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 Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego, John 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 Clerk of the Board of Supervisors.

III CONSENT AGENDA: Matters listed are considered to be routine and can be enacted by one motion.

A Approve minutes of the meetings January 15, 2013.

IV ACTION ITEMS

A Approve amendment to Pump Station 3 agreement with Reclamation District 784 and authorize Executive Director to execute same.

B Approve Addendum No. 4 to the Bear River and Western Pacific Interceptor Canal Levee Improvement Project Environmental Impact Report and direct staff to file notice of determination.

V BOARD AND STAFF MEMBERS’ REPORTS


VI CLOSED SESSION:

A Pending litigation pursuant to Government Code §54956.9(a) - TRLIA vs. Luis, et al., YCSCCVED 10-0000903, APN Nos. 018-200-005, 018-200-007, 018-210-035, and 018-200-008, recently changed to 018-200-010

VII ADJOURN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

JANUARY 15, 2013

MINUTES

A meeting of the Board of Directors of the Three Rivers Levee Improvement Authority (TRLIA) was held on the above date, commencing at 9:30 a.m., within the Government Center, Marysville, California, with a quorum being present as follows: Directors Rick Brown, Jerry Crippen, Don L. Graham, Mary Jane Griego. Director John Nicoletti was absent. 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 Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego, John Nicoletti – Director Nicoletti absent

II  ELECTION OF OFFICERS: Chair and Vice-chair

MOTION: Move to appoint Director Griego Chair and Director Brown Vice Chair for 2013
MOVED: Jerry Crippen  SECOND: Don Graham
AYES: Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego
NOES: None  ABSTAIN: None  ABSENT: John Nicoletti

III. PUBLIC COMMUNICATIONS: No one came forward.

IV  CONSENT AGENDA: Matters listed are considered to be routine and can be enacted by one motion.

MOTION: Move to approve  MOVED: Rick Brown  SECOND: Don Graham
AYES: Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego
NOES: None  ABSTAIN: None  ABSENT: John Nicoletti

A. Approve minutes of the meetings December 18, 2012. Approved as written.

V  ACTION ITEMS

A. Adopt resolution adopting the Uniform Public Construction Cost Accounting Act an alternative to the public bidding requirement currently applicable for construction contracts. Counsel Andrea Clark recapped the requirements for construction projects followed under the Uniform Act and responded to Board inquiries.

MOTION: Move to adopt resolution
MOVED: Jerry Crippen  SECOND: Rick Brown
AYES: Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego
NOES: None  ABSTAIN: None  ABSENT: John Nicoletti

Adopted Resolution No. 2013-01 entitled: "A RESOLUTION BY THE BOARD OF DIRECTORS OF THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY ADOPTING BIDDING AND COST ACCOUNTING PROCEDURES UNDER THE CALIFORNIA UNIFORM COST ACCOUNTING ACT."
VI  BOARD AND STAFF MEMBERS' REPORTS

Counsel Andrea Clark: Availability of Draft Environmental Assessment for Feather River Levee Repair Project Segments 1 and 3

Executive Director Paul Brunner:
- Selection of River Partners to transplant Elderberry for Feather River Levee Repair Project Segment 3
- Central Valley Flood Control Board January 25, 2012 meeting
- Application for Feather River Setback mitigation and recreation sites
- American Society of Civil Engineers awarded the Upper Yuba Levee Improvement Project for flood control Project of the Year for the Sacramento Section with awards dinner scheduled February 20, 2013

Director Crippen left the meeting at 2:20 p.m.

VII  CLOSED SESSION: The Board retired into closed session at 2:20 p.m.

A. Pending litigation pursuant to Government Code §54956.9(a) - TRLIA vs. Luis, et al/ YCSCCVED 10-0000903

Director Nicoletti joined closed session at 2:23 p.m.

The Board returned at 2:45 p.m. with all present except Director Crippen. There was no announcement.

VIII  ADJOURN: 2:45 p.m. by Chair Griejo.

______________________________
Chair

ATTEST: DONNA STOTTEMEYER
CLERK OF THE BOARD OF SUPERVISORS
AND SECRETARY OF THE PUBLIC AUTHORITY

______________________________  Approved: ______________________
February 19, 2013

TO: Three Rivers Levee Improvement Authority Board

FROM: Paul Brunner, Executive Director

SUBJECT: Amendment to Agreement for Payments Related to Construction of Pump Station 3

Recommended Action

Board approval of the amendment to the PS 3 Agreement with RD 784 and delegate authority to Executive Director to sign and execute agreement

Background

RD 784 has collected impact fees to finance interior drainage improvements in accordance with the RD 784 Master Drainage Plan (September 2002), which includes the reconstruction of Pump Station 3 ("PS 3"). On December 4, 2007, TRLIA and RD 784 entered into an agreement (the "PS 3 Agreement") whereby TRLIA would relocate and reconstruct PS 3 as part of its Feather River Setback Levee project, and RD 784 would compensate TRLIA for this work in an amount not to exceed $5,073,000. On December 12, 2007 and in accordance with the PS 3 Agreement, RD 784 made an initial payment to TRLIA of $927,000.

Since 2007, TRLIA has obtained a Proposition 1E funding agreement for its Feather River work, which specifically includes a State cost share for the PS 3 work. The State cost share for the PS 3 work is $5,394,591.03, and TRLIA’s cost share for the work is $1,118,680.42. The result is that RD 784 owes TRLIA less money than was expected when the parties entered into the PS 3 Agreement: because RD 784 has already paid TRLIA $927,000, it still owes TRLIA only $191,680.42 ($1,118,680.42 - $927,000).

The proposed amendment to the PS 3 agreement reflects these facts, and revises the "not to exceed" amount of the agreement to $1,118,680.42, which is the amount TRLIA has actually incurred for the PS 3 work.

Fiscal Impact

No fiscal impact. TRLIA will still be fully compensated for its cost share of the PS 3 work.
AMENDMENT TO AGREEMENT
FOR
PAYMENTS RELATED TO CONSTRUCTION OF PUMP STATION 3
BETWEEN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY AND
RECLAMATION DISTRICT 784

THIS AMENDATORY AGREEMENT is made effective February __, 2013, by and between THREE RIVERS LEVEE IMPROVEMENT AUTHORITY ("TRLIA") and RECLAMATION DISTRICT 784 ("RD 784").

RECITALS:

WHEREAS, TRLIA and RD 784 entered into an agreement for payments related to TRLIA’s relocation of Pump Station No. 3 ("PS3 AGREEMENT") dated December 4, 2007; and

WHEREAS, the PS3 AGREEMENT calls for RD 784 to pay TRLIA up to $5,073,000 to move and rebuild Pump Station 3; and

WHEREAS, to date, RD 784 has paid TRLIA $927,000.00 pursuant to the PS3 AGREEMENT; and

WHEREAS, TRLIA has obtained a Proposition 1E funding agreement for its Feather River Levee Improvement Project, which includes a state cost share for TRLIA’s work on Pump Station; and

WHEREAS, the state cost share for the work on Pump Station 3 has reduced TRLIA’s cost share for the work on Pump Station 3 to $1,118,680.42, and the remaining amount RD 784 owes to TRLIA is therefore $191,680.42;

WHEREAS, TRLIA and RD 784 desire to amend the AGREEMENT to reflect these events.

NOW, THEREFORE, TRLIA and RD 784 agree as follows:

1. Section 1.4 of the PS3 AGREEMENT is amended to read as follows:

   1.4 Payments from RD 784 to TRLIA pursuant to this Agreement shall continue until the total of such payments reaches an amount equal to TRLIA’s final total cost share for the relocation of PS 3, not to exceed $1,118,680.42. This Agreement shall terminate upon the earlier of the following conditions: (a) RD 784 has made total payments in the amount of $1,118,680.42 to TRLIA; or (b) the Parties mutually agree that the drainage impact program is no longer effective. The Parties will initially review the effectiveness of the drainage impact fee program 15 years after the Effective Date of this Agreement and every five years thereafter.
All other terms and conditions contained in the Agreement shall remain in full force and effect.

This AMENDED AGREEMENT is hereby executed on this ___ day of February, 2013.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY OF YUBA COUNTY

_________________________  ___________________________
Paul G. Brunner            Rick Brown
Executive Director         President

ATTEST:
DONNA STOTTEMEYER
CLERK OF THE BOARD OF DIRECTORS

APPROVED AS TO FORM:
SCOTT L. SHAPIRO
GENERAL COUNSEL

_________________________  ___________________________
                        

13019591
February 19, 2013

TO: Three Rivers Levee Improvement Authority Board  
FROM: Paul Brunner, Executive Director  
       Larry Dacus, Design Manager  
SUBJECT: Addendum No. 4 to the Bear River and Western Pacific Interceptor Canal Levee Improvements Project Environmental Impact Report

Recommended Action:

Board Approval of Addendum No. 4 to the Bear River and Western Pacific Interceptor Canal Levee Improvements Project Environmental Impact Report, and direction to staff to file a Notice of Determination pursuant to the requirements of the California Environmental Quality Act.

Background:

The California Environmental Quality Act (CEQA) requires analysis of environmental impacts for all projects that may have a significant effect on the environment. This analysis was conducted and concluded in the form of an Environmental Impact Report (EIR) for the Bear River and Western Pacific Interceptor Canal Levee Improvements Project (Project). The EIR was approved by the TRLIA board in August 2004. The Project area was defined in detail in the EIR and included, at the time, all foreseeable project activities. Where changes or additions to a project occur after the EIR is adopted by a local agency, the agency must determine whether additional analysis is necessary. An addendum is appropriate where there are some changes or additions necessary for the project but those changes and additions will not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Discussion:

The Project consisted of levee improvements and pump relocation along segments of the Bear River, Feather River, and Western Pacific Interceptor Canal in southern Yuba County. Levee improvements include improvement of levee stability, levee height, and susceptibility to erosion. The EIR discussed and analyzed environmental impacts for construction work along the Bear River and WPIC, as well as construction of Pump Station #6. In addition to construction activities, the EIR also analyzed operations and maintenance activities.

In 2005, the State Reclamation Board granted Permit 17782 (Permit) authorizing TRLIA to conduct maintenance and improvement activities on the WPIC levees. Special Condition 19 of the
Permit requires TRLIA to secure an easement over property underlying the existing or planned levees and areas within 50 feet of the land-side and water-side toes of the levee. The purpose of the easement is to conduct flood control maintenance activities along the levee corridor. In order to satisfy Special Condition 19, TRLIA now proposes to acquire either easements or land in fee title, depending on unique circumstances related to individual properties. While the WPIC EIR did study an area within 300 feet of the WPIC levee alignment and analyzed impacts related to operations and maintenance activities, it did not expressly include in the project definition the acquisition of access or land to meet the conditions of Permit Special Condition 19, because the Permit was issued after certification of the EIR. The actions required by Special Condition 19, while not specifically addressed in the EIR, are within the project contemplated by the EIR because the Permit is part of the requirements for correcting levee deficiencies as anticipated in the EIR. TRLIA conservatively prepared an addendum in accordance with Section 15164 of the CEQA Guidelines to evaluate potential impacts of compliance with Special Condition 19, including the acquisition of land in fee title.

**Addendum Conclusions:**

An addendum must contain a brief explanation of the agency’s decision not to prepare a subsequent EIR under CEQA regulations, and this conclusion must be supported by substantial evidence.

Section 15162 of the State CEQA guidelines can be summarized as requiring that a subsequent EIR be prepared if any of the following apply:

- Substantial changes are proposed to the project which will require major revisions to the EIR and increase the severity of significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken;
- New information of significant importance regarding the project is brought to light which was not known and could not have been known at the time the EIR was certified.

The addendum concludes that compliance with Special Condition 19:

- 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 of 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.

Based on the analysis of the categories of environmental impacts evaluated above, compliance with Special Condition 19 as described in the CEQA addendum would result in none of the conditions described in Section 15162 of the State CEQA guidelines calling for preparation of a subsequent EIR. In summary, this work does not result in altered circumstances or new information of substantial importance since certification of the FRLRP EIR.
The above conclusions confirm that Addendum #4 to the Project's EIR is the appropriate document to record and evaluate the work described in the Addendum. There are no public review requirements for an EIR addendum: upon submittal of a Notice of Determination to the State Clearing House and the Office of Planning and Research, a 30 day statutory period of protest and/or challenge exists.

**Fiscal Impact:** This action does not have a fiscal impact.

Attachment:
Addendum No. 4 to the Bear River and Western Pacific Interceptor Canal Levee Improvements Project Environmental Impact Report
ADDENDUM 4 TO THE ENVIRONMENTAL IMPACT REPORT

FOR THE BEAR RIVER AND WESTERN PACIFIC INTERCEPTOR CANAL LEVEE IMPROVEMENTS PROJECT

STATE CLEARINGHOUSE NO. 2004032118

PREPARED FOR

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

PREPARED BY

AECOM

February 2013
ADDENDUM 4 TO THE
ENVIRONMENTAL IMPACT REPORT
FOR THE
BEAR RIVER AND
WESTERN PACIFIC INTERCEPTOR CANAL
LEVEE IMPROVEMENT PROJECT

STATE CLEARINGHOUSE NO. 2004032118

PREPARED FOR
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901
Contact: Paul Brunner, P. E.
Executive Director

PREPARED BY
AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
Contact: Brian Boxer
Project Manager
916/414-5800

February 2013
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1 INTRODUCTION

1.1 BACKGROUND AND REFINEMENTS IN PROJECT ELEMENTS LEADING TO PREPARATION OF THE ADDENDUM

Under the California Environmental Quality Act (CEQA), the lead agency for this document is the Three Rivers Levee Improvement Authority (TRLIA), a joint powers authority composed of Yuba County and Reclamation District 784. In May 2004, TRLIA’s draft environmental impact report (DEIR) for the Bear River and Western Pacific Interceptor Canal Levee Improvements Project (WPIC) was distributed to public agencies and the general public. In August 2004, the final environmental impact report (FEIR), addressing written and oral comments received on the DEIR, was distributed to public agencies and the general public. The TRLIA Board of Directors certified the environmental impact report (EIR), consisting of the DEIR and the FEIR, on August 12, 2004. The EIR was determined to be complete, accurate, and in accordance with the requirements of CEQA and the State CEQA Guidelines.

