, CALIFORNIA



State Clearinghouse #

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Three Rivers Levee Improvement Authority

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THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

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Date: December 9, 2011

To: Interested Parties

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

Subject: Addendum to the Yuba River Levee Repair Project Phase I and II (2004) and Phase 4 (2006) Adopted Initial Studies/ Mitigated Negative Declarations

On August 3, 2004, the Three Rivers Levee Improvement Authority (TRLIA) distributed to public agencies and the public the Draft Initial Study/Mitigated Negative Declaration for the Yuba River Levee Repair Project – Phase I and Phase II (2004 IS/MND). All comments received on the 2004 IS/MND were considered and incorporated into the Final 2004 IS/MND. The Final 2004 IS/MND was accompanied by a Mitigation Monitoring and Reporting Plan. Adoption of the 2004 IS/MND and approval of the project by TRLIA took place on August 24, 2004. The Draft and Final 2004 IS/MND were prepared on behalf of TRLIA in accordance with the requirements of the California Environmental Quality Act (CEQA) Statutes and the State CEQA Guidelines.

On June 9, 2006, TRLIA distributed to public agencies and the public the Draft Initial Study/Mitigated Negative Declaration for the Yuba River Levee Repair Project – Phase 4 (2006 IS/MND). All comments received on the 2006 IS/MND were considered and incorporated into the Final 2006 IS/MND. The Final 2006 IS/MND was accompanied by a Mitigation Monitoring and Reporting Plan. Adoption of the 2006 IS/MND and approval of the project by TRLIA took place on July 28, 2006. The Draft and Final 2006 IS/MND were prepared on behalf of TRLIA in accordance with the requirements of the CEQA Statutes and the State CEQA Guidelines.

Minor changes to the project have occurred since adoption of the 2004 and 2006 IS/MNDs. Changes in a project may be addressed by a supplement to the negative declaration or an addendum, depending on whether such changes result in new or substantially more severe changes in environmental impacts. Since adoption of the 2004 and 2006 IS/MNDs, there is evidence of erosion on the landside of the levee that has resulted in a scarp formation just upstream of State Route (SR) 70 to Shad Road. As a result, an approximate 320-foot long segment of the levee must be improved. Although the details of this improvement were not included in the 2004 and 2006 IS/MNDs, the project goals and objectives to provide flood protection to the area have not changed and the project area for the improvements was thoroughly analyzed and evaluated in the 2004 and 2006 IS/MNDs. The potential impact of the proposed levee landside improvements are analyzed in this Addendum. TRLIA, lead agency for the project under CEQA, has determined that these levee landside improvements constitute minor technical changes or additions to the 2004 and 2006 IS/MNDs and has prepared this Addendum in accordance with Section 15164 of the State CEQA Guidelines.

This Addendum may be reviewed at TRLIA's Web site, <http://www.trlia.org/>. For questions regarding the Addendum and documents referenced in the IS/MND, contact Paul Brunner, P.E., Executive Director, TRLIA. Questions can be sent to Paul Brunner, P.E., Executive Director, TRLIA, 1114 Yuba Street, Suite 218, Marysville, CA 95901, fax (530) 749-6990, or by e-mail: pbrunner@co.yuba.ca.us.

Sincerely,
Paul G. Brunner, P.E.
Executive Director
Three Rivers Levee Improvement Authority

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1 INTRODUCTION

1.1 BACKGROUND

On August 3, 2004, the Three Rivers Levee Improvement Authority (TRLIA) distributed to public agencies and the public the Draft Initial Study/Mitigated Negative Declaration for the Yuba River Levee Repair Project – Phase I and Phase II (2004 IS/MND). All comments received on the 2004 IS/MND were considered and incorporated into the Final 2004 IS/MND. The Final 2004 IS/MND was accompanied by a Mitigation Monitoring and Reporting Plan. Adoption of the 2004 IS/MND and approval of the project by TRLIA took place on August 24, 2004. The Draft and Final 2004 IS/MND were prepared on behalf of TRLIA in accordance with the requirements of the California Environmental Quality Act (CEQA) Statutes and the State CEQA Guidelines.

On June 9, 2006, TRLIA distributed to public agencies and the public the Draft Initial Study/Mitigated Negative Declaration for the Yuba River Levee Repair Project – Phase 4 (2006 IS/MND). All comments received on the 2006 IS/MND were considered and incorporated into the Final 2006 IS/MND. The Final 2006 IS/MND was accompanied by a Mitigation Monitoring and Reporting Plan. Adoption of the 2006 IS/MND and approval of the project by TRLIA took place on July 28, 2006. The Draft and Final 2006 IS/MND were prepared on behalf of TRLIA in accordance with the requirements of the 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 area.

Under the Yuba River Levee Repair Project – Phase I and II IS/MND, TRLIA proposed to enhance flood protection of properties within the RD 784 service area by repairing segments of the south levee of the Yuba River, just upstream of its confluence with the Feather River. These repairs addressed under- and through-seepage concerns on the Yuba River South Levee through a combination of treatments. These treatments included the construction of a slurry cutoff wall, relief wells, and a landside seepage berm. The treatment area was divided into five reaches for the purposes of the 2004 IS/MND analysis: Reaches A, B, C, D, and E. Construction of the project occurred in two phases: Phase I occurred in September through October 2004, and Phase II occurred during the summers of 2005 and 2006. Reach B covered the area from State Route (SR) 70 to Shad Road.

