

**Meeting of the Central Valley Flood Protection Board (Board)****April 24, 2015****Staff Report****Three Rivers Levee Improvement Authority (TRLIA)****Yuba River South Levee Stability Berm Enlargement, Yuba County**

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**1.0 – ITEM**

Consider Central Valley Flood Protection Board (Board) approval to enlarge an existing stability berm along the landside levee slope of the Yuba River south (left bank) levee in Reclamation District 784 (Attachment A) by Draft Permit No. 18986 (Attachment B).

**2.0 – APPLICANT**

Three Rivers Levee Improvement Authority (TRLIA)

**3.0 – PROJECT LOCATION**

The project site is located between the Union Pacific Railroad (UPRR) and State Route 70 within Reclamation District 784, Unit 1 of the Yuba River south levee from levee mile (LM) 1.39 to LM 1.48 in Yuba County (Attachment A).

**4.0 – PROJECT DESCRIPTION**

The California Department of Water Resources' (DWR) Urban Levee Evaluation program identified a need to remediate current conditions at the 1986 Yuba River levee failure site where rocks within the foundation may have created voids. During high water events, hydrostatic pressures may cause fine material in the levee to migrate into these voids. This migration of fine materials could lead to a levee slump and potential overtopping. To mitigate this condition TRLIA is proposing to enlarge the existing landside stability berm so that the levee is able to withstand future flood forces.

The proposed berm enlargement will be constructed on top of the existing berm and will consist of general fill. The proposed enlargement (Attachment C) is approximately 500 feet in length extending from station 2151+79 (Unit 1, LM 1.48) to station 2156+36 (LM 1.39), with a top width of 55 feet, and a landside slope of three (3) horizontal to one (1) vertical. The minimum top elevation of the berm will be set at elevation 81.2 feet, NAVD

88, which is three (3) feet above the 200-Year flood water surface elevation of 78.2 feet, NAVD 88. The enlarged berm will have a height of approximately 12 feet above the top surface of the existing berm. The project will not raise the existing top of levee height. TRLIA proposes to complete this work during the 2015 construction season.

### **5.1– AUTHORITY OF THE BOARD**

California Water Code § 8534, 8590 – 8610.5, and 8700 – 8710

2012 California Code of Regulations, Title 23 (Title 23):

- § 6 – Need for a Permit
- § 112 – Streams Regulated and Nonpermissible Work Periods
- § 116 – Borrow and Excavation Activities
- § 121 – Erosion Control
- § 120 – Levees

### **6.0 – AGENCY COMMENTS AND ENDORSEMENTS**

The comments and endorsements associated with this project from all pertinent agencies are shown below:

- The U.S. Army Corps of Engineers (USACE) Sacramento District letter of permission was received on April 20, 2015, and indicated that the USACE District Engineer has no objections to the project, subject to conditions. This letter has been incorporated into the permit as Exhibit A.
- Reclamation District (RD) 784 has conditionally endorsed this project on August 5, 2014 (Attachment D). All RD endorsement conditions were incorporated into the permit except the three yellow highlighted conditions which Board staff will carry out as a matter of routine practice.

### **7.1 – PROJECT ANALYSIS**

Board staff has reviewed all documents submitted by TRLIA including the project plans and drawings, and has determined that the proposed improvement will not be injurious to the public interest and will not impair the usefulness of the SRFCP. If, as stated by the Board staff in its March 30, 2015 letter to the USACE (Attachment E), upon completion of the proposed project, the USACE formally incorporates the project into

the Sacramento River Flood Control Project (SRFCP), the Board will adhere to the following:

- the State of California, acting through the Board, will accept the altered project for operation and maintenance and hold and save the United States free from damage due to the construction works;
- Within 180 days of completion of the proposed alteration, the Board will provide information to the USACE for the purpose of preparing a revised Operation and Maintenance Manual for this portion of the SRFCP, and as-built Plans and Specifications for the alteration.

### **7.1 – Hydraulic Analysis**

No hydraulic analysis is required for this project as the proposed remediation is on the landside of the project levee and no work is proposed that will affect the waterside of the adjacent levee or the Yuba River floodway.