The WPIC project consists of levee improvements and pump relocation along segments of the Bear River, Feather River, and Western Pacific Interceptor Canal in southern Yuba County (Figure 1-1). Levee improvements include improvement of levee stability, levee height, and susceptibility to erosion. Specific improvements for each segment are as follows:

- **Bear River**—Construction of a slurry cutoff wall or seepage berm, reconstruction of levee portions damaged during a breach in 1997, and raise levee height to meet freeboard standards.

- **WPIC**—Construction of a slurry cutoff wall, raise levee crown with some resulting widening of the levee footprint, and erosion control measures. Erosion control measures could include placement of riprap, buried rock revetment on waterside slopes, biotechnical bank stabilizations, and instream rock groin.

- **Pump Station #6**—Pump Station #6 is located just west of State Route 70 and north of the Bear River north levee. Location of the pump station in close proximity to the levee created stability problems. The existing pump would be dismantled and a replacement pump constructed approximately 150 feet north of its current location.

- **Optional Improvements**—Depending on the needs at individual points along the levee system, relief walls may be constructed to help alleviate seepage pressures.

In addition to the construction activities listed above, the WPIC EIR also analyzed operations and maintenance activities.

Since certification of the EIR, design, permitting, and construction of the Bear River and WPIC levee improvement projects have been completed. In June 2005, TRLIA approved the first addendum to the EIR for project refinements including a water-side impervious zone, adjustment of the Pump #6 relocation area, extending the fill area on both the water-side and land-side, and an additional slurry cutoff wall. In March 2006, TRLIA approved the second addendum to the EIR for project refinements including increased levee height, additional riprap, installation of additional pumps at the relocated pump station, culvert repairs, and dewatering of Algodon Canal to allow for construction. In August 2006, TRLIA approved the third addendum to the EIR for project refinements related to seepage berms along the Bear River levee. In all three cases, the project modifications consisted of refinements made during project design and construction. The addenda determined that none of the project refinements would result in new significant impacts or substantially more severe impacts, nor would any change in circumstances occur that would result in new significant or substantially more severe impacts. Further, no previously infeasible or new mitigation measures were identified that would not be implemented.
In 2005, the State Reclamation Board granted Permit 17782 (Permit) authorizing TRLIA to conduct maintenance and improvement activities on the WPIC levees. Special Condition 19 of the Permit requires TRLIA to secure an easement over property underlying the existing or planned levees and areas within 50 feet of the land-side and water-side toes of the levee. The purpose of the easement is to conduct flood control maintenance activities along the levee corridor.

In order to satisfy Special Condition 19, TRLIA proposes to acquire either easements or land in fee title, including depending on unique circumstances related to individual properties. While the WPIC EIR studied an area within 300-feet of the WPIC levee alignment, and analyzed impacts related to operations and maintenance activities, it did not expressly define the project to involve acquisition of access or land to meet the conditions of Permit Special Condition 19 because the Permit was issued after certification of the EIR. Also, the EIR did not recognize the potential for acquisition of land in fee title. The actions required by Special Condition 19, while not specifically addressed in the EIR, are within the project contemplated by the EIR because the Permit is part of the requirements for correcting levee deficiencies as anticipated in the EIR. TRLIA has prepared this addendum to evaluate potential impacts of compliance with Special Condition 19, including the acquisition of land in fee title.

The action evaluated in this addendum is not a change to the proposed project but a refinement in the level of detail for actions already presented in the EIR as part of the proposed project. The EIR evaluated proposed actions to correct levee deficiencies and maintain the levees to meet all state and federal standards for flood protection. In order to meet the requirements of Special Condition 19, TRLIA must acquire access to many parcels owned by private parties. While acquisition of easements on most affected parcels may be possible, some parcels necessary to meet the requirements of Special Condition 19 may be acquired in fee title. Currently, TRLIA anticipates acquiring easements or land in fee title in order to meet existing state and federal requirements for levee access. The total area to be acquired could be up to approximately 90 acres. The details of these refinements to the WPIC EIR Project Description are presented on page 2-1 of this EIR addendum. TRLIA, as lead agency for the project under CEQA, has determined that these refinements to the WPIC project constitute minor additions and changes to the EIR and have conservatively decided to prepare this EIR addendum in accordance with Section 15164 of the State CEQA Guidelines.

1.2 STATE CEQA GUIDELINES REGARDING CHANGES TO A PROJECT

If, after certification of an EIR, altered conditions or changes or additions to a project occur, CEQA provides three mechanisms to address these changes: a subsequent EIR, a supplement to an EIR, or an addendum to an EIR.

Section 15162 of the State CEQA Guidelines describes the conditions under which preparation of a subsequent EIR would be appropriate. When an EIR has been certified for a project, preparation of a subsequent 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 due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified 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 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, shows any of the following:
(A) the project will have one or more significant effects not discussed in the previous EIR;

(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 measures or alternatives; or

(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 15163 of the State CEQA Guidelines states that a lead agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

(1) any of the conditions described above for Section 15162 would require the preparation of a subsequent EIR, and

(2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

Section 15164 of the State CEQA Guidelines states that a lead agency may prepare an addendum to a previously certified EIR if some changes or additions are necessary, but none of the conditions described above for Section 15162 calling for preparation of a subsequent EIR have occurred.

The differences between the WPIC as described in the WPIC EIR and as approved by TRLIA and the refined elements of the WPIC as they are currently known, including the easement and/or land acquisitions necessary to meet the requirements of Special Condition 19, constitute clarifications that may be addressed in an addendum to an EIR. As described in Section 2 of this document, “Description of WPIC Refinements,” and Section 3, “Environmental Checklist for Supplemental Environmental Review,” none of the conditions described above in the State CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have been met. In addition, the WPIC EIR and associated Mitigation Monitoring and Reporting Program remain valid for assessing and mitigating identified impacts that would result from implementation of the approved project.

Refinements to the WPIC project as described in this addendum and any altered conditions since certification of the EIR on August 12, 2004:

- 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 or alternatives previously found to be infeasible would in fact be feasible, or
- mitigation measures or alternatives that are considerably different from those analyzed in the EIR 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 EIR have occurred, an addendum to the WPIC EIR, consistent with Section 15164 of the State CEQA Guidelines, is the appropriate mechanism to address the proposed project refinements.
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2 DESCRIPTION OF WPIC PROJECT REFINEMENTS

In 2005, the State Reclamation Board granted Permit 17782 to TRLIA to conduct maintenance and improvement activities related to the WPIC project. Special Condition 19 of the permit pertains specifically to the WPIC portion of the project. Special Condition 19 states in part: "...the permittee shall secure from the owner of the property a permanent easement granting the Sacramento and San Joaquin Drainage District, acting by and through The Reclamation Board of the State of California, the flood control rights stated in the attached form of deed over that portion of the existing or to-be-constructed levee (including the areas parallel to and extending 50 feet from the waterward and landward toes of the levee) which is presently not encumbered by a Reclamation Board easement."

The area considered in this addendum is located along the western landside of the WPIC within the study area analyzed in the 2004 EIR (Figure 2-1). The area to be acquired is up to approximately 90 acres, including acreage that could be considered remnants.

The intent of the actions to implement Special Condition 19 is to protect the levee from development and other encroachments and to ensure that adequate room is preserved for potential levee maintenance and flood fighting activities. Based on further discussions with staff from the Central Valley Flood Protection Board (successor to the State Reclamation Board), TRLIA anticipates compliance with Special Condition 19 by acquiring an easement over property beneath the existing and planned levee, as well as areas parallel to the levee and extending approximately 50 feet from the water-side and land-side of the levee, except in cases where public easements may already exist (typically associated with utilities or transportation facilities) or where physical features make a 50 foot easement not practicable. In some cases, where easement acquisition is inappropriate or not cost effective, TRLIA may opt to acquire the property necessary to comply with Special Condition 19 in fee title.

No other change to the WPIC project would occur as part of TRLIA's compliance with Special Condition 19. In all other respects the project has been completed, with the exception of ongoing long-term maintenance that has in the past, is, and will continue to be undertaken by Reclamation District 784.
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3 ENVIRONMENTAL CHECKLIST FOR SUPPLEMENTAL ENVIRONMENTAL REVIEW

This section describes the evaluation of the proposed WPIC Project Refinements described in Chapter 2, "Description of WPIC Project Refinements." The result of the analysis in this document demonstrates that the WPIC Project Refinements do not meet any of the criteria in Section 15162 of the State CEQA Guidelines for preparation of a subsequent EIR and meet the criteria of 15164 of the State CEQA Guidelines for preparation of an EIR addendum. The WPIC EIR, supplemented by this addendum, is complete, accurate, and adequate to meet the requirements of CEQA and the State CEQA Guidelines.

The evaluation is provided in the form of a table identifying the issues relevant under CEQA as reflected in the most recent version of the State CEQA Guidelines Appendix G checklist, how those issues were analyzed in the 2004 EIR, whether TRLIA is aware of any relevant new information concerning the WPIC project, and a narrative discussion addressing each environmental topic area included in the WPIC EIR (e.g., land use, transportation/traffic, and air quality).

3.1 EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

The checklist considers the full range of environmental issues subject to analysis under CEQA (in rows), and then poses a series of questions (in columns) aimed at identifying the degree to which the issue was considered in the 2004 EIR, and whether TRLIA is aware of any new information of substantial importance relative to the environmental issue. The questions posed in each column are described below.

3.1.1 WHERE WAS IMPACT ANALYZED?

This column provides a cross-reference to the portions of the 2004 EIR where information and analyses may be found relative to the environmental issue listed under each topic.

3.1.2 DO PROPOSED CHANGES REQUIRE MAJOR REVISIONS TO PREVIOUS EIR?

In accordance with Section 15162(a)(1) of the State CEQA Guidelines, this column indicates whether proposed changes to the project would involve new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts that, in turn, would require major revisions of the 2004 EIR. A "Yes" response would require preparation of an additional environmental analysis (a supplemental or subsequent EIR).

3.1.3 DO NEW CIRCUMSTANCES REQUIRE MAJOR REVISIONS TO PREVIOUS EIR?

In accordance with Section 15162(a)(2) of the State CEQA Guidelines, this column indicates whether changes to the circumstances under which the project is undertaken have occurred that would involve new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts that, in turn, would require major revisions of the 2004 EIR. A "Yes" response would require preparation of an additional environmental analysis (a supplemental or subsequent EIR).

3.1.4 ANY NEW INFORMATION RESULTING IN NEW OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT IMPACTS?

In accordance with Sections 15162(a)(3)(A) and 15162(a)(3)(B) of the State CEQA Guidelines, this column indicates whether 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 2004 EIR was certified as complete, shows additional or substantially more severe significant impacts not discussed in the 2009 EIR.

Specifically, if the new information shows that (A) the project would have one or more significant impacts not discussed in the prior environmental documents, or (B) significant impacts previously examined would be substantially more severe than shown in the prior 2004 EIR, then the question would be answered “Yes,” requiring preparation of a subsequent or supplemental EIR. However, if the additional analysis completed as part of this addendum finds that the conclusions of the 2004 EIR remain the same and no new significant impacts are identified, or identified environmental impacts are not found to be substantially more severe, then the question would be answered “No,” and no supplemental or subsequent EIR is required, making this addendum the proper CEQA documentation for the proposed WPIC project refinements.

3.1.5 Any Previously Infeasible or New Mitigation Measures to Address Impacts, but Would Not Be Implemented?

In accordance with Sections 15162(a)(3)(C) and 15162(a)(3)(D) of the State CEQA Guidelines, this column indicates whether 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 2004 EIR was certified as complete, shows that mitigation measures or alternatives in the 2004 EIR would now be feasible or identifies new mitigation measures or alternatives not in the 2004 EIR that would reduce significant impacts.

Specifically, if the new information shows that (C) mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant impacts of the project, but TRL1A declines to adopt the mitigation measure or alternative or (D) mitigation measures or alternatives which are considerably different from those analyzed in the 2004 EIR would substantially reduce one or more significant impacts on the environment, but TRL1A declines to adopt the mitigation measure or alternative, then the question would be answered “Yes,” requiring preparation of a subsequent or supplemental EIR. However, if the additional analysis completed as part of this addendum finds that the mitigation measures and alternatives of the 2004 EIR remain the same, or additional mitigation measures or alternatives are available and either would be adopted by TRL1A or would not be necessary, then the question would be answered “No” and no supplemental or subsequent EIR is required, making this addendum the proper environmental documentation for the proposed WPIC project refinements. If “NA” is indicated, this addendum concludes that the impact would not occur with this project, and therefore, no mitigation measures are needed.

3.2 Discussion and Conclusion Sections

3.2.1 Discussion

A discussion of the elements of the checklist is provided under each environmental category to explain the answers. The discussion provides information about the particular environmental issue, how the proposed project refinements relate to the issue, and the status of any mitigation that may be required or that has already been implemented.

3.2.2 Conclusions

A discussion of the conclusion relating to the analysis is contained in each section. A conclusion that the changes to the project involve no new significant impacts and/or no substantially more severe impacts supports the use of this addendum as the appropriate level of environmental documentation for the proposed project refinements.
3.3 ENVIRONMENTAL CHECKLIST

A discussion is provided for each environmental topic area and provides information about the particular environmental topic, how the WPIC project and the proposed project refinements relate to the topic, and the status of any mitigation that may be required.