Under the Yuba River Levee Repair Project – Phase 4 IS/MND, TRLIA also proposed to enhance flood protection of properties within the RD 784 service area by repairing segments of the south levee of the Yuba River. These repairs addressed under- and through-seepage concerns on the Yuba River South Levee through a combination of treatments including constructing a slurry cutoff wall, a small landside seepage berm, and raising the height of a segment of the levee. The treatment area was divided into the same five reaches, Reaches A, B, C, D, and E, for the 2006 IS/MND analysis as the 2004 IS/MND. Construction of the Phase 4 project commenced in July 2006 and ended in November 2006. From 2004 through 2006, components of the Yuba River Levee Repair Project Phases I and II were constructed. These components consisted of the construction of a slurry wall and landside seepage berm in Reaches B, C, and D.

As is typical of conceptual planning and design processes, minor changes to the project have occurred since adoption of the 2004 and 2006 IS/MNDs. The CEQA Guidelines state that changes in a project may be addressed by a supplement to the negative declaration or an addendum, depending on whether such changes result in new or substantially more severe changes in environmental impacts. Since adoption of the 2004 and 2006 IS/MNDs, there is evidence of erosion on the landside of the levee that

has resulted in a scarp formation just upstream of SR 70 to Shad Road. As a result, an approximate 320-foot long segment of the levee must be improved. Although the details of this improvement were not included in the 2004 and 2006 IS/MNDs, the project goals and objectives to provide flood protection to the area have not changed and the project area for the improvements was thoroughly analyzed and evaluated in the 2004 and 2006 IS/MNDs. The details of the proposed levee landside improvements are described in this Addendum. TRLIA, lead agency for the project under CEQA, has determined that these levee landside improvements constitute minor technical changes or additions to the 2004 and 2006 IS/MNDs and has prepared this Addendum in accordance with Section 15164 of the State CEQA Guidelines.

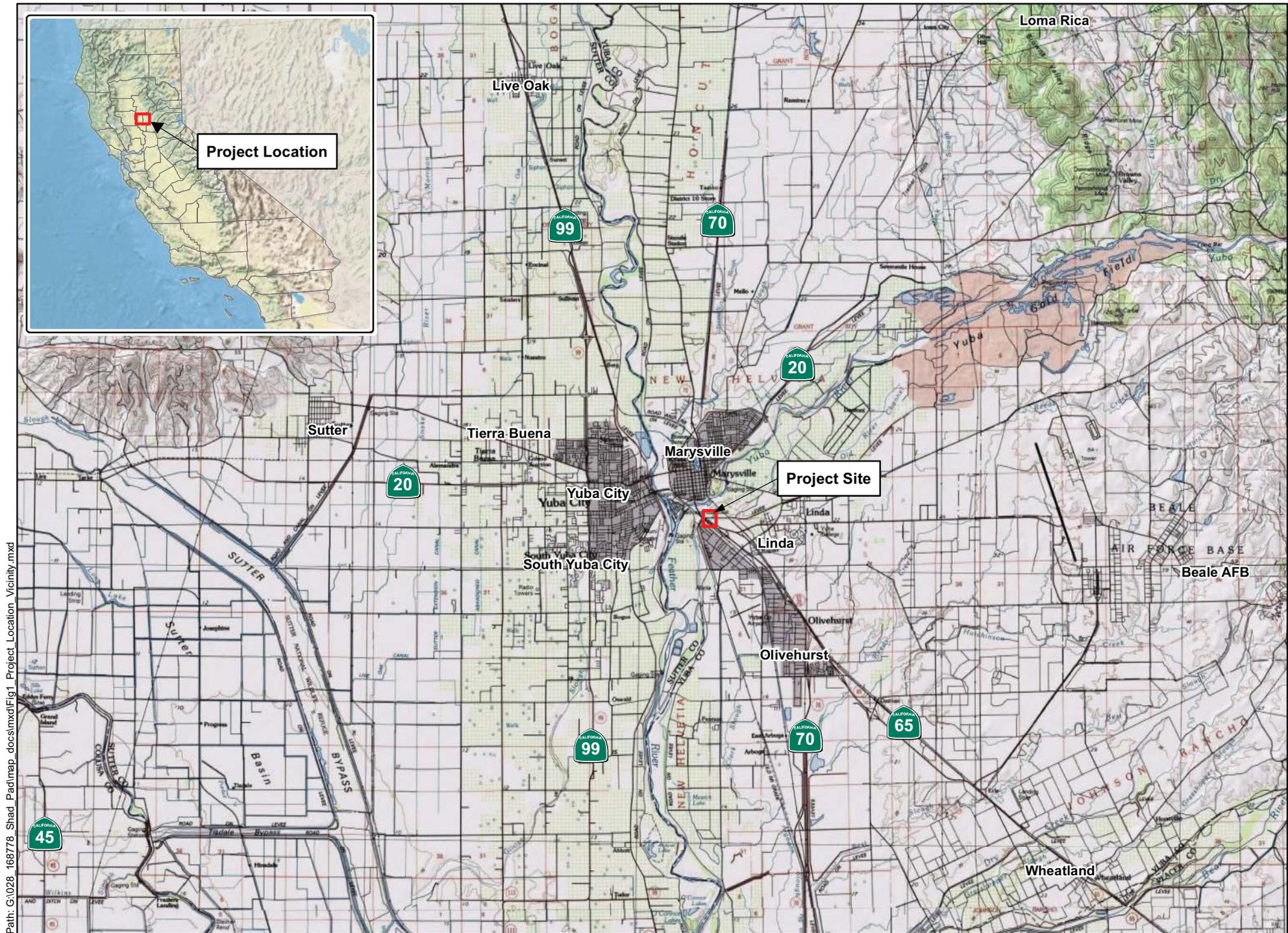
The proposed improvements are entirely located within Reach B as defined in the 2004 and 2006 IS/MNDs. Figure 1-1 shows the location and vicinity of Reach B and the proposed improvements. Figure 1-2 shows the proposed area, levee station number 5+80 to 9+00, where the proposed improvements would occur. In 2004 TRLIA constructed a 50-foot-deep slurry wall using the conventional slot trench method in Reach B. Although TRLIA proposed to construct relief wells in Reach B in 2005, no relief wells were constructed. In 2009 TRLIA flattened the waterside slope in Reach B in order to maintain a 3:1 slope.