### **7.2 – Geotechnical Analysis**

The proposed berm enlargement will be constructed on top of the existing berm, as described in Section 4.0. The work involves the placement of general fill at the landside of the levee to add additional berm material in order to reduce the risk of slumping or future levee failure. The Board does not have specifications for general fill within Title 23; however Board staff added a permit condition (THIRTY) which requires the berm to be compacted at 90 percent as per ASTM D 1557-91 or 97 percent as per ASTM D 698-91 with above optimum moisture content.

## **8.0 – CEQA ANALYSIS**

Board staff has prepared the following CEQA determination:

The Board determined that the project is categorically exempt from CEQA under a Class 1 Categorical Exemption (CEQA Guidelines Section 15301) covering minor alteration of an existing structure, a Class 2 Categorical Exemption (CEQA Guidelines Section 15302) covering reconstruction of an existing structure where the new structure will be located on the same site as the structure replaced, a Class 3 Categorical Exemption (CEQA Guidelines Section 15303) covering new construction of new, small addition to the existing berms, and a Class 4 Categorical Exemption (CEQA Guidelines Section 15304) covering minor alteration to land.

**9.0 – CALIFORNIA WATER CODE SECTION 8610.5 CONSIDERATIONS**

- Evidence that the Board admits into its record from any party, Federal, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board has considered all available evidence, including the application for Permit No. 18986, supporting technical documentations provided by TRLIA, and comments and endorsements from relevant agencies in regard to this proposed project, as well as any evidence that will be submitted up to the date of the decision on this application.

- The best available science related to the scientific issues presented by the Board, the applicant/permittee, legal counsel, DWR, or other parties that raise credible scientific issues:

In making its findings, the Board has used the best available science for the scope of the proposed work, while analyzing the issues related to this proposed project. All analyses provided in this report adhere with the industry standards and methods, and the project is compliant with the State and Federal standards.

- Effects of the decision on the facilities of the State Plan of Flood Control (SPFC), and consistency of the proposed project with the Central Valley Flood Protection Plan (CVFPP) as adopted by Board Resolution 2012-25 on June 29, 2012:

This project is expected to result in no adverse impacts on facilities of the State Plan of Flood Control, and is consistent with the adopted 2012 Central Valley Flood Protection Plan and current Title 23 standards because the proposed project is predicted to result in no increase in water surface elevation, no increase in channel velocities, and no adverse geotechnical impacts to the flood control system.

- Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

Based on the best available information, the proposed minor modification is not anticipated to be impacted by any reasonable projected future events, including, but not limited to, changes in hydrology, climate and development within the watershed.

### **10.1 – STAFF RECOMMENDATION**

Staff recommends that the Board:

- Find the project to be categorically exempt from CEQA;
- Approve Encroachment Permit No. 18986 (Attachment B), in substantially the form provided; and
- Direct the Executive Officer to take the necessary actions to execute the permit and file a Notice of Exemption with the State Clearinghouse.