3.3.1 AESTHETICS

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<tbody>
<tr>
<td>I. Aesthetics, Would the project:</td>
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</tr>
<tr>
<td>a) Have a substantial adverse effect on a</td>
<td>Impacts VR-1 and VR-3, Pages 5 6-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>scenic vista?</td>
<td>and -5</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b) Substantially damage scenic resources,</td>
<td>Impacts VR-1 and VR-3, Pages 5 6-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>including, but not limited to, trees,</td>
<td>and -5</td>
<td></td>
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<tr>
<td>rock outcroppings, and historic buildings</td>
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<td>within a state scenic highway?</td>
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<tr>
<td>c) Substantially degrade the existing</td>
<td>Impacts VR-1 and VR-3, Pages 5 6-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>visual character or quality of the site</td>
<td>and -5</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>and its surroundings?</td>
<td></td>
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<tr>
<td>d) Create a new source of substantial</td>
<td>Impacts VR-2 and VR-4, Page 5 6-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>light or glare which would adversely</td>
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<td>affect day or nighttime views in the</td>
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<tr>
<td>area?</td>
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DISCUSSION

The WPIC EIR considered issues related to Aesthetics in Section 5.6, Visual Resources, pages 5.6-1 through 5.6-6 of the WPIC EIR. The analysis was organized into four distinct impacts: VR-1 related to temporary visual changes as a result of construction activities, VR-2 related to temporary changes in light and glare, VR-3 related to long-term visual changes, and VR-4 related to long-term changes in light and glare as a result of levee improvements. These impacts are discussed on pages 5.6-4 through 5.6-6 of the WPIC EIR. In each case, the impacts were determined to be less than significant and no mitigation measures were required or identified. There are no new circumstances since certification of the WPIC EIR that would influence aesthetics impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding aesthetics.

The proposed project refinements evaluated in this addendum include acquisition of land and/or easements required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that construction activities could result in impacts to views in the project area, but those impacts would be temporary in nature and less than significant. Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not
previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change in the type, significance, or severity of impacts on aesthetics. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of aesthetics for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed project modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts on visual resources, nor would any change in circumstances occur that would result in new significant or substantially more severe visual resources impacts. Further, no previously infeasible or new mitigation measures to address aesthetics impacts have been identified that would not be implemented. Therefore, no new information of substantial importance related to visual resources has been identified, and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.2 Agricultural and Forest Resources

**II. Agricultural and Forestry Resources.** Would the project:

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<tbody>
<tr>
<td>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?</td>
<td>Impacts LU-1, -2, and -3, pages 5-27 and -8 Impact VEG-5, page 4-1-29 Impact WILD-4, page 4-2-25</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>b) Conflict with existing zoning for agricultural use or a Williamson Act contract?</td>
<td>Impacts LU-1, -2, and -3, pages 5-27 and -8 Impact WILD-4, page 4-2-25</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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))?</td>
<td>Conversion of forest land not analyzed in previous EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
<td>Conversion of forest land not analyzed in previous EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impacts LU-1, -2, and -3, pages 5-27 and -8 Impact VEG-5, page 4-1-29 Impact WILD-4, page 4-2-25 Conversion of forest land not analyzed in previous EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</table>
DISCUSSION

The WPIC EIR considered issues related to agricultural resources in the following sections: Section 5.2, Land Use, pages 5.2-7 through 5.2-8; Section 4.1, Vegetation, page 4.1-29; and, Section 4.2, Wildlife, page 4.2-25. Impact LU-1 considered temporary impacts to land use, including agricultural lands, from project activities. Impact LU-2 considered permanent land use changes as a result of levee footprint extension. Impact LU-3 considered the temporary loss of crops for annual crops and orchards. Impacts VEG-5 and WILD-4 considered the loss of agricultural land as a result of levee improvements. In each case, the impacts were determined to be less than significant and no mitigation measures were required or identified. There are no new circumstances since certification of the WPIC EIR that would influence agricultural impacts associated with the WPIC levee improvements or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance related to agricultural and forestry resources.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the project area analyzed in the 2004 EIR. The WPIC EIR identified that agricultural resources in the project area could be impacted, but those impacts would be less than significant (TRLIA 2004:5.2-7 and -8). Acquisition of the easements and/or land required to implement Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not be altered or expanded with the proposed property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land required for operations and maintenance activities already assumed in the EIR. Acquisition of easements or fee title of properties would not result in a change in the type, significance, or severity of impacts on agricultural resources because the refinements do not involve any physical changes to the project area. Some of the land acquired by easement or fee title may be active agriculture land, and agricultural uses would be discontinued on the levee to reduce damage to the levee caused by agricultural activities. Discontinuation of agricultural activities on the levee would not result in a significant impact on agriculture land because there is ample agricultural land in the area and the amount of land that would be lost to agricultural production would be immaterial in the agricultural economy of Yuba County. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

The WPIC EIR was prepared in 2004 and did not address potential impacts to forestry resources because the EIR was prepared before the 2010 amendments in the State CEQA Guidelines which added specific questions pertaining to forest land to the Guidelines Appendix G. In light of this change the Guidelines, this addendum addresses forestry resources.

Appendix G of the State CEQA Guidelines defines forestland as land that can support 10 percent native tree cover and woodland vegetation of any species—including hardwoods—under natural conditions, and that allows for management of one or more forest resource—including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation—and other public benefits (California Public Resources Code [PRC] 12220[g]).

The previously approved project site contains ten habitat types within the project area: perennial aquatic, emergent wetland, seasonal wetland, seasonal pool, willow scrub, valley oak riparian forest, valley oak forest, ruderal/annual grassland, agricultural land, and development (TRLIA 2004:4.2-3). The only potential forest resources, the valley oak and riparian forests, occur in many areas of the project site, including in upland areas along the Bear River levee and the toe of the WPIC levee (TRLIA 2004:4.1-6 through -7). According to the final EIR prepared for the Yuba County 2030 General Plan, none of the land in the project area is classified as timber areas or timber preserve areas (Yuba County 2011:4.2-11).
Based on the discussion presented above, the proposed project refinements do not affect native tree cover that would be classified as forestland under PRC Section 12220(g). Furthermore, the project refinements would not include any physical changes to the project area.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, "State CEQA Guidelines Regarding Changes to a Project"). The analysis of agricultural and forestry resources for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate to meet the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts on agricultural and forestry resources, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts on agricultural and forestry resources. Further, no previously infeasible or new mitigation measures to address agricultural and forestry resources impacts have been identified that would not be implemented. Therefore, no new information of substantial importance related to agricultural and forestry resources has been identified, and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
3.3.3 AIR QUALITY

ENVIRONMENTAL ISSUES

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<tbody>
<tr>
<td>Impacts AQ-1 — AQ-3, pages 3.4-11 to 3.4-13</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impacts AQ-1 — AQ-3, pages 3.4-11 to 3.4-13</td>
<td>No</td>
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<td>No</td>
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<tr>
<td>Impacts AQ-1 — AQ-3, pages 3.4-11 to 3.4-13</td>
<td>No</td>
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<td>No</td>
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<tr>
<td>Impacts AQ-1 — AQ-3, pages 3.4-11 to 3.4-13</td>
<td>No</td>
<td>No</td>
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III. Air Quality:
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?

DISCUSSION

The WPIC EIR considered air quality impacts in Section 3.4, Air Quality, pages 3.4-1 through 3.4-13. The analysis was divided into three distinct impacts: Impact AQ-1 evaluated whether the project would generate significant levels of construction-related emissions; Impact AQ-2 evaluated whether the project would result in increased construction-related diesel health risks; and, Impact AQ-3 evaluated the project would generate significant levels of operational emissions. Impact AQ-1 was considered significant, though the impacts were mitigated to a less than significant level through mitigation measures AQ-MM-1a and AQ-MM-1b. Mitigation measure AQ-MM-1a requires the project proponent to implement all feasible fugitive dust control measures listed in Table 3.4-3 on pages 3.4-7 and 3.4-8. Fugitive dust control measures included in Table 3.4-3 include stopping work when winds exceed 20 miles per hour, use of a water truck to control dust, and maximum traffic speed. Mitigation measure AQ-MM-1b requires the project proponent to develop a fugitive dust control plan to be submitted to and approved by the Feather River Air Quality Management District (FRAQMD). Impacts AQ-2 and AQ-3 were determined to be less than significant. There are no new circumstances since certification of the WPIC EIR that would influence air quality impacts associated with the WPIC project or the proposed project.
refinements evaluated in this addendum, and there is no new information of substantial importance regarding air quality.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area considered in the 2004 EIR. The WPIC EIR identified that construction activities could result in impacts to air quality in the project area, but those impacts would be less than significant or mitigated to a less than significant level. Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land or other activities that would increase levels of air pollutant emission described in the WPIC EIR, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities and related air quality effects were contemplated in the 2004 EIR and would not expand with the proposed property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in a change in the type, significance, or severity of impacts on air quality. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of air quality for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

**Conclusion**

The proposed modifications to the WPIC project would not result in new significant impacts or substantially more severe impacts on air quality, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts on air quality. Further, no previously infeasible or new mitigation measures to address air quality impacts have been identified that would not be implemented. Therefore, no new information of substantial importance related to air quality has been identified, and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.4 Biological Resources

**Environmental Issues**

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<tbody>
<tr>
<td>Impact VEG-7, pages 4-1-30 to -31</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impacts WILD-3 through -4, page 4-2-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impacts WILD-7 through -15, pages 4-2-26 through -37</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impact FISH-4, pages 4-3-20 through -21</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Impact VEG-1, pages 4-1-24 through -26</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impact VEG-4, pages 4-1-28 through -29</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impact VEG-8, page 4-1-31 through -33</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Impact WILD-1, pages 4-2-21 through -23</td>
<td>No</td>
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<td>Impact VEG-2, pages 4-1-26 through -27</td>
<td>No</td>
<td>No</td>
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<td>No</td>
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<tr>
<td>Impact WILD-2, pages 4-2-23 through -24</td>
<td>No</td>
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**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 Game 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 Game 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...
DISCUSSION

The WPIC EIR considered issues related to biological resources in three sections: Section 4.1, Vegetation and Wetlands, pages 4.1-1 through 4.1-33; Section 4.2, Wildlife, pages 4.2-1 through 4.2-37; and, Section 4.3, Fish, pages 4.3-1 through 4.3-23.

Impact VEG-1 considered whether the WPIC project would result in the loss of non-jurisdictional woody riparian communities. This impact was considered significant, though mitigation measures lessened the impact to less than significant. Mitigation measure VEG-MM-1 required TRLIA to include conditions for project construction to minimize impacts on sensitive biological resources. Mitigation measure VEG-MM-2 required TRLIA to compensate for temporary and permanent loss of riparian habitats.

Impact VEG-2 considered the loss of wetlands and other Waters of the United States. This impact was considered significant, though mitigation measures lessened the impact to less than significant. Mitigation measure VEG-MM-1 required TRLIA to include conditions for project construction to minimize impacts on sensitive biological resources. Mitigation measure VEG-MM-3 required TRLIA to compensate for the loss of wetlands or other Waters of the United States.

Impact VEG-3 considered the potential loss of valley oak forest. This impact was considered significant, though implementation of mitigation measures VEG-MM-1 and VEG-MM-2 discussed above would reduce the impact to less than significant.

Impact VEG-4 considered the potential for the loss of annual grassland. This impact was determined to be less than significant.

Impact VEG-7 considered the potential for loss of special-status plants. This impact was considered significant, though implementation of mitigation measures VEG-MM-1 and VEG-MM-2 discussed above, as well as mitigation measure VEG-MM-5, would reduce the impact to less than significant. Mitigation measure VEG-MM-5 required avoidance and minimization of impacts to special-status plants.

Impact WILD-1 evaluated the loss of riparian-associated wildlife habitat. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-1, VEG-MM-2, and WILD-MM-1.

Impact WILD-2 evaluated the loss of wetland-associated wildlife habitat. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-1, VEG-MM-3, and WILD-MM-1.

Impact WILD-7 evaluated effects on designated State wildlife areas. This impact was considered significant, though implementation of mitigation measures and BMPs related to wildlife habitat and special-status species would reduce the impact to less than significant.

Impact WILD-8 evaluated the loss of valley elderberry longhorn beetle (VELB). This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: WILD-MM-2 and WILD-MM-3.

Impact WILD-9 evaluated potential loss or disturbance of Swainson’s hawk nests or foraging habitat. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: WILD-MM-4, WILD-MM-5, and WILD-MM-6.
Impact WILD-10 evaluated the potential for loss of the giant garter snake (GGS) or its habitat. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-1, VEG-MM-3, WILD-MM-7, and WILD-MM-8.

Impact WILD-11 evaluated the potential for loss of the western pond turtle or its habitat. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-3 and WILD-MM-9.

Impact WILD-12 evaluated the potential for loss or disturbance of raptor nests. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-1 and WILD-MM-1.

Impact WILD-13 evaluated the potential loss or disturbance of nesting or wintering burrowing owls. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-1, WILD-MM-1, WILD-MM-10, WILD-MM-11, WILD-MM-12, WILD-MM-13, and WILD-MM-14.

Impact WILD-14 evaluated the potential for loss or disturbance of vernal pool invertebrates. This impact was considered significant, though implementation of the following mitigation measures would reduce the impact to less than significant: VEG-MM-1 and WILD-MM-15.

Impact WILD-3 evaluated the potential loss of annual grassland-associated wildlife. Impact WILD-4 evaluated the potential loss of agricultural land. Impact WILD-5 evaluated the potential for temporary disturbance and possible mortality of common wildlife species. Impact WILD-6 evaluated potential disruption of wildlife movement corridors. Impact FISH-4 evaluated the potential for loss of fish habitat. All of these impacts were determined to be less than significant.