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 (or an EIR has been certified) 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;
 - (C) 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



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Figure 1-1 - Location and Vicinity Map

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Project Site

Levee Rd

Levee Rd

Shad Rd

N Beale Rd

N Beale Rd



Figure 1-2 - Project Site

Levee Landside Improvements -- Station 5+80 to 9+00

- (D) 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 in Section 15162 calling for the preparation of a subsequent negative declaration have occurred.

The analysis below will demonstrate that changes and additions to the 2004 and 2006 IS/MNDs since adoption of the mitigated negative declarations in August 24, 2004 and July 28, 2006, respectively:

- ▶ 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 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 2004 and 2006 IS/MNDs, consistent with Section 15164 of the State CEQA Guidelines, is the appropriate mechanism to document the minor technical changes and additions to the Yuba River Levee Repair 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 2004 and 2006 IS/MNDs.

2 CHANGES TO THE PROJECT

The primary change to the Yuba River Levee Repair Project is related to erosion that has occurred since completion of the project on the landside of the levee. This erosion has resulted in a scarp formation just upstream of SR 70 to Shad Road, approximately levee station number 5+80 to 9+00. As a result of this scarp, an approximate 320-foot long segment of the levee must be repaired. Although the details of this repair are not included in the 2004 and 2006 IS/MNDs, the project goals and objectives to provide flood protection to the area have not changed and the project area for the improvements was thoroughly analyzed and evaluated in the 2004 and 2006 IS/MNDs.

2.1 LEVEE LANDSIDE IMPROVEMENTS – STATION 5+80 TO 9+00

The proposed levee landside improvements from station number 5+80 to 9+00 include reconstructing the landside of the levee to a slope of 3 horizontal feet to 1 vertical foot (3H:1V), resurfacing the levee crown, and clearing of trees, structures, and fences for an operations and maintenance (O&M) corridor. The final levee crown elevation would not exceed the existing grades as a part of these improvements.

The landside levee slope and all areas to have fill placed on them would be cleared and grubbed of all vegetation and stripped to a depth of six inches. These surfaces would then be appropriately prepared (i.e., laid back, keyed, over excavated, etc.) to allow for effective placement of material and to allow for a fully integrated composite levee section when construction is complete. Material similar to that comprising the remaining portion of the levee would be placed in six inch maximum lifts and compacted to achieve appropriate density at optimum moisture content. The levee crown would then be repaved to match existing conditions and erosion resistant mulch with grass seed would be applied to the restored levee slope.

2.1.1 OPERATION AND MAINTENANCE CORRIDORS

To provide space for O&M of the levee and for possible flood fighting, TRLIA would acquire adjacent land to provide a 20-foot wide O&M corridor at the landside toe of the levee. Existing structures, fences, trees, and other obstructions within the O&M corridor area would be removed as a part of the clear and grub operation. The 20-foot O&M corridor would incorporate the 15-foot wide vegetation free zone along the landside levee toe as required by the United States Army Corps of Engineers (USACE).

All property acquisitions and relocations conducted as part of the proposed improvements would be in compliance with both the Federal Uniform Relocation Act and the California Relocation Assistance Law.

2.1.2 RELOCATION OF UTILITIES AND LEVEE PENETRATIONS

There are existing Pacific Gas and Electric Company (PG&E) facilities, power poles, and power lines, located within the footprint of the proposed landside levee improvements. To comply with requirements from USACE and Title 23 of the California Code of Regulations it is anticipated that these PG&E facilities would be relocated approximately 20-feet outside of the proposed landside levee toe. This work would be completed by PG&E. A new 30-foot wide easement would be obtained for the relocated PG&E facilities.