### **11.0 – LIST OF ATTACHMENTS**

A – Project Maps

B – Draft Permit No. 18986

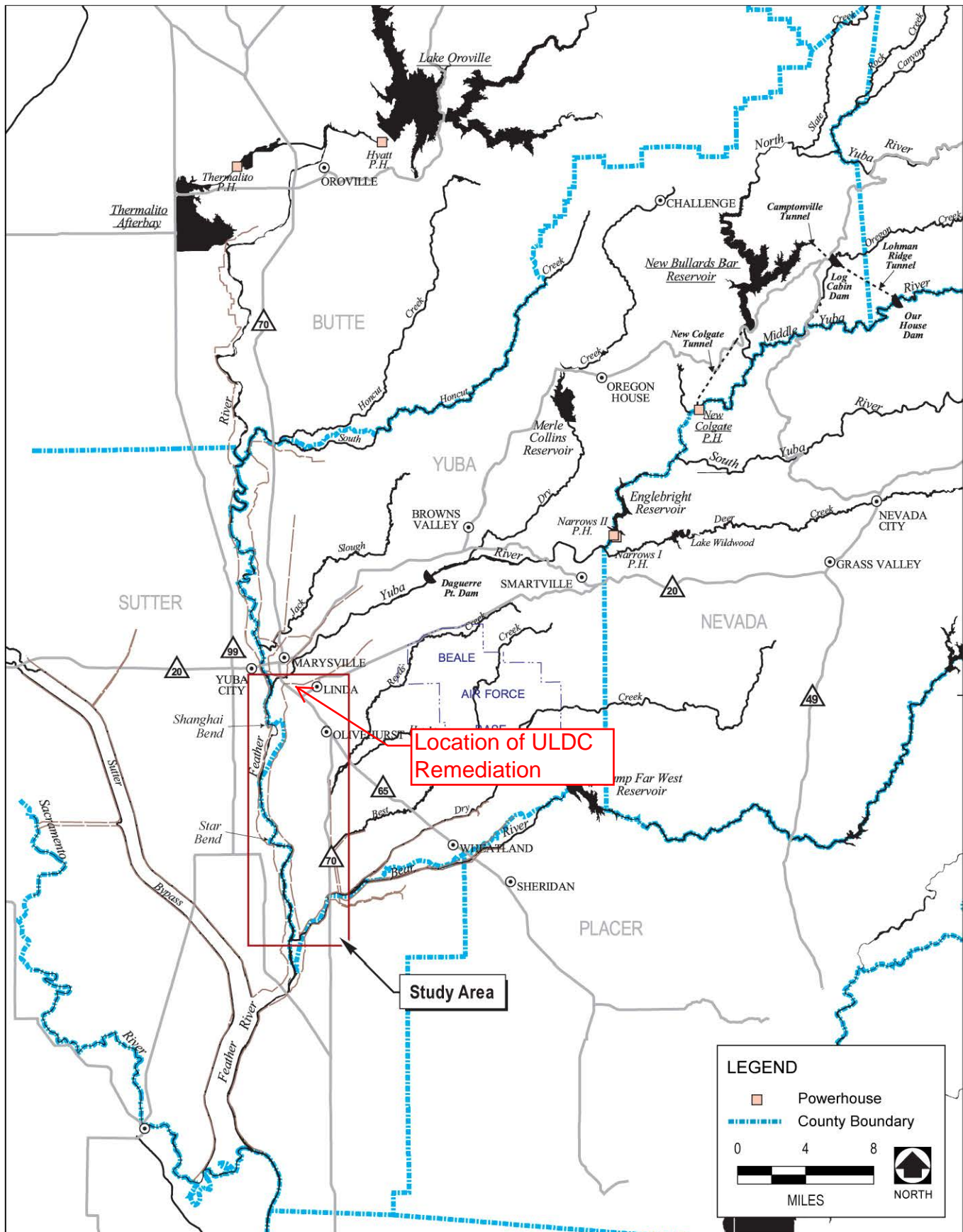
Exhibit A: USACE 408 Letter of Permission

C – Project Drawings

D – RD 784 Endorsement Letter

E – USACE 408 Request Letter

Report/Technical Review:	Deb Biswas, PhD, PE, Engineer, WR
Environmental Review:	Andrea Buckley, Senior Environmental Scientist
(Specialist) Document Review:	Nancy Moricz, PE, Senior Engineer
	Eric Butler, PE, Projects and Environmental Branch Chief
	Len Marino, PE, Chief Engineer
	Nicole Rinke, Deputy Attorney General