There are no new circumstances since certification of the WPIC EIR that would influence biological resource impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding biological resources.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that project activities could result in impacts to biological resources in the project area, but those impacts would be less than significant or mitigated to a less than significant level. Acquisition of easements and/or land required under Special Condition 19 would not involve any physical changes to the land which could affect biological resources, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. Because these project refinements would have no physical changes to the land or activities, they would similarly have no effects on biological resources in the study area. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand with the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in a change in the type, significance, or severity of impacts on biological resources. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of biological resources for the WPIC levee improvements in the WPIC EIR and for the
proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

**CONCLUSION**

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts on biological resources, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts on biological resources. Further, no previously infeasible or new mitigation measures to address biological resources impacts have been identified that would not be implemented. Therefore, no new information of substantial importance related to biological resources has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
## 3.3.5 Cultural Resources

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<tbody>
<tr>
<td>V. Cultural Resources. Would the project:</td>
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<tr>
<td>a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?</td>
<td>Impacts CUL-1 through -5 and CUL-7 through -9, pages 5-7-8 through -11</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?</td>
<td>Impacts CUL-1 through -5 and CUL-7 through -9, pages 5-7-8 through -11</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>Impacts CUL-1 through -5 and CUL-7 through -9, pages 5-7-8 through -11</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>d) Disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>Impacts CUL-1 through -5 and CUL-7 through -9, pages 5-7-8 through -11</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

## Discussion

The WPIC EIR considered issues related to cultural resources in Section 5.7, Cultural Resources, pages 5.7-1 through 5.7-11. Impacts CUL-1 through CUL-4, CUL-7, CUL-8, considered potential impacts on known cultural resources in the project area. These impacts were determined to be less than significant. Impacts CUL-5 and CUL-9 considered destruction or damage to unknown cultural resources. These impacts were considered significant, though implementation of mitigation measure CUL-MM-1 would reduce the impacts to less than significant. Mitigation measure CUL-MM-1 required work to stop if buried cultural resources were discovered. There are no new circumstances since certification of the WPIC EIR that would influence cultural resource impacts associated with the WPIC Project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding cultural resources.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land required to satisfy Special Condition 19 of the State Reclamation Board Permit #17872. The area to be acquired or to be subject to easements is entirely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that construction of the WPIC project could result in impacts to cultural resources in the project area, but those impacts would be less than significant or mitigated to a less than significant level. Acquisition of the easements and/or land required to comply with Special Condition 19 would not involve any physical changes to the land, nor
would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. Since there would be no physical changes or land disturbance that would be caused by the project refinements, no further effects on cultural resources would occur as a result of the project refinements. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand with the proposed property and/or easement acquisition. Thus, no further effects on cultural resources would be caused by the proposed project refinements.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in a change in the type, significance, or severity of impacts on cultural resources. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of cultural resources for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

**CONCLUSION**

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts on cultural resources, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts on cultural resources. Further, no previously infeasible or new mitigation measures to address cultural resources impacts have been identified that would not be implemented. Therefore, no new information of substantial importance related to cultural resources has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
**3.3.6 GEOLOGY AND SOILS**

<table>
<thead>
<tr>
<th>ENVIRONMENTAL ISSUES</th>
<th>Where Was Impact Analyzed in Previous Environmental Document?</th>
<th>Do Proposed Changes Require Major Revisions to Previous EIR?</th>
<th>Do New Circumstances Require Major Revisions to Previous EIR?</th>
<th>Any New Information Resulting in New or Substantially More Severe Significant Impacts?</th>
<th>Any Previously Infeasible or New Mitigation Measures to Address Impacts, But Would not be Implemented?</th>
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<tbody>
<tr>
<td>VI. Geology and Soils. Would the project:</td>
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<tr>
<td>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</td>
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<td>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.)</td>
<td>Impact GEO-2, pages 3 2-9 and -10.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>ii) Strong seismic ground shaking?</td>
<td>Impact GEO-3, pages 3 2-9 and -10.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>iii) Seismic-related ground failure, including liquefaction?</td>
<td>Impact GEO-3, pages 3 2-9 and -10.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>iv) Landslides?</td>
<td>Pages 3 2-4 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>b) Result in substantial soil erosion or the loss of topsoil?</td>
<td>Impact GEO-5, page 3 2-7 and -8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact GEO-4, pages 3 2-9 and -11</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact GEO-6, page 3 2-11</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>No waste water disposal included in WPIC Project</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**DISCUSSION**

The WPIC EIR considered issues related to geology and soils in Section 3.2, Geology and Soils, pages 3.2-1 through 3.2-12. Seven different impacts were analyzed.
Impact GEO-1 evaluated the potential for accelerated erosion and sedimentation related to construction-related ground disturbance. Impact GEO-2 evaluated potential adverse effects resulting from surface fault rupture. Impact GEO-6 evaluated potential effects on levee settlement. These impacts all were determined to be less than significant.

Impact GEO-3 evaluated potential adverse effects from seismic ground shaking and liquefaction. Impact GEO-7 evaluated the potential for adverse effects from expansive soils. The 2004 EIR determined that there would be no impact associated with these areas.

Impact GEO-4 evaluated potential effects on levee stability. Impact GEO-5 evaluated potential impacts on levee bank erosion. The 2004 EIR concluded that the WPIC project would result in beneficial impacts to these areas.

There are no new circumstances since certification of the WPIC EIR that would influence geology and soil impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance related to geology and soils.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area considered in the 2004 EIR. The WPIC EIR identified that construction activities could result in impacts to geology and soils in the project area, but those impacts would be less than significant or mitigated to a less than significant level. The acquisition of easements and/or fee title in land required under Special Condition 19 would not involve or result in any physical changes to the land, nor would it result in operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. The effects of on-going operations and maintenance activities were addressed in the 2004 EIR and would not change with the proposed property or easement acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land required for operations and maintenance activities already assumed in the EIR. Acquisition of easements or fee title of the properties would not result in a change in the type, significance, or severity of impacts on air quality. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or result in the need for additional mitigation measures.

Given these conditions, acquisition of easements or fee title in property for on-going operations and maintenance as is required under Special Condition 19 is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of effects on geology and soils for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate to meet the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts on geology and soils, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts on geology and soils. Further, no previously infeasible or new mitigation measures to address geology and soils impacts have been identified that would not be implemented. Therefore, no new information of substantial importance related to geology and soils has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.7 Greenhouse Gas Emissions

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<tr>
<td>VII. Greenhouse Gas Emissions. Would the project:</td>
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<tr>
<td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>Greenhouse gas emissions not evaluated in 2004 EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td>Greenhouse gas emissions not evaluated in 2004 EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</table>

### Discussion

In September 2006, after certification of the WPIC EIR and approval and implementation of the WPIC project, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in greenhouse gas (GHG) emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs the Air Resources Board (ARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill (SB) 97, signed August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the California Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The California Natural Resources Agency adopted those guidelines on December 30, 2009, and the guidelines became effective March 18, 2010.

The WPIC EIR was prepared in 2004 and did not address potential impacts of GHG emissions because the EIR was prepared and the project was constructed before the 2010 amendments in the State CEQA Guidelines pertaining to GHG emissions. As discussed in Section 1.1, "Background and Refinements in Project Elements Leading to Preparation of the Addendum," project construction has been completed. Because the purpose of GHG emissions analysis under CEQA is to disclose and determine the significance of emissions and the availability of mitigating measures prior to project approval and implementation, and because the physical components of the project have already been constructed, analysis of the GHG emissions of the entire WPIC project at this time is
unwarranted. Therefore, this addendum analyzes only the potential for GHG emissions from the proposed project refinements (i.e., property and/or easement acquisition).

In June 2010 (after certification of the WPIC EIR), the Feather River Air Pollution Control District (FRAQMD) issued guidance on how to address GHG impacts under CEQA (FRAQMD 2010). This guidance recommended the use of a white paper by California Air Pollution Control Officer’s Association (CAPCOA) for GHG evaluations, and FRAQMD did not establish thresholds of significance for GHG emissions (FRAQMD 2010:27). At the time of this addendum, Yuba County has not yet approved a climate action plan or similar document designed to reduce GHG emissions.

CAPCOA recommends several mitigation measures, most of which are performance-based measures intended to reduce operational GHG emissions (by reducing vehicle miles traveled) through project design (CAPCOA 2008). Operation of the proposed expanded access corridor would be identical to existing use because the proposed project refinements would not involve any construction or expansion of uses already anticipated under the 2004 EIR. Furthermore, CAPCOA mitigation measures designed to reduce operational emissions are not relevant to the property acquisition because there would not be any increased use, thus there would not be a need to mitigate GHG emissions by reducing vehicle miles traveled.

While FRAQMD has not adopted thresholds of significance for GHG emissions, a few other air districts in California have provided some guidance. For example, the Bay Area Air Quality Management District (BAAQMD) developed thresholds for project operational emissions, though those thresholds have been challenged and are not currently enforced. In May 2011, BAAQMD adopted thresholds of 1,100 tons per year for land use development projects and 10,000 tons per year for stationary sources (BAAQMD 2011:2-4). BAAQMD has not adopted thresholds of significance for construction emissions.

As stated above, land use development that generates greater than 1,100 metric tons of CO₂ per year is considered by BAAQMD to exceed the threshold of significance. Because the proposed project refinements do not include any construction, expansion of activities, or any other physical changes, the proposed project would not exceed any GHG thresholds established by other agencies. This information is presented for informational purposes only, and it is not the intention of FRAQMD to adopt 1,100 metric tons of CO₂ per year as a numeric threshold. Rather, the intention is to put project-generated GHG emissions in the appropriate statewide context in order to evaluate whether the project’s contribution to the global impact of climate change is considered substantial. Because emissions from the project refinements would be below the thresholds established by BAAQMD, the GHG emissions from the proposed project refinements would not result in a considerable contribution to a significant cumulative global impact.

Based on the discussion presented above, the proposed project refinements would not generate a significant amount of GHG emissions, or conflict with any adopted plan adopted for the purpose of reducing GHG emissions.

CONCLUSION

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts related to greenhouse gas emissions, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts related to GHG emissions. Further, no previously infeasible or new mitigation measures to address GHG emissions impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### HAZARDS AND HAZARDOUS MATERIALS

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<td><strong>VIII. Hazards and Hazardous Materials.</strong> Would the project:</td>
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<tr>
<td>a) Create a significant hazard to the public or the environment through the routine</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>transport, use, or disposal of hazardous materials?</td>
<td>pages 5 8-5 through 7</td>
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<tr>
<td>b) Create a significant hazard to the public or the environment through reasonably</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>foreseeable upset and/or accident conditions involving the release of</td>
<td>pages 5 8-5 through 7</td>
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<td>hazardous materials into the environment?</td>
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<td>c) Emit hazardous emissions or handle</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>hazardous or acutely hazardous materials,</td>
<td>pages 5 8-5 through 7</td>
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<td>substances, or waste within one-quarter mile of an existing or proposed school?</td>
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<tr>
<td>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?</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>pages 5 8-5 through 7</td>
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<td>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?</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>pages 5 8-5 through 7</td>
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<td>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?</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>pages 5 8-5 through 7</td>
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<td>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>pages 5 8-5 through 7</td>
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<td>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?</td>
<td>Impacts HAZ-1 and -2,</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>pages 5 8-5 through 7</td>
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DISCUSSION

The WPIC EIR considered issues related to hazards and hazardous materials in Section 5.8, Hazards and Hazardous Materials, pages 5.8-1 through 5.8-7. The analysis identified three separate impacts. Impact HAZ-1 considered the potential for an inadvertent release of hazardous materials. Impact HAZ-2 considered potential safety hazards posed by construction vehicles. These impacts were determined to be less than significant. Impact HAZ-3 considered potential flood hazards. The WPIC project was determined to have a beneficial impact on this flood protection. There are no new circumstances since certification of the WPIC EIR that would influence hazards or hazardous materials impacts associated with the WPIC levee improvements or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding hazards and hazardous materials.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired or that would be subject to easements is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that construction activities could result in impacts related to hazards and hazardous materials in the project area, but those impacts would be less than significant. Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or a change in the type, significance, or severity of impacts related to hazards or hazardous materials. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of hazards and hazardous materials for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts related to hazards and hazardous materials, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts to hazards and hazardous materials. Further, no previously infeasible or new mitigation measures to address hazards and hazardous materials impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.9 Hydrology and Water Quality

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<tr>
<th>ENVIROMENTAL ISSUES</th>
<th>Where Was Impact Analyzed in Previous Environmental Document?</th>
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<th>Do New Circumstances Require Major Revisions to Previous EIR?</th>
<th>Any New Information Resulting in New or Substantially More Severe Significant Impacts?</th>
<th>Any Previously Infeasible or New Mitigation Measures to Address Impacts, But Would not be Implemented?</th>
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<tr>
<td>IX. Hydrology and Water Quality. Would the project:</td>
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<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
<td>Impact WR-1, pages 31-14 and -15 Impact WR-4, page 31-15 Impact WR-8, page 31-17</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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)?</td>
<td>Impact WR-3, page 31-15 Impact WR-7, page 31-17</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact WR-2, page 31-15 Impact WR-5, page 31-15 Impact WR-9, page 31-17</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact WR-2, page 31-15 Impact WR-5, page 31-15 Impact WR-6, page 31-16 Impact WR-9, page 31-17</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact WR-1, pages 31-14 and -15 Impact WR-4, page 31-15 Impact WR-8, page 31-17</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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**ENVIRONMENTAL ISSUES**

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<th>Do New Circumstances Require Major Revisions to Previous EIR?</th>
<th>Any New Information Resulting in New or Substantially More Severe Significant Impacts?</th>
<th>Any Previously Infeasible or New Mitigation Measures to Address Impacts, But Would not be Implemented?</th>
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<tbody>
<tr>
<td>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?</td>
<td>Impact WR-6, page 3 1-16</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?</td>
<td>Impact WR-6, page 3 1-16</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Pages 3 1-4 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>j) Result in inundation by seiche, tsunami, or mudflow?</td>
<td>Pages 3 2-4 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**DISCUSSION**

The WPIC EIR considered issues related to hydrology and water quality in Section 3.1, Hydrology and Water Quality, pages 3.1-1 through 3.1-17. The WPIC EIR evaluated nine impacts.

Impacts WR-1, WR-4, and WR-8 evaluated potential water quality impacts. Construction impacts were determined to be significant, but mitigation would reduce the impact to less than significant. Water quality impacts would be mitigated by development of a stormwater pollution prevention plan (SWPPP) as described on page 3.2-6 in Section 3.2, Geology and Soils.