An existing septic tank is located within the footprint of the proposed improvements. This septic tank would be removed as a part of the clear and grub operation. Any existing sewer lines tied into the septic tank would be rerouted outside of the levee toe and O&M corridor.

2.1.3 EROSION PROTECTION AND STORMWATER POLLUTION PREVENTION

Where soil along the landside surface of the existing levee is disturbed during project implementation, an approved grass cover would be placed for erosion protection. Temporary erosion/runoff control measures would be implemented during construction to minimize stormwater pollution resulting from erosion and sediment migration from the construction and staging areas. These temporary control measures may include minimizing the amount of area disturbed at any one time; providing secondary containment for small quantity storage of construction equipment fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, revegetation, and temporary covers as appropriate. Erosion and stormwater pollution control measures would be consistent with National Pollutant Discharge Elimination System (NPDES) permit requirements and would be included in a storm water pollution prevention plan (SWPPP).

After completion of construction activities, temporary facilities would be removed and disturbed areas would be restored and reclaimed as appropriate. Site restoration activities for areas disturbed by construction activities, including staging areas, may include grading, seeding, use of straw wattles and bales, application of straw mulch and/or hydro seed, and other measures deemed appropriate.

2.1.4 CONSTRUCTION EQUIPMENT

Mobile equipment for the proposed levee improvements is assumed to include the following typical equipment:

- ▶ One utility excavator
- ▶ One bulldozer
- ▶ One self-propelled sheepsfoot or tramping-foot roller
- ▶ One water truck
- ▶ 10 highway dump trucks
- ▶ One asphalt paver
- ▶ One lubricating truck
- ▶ One front-end loader
- ▶ One integrated tool carrier

Additional equipment would include: air compressors to operate tools and other equipment; welding equipment; pumps and piping; communications and safety equipment; erosion control materials; miscellaneous equipment customary to the mechanical and electrical crafts; and vehicles used to deliver and move equipment, materials, and personnel.

2.1.5 STAGING AREAS AND CONSTRUCTION TRAFFIC ACCESS

Prior to and during construction of the proposed levee improvements a staging area would be established to allow for efficient use and distribution of materials and equipment. Personnel, equipment, and

imported materials would reach the project area via SR 70, North Beale Road, and Shad Road, which are paved, all-weather roads, and suitable for the anticipated loads. At the project site, the primary construction corridor would include the crest of the existing levee and the area adjacent to the levee toe. The construction labor force is estimated to average approximately 15 persons over the construction period.

It is expected that approximately 10 trailer (“low-boy”) truck round trips would be required to transport the contractor’s equipment listed above to the project area. A similar number of round trips would be needed to remove the equipment from the site as the work is completed.

It is estimated that a net total of approximately 6,000 cubic yards (cu. yd.) of material would be required for the proposed improvements. It is anticipated that borrow material would be needed from local off-site sources. In addition, about 20 highway truckloads may be needed to carry construction debris and waste materials to a suitable landfill.

Within the construction area, the main source of construction traffic would be the movement of material for the reconstruction of the landside levee slope between the staging area and the levee slope. Dust control measures would be applied to roads and work areas on a systematic basis for dust suppression.

2.1.6 CONSTRUCTION SCHEDULING

A construction period of approximately six to eight weeks is planned for the landside levee improvements. Construction is anticipated to commence on or after August 1, 2012, beginning with contractor mobilization, and ending with clean-up and contractor demobilization. The proposed improvements would be constructed over the six to eight week period, working 15 hours per day. Schedule highlights are as follows:

- ▶ Mobilization: Mobilization would include setting up a staging area and transporting earthmoving equipment to the site. These activities may take approximately one week.
- ▶ Clearing, grubbing, stripping, and demolition operations.
- ▶ Utilities: Existing PG&E facilities, power poles, and power lines would be relocated.
- ▶ Landside levee slope improvements: The landside levee slope would be reconstructed to a 3:1 slope.
- ▶ O&M Corridor: Establish a 20-foot wide O&M corridor at the landside levee toe after the levee slope improvements are constructed.
- ▶ Demobilization: Demobilization would include removal of equipment and materials from the project site, disposal of excess materials at appropriate facilities, and restoration of the staging area to pre-project conditions. Demobilization activities would be completed in 2012.

3 ENVIRONMENTAL ANALYSIS

This section provides the analysis to verify that: (1) the minor technical changes and additions to the Yuba River Levee Repair Project described in Chapter 2 of this document 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 mitigated negative declarations; and, (2) the combined analyses in the 2004 and 2006 IS/MNDs and this Addendum are sufficient to meet CEQA requirements.

The evaluation below is provided in the form of a narrative discussion addressing each environmental issue area included in the 2004 and 2006 IS/MNDs (e.g., land use, transportation/traffic, air quality).

3.1 ANALYSIS BY RESOURCE TOPIC

With the exception of Biological Resources, Cultural Resources, and Greenhouse Gas Emissions) which are discussed below in sections 3.1.1, 3.1.2, and 3.1.3 respectively), Table 3-1 provides a qualitative comparison of overall project impacts identified in the 2004 and 2006 IS/MNDs versus the proposed improvements outlined in Section 2.0.