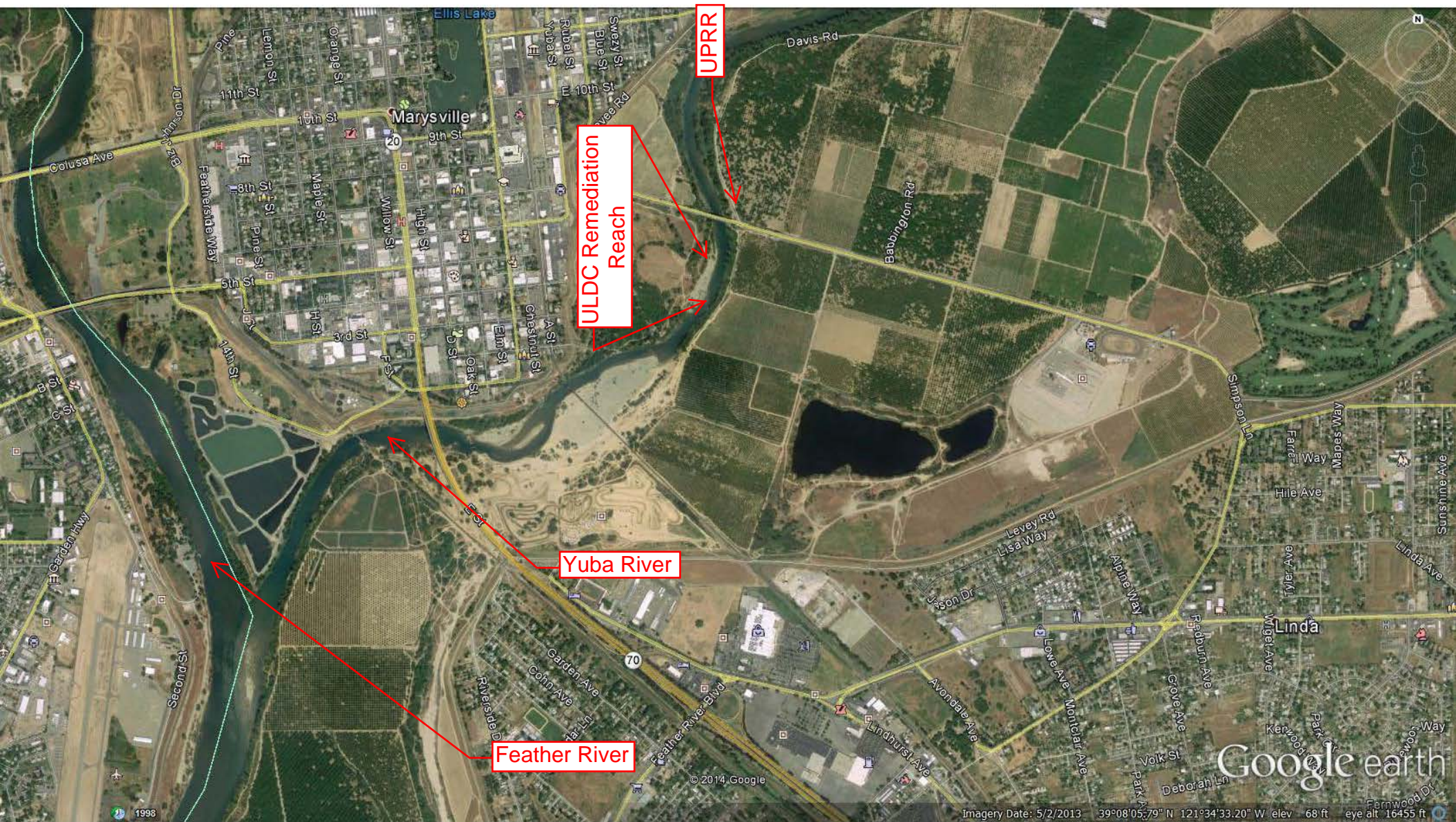


**ULDC REMEDIATION  
ENLARGED STABILITY BERM  
Regional Setting**

**THREE RIVERS LEVEE  
IMPROVEMENT AUTHORITY**  
  
114 Yuba Street, Suite 218  
Marysville, CA 95901

May 2007







**DRAFT**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE CENTRAL VALLEY FLOOD PROTECTION BOARD**

**PERMIT NO. 18986 BD**

**This Permit is issued to:**

Three Rivers Levee Improvement Authority (TRLIA)  
114 Yuba Street, Suite 218  
Marysville, California 95901

Enlarge an existing stability berm along the landside levee slope of the Yuba River south (left bank) levee. The proposed enlargement is approximately 500 feet in length extending from approximately station 2151 (Unit 1 LM 1.48) to station 2156 (LM 