Impacts WR-2, WR-5, and WR-9 evaluated impacts to drainage patterns and surface runoff. Impacts WR-3 and WR-7 evaluated impacts to groundwater quality. Impact WR-6 evaluated potential flooding impacts. All of these impacts were determined to be less than significant.

There are no new circumstances since certification of the WPIC EIR that would influence hydrology and water quality impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding hydrology and water quality.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that construction activities could result in impacts related to hydrology and water quality in the project area, but those impacts would be less than significant or mitigated to less than significant. Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow additional operations and maintenance activities not previously contemplated under the WPIC EIR. All physical construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect of the time of effect as a result of the proposed easements and/or property acquisition.
The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change that could alter the type, significance, or severity of hydrology and water quality impacts described in the 2004 WPIC EIR. Furthermore, the proposed project modifications would cause no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of easements or property to meet the requirements of Special Condition 19 is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of hydrology and water quality impacts for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

**CONCLUSION**

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts related to hydrology and water quality, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts to hydrology and water quality. Further, no previously infeasible or new mitigation measures to address hydrology and water quality impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
3.3.10 LAND USE AND PLANNING

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<tr>
<td>X. Land Use and Planning. Would the project:</td>
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<tr>
<td>a) Physically divide an established community?</td>
<td>Impact LU-1, pages 5-2-7 and -8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact LU-1, pages 5-2-7 and -8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
<td>Pages 4-1-20 through -21 Page 4-2-20</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tbody>
</table>

DISCUSSION

The WPIC EIR considered issues related to land use and planning in Section 5.2, Land Use and Planning, pages 5.2-1 through 5.2-8. Impact LU-1 evaluated temporary changes in land use required to accommodate construction activities. Impact LU-2 evaluated changes in land use that could occur due to levee expansion. Impact LU-3 evaluated temporary loss of crop production for row crops and orchards. In each case, the impact was determined to be less than significant. There are no new circumstances since certification of the WPIC EIR that would influence land use impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding aesthetics.

The proposed project refinements evaluated in this addendum involve acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired or that would be subject to easements is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that project activities could result in land use impacts in the project area, but those impacts would be less than significant. Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow additional operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.
The majority of land subject to easements and/or fee title acquisition are zoned Exclusive Agriculture, 80 acres (AE-80). One parcel in the northern end of the WPIC is zoned as a flood plain (FP-1). One parcel in the northern end is zoned single family (SF), though the land is vacant. The intent of the actions to implement Special Condition 19 is to protect the levee from development and other encroachments and to ensure that adequate room is preserved for potential levee maintenance and flood fighting activities. Since agricultural activities currently taking place on the levees cause damage to the levees, agricultural activities would be discontinued. The discontinuation of agricultural activities on the levee would not result in a significant impact because there is adequate land in the project area for agricultural operations. To the extent that residential or other structures would be allowable in the Exclusive Agriculture or Single Family zoned properties, the proposed project modifications would eliminate the potential for such structures. In light of the size of the properties affected, it is unlikely that the proposed modifications would create substantial changes to land use plans on affected property. The potential changes to planned land uses on portions of individual properties would not rise to the level of substantial adverse physical change and would not be considered a significant impact under CEQA.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in a change in the type, significance, or severity of land use impacts. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of land use impacts for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is sufficient to meet CEQA requirements and support the approval of the proposed project refinements, if TRLIA so chooses.

**CONCLUSION**

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts related to land use and planning, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts to land use and planning. Further, no previously infeasible or new mitigation measures to address land use and planning impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
3.3.11 MINERAL RESOURCES

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</tr>
</thead>
<tbody>
<tr>
<td>XI. Mineral Resources. Would the project:</td>
<td>Mineral resources not evaluated in 2004 EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Mineral resources not evaluated in 2004 EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Mineral resources not evaluated in 2004 EIR</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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DISCUSSION

There are no new circumstances since certification of the WPIC EIR that would influence mineral resource impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding mineral resources.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR did not evaluate potential impacts to mineral resources. Acquisition of easements and/or land in fee title required under Special Condition 19 would not involve any physical changes to the land, nor would it allow additional operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The WPIC EIR was prepared in 2004 and did not address potential impacts to mineral resources. Appendix G of the State CEQA Guidelines directs lead agencies to evaluate whether a proposed project would result in the loss of mineral resources. The WPIC project would not result in the loss of mineral resources because the area is not within a mineral resource zone (Yuba County 2011:4.6-31). The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes that would cause impacts on mineral resources.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). As is noted above, the proposed project refinements in this addendum would have no effects on mineral resources. The WPIC EIR, supplemented by this addendum, is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.
CONCLUSION

The proposed modifications to the WPIC project would not result in new significant impacts or substantially more severe impacts related to mineral resources, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts to mineral resources. Further, no previously infeasible or new mitigation measures to address mineral resources impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.12 Noise and Vibration

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<tbody>
<tr>
<td>XII. Noise. Would the project:</td>
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<tr>
<td>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?</td>
<td>Impact NZ-1 Pages 5.4-6 through -9 Impact NZ-2, page 5.4-9 Impact NZ-3, pages 5.4-10 through -10</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>Impact NZ-1 Pages 5.4-6 through -9 Impact NZ-2, page 5.4-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>Impact NZ-1 Pages 5.4-6 through -9 Impact NZ-2, page 5.4-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>Impact NZ-1 Pages 5.4-6 through -9 Impact NZ-2, page 5.4-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Page 3.3-10 Page 5.4-3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Page 3.3-10 Page 5.4-3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</table>

### Discussion

The WPIC EIR considered issues related to noise in Section 5.4, Noise, pages 5.4-1 through 5.4-10. The analysis focused on three impacts. Impact NZ-1 evaluated whether construction activities would exceed County Standards. This impact was determined to be significant, but mitigation measures NZ-MM-1a through -1c would reduce the impact to less than significant. Impact NZ-2 evaluated whether maintenance activities would exceed County standards. This impact was determined to be less than significant. Impact NZ-3 evaluated whether the relief wells would exceed County standards. This impact was determined to be significant, but mitigation measure NZ-MM-2...
would reduce the impact to less than significant. There are no new circumstances since certification of the WPIC EIR that would influence noise impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding noise.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that project activities could result in noise impacts in the project area, but those impacts would be less than significant or mitigated to a less than significant level. Acquisition of easements and/or land in fee title required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All physical construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change in the type, significance, or severity of noise impacts. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of noise impacts for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed modification to the WPIC project would not result in new significant impacts or substantially more severe noise impacts, nor would any change in circumstances occur that would result in new significant or substantially more severe noise impacts. Further, no previously infeasible or new mitigation measures to address noise and vibration impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.13 Population and Housing

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<tr>
<td>XIII. Population and Housing. Would the project:</td>
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<tr>
<td>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)?</td>
<td>Section 5.1, pages 5.1-1 through 5.1-3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?</td>
<td>Section 5.1, pages 5.1-1 through 5.1-3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>Section 5.1, pages 5.1-1 through 5.1-3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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### Discussion

The WPIC EIR considered issues related to population and housing in Section 5.1, Population and Housing, pages 5.1-1 through 5.1-3. The analysis determined that the WPIC project would not have an impact on population and housing, but that levee repairs and improvements would have an overall beneficial effect on housing and population by reducing flood risks. There are no new circumstances since certification of the WPIC EIR that would influence population and housing impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding population and housing.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that project activities would have no impact on population and housing. Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. Moreover, acquisition of easements and/or fee title would not involve the taking of any homes or structures because there are no homes or structures within the area to be acquired. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change in the type, significance, or severity of...
impacts to population and housing. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of population and housing for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed modification to the WPIC project would not result in new significant impacts or substantially more severe impacts related to population and housing, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe population and housing impacts. Further, no previously infeasible or new mitigation measures to address population and housing impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
3.3.14 PUBLIC SERVICES

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? | Section 5.3, page 5.3-4 | No | No | No | No |
| Police protection? | Section 5.3, page 5.3-4 | No | No | No | No |
| Schools? | Section 5.3, page 5.3-4 | No | No | No | No |
| Parks? | Section 5.3, page 5.3-4 | No | No | No | No |
| Other public facilities? | Section 5.3, page 5.3-4 | No | No | No | No |

DISCUSSION

The WPIC EIR considered issues related to public services in Section 5.3, Public Services, pages 5.3-1 through 5.3-4. The analysis determined that the WPIC project would have beneficial impacts on public services because increased flood protection could decrease future flooding and consequently decrease any threat that flooding might pose on lives. There are no new circumstances since certification of the WPIC EIR that would influence public services impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding public services.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired or that would be subject to easements is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that project activities would have a beneficial impact on public services (TRLIA 2004:5.3-4). Acquisition of the easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not
expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change in the type, significance, or severity of impacts to public services. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of public services impacts for the WPIC project in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

**CONCLUSION**

The proposed modification to the WPIC project would not result in new significant impacts or substantially more severe impacts related to public services, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe public services impacts. Further, no previously infeasible or new mitigation measures to address public services impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
3.3.15 Recreation

<table>
<thead>
<tr>
<th>ENVIRONMENTAL ISSUES</th>
<th>Where Was Impact Analyzed in Previous Environmental Document?</th>
<th>Do Proposed Changes Require Major Revisions to Previous EIR?</th>
<th>Do New Circumstances Require Major Revisions to Previous EIR?</th>
<th>Any New Information Resulting in New or Substantially More Severe Significant Impacts?</th>
<th>Any Previously Infeasible or New Mitigation Measures to Address Impacts, But Would Not be Implemented?</th>
</tr>
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<tbody>
<tr>
<td>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?</td>
<td>Impacts REC-1 through -8, pages 5-5 through -7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?</td>
<td>Impacts REC-1 through -8, pages 5-5 through -7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tbody>
</table>

**Discussion**

The WPIC EIR considered issues related to recreation in Section 5.5, Recreation, pages 5.5-1 through 5.5-7. The analysis was divided into two primary categories. Impacts REC-1, REC-2, REC-4, REC-5, and REC-7 evaluated the potential for temporary disruption of recreational opportunities. Impacts REC-3, REC-6, and REC-8 evaluated the potential for long term disruption of recreational opportunities. The analysis determined that the WPIC project would have no impact or a less than significant impact on recreation, depending on the particular area and work to be performed. There are no new circumstances since certification of the WPIC EIR that would influence recreation impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding recreation.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that the WPIC project could result in recreation impacts, but those impacts would be less than significant. Acquisition of the easements and/or land in fee title required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or a change in the type, significance, or severity of recreation impacts.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a
The analysis of recreation impacts for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed project modification would not result in new significant impacts or substantially more severe impacts related to recreation, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe recreation impacts. Further, no previously infeasible or new mitigation measures to address recreation impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### TRANSPORTATION/TRAFFIC

#### ENVIRONMENTAL ISSUES

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<tr>
<td>Impacts TR-1 through TR-3, pages 3.3-11, through 3-16</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</table>

#### 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 supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

---

### DISCUSSION

The WPIC EIR considered issues related to transportation in Section 3.3, Transportation and Traffic, pages 3.3-1 through 3.3-16. Impact TR-1 evaluated the temporary increase in traffic and possible level of service (LOS).
degradation during construction activities. Impact TR-2 evaluated potential conflicts with fixed route transit services during project construction. Impact TR-4 evaluated the potential for safety issues related to traffic flow on State Route 70. The WPIC EIR determined these impacts would be significant, but incorporation of mitigation measures TR-MM-1 requiring implementation of a traffic safety plan would reduce the impacts to less than significant. Impact TR-3 evaluated the potential for conflicts with the Union Pacific Railroad (UPRR). This impact was determined to be significant, but incorporation of mitigation measures TR-MM-1 discussed above and mitigation measure TR-MM-2 requiring implementation of UPRR safety procedures would reduce this impact to less than significant. There are no new circumstances since completion of the WPIC EIR that would influence transportation impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding transportation.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that construction activities could result in transportation impacts in the project area, but those impacts would be mitigated to a less than significant level. Acquisition of the easements and/or land in fee title required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change in the type, significance, or severity of impacts on transportation. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, "State CEQA Guidelines Regarding Changes to a Project"). The analysis of transportation and traffic for the WPIC project in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

CONCLUSION

The proposed modification to the WPIC Project would not result in new significant impacts or substantially more severe transportation impacts, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe transportation impacts. Further, no previously infeasible or new mitigation measures to address transportation impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
### 3.3.17 Utilities and Service Systems

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<tr>
<td>XVII. Utilities and Service Systems. Would the project:</td>
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<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>Impact UTI-2, pages 5.9-3 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact UTI-2, pages 5.9-3 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact UTI-2, pages 5.9-3 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>Section 5.9, page 5.9-1</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>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?</td>
<td>Impact UTI-2, pages 5.9-3 through -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
<td>Impact UTI-3, pages 5.9-4 and -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>g) Comply with federal, state, and local statutes and regulations related to solid waste?</td>
<td>Impact UTI-3, pages 5.9-4 and -5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
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### Discussion

The WPIC EIR considered issues related to utilities and service systems in Section 5.9, Utilities and Service Systems, pages 5.9-1 through 5.9-5. Impact UTI-1 evaluated whether the project would require construction or expansion of electrical or natural gas transmission lines. The WPIC EIR determined there to be no impact on electrical or natural gas transmission lines. Impact UTI-2 evaluated the potential for increased wastewater generation. Impact UTI-3 evaluated potential adverse effects on the capacity of solid waste landfills. Impacts UTI-2 and UTI-3 were determined to be less than significant. There are no new circumstances since completion of
the WPIC EIR that would influence utility and service systems impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding utilities and service systems.

The proposed project refinements evaluated in this addendum include acquisition of easements and/or land in fee title required to satisfy Special Condition 19 of the State Reclamation Board Permit #17782. The area to be acquired is completely within the study area analyzed in the 2004 EIR. The WPIC EIR identified that construction activities could result in impacts to utilities and service systems in the project area, but those impacts would be less than significant. Acquisition of easements and/or fee title interest in land required under Special Condition 19 would not involve any physical changes to the land, nor would it allow operations and maintenance activities not previously contemplated under the WPIC EIR. All construction and improvements analyzed under the 2004 EIR have been completed. On-going operations and maintenance activities were contemplated in the 2004 EIR and would not expand either in terms of the geographic area of effect or the time of effect as a result of the proposed easement and/or property acquisition.