Table 3-1. Qualitative Comparison of Overall Project Impacts Identified in the 2004 and 2006 IS/MNDs versus the Proposed Improvements

Resource Area	Potential Impacts Identified in the 2004 and 2006 IS/MNDs	Adopted Avoidance, Minimization, and/or Mitigation Measures in the 2004 and 2006 IS/MNDs	New (Current) Impact Value
Aesthetics	Temporary disruption to the existing visual quality of the area during construction due to presence of construction equipment.	None required	The proposed improvements would not result in any new or substantially greater impacts to aesthetics.
Agriculture and Forestry Resources	No impacts to agricultural and forestry resources identified.	None required	The proposed improvements would not result in any new or substantially greater impacts to farmland or forestry resources.
Air Quality	The project would cause temporary (construction-related) emissions; No permanent impacts	Implement Feather River Air Quality Management District's recommended emissions reduction measures.	The proposed improvements would not result in any new or substantially greater impacts to air quality.
Geology/Soils	Temporary construction impacts related to soil disturbance and erosion would occur.	Prepare a Stormwater Pollution Prevention Plan and comply with other applicable erosion and sediment control/water quality regulations.	The proposed improvements would not result in any new or substantially greater impacts to geology and soils.
Hazardous Waste/Materials	Temporary construction impacts related to use of hazardous substances (i.e. fuel, solvents, and oils) and risk of accidental release and exposure of people or structures to risk of wildland fire.	Prepare a Stormwater Pollution Prevention Plan; comply with other applicable water quality regulations; employees training in safe handling and storage of hazardous materials; and, clear areas slated for construction using spark-producing or intense heat-producing equipment.	The proposed improvements would not result in any new or substantially greater impacts to hazardous waste/materials.

Resource Area	Potential Impacts Identified in the 2004 and 2006 IS/MNDs	Adopted Avoidance, Minimization, and/or Mitigation Measures in the 2004 and 2006 IS/MNDs	New (Current) Impact Value
Hydrology/Water Quality	Temporary construction impacts related to soil disturbance and erosion, use of hazardous substances (i.e. fuel, solvents, and oils), and changes in drainage patterns that affect the potential for flooding.	Prepare a Stormwater Pollution Prevention Plan; comply with other applicable water quality regulations; and, employees training in safe handling and storage of hazardous materials.	The proposed improvements would not result in any new or substantially greater impacts to hydrology and water quality.
Land Use	The project is consistent with the Yuba County General Plan. The project would not disrupt existing community character or cohesion.	None required	The proposed improvements would not result in any new or substantially greater impacts to land use.
Mineral Resources	The project would not result in the loss of availability of a known mineral resource or loss of availability of a locally important mineral resource recovery site.	None required	The proposed improvements would not result in any new or substantially greater impacts to mineral resources.
Noise	Temporary construction impacts related to periodic increases in noise levels in the project area.	Abide by the Yuba County Noise Ordinance.	The proposed improvements would not result in any new or substantially greater impacts to noise.
Population and Housing	The project would not induce substantial growth. Approximately 10 units at the mobile home park in Reach B would need to be relocated or removed to accommodate construction.	No mitigation is required because the number of houses expected to be removed or relocated would be small, and because there is plenty of housing available in southern Yuba County, therefore, there would not be an overall shortage of housing as a result of implementation of construction activities in Reach B.	The proposed improvements would not result in any new or substantially greater impacts to population and housing. Approximately five units at the mobile home park would be removed or relocated as a result of the proposed improvements.
Public Services	No impacts to public services identified.	None required.	The proposed improvements would not result in any new or substantially greater impacts to public services.
Recreation	The project would result in the temporary disruption of access to existing recreational facilities.	Temporary closure of access to existing recreational facilities, however, access would resume upon completion of construction activities, therefore no mitigation is required.	Recreational access to Shad Pad OHV Park along Shad Road would be maintained during construction activities. Therefore, the proposed improvements would not result in any new or substantially greater impacts to recreation.

Traffic/ Transportation	The project would cause only temporary (construction-related) roadway closures and impacts to traffic and transportation that could disrupt local circulation and result in limited emergency access.	Develop and implement a traffic safety plan; minimize the accumulation of mud and dirt on local roadways; assess damage to haul and access routes; and, notify and consult with emergency service providers and take measures necessary to maintain emergency access and facilitate the passage of emergency vehicles on local streets.	The proposed improvements would not result in any new or substantially greater impacts to traffic and transportation.
Utilities and Service Systems	The project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. In addition, construction and operation of the project would not result in the long-term production of any solid wastes. Construction would result in the relocation of power and communication lines.	TRLIA would cooperate with the utilities and follow standard procedures to ensure minimal disruption for power lines and services; therefore, no mitigation is required.	The proposed improvements would not result in any new or substantially greater impacts to utilities and service systems.

3.1.1 BIOLOGICAL RESOURCES

The focus of this section is to describe the current biological conditions at the project site and to evaluate whether the proposed landside improvements, post adoption of the 2004 and 2006 IS/MNDs, would result in any new or substantially different significant impacts to biological resources that were evaluated in the 2004 and 2006 IS/MNDs. This section:

- ▶ describes the methods used to evaluate the potential impacts of the proposed improvements on biological resources;
- ▶ provides a description of current biological conditions and tree resources in the project site;
- ▶ evaluates potential impacts of the proposed improvements on biological resources;
- ▶ provides a comparison of current biological conditions, potential impacts to biological resources, and necessary mitigation measures for those impacts evaluated in the 2004 and 2006 IS/MNDs; and,
- ▶ provides an evaluation of potential impacts to biological resources per the CEQA standards of significance.

METHODS

For the purpose of performing the evaluations listed above, HDR conducted a review of special-status species with the potential to occur in the project site and be impacted by implementation of the proposed improvements. This review consisted of a database search, a biological reconnaissance survey of the project site, and an evaluation of the potential for regionally-occurring special-status species identified in the database search to occur in the project site and be impacted by the proposed improvements. The results of this review were then compared to the results of the biological resources evaluation in the 2004 and 2006 IS/MNDs to determine if the impacts to biological resources and proposed mitigation measures identified in these documents sufficiently analyzed the potential impacts to biological

resources of the proposed improvements and if the 2004 and 2006 IS/MNDs proposed adequate mitigation for those impacts to reduce them to a less-than-significant level.

Information on biological resources is based on a reconnaissance survey conducted on November 16, 2011 and database searches of regionally-occurring special-status species maintained by the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS). The database search consisted of reviewing the CDFG's Natural Diversity Database (CNDDDB) for reported occurrences of special-status species on the Yuba City and Olivehurst United States Geological Survey (USGS) 7.5 minute quadrangles (quads), the USFWS list of federal endangered and threatened species that occur in or may be affected by projects in the Yuba City and Olivehurst USGS 7.5 minute quads and Yuba County, and the CNPS list of rare plant species (plant species designated with a California rare plant rank by the CNPS) reported on the Yuba City and Olivehurst USGS 7.5 minute quads.

Prior to conducting the reconnaissance survey, the database search was conducted to compile a list of special-status species with the potential to occur in the project site or be adversely affected by the proposed improvements. The database search was conducted primarily for the purpose of identifying any special-status species with the potential to occur in the project site or immediate vicinity that would not have been evaluated in the 2004 and 2006 IS/MNDs 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 in the project site or vicinity). During the reconnaissance survey, an HDR biologist identified and characterized biological resources and tree species present in the project site by walking the levee, adjacent mobile home park, and other adjacent areas.

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 in the project site of sensitive natural communities including potential waters of the U.S. that would be subject to Corps jurisdiction under Section 404 of the Clean Water Act (CWA);
- ▶ an identification of numbers and species of trees occurring in the project site;
- ▶ a search for special-status species or their habitats that may be present in the project site; and,
- ▶ a search for nests of raptors or other migratory birds.

RESULTS

The project site consists of an existing levee and a mobile home park adjacent to the landside levee toe. The levee crown has a paved access road and lacks vegetation. The waterside and landside slopes of the existing levee are vegetated with ruderal herbaceous vegetation. A mix of horticultural and native trees occurs along the landside levee toe and throughout the mobile home park. No potential waters of the U.S. that would potentially be subject to Corps jurisdiction under Section 404 of the CWA occur in the project site. No sensitive natural communities as defined by CDFG occur in the project site. Plant

species observed on the levee slopes during the reconnaissance survey include several species of non-native grasses (*Avena* sp., *Bromus* sp., *Hordeum* sp, and *Vulpia* sp.) and a variety of herbaceous plant species typical of disturbed areas including storksbill (*Erodium botrys*), bedstraw (*Galium aparine*), chickweed (*Stellaria media*), beggar’s tick (*Torilis arvensis*), and milk thistle (*Silybum marianum*). Wildlife species observed during the reconnaissance survey consisted of a few bird species commonly observed in the region including Anna’s hummingbird (*Calypte anna*), American goldfinch (*Carduelis tristis*), American crow (*Corvus brachyrhynchos*), and ruby-crowned kinglet (*Regulus calendula*). All tree species occurring in the project site were identified and counted. Table 3-2 below identifies the common name, species name, and number of individuals of each tree species occurring within the project site.

Table 3-2. Trees Occurring within the Project Site

Common Name	Scientific Name	Number of Individuals in the Project Site
White Mulberry	<i>Morus alba</i>	8
Incense Cedar	<i>Calocedrus decurrens</i>	15
California fan palm	<i>Washingtonia filifera</i>	1
Tree of heaven	<i>Ailanthus altissima</i>	2
Fremont cottonwood	<i>Populus fremontii</i>	1
Eucalyptus	<i>Eucalyptus</i> sp.	15
Oregon ash	<i>Fraxinus latifolia</i>	2
Western sycamore	<i>Platanus racemosa</i>	1
Total		45