The proposed project refinements evaluated in this addendum provide specific locations of land, access to which is required for operations and maintenance activities already assumed in the EIR. Acquisition of easements and/or land in fee title would not result in any physical changes or in a change in the type, significance, or severity of impacts on utilities and service systems. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

Given these conditions, acquisition of property for on-going operations and maintenance is consistent with the CEQA requirements for use of an addendum (See Section 1.2, “State CEQA Guidelines Regarding Changes to a Project”). The analysis of utilities and service systems for the WPIC levee improvements in the WPIC EIR and for the proposed project refinements in this addendum is complete, accurate, and adequate, and meets the requirements of CEQA and the State CEQA Guidelines.

**CONCLUSION**

The proposed modifications to the WPIC project would not result in new significant impacts or substantially more severe impacts utilities and service systems, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe utilities and service system impacts. Further, no previously infeasible or new mitigation measures to address utilities and service system impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.
3.3.18 Mandatory Findings of Significance

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<tr>
<td>XVIII. Mandatory Findings of Significance.</td>
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<tr>
<td>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?</td>
<td>Chapter 6, pages 6-1 through 6-8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>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.)</td>
<td>Chapter 6, pages 6-1 through 6-8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?</td>
<td>Chapter 6, pages 6-1 through 6-8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</table>

Authority: Public Resources Code Sections 21083 and 21087

Discussion

The issues considered in this section involve predominantly cumulative impacts. In the 2004 EIR prepared for the previously approved WPIC Project, cumulative impacts were analyzed in Chapter 6, Other Analyses Required by CEQA, pages 6-1 through 6-8. Impact Cume-1 evaluated construction and operational cumulative effects. The analysis determined that the project would have a significant impact, but implementation of mitigation measures Cume-MM-1 would reduce the impact to less than significant. Mitigation measures Cume-MM-1 requires TRLIA to coordinate with relevant local agencies to develop and implement a coordinated construction plan to reduce cumulative traffic impacts. There are no new circumstances since certification of the WPIC EIR that would influence cumulative impacts associated with the WPIC project or the proposed project refinements evaluated in this addendum, and there is no new information of substantial importance regarding cumulative impacts.
CONCLUSION

The proposed modifications to the WPIC Project would not result in new significant impacts or substantially more severe impacts on the environment, nor has any change in circumstances occurred that would result in new significant impacts or substantially more severe environmental impacts. Further, no previously infeasible or new mitigation measures to address significant environmental impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

3.4 CONCLUSIONS

3.4.1 ENVIRONMENTAL RESOURCE IMPACTS

As described in the preceding sections, the proposed project refinements evaluated in this addendum (i.e., easements and/or land in fee title) would not result in physical changes to the land or in ongoing operations and maintenance, would not change any of the impact conclusions of the WPIC EIR, and would not substantially increase the severity of any impacts described in the 2004 WPIC EIR. Furthermore, there are no changes to the effectiveness of mitigation measures proposed in the EIR or the need for additional mitigation measures.

3.4.2 CUMULATIVE IMPACTS

The WPIC EIR evaluated cumulative impacts in Chapter 6, Other Analyses Required by CEQA, pages 6-1 through 6-8. Impact Cume-1 evaluated construction and operational cumulative effects. The analysis determined that the project would have a significant impact, but implementation of mitigation measures Cume-MM-1 would reduce the impact to less than significant. Mitigation measures Cume-MM-1 requires TRLLA to coordinate with relevant local agencies to develop and implement a coordinated construction plan to reduce cumulative traffic impacts.

As documented throughout this addendum, implementing the proposed project refinements (i.e., easements and/or land in fee title) would not result in any new significant impacts or substantially more severe impacts and would not require any new or different mitigation measures. Furthermore, there are no new circumstances since certification of the EIR that would result in new cumulatively considerable contributions to significant cumulative impacts or that would substantially increase the severity of previously identified cumulatively considerable contributions to significant cumulative impacts. There is no other new information requiring analysis or verification. Therefore, the direct, indirect, and cumulative impacts of the proposed project refinements evaluated in this addendum would remain consistent with the conclusions of the cumulative impact analysis in Chapter 6 of the EIR, “Other Analyses Required by CEQA.”

3.4.3 CONCLUSIONS

Based on the analysis of environmental impacts presented above, acquisition of property and/or easements necessary to meet the requirements of Special Condition 19 through the proposed project refinements described in this document would result in none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent EIR. In summary, there are no altered circumstances or new information of substantial importance since certification of the WPIC EIR. More specifically, the proposed project refinements 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 WPIC EIR is appropriate to evaluate the environmental consequences of the proposed project refinements.
4 REFERENCES


February 19, 2013

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul G. Brunner, Executive Director
       Ric Reinhardt, Program Manager
SUBJECT: Information Report on the California Department of Water Resources Urban Levee Evaluation for the Reclamation District 784 Levee System and how TRLIA is integrating this work into the TRLIA Senate Bill (SB) 5 Urban Levee Determination

Background:
The Three Rivers Levee Improvement Authority (TRLIA) has been designing and constructing improvements to the Reclamation District (RD) 784 Levee System to reduce the risk of flooding since 2004. It has been the goal of these endeavors to provide 200-year flood protection to the RD 784 urban area. 200-year protection was chosen because these rapidly growing areas warranted a high degree of protection and because the Central Valley Flood Protection Board (then the Reclamation Board) (CVFPB) made 200-year protection a condition for issuing encroachment permits to accomplish the repairs.

Achieving 200-year flood protection has been an evolving process. Until recently there was no State or Federal 200-year levee design criteria. In October 2009 TRLIA codified for public information the 200-year levee design criteria that had been used by TRLIA consultants in designing the levee repairs and improvements.

The California Department of Water Resources (DWR) developed the Urban Levee Design Criteria (ULDC) in May 2012 as required by SB 5. The ULDC superseded the TRLIA 200-year design criteria.

SB 5 calls for 200-year flood protection to be the minimum level of protection for urban and urbanizing areas in the Sacramento-San Joaquin Valley (i.e., the urban level of flood protection). Based on current schedules, by 2016 SB 5 will limit the conditions for approval of development by local governments if adequate progress towards achieving 200-year protection is not met. That is, the land use agency will have to make a finding that an area protected by levees has made adequate progress towards 200-year protection before it can approve development plans or permits. SB 5 requires that the urban level of flood protection be consistent with criteria established by DWR.
TRLIA recently initiated efforts to develop a body of evidence which will be used to support a finding of 200-year protection and complete the Urban Level of Protection (ULOP) for RD 784. The ULOP is also being developed by DWR to comply with SB 5 and is currently in draft form. TRLIA Staff briefed the Board on this requirement in March of 2011, see attachment 1, March 3, 2011 Staff Report.

SB 5 also required that DWR evaluate the current level of performance of the State-Federal flood protection system in the Central Valley. The evaluation of current system performance is to include an estimate of the risk of levee failure, a discussion of the inspection and reviews performed, and recommendations regarding the levees and future work activities. This Urban Levee Evaluation (ULE) Program will help flood managers understand the overall flood risks in the Central Valley and evaluate alternative changes to the flood management system to better manage risks, see attachment 2, Factsheet on Levee Evaluations. The evaluation being conducted for the ULE is a conservative, high level analysis intended to identify levee reaches that will require more detailed evaluations to determine the extent and magnitude of any identified issues. The ULE products are not conducted to a level of detail that would allow them to be used as the basis for the 200-year finding required as part of the ULDC and ULOP Determination.

The ULE Program was initiated in 2007 and started by gathering initial data for evaluation, see attachment 3, Factsheet on Levee Analysis Methods. This data included new levee topography, geotechnical explorations, geomorphologic assessments, electromagnetic surveys of the levees, and researching historic levee performance. TRLIA Staff has been coordinating with DWR since the ULE program began evaluating the RD 784 levees. Because of the evaluations and levee improvements conducted by TRLIA, DWR did not have to perform as extensive a geotechnical exploration program as performed for other urban levee systems. TRLIA has shared all evaluation, design, and construction information with DWR, assisted in field reconnaissance of the levee system, described the improvements that TRLIA has done to the system, and reviewed and commented on DWR ULE products. Products produced thus far include a Technical Review Memorandum in June 2009, a Supplemental Geotechnical Data Report in June 2010, an Erosion Screening Report in August 2012, and a Technical Memorandum on Freeboard in September 2012.

**Discussion:**
The ULE Evaluation includes:

1) a freeboard evaluation,
2) an evaluation for potential erosion,
3) a seepage evaluation,
4) a stability evaluation,
5) and a liquefaction evaluation.

No issues were identified for freeboard or erosion (1 and 2, above) for the RD 784 levees by the ULE evaluation.

For purposes of seepage, stability, and liquefaction evaluation (3-5, above), the RD 784 Levee System was divided into 27 reaches (A through Z) for evaluation, see attachment 4. The WPIC
west levee has seven reaches, the Bear River north levee has 3 reaches, the Feather River east levee has 11 reaches, and the Yuba River south levee has 6 reaches. Reaches were determined based on levee improvements done by TRLIA. Within each levee reach, DWR chose a critical levee section. This levee section does not represent the average conditions of a reach but was chosen based on conditions that would be most likely to exhibit the worst seepage or stability problems. The evaluation checked seepage and stability criteria of the levees and evaluated the levees at three water surface elevations:

1) 1957 Design Profile, (New DWR 200-year Criteria)
2) 200-year profile, and
3) Hydraulic Top of Levee (HTOL) (New DWR 200-year Criteria)

The HTOL is defined as the lesser of the 200-year plus 3 feet elevation or the 500-year water surface elevation. In the case of the RD 784 levee system, the 500-year flood elevations had not been determined when the DWR evaluation was done, so the ULE team set the HTOL at the 200-year water surface plus 3 feet.

Under Seepage was evaluated at the levee toe and at a low spot offset from the levee toe chosen as much as 100 feet or more from the levee. Through seepage was also checked at each levee section.

Levee stability was checked for:

1) steady state conditions (conditions at maximum flood condition),
2) rapid draw down conditions (condition of a saturated levee right after the flood elevation drops), and
3) rapid flood loading conditions (conditions of a levee constructed on a very weak foundation). The ULE team determined that the rapid flood loading condition was not applicable to the RD 784 levee system. (New DWR 200-year Criteria)

Levee liquefaction was checked for each levee section. This means that in the event of a large earthquake, there is a potential that one or more of the foundation soil layers could liquefy and the levee could deform and slump. It is not very probable that this event would occur during the same time as a major flood. Earthquakes can occur any time of the year. Levees are not designed to eliminate the potential for liquefaction. If a levee system is found to have liquefiable soils, then an emergency plan must be prepared to describe how the system would recover in the event of an earthquake. The plan would describe how the levee system could be restored to at least a 10-year level of protection within eight weeks. It is likely that such a plan will need to be developed for the RD 784 Levee System.

Initial evaluation results for the RD 784 levee system were presented in July 2012. Those results have undergone review by DWR and TRLIA and have been revised. TRLIA met with DWR in October to discuss the revised results and how the information will be characterized in their final report. These results were further evaluated in November and December 2012 and additional revisions made. The most recent versions of the results maps are attached (Attachments 5-7) and are discussed in the following paragraphs. DWR's purpose of the ULE evaluation is to identify potential problem areas along with reconnaissance level cost estimates to address those
problems. The next task for the DWR ULE team is to develop remediation alternatives at the identified problem locations and cost estimates for those alternatives. The alternatives will be developed to address the portions of the reaches where a critical condition exists. The results maps show the preliminary reach recommendations for remediation. When final design is initiated and additional information is gathered, the extent of these reaches will most likely be reduced.

*Olivehurst Detention Basin (ODB) Results*

One sub-reach, A1, exceeded the stability criteria. Figure XX1, attachment 5.

Sub-Reach A2 met the stability criteria

The ULE program did not consider that this reach of levee has a lower water surface as a result of the ODB ring levee and pump station isolating this reach of levee from flood stages in the WPIC. This levee is now subject to interior drainage flood elevations only. TRLIA will confirm that this reach of levee meets the ULDC requirements.

Sub-reach A1 also exceeded under seepage criteria. Figure XX1, attachment 6.

Sub-Reach A2 met the under seepage criteria.

The initial suggestion for remediation by DWR is to fill a ditch on the landside of sub-reach A1 or construct a seepage berm.

Reach A was also found to have potentially liquefiable soils in the foundation. Figure XX1, attachment 7. An emergency response plan will be prepared by TRLIA to describe how the system would recover in the event of an earthquake. The plan would describe how the levee system could be restored to at least a 10-year level of protection within eight weeks.

*Yuba River South Levee (YRSL) Results*

None of the YRSL reaches exceeded the stability criteria. Figure XX2, attachment 5

Reach V2 has a high under seepage gradient at the landside toe of the 300 foot seepage berm constructed by TRLIA as shown on Figure XX2, attachment 6. This reach includes the 1986 Break location. The USACE's and the ULDC seepage berm design criteria allows for high gradients at the toe of seepage berms that exceed 300 feet in width. When a berm is designed that has a high gradient at the toe, the standard levee practice is to monitor conditions in high water to confirm that excess seepage does not result in problems as a result of successive high water events.

Another item identified by the ULE effort that needs additional evaluation in Reach V2 is the 1986 Break Site. When TRLIA designed the site, we were aware of how the USACE closed the levee breach, by using very large rock that could result in voids in the foundation of the levee. One of DWR’s borings required excess grout to backfill the hole, potentially confirming the presence of a void in the levee foundation. The ULE program has confirmed that stability and underseepage are not a concern at the site, even if there are voids in the foundation. As part of
the TRLIA 200-year ULOP evaluation, TRLIA is conducting an evaluation of this site to
determine if the presence of voids would pose a risk to the levee subsiding as fines settle into the
levee over time and what, if any, actions should be taken to remediate it.

Several reaches (V₁, V₂, W, Y, and Z) were found to have liquefiable soils. Figure XX2,
attachment 7. An emergency response plan will be prepared by TRLIA to describe how the
system would recover in the event of an earthquake. The plan would describe how the levee
system could be restored to at least a 10-year level of protection within eight weeks.

**Feather River East Levee (FREL) Results**

Reach Q (Feather River Setback Levee Reach), DWR relied on the Engineer of Record for
Design (GEI) for this levee reach since it is a newly constructed levee. GEI will provide
Engineers Opinions for this levee reach as part of the TRLIA 200-year ULOP determination.

None of the FREL reaches exceeded the stability criteria. Figures XX1 and XX2, attachment 5

Reach K slightly exceeds the under seepage criteria at a low point offset approximately 100 feet
from the levee toe. Figure XX1, attachment 6. The Corps of Engineers constructed a seepage
berm and relief wells in this reach of the FREL. TRLIA doubled the number of relief wells as
part of the TRLIA Improvement Program. DWR’s recommendation is to monitor conditions at
this location. TRLIA had already recognized the need to monitor and installed a piezometer at
this location as part of the Feather River levee improvements. Monitoring of the piezometer is
included in the O&M Addendum prepared by TRLIA for the FREL.

Reach M was identified as exceeding through seepage criteria due to a silty sand lens in the
levee. Figure XX1, attachment 6. GEI evaluated this reach in 2006 and did not identify any
concerns. The new ULDC has added a new criterion (Section 7.4.1 Landside Slope Stability). If
the phreatic surface exits on the levee slope in a soil that is potentially erodible, then criteria is
exceeded and remediation is required. The TRLIA design team conclusion that this reach was
not a problem was based on past performance of the levee that did not indicate any problems
with through seepage and no calculated slope instability with the lens present. While the
TRLIA design team believes the levee reach does not represent a risk of exhibiting problems in a
flood event, we recommend proceeding with a small stability berm at the site to meet the ULDC
criteria, as it can be done for a low cost. Final design for this remediation and a cost estimate
will be developed in 2013.

Most reaches (K, L, M, N, O, P, Q, R, and U) were found to have liquefiable soils, Figures XX1
and XX2, attachment 7. An emergency plan will be prepared by TRLIA to describe how the
system would recover in the event of an earthquake. The plan would describe how the levee
system could be restored to at least a 10-year level of protection within eight weeks.

**Bear River North Levee (BRNL) Results**

Reach J (Bear River Setback Levee Reach) DWR relied on the Engineer of Record for Design
(GEI) for this levee reach since it is a newly constructed levee. GEI will provide Engineers
Opinions for this levee reach as part of the TRLIA 200-year ULOP determination.
None of the BRNL reaches exceeded the stability criteria. Figure XX1, attachment 5.

None of the BRNL reaches exceeded the seepage criteria. Figure XX1, attachment 6.

All three reaches (H, I, and J) were found to have liquefiable soils. Figure XX1, attachment 7. An emergency plan will be prepared by TRLIA to describe how the system would recover in the event of an earthquake. The plan would describe how the levee system could be restored to at least a 10-year level of protection within eight weeks.

**WPIC West Levee (WPIC) Results**
The DWR ULE indicated the WPIC did not meet criteria for several sub-reaches. This was determined through the use of new geotechnical data and applying the ULDC criteria. Several of the analysis sections were placed at locations of historic channels under the levee identified through ULE geomorphic studies. The depth of the WPIC canal was better defined and found to provide a more direct connection to sand layers in the levee foundation. Additional landside toe explorations better defined the thickness of confining clay layers at the landside toe and were found to not be as thick as previously determined.

Three sub-reaches (C2, D, and E1) of the WPIC exceeded the stability criteria. Figure XX1, attachment 5. The stability issues are associated with the seepage problems identified in these reaches. HDR, TRLIA’s consultant for evaluating the WPIC for the ULDC, has reviewed the DWR ULE and conducted an independent evaluation of the WPIC. HDR used the same information as available to DWR and conducted some additional geotechnical explorations to expand the information. HDR’s evaluation has confirmed the ULE stability results for the specific sub-reaches within the WPIC. The HDR evaluation results are identified in the table below. The stations in the Table are DWR stations. The table also lists HDR’s initial remediation recommendations for the specific sub-reaches.

Several sub-reaches of the WPIC exceeded under seepage criteria, sub-reaches B2, C2, E1, F2, and G2. Figure XX1, attachment 6. Under seepage criteria exceedence most often occurs at low spots located away from the levee toe, which was not a consideration in past evaluations. These low spots are frequently part of the local interior drainage system (i.e. ditches). Because it was one of the first designed projects (2005) for TRLIA, it was expected that reaches of the WPIC may not meet the new ULDC since it has more stringent factors than the TRLIA 200 year criteria. In addition, the additional data collection and analysis completed by the ULE team increased our understanding of the foundation conditions of the WPIC levee. HDR, TRLIA’s consultant for evaluating the WPIC for the ULOP, has reviewed the DWR ULE and conducted an independent evaluation of the WPIC. HDR used the same information as available to DWR and conducted some additional geotechnical explorations to expand the information. HDR’s evaluation has confirmed the ULE under seepage results to specific sub-reaches within the WPIC. The HDR evaluation results are identified in the table below. The stations in the Table are DWR stations. The table also lists HDR’s initial remediation recommendations for the specific sub-reaches.
Several reaches (B, C, E, and G) were found to have liquefiable soils. Figure XX1, attachment 7. An emergency response plan will be prepared by TRLIA to describe how the system would recover in the event of an earthquake. The plan would describe how the levee system could be restored to at least a 10-year level of protection within six months.

### POTENTIAL WPIC REMEDIATION REACHES

<table>
<thead>
<tr>
<th>Begin Station</th>
<th>End Station</th>
<th>Length (Feet)</th>
<th>Criteria Exceeded</th>
<th>Potential Remediation Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1215+50</td>
<td>1212+50</td>
<td>300</td>
<td>Meets Criteria</td>
<td>Fill Low Area or Cutoff Wall</td>
</tr>
<tr>
<td>1215+50</td>
<td>1212+50</td>
<td>2,750</td>
<td>Exceeds Seepage Criteria at levee toe offset.</td>
<td>Cutoff Wall or Landslide Fill</td>
</tr>
<tr>
<td>1185+00</td>
<td>1185+00</td>
<td>2,000</td>
<td>Meets Criteria</td>
<td>NA</td>
</tr>
<tr>
<td>1146+00</td>
<td>1128+50</td>
<td>3,700</td>
<td>Meets Criteria</td>
<td>Cutoff Wall or Seepage Berm</td>
</tr>
<tr>
<td>1091+50</td>
<td>1083+00</td>
<td>850</td>
<td>Exceeds Seepage Criteria at levee toe and levee toe offset. Exceeds stability criteria.</td>
<td>Fill landside (thicken blanket) or Cutoff Wall</td>
</tr>
<tr>
<td>1075+50</td>
<td>1075+50</td>
<td>500</td>
<td>Not Analyzed</td>
<td>Existing Cutoff Wall</td>
</tr>
<tr>
<td>1070+50</td>
<td>1070+50</td>
<td>1,700</td>
<td>Exceeds stability criteria.</td>
<td>Stability berm</td>
</tr>
<tr>
<td>1053+50</td>
<td>1053+50</td>
<td>1,000</td>
<td>Not Analyzed</td>
<td>Existing Cutoff Wall</td>
</tr>
</tbody>
</table>

HDR will accomplish additional explorations and evaluations to confirm the extent of the problem. HDR will then develop the most appropriate remediation for each sub-reach and a preliminary cost estimate for this remediation.

**Next Steps:**

1) TRLIA consultants for the Bear, Feather and Yuba Rivers will continue their efforts to provide enough substantial evidence to make the compliance determination for the ULDC. The DWR ULE was not meant to and does not provide enough substantial
evidence for an engineer to make a 200-year urban levee compliance determination for the RD 784 area.

2) DWR has initiated its next task of the ULE which is to refine the limits of problem areas and develop remediation alternatives for those reaches to support DWR’s Basin Wide Feasibility Study.

3) TRLIA will continue to coordinate closely with DWR as they complete their ULE tasks with the goal for TRLIA and the DWR to come to very similar conclusions as to what additional remediation is necessary for RD 784.

4) HDR will complete its preliminary determination of required remediation for the WPIC. HDR is preparing a proposal to accomplish additional explorations and evaluations to confirm reaches that are a problem and the extent of the problem. As part of this effort HDR will develop the most appropriate remediation for each reach and a preliminary cost estimate for this remediation.

5) TRLIA will finalize corrective actions for all items and prepare the needed liquefaction plans and make the necessary corrective fixes as identified in this memo. Most of the items identified can be accomplished by using existing TRLIA prior year funds, or YLFA funds.

6) If needed, TRLIA Staff will prepare the appropriate DWR grant funding applications to design and construct features.

Fiscal Impact:
Additional remediation will require additional funds for design and construction. Once alternatives are developed, a cost estimate will be provided for the actions necessary to meet the ULDC criteria. Potentially, any additional remediation may be able to be accomplished with currently available TRLIA prior year funds, or YFLA funds. It is anticipated that this work will be eligible for future State cost share funding.

ATTACHMENTS
1. March 3, 2011 Staff Report, Urban Levee Design Criteria Determination
2. Factsheet on Levee Evaluations
3. Factsheet on Levee Analysis Methods
4. ULE 27 Reaches Graphic
5. Maps Showing Summary of Stability Analysis Results
6. Maps Showing Summary of Seepage Analysis Results
7. Maps Showing Summary of Liquefaction Potential Analysis Results
March 3, 2011

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul G. Brunner, Executive Director
       Ric Reinhardt, Program Manager
SUBJECT: Delegation of Authority to Executive Director to take Actions to Develop Information Necessary to Determine that the RD 784 Levee System Provides 200-Year Flood Protection

**Recommended Action:**
Approve the proposed approach for 200-year flood protection compliance determination and authorize the Executive Director to execute the actions necessary to determine how the RD 784 Levee System that was recently TRLIA certified for FEMA Accreditation complies with the recently issued State Interim Levee Design Criteria for 200-year protection.

**Background**
The Three Rivers Levee Improvement Authority (TRLIA) since 2004 has been executing designs and constructing repairs to the RD 784 Levee System to increase flood protection. It has been the goal of these endeavors to provide 200-year flood protection to the RD 784 urban area. 200-year protection was chosen because these rapidly growing areas warranted a high degree of protection and because the Central Valley Flood Protection Board (then the Reclamation Board) (CVFPR) made 200-year protection a condition for issuing encroachment permits to accomplish the repairs. In October 2009 TRLIA codified for public information the 200-year levee design criteria that had been used by TRLIA consultants in designing levee repairs.

State law enacted in 2007 (Senate Bill (SB) 5) calls for 200-year flood protection to be the minimum level of protection for urban and urbanizing areas in the Sacramento-San Joaquin Valley (i.e., the urban level of flood protection). Based on current schedules, by 2015 the new law will limit the conditions for approval of development by local governments if adequate progress towards achieving 200-year protection is not met. That is, the County will have to make a finding that an area protected by levees has made adequate progress towards 200-year protection before it can approve development plans or permits. SB 5 requires that the urban level of flood protection be consistent with criteria used or developed by DWR. To avoid delaying urgently needed flood protection, Interim Levee Design Criteria (ILDC) were developed by the State and issued in final draft form in December 2010. The ILDC document can be found on the DWR website at [http://www.water.ca.gov/cvfmpr/](http://www.water.ca.gov/cvfmpr/). The ILDC were developed through a collaborative stakeholder involvement process with representatives from cities, counties, flood agencies, State of California (State) agencies, and Federal agencies. Ric Reinhardt and Dr. Les Harder represented TRLIA during development of these criteria. The ILDC will continue to be refined before being finalized, most likely as regulations, by around
2013-2014. Even after being finalized, amendments may be needed from time to time. The ILDC supersedes the TRLIA 200-year design criteria.

**Discussion:**
The County finding of 200-year protection will need to be based on a civil engineer’s compliance determination supported by a body of evidence. With the issuance of the ILDC, TRLIA is prepared to begin gathering the information required for the 200-year compliance determination. Attached is a proposed approach for accomplishing 200-year compliance determination following the criteria presented in the ILDC. TRLIA consultants used for the design of the repairs will provide the assessments which will be organized into a summary report that will identify how the current FEMA accredited levee system stands in relation to the new ILDC. The summary will include the following: 1) a list of items that fully achieve the new criteria; 2) a list of items that deviate from the new criteria, but are acceptable for 200-year compliance; and 3) a list of items where additional work is needed. TRLIA’s current Board of Senior Consultants will provide a required independent review of the summary report. With approval by the TRLIA Board of this approach and delegation of authority to the Executive Director to proceed, proposals will be elicted from TRLIA design consultants and amendments to their contracts for the work brought back to the Board for approval.

**Fiscal Impact:**
By approving moving forward with 200-year compliance determination, TRLIA will be assuming a potential future expense for staff to conduct levee assessments according to the recently issued ILDC.
The expenses for doing this evaluation 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; and the UYLIP).

- Local funds will be used for the Prior Levee work (WPIC, 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.

**ATTACHMENT**
1. TRLIA Approach for Providing 200-Year Compliance Determination
RD 784 Levee System

Approach to Provide a ULDC Compliance Determination for 200-Year Flood Protection for RD 784 for Senate Bill 5
March 2012

TRLIA has certified the RD 784 Levee System to FEMA for the 100-year flood. However, TRLIA has designed and constructed all repairs with the goal of providing 200-year protection to RD 784. At the time of design, the State of California had not developed criteria to define what would be required to meet the 200-year standard. As construction on the system nears completion it is now time for TRLIA to evaluate the completed project against the newly released State Interim Levee Design Criteria (ILDC) and determine if the levee system complies with the issued criteria for providing 200-year protection. This compliance determination will be made to Yuba County for its use in reviewing future development plans. The 200-year compliance determination will be accomplished by engineering assessments of each reach of the system against criteria contained in the CA Department of Water Resources ILDC for Urban and Urbanizing Areas in the Sacramento-San Joaquin Valley, Version 4, December 15, 2010. The ILDC document can be found on the DWR website at http://www.water.ca.gov/cvfmp/.

Attached to this approach is Table 2 from the ILDC which presents a summary of the criteria that must be met to provide 200-year protection. Below is the approach that TRLIA will use in providing the evidence for the record to be used for the 200-year flood protection determination.

Design Water Surface Elevation Criteria
MBK will provide water surface and hydraulic top of levee information for all reaches in the system. The modified version of the FEMA approach (Option 1) listed in the ILDC will be used to evaluate if the constructed top of levee is adequate for 200-year protection. This evaluation will include wind set and wave run up. MBK will develop the Design Water Surface Elevation (DWSE), the Hydraulic Top of Levee (HTOL), and the 10-year flood profile to be used by other consultants in the geotechnical evaluations. The 10-year flood profile is necessary for seismic evaluation and planning for levee restoration after a seismic event. MBK will evaluate whether adjustments to the DWSE to account for climate change are necessary. MBK will prepare a report documenting all hydrologic and hydraulic information used to develop the DWSE. This documentation will include the agency or consultant that prepared the information, date of information, and purpose for which information was prepared.

Seepage, Slope Stability, Seismic Vulnerability, and Geometric Criteria
The design consultant (Either GEI, HDR or Kleinfelder) that performed the original geotechnical evaluations for levee repairs will evaluate the repair reaches for geotechnical criteria. The criteria for Intermittently-Loaded Levees will be used. See attached Table 2 for criteria. Evaluations will be made for:

- Seepage
- Steady State Slope Stability
- Seismic Vulnerability (The Consultant will estimate levee slumping during a seismic event, compare that to the 10-year profile, and describe a plan for immediate restoration of any damaged reaches to protect against a 10-year flood)
- Geometric Criteria (It is expected that a general description of levee geometry will be given as a part of the Slope Stability evaluation. The consultant should describe if the reach of levee generally meets the criteria in the ILDC and ramifications of any locations
where it does not). For purposes of this evaluation, the consultant will assume repairs that have been accomplished or permitted after review and approval of the Corps, CVFPB and DWR are existing conditions

Erosion Potential
MBK will evaluate the potential for erosion from both river flows and wind-wave shear stress for the entire RD 784 levee system. MBK will consider the recent repairs to the levee system and wind-wave analyses performed in the initial designs. These design wind-wave analyses will be compared to the approach suggested in Section 7.5 of the ILDC.

Right-of-Way Criteria
MBK will describe and evaluate existing right of way along the RD 784 levee system. The existing right of way will be evaluated against the objectives found in the ILDC and explanations of right of way adequacy provided for reaches where the objectives are not completely met. Future actions of TRLIA with respect to right of way acquisition will be described.

Encroachments, Penetrations and Closure Structures
The design consultant (Either GEI or HDR) that performed the original designs for levee repairs will assess the repair reaches for encroachments, penetrations and closure structures. The assessment will identify all encroachments, penetrations, and closure structures in the levee reach and a determination made as to whether the identified feature poses a hazard. Penetrations will be categorized as low, medium or high hazard. Assessments will follow the guidance in Sections 7.1, 7.2 and 7.3 of the ILDC.

Levee Vegetation
MBK will provide a vegetation assessment of the RD 784 levee system. This assessment will consider the proposed Corps criteria and the DWR interim criteria. Any conditions which do not meet criteria will be noted and future actions at these locations discussed.

Independent Expert Panel
TRLIA will use the current TRLIA Board of Senior Consultants to provide an independent expert review of the compliance determination report.

Security
To be determined
Levee Evaluation Program

FloodSAFE VISION

A sustainable integrated flood management and emergency response system throughout California that improves public safety, protects and enhances environmental and cultural resources, and supports economic growth by reducing the probability of destructive floods, promoting beneficial floodplain processes, and lowering the damages caused by flooding.

The Department of Water Resources (DWR) is leading a multifaceted initiative called FloodSAFE California to improve integrated flood management throughout California, with an emphasis on better managing flood risk related to the State-federal flood protection system in the Central Valley. In February 2006, Governor Schwarzenegger declared a State of Emergency for California's levee system. In November 2006, California voters approved Propositions 1E and 84, providing nearly $5 billion in state bond funds for flood protection projects statewide.

Several bills passed in 2007, adding considerable new state law requirements related to flood management in the Central Valley and affecting how DWR and local entities work to manage flood risk. As a result of Senate Bill 5 (Machado), DWR is required to evaluate the current level of performance of the State-federal flood protection system in the Central Valley. The evaluation of current system performance is to include an estimate of the risk of levee failure, a discussion of the inspection and reviews performed, and recommendations regarding the levees and future work activities. The geotechnical engineering performed through the Urban and Non-Urban levee evaluation (ULE and NULE) projects helps flood managers understand the overall flood risks in the Central Valley and evaluate alternative changes to the flood management system to better manage the risks.

DWR is now engaged in an unprecedented effort to evaluate 470 miles of urban levees and 1,620 miles of non-urban levees for hidden defects. The ULE and NULE projects teams are evaluating State-Federal Project levees, including associated non-Project levees, to determine whether they meet defined geotechnical criteria and, where needed, identify remedial measures, including cost estimates, to meet those desired geotechnical criteria.

The information being developed through the ULE and NULE projects will be used within the Central Valley Flood Management Planning Program to inform development of two required documents: the Flood Control System Status Report and the Central Valley Flood Protection Plan.

1 Senate Bills 5 and 17, Assembly Bills 5, 70, 156, and 162; and Propositions 1E and 84 added Sections to the Government Code, Health and Safety Code, Public Resources Code, and Water Code

2 Water Code § 9120.

3 The State-federal flood protection system in the Central Valley is referred to as the State Plan of Flood Control in Section 5096.805(i) of the California Public Resources Code. Levees within the State-federal flood protection system in the Central Valley are called "Project" levees (Water Code Section 9602(ci)).

Throughout the Central Valley, levees provide essential protection for communities and farmland, preventing possible catastrophic flooding and loss of life. DWR is currently evaluating approximately 2,100 miles of levees in California's Central Valley, as shown in the figure above.
Underwater bathymetric surveys are explorations conducted using special multibeam sonar installed on custom boats. These underwater surveys provide detailed topographic data of the riverbed and riverbanks that form the base of the levee systems.

The ULE and NULE projects have multiple goals and objectives, including supporting federal and local flood management programs by providing geotechnical data, analysis, and remedial alternatives to local, state, and federal stakeholders.

**Principal objectives for the ULE Project are to:**

- Prepare preliminary, remedial alternatives and associated cost estimates necessary for acceptable levee performance at the estimated 200-year Water Surface Elevation by September 2012.
- Deliver the final documentation of geotechnical analysis and remedial alternatives including associated cost estimates by December 2012.
- Publish a list of available data and analysis products for use by local, State and federal stakeholders on the FloodSAFE website by January 2009.
- Provide available data and analysis products within 30 days of a request.
- Develop an interim GIS database for levee evaluation products by April 2008.
- Identify critical geotechnical deficiencies that may result in levee failure during the next high water event. Recommend further analysis to the Critical Repairs program as deficiencies are identified.

**Principal objectives for the NULE Project are to:**

- Publish a list of available data and analysis products for use by local, state, and federal stakeholders on the FloodSAFE website by November 2009.
- Categorize all project and appurtenant non-project levees into four hazard level categories: low, moderate, or high likelihood of either levee failure or the need to flood-fight to prevent levee failure when water reaches the assessment water surface elevation, or lacking sufficient data to assess the hazard level.
- Prepare preliminary, remedial alternatives (and associated cost estimates) necessary for acceptable levee performance at the design water surface elevation by January 2011.
- Deliver final documentation of geotechnical analysis and remedial alternatives including associated cost estimates by December 2012.
- Provide available data and analysis products within 30 days of a request.
- Identify critical geotechnical deficiencies that may result in levee failure during the next high-water event.

For further information, please contact: Ted Thomas, DWR Public Affairs, Department of Water Resources, PO Box 942836, Sacramento, CA 94236, Phone: (916) 653-9712, e-mail: leveerepair@water.ca.gov
Levee Analysis Methods

FloodSAFE VISION

A sustainable integrated flood management and emergency response system throughout California that improves public safety, protects and enhances environmental and cultural resources, and supports economic growth by reducing the probability of destructive floods, promoting beneficial floodplain processes, and lowering the damages caused by flooding.

Reflecting Governor Arnold Schwarzenegger's long-term commitment to improving flood safety to prevent possible catastrophic flooding and loss of life, the California Department of Water Resources (DWR) is undertaking unprecedented efforts to evaluate and upgrade levees in the Sacramento and San Joaquin River Flood Control Systems as well as the Delta.

Of highest priority, DWR is fully evaluating more than 470 miles of urban levees and 1,620 miles of non-urban levees in the Central Valley. Funding for the levee evaluation efforts is provided through Proposition 1E, approved by California voters in 2006.

As an essential first step in providing improved flood protection for Central Valley communities, DWR is conducting geotechnical exploration, testing, and analysis of levees that protect the highly populated urban areas of greater Sacramento, Stockton/Lathrop, and Marysville/Yuba City, followed by evaluation of levees that protect non-urban areas. This program is being implemented concurrently with many urgent levee repairs.

To expedite improved management of flood risk, DWR is conducting levee evaluations in phases over a four to six-year period. During this time, technical specialists are reviewing existing levee historical data; conducting field explorations (including drilling and geophysical methods) and associated laboratory testing; performing geotechnical engineering analyses; and preparing preliminary design and construction estimates for levee repairs and upgrades, where needed.

Levee Analyses

Levee analyses consider both past and future (projected) performance of flood control levees in terms of seepage, stability, erosion, settlement, and seismic factors. To get a detailed picture of the flood control system's current condition, experts study a wide range of critical levee properties, including:

- Geomorphology
- Levee topography
- Subsurface condition
- Historical events
- Levee materials and construction
- Erosion conditions

Preliminary analytical results for levees protecting urban areas are also being reviewed by an independent panel of levee experts, the U.S. Army Corps of Engineers, and local agencies.

For additional information, including repair and survey locations and other levee information, please visit www.water.ca.gov/levee or e-mail leveerepair@water.ca.gov
Evaluation Methods

In addition to the basic geotechnical evaluation program of drilling and boring to collect levee soil samples, other proven methods and innovative technologies are being used to develop a comprehensive understanding of the levees' existing subsurface conditions. These methods include regional geomorphologic assessments, detailed mapping of geomorphic features and surficial geologic deposits, Light Detection and Ranging topographic surveys, geophysical electromagnetic and galvanic surveys, and underwater bathymetric surveys. Data collected from these and other methods is used to cumulatively assess the levees' structural integrity and identify which areas are most in need of critical improvements or repairs.

Geotechnical Exploration

Much of the evaluation of levees and their foundations is done by relatively straightforward methods (e.g., drilling) to collect soil samples, which are then analyzed to assess subsurface conditions. Cone penetrometer testing is also utilized. In urban areas, ongoing subsurface explorations are typically conducted at 1,000-foot intervals along the levees, with additional explorations on the landside of levees. Subsurface explorations for non-urban areas will typically be performed at intervals greater than 1,000 feet. Looking closely at subsurface soil conditions—such as moisture, density, and soil grain-size distribution—helps identify potential problems or weaknesses in the levees.

Geomorphologic Assessments

By studying the evolution of landforms and the processes that alter them, scientists can better assess levee stability and understand the materials beneath levees. For the levee evaluation program, experts are preparing a comprehensive surficial geomorphic map of project areas, based on field reconnaissance observations and review of vintage aerial photos and topographic maps, geologic maps, and satellite imagery. Results of this effort will lead to a better understanding of materials directly beneath existing levees and of the geomorphic processes (e.g., erosion, deposition) responsible for those materials.

Light Detection and Ranging Topographic Surveys

Light Detection and Ranging (LiDAR) technology deployed in low-flying helicopters was used to electronically gather data about the topography and configuration of Central Valley flood control levees. Airborne LiDAR produces accurate elevation models for terrain, which supports evaluation of geotechnical and erosion characteristics of the surveyed levees. In spring 2007, helicopters equipped with LiDAR performed aerial topographic surveys over approximately 500 miles of levees stretching from Oroville to Lathrop. Additional flights with fixed-wing aircraft were flown throughout the Central Valley in March 2008.

Electromagnetic Surveys

Another way to evaluate levee subsurface conditions is by conducting geophysical electromagnetic (EM) surveys. Like LiDAR, this technology is deployed during helicopter flights over the levees. An EM survey sensor, which resembles an airborne torpedo, is suspended from the helicopter about 100 feet above the levees. The EM technology senses variations in the ground's electrical conductivity to depths greater than 100 feet. The goal is to map important changes in soil types and ground conditions, identifying zones where permeable soils are present or excessive water penetration is taking place. DWR conducted these surveys in late summer 2007 along more than 200 miles of levees on the Feather River, Bear River, American River, Sutter Bypass, Yolo Bypass, Sacramento River, Stanislaus River, San Joaquin River, and tributaries.

Bathymetric Surveys

Bathymetric surveys are underwater explorations conducted by boats equipped with either a single-beam or special multi-beam sonar device. These surveys produce detailed topographic data of the riverbed and riverbanks that essentially form the base of levee systems. Collected data yield an image of the levees' underwater structure that cannot be obtained by conventional land topographic methods. The data are especially important in revealing underwater erosion of the riverbanks. Bathymetric surveys were conducted in late 2007 and early 2008 along parts of the Sacramento, American, San Joaquin, and Calaveras Rivers. Future surveys are planned in non-urban areas. Bathymetric survey data supplements above-water topographic data collected during LiDAR surveys; together, this information supports geotechnical evaluation of the levees.