Special-status species with the potential to occur in the project site and/or be impacted by the proposed improvements were determined by comparing the habitat requirements of the regionally-occurring special-status species identified during the database search to the habitats present in the project site. A total of 11 federally-listed species were identified by USFWS as having the potential to occur on the Yuba City and Olivehurst USGS 7.5 minute quads, consisting of four invertebrates, four fishes, one amphibian, and one bird species. The CNDDDB and CNPS database identified two sensitive natural communities (riparian habitats) and nine additional state listed species and state species of concern with reported occurrences on the Yuba City and Olivehurst quads including four bird species, four plant species, and one invertebrate species. Of these twenty regionally-occurring special-status species, 17 were precluded from having the potential to occur in the project site due to a lack of suitable habitat. The following special-status species were determined to have the potential to occur in the project site and/or be impacted by the proposed improvements: Valley elderberry longhorn beetle (VELB; *Desmocerus californicus dimorphus*), Swainson’s hawk (*Buteo swainsonii*), white-tailed kite (*Elanus leucurus*) and other raptors, and migratory birds.

No special-status plant or wildlife species were observed in the project site. Although the reconnaissance survey was conducted outside of the blooming season of regionally-occurring special-status plants, the project site is highly unlikely to support special-status plant species due to the lack of natural habitat and routine levee maintenance practices. Two blue elderberry (*Sambucus mexicana*)

shrubs, the host plant for the VELB, were observed in the project vicinity on the waterside of the levee, but are located more than 100 feet from the project limits and would not be disturbed as a result of the proposed improvements. Therefore, no impacts to VELB are anticipated as a result of the proposed improvements.

No Swainson's hawk, white-tailed kite, or other raptor or migratory bird nests were observed in the project site. However, the reconnaissance survey was conducted outside of the typical nesting season for raptors and migratory birds of February 1 through August 31. It is unlikely that raptors, including Swainson's hawk and white-tailed kite, would nest in the project site due to consistent human disturbance. However, potential nest trees occur in the project site and adjacent areas. Swainson's hawk, white-tailed kite, and other raptors and migratory birds could potentially begin nesting in or adjacent to the project site prior to commencement of construction. Construction related activities could potentially result in disturbance of nesting Swainson's hawk, white-tailed kite or other raptors and migratory birds if they were nesting in the project site or vicinity at the time of project construction. Construction related disturbances to nesting raptors and migratory birds could potentially lead to mortality of young as a result of nest abandonment or forced fledging. This would result in a significant impact.

The habitat conditions in the project site do not appear to have changed since the 2004 and 2006 IS/MNDs were adopted. The 2004 and 2006 IS/MNDs identify potential impacts to VELB, Swainson's hawk, white-tailed kite and other raptors, and breeding and roosting habitat for migratory birds. No special-status species were identified as having the potential to occur in the project site and/or be impacted by the proposed improvements other than species already evaluated in the 2004 and 2006 IS/MNDs. The 2004 and 2006 IS/MNDs provide mitigation measures to reduce impacts to these species to a less-than-significant level. Pertinent mitigation measures for potential impacts to biological resources would be implemented as described in the 2004 and 2006 IS/MNDs. The following mitigation measures identified in the 2004 and 2006 IS/MNDs would be implemented in order to reduce potential impacts to biological resources: minimization and avoidance measures for elderberry shrubs, preconstruction surveys for nesting Swainson's hawks prior to construction, avoidance and minimization of construction-related disturbances within one-half mile of active Swainson's hawk nest sites, and avoidance and minimization of effects on migratory birds.

The following mitigation measures from the 2004 and 2006 IS/MNDs are not anticipated to be necessary for the proposed improvements: performance of pre-construction and post-construction surveys for elderberry shrubs and compensation for unavoidable impacts on elderberry shrubs.

With the implementation of the proposed mitigation measures identified above, potential impacts to VELB, Swainson's hawk, white-tailed kite, and other raptors and migratory birds would be reduced to a less-than-significant level. No additional mitigation is necessary.

The project 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 CDFG or USFWS;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act 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.

3.1.2 CULTURAL RESOURCES

On November 16, 2011, HDR archaeologist Dawn Ramsey Ford, M.A., conducted a pedestrian survey of the additional acreage to the project area in an effort to identify cultural resources. Two cultural resources were identified, the previously recorded south levee of the Yuba River (P-58-1353H) and a stone and mortar wall with an embedded iron hitching ring (CA-YUB-1690H). The levee has been previously determined “not eligible” for listing on the California Register of Historic Resources (CRHR). The stone wall is described and evaluated in the technical report *Supplemental Cultural Resources Investigations for the Yuba River Levee Repair Project, Yuba County, California* (Ramsey Ford 2011).

Archival research was conducted to ascertain historical background on the stone wall. Archives from the Yuba County Library Local History section failed to produce any information about the wall, nor did review of Bureau of Land Management General Land Office maps, other historic maps, or document searches. The Marysville City Historian was also consulted with on November 30, 2011, which resulted in no new findings related to the wall.

Native American tribes were contacted in 2004 and 2006 to ascertain whether they would like to participate in the project, of which none responded. Additionally, no prehistoric or historic sites related to Native Americans were identified during the supplemental investigations. For these reasons, no further tribal consultation was conducted.

Based on the historic assessment and review of archival records, the property does not meet the eligibility criteria for being listed on the CRHR. The property does not demonstrate sufficient historic integrity to be listed, based on evaluation of the location, design, setting, workmanship, materials, feeling and association. The setting has had significant changes as the wall is surrounded by a mobile home park and there have been significant changes to the structure itself as well. The design, materials, and workmanship of the wall are not exemplary as they relate to construction methods and architectural details. The inability of the property to meet the eligibility criteria for being listed on the CRHR, and the lack of historic integrity, indicates that the resource is not historically significant. Consequently, implementation of the project would result in a less than significant impact to historical resources.

3.1.3 GREENHOUSE GAS EMISSIONS

At the time that the 2004 and 2006 IS/MNDs were adopted the CEQA Guidelines did not require that Greenhouse Gas Emissions (GHG) be evaluated in CEQA documents. However, in 2009 the CEQA Guidelines were amended due to Executive Order S-3-05, the passage of Assembly Bill 32 (AB 32), and

further direction under Executive Order S-20-06. CEQA requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that the cumulative impacts of GHGs, even additions that are relatively small on a global basis, need to be considered. Because of the cumulative nature of the climate change problem, even relatively small contributions may be potentially considerable (and therefore, significant).

Section 15064.4 of the 2009 adopted CEQA Guidelines states:

“(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or,

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project (CEQA 2009).

At the time of the analysis conducted for the proposed improvements, no state or local air quality regulatory agency in California, including the Feather River Air Quality Management District (FRAQMD), has identified a significance threshold for GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. Therefore, to make the determination whether the incremental impacts of the proposed improvements are

“cumulatively considerable” the incremental impacts of the proposed improvements must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

GHGs generated by the proposed improvements would be primarily in the form of carbon dioxide (CO₂) from construction equipment exhaust. Although emissions of other GHGs such as methane and nitrous oxide are important with respect to global climate change, the emissions levels of these GHGs for the sources associated with construction are nominal compared with CO₂ emissions, even considering their higher global warming potential. Therefore, all GHG emissions for construction and operation are evaluated as CO₂ emissions.

Emissions factors and calculation methods for estimating GHG emissions associated with infrastructure projects have not been formally adopted for use by the state, FRAQMD, or any other air district. Construction activities associated with the proposed improvements would occur over an approximately six to eight week period in 2012. During this time, a net increase in GHG emissions would result from construction activities. Construction-related GHG emissions would be associated with engine exhaust from heavy-duty construction equipment, transport trucks hauling materials (e.g., soil), and worker commute trips. Although any increase in GHG emissions would add to the quantity of emissions that contribute to global climate change, it is noteworthy that emissions associated with construction of the proposed improvements would occur over a finite period of time (i.e., six-eight weeks). After full project buildout, all construction emissions would cease.

The proposed improvements would contribute directly to emissions of GHGs from the combustion of fossil fuels from construction equipment. CO₂ accounts for 92 percent of all greenhouse gas emissions; electric utilities are the primary source of anthropogenic CO₂, followed by transportation. The California Energy Commission estimates that in 2005, gross adjusted CO₂ emissions in California were 395 million metric tons of CO₂ equivalents (Department of Energy/Energy Information Administration (DOE/EIA) 2005). Construction activities associated with the proposed improvements would emit a negligible amount of CO₂ when compared to the California state CO₂ emissions. Therefore, the proposed improvements would contribute an insignificant amount of CO₂ towards statewide GHG inventories.

Because construction-related emissions would be temporary and finite and would have a negligible cumulative contribution towards statewide GHG emissions they would not have a considerable contribution to the cumulative global impact. In addition, the proposed improvements would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. In fact, the proposed improvements would improve continued reliance on flood protection facilities in Yuba County if the frequency, and possibly the magnitude, of future flood events increases due to climate change. Therefore, the proposed improvements would meet local policies and plans for improved flood protection in the RD 784 service area due in part to climate change.

3.2 CONCLUSIONS

As described in the preceding sections, the proposed improvements evaluated in this Addendum would not change any of the impact conclusions of the 2004 and 2006 IS/MNDs and would not result in new or substantially more severe environmental impacts.

Based on the analysis of the categories of environmental impacts evaluated above, implementing the proposed improvements 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 2004 and 2006 IS/MNDs, and the proposed minor technical changes and additions 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, and
- ▶ 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 2004 and 2006 IS/MNDs is the appropriate CEQA document to evaluate and record the project minor technical changes and additions described in this document.

4 REFERENCES

California Environmental Quality Act. 2009. *Adopted Text of the CEQA Guidelines Amendments*. Available online: <<http://ceres.ca.gov/ceqa/guidelines/>>. Adopted December 30, 2009. Accessed December 2, 2011.

Department of Energy/Energy Information Administration. 2005. *State Carbon Dioxide Emissions, Emissions Detail by State, California*. Available online: <http://www.eia.doe.gov/oiaf/1605/state/state_emissions.html>. Accessed on December 1, 2011.

Ramsey Ford. 2011. *Supplemental Cultural Resources Investigations for the Yuba River Levee Repair Project, Yuba County, California*. December 2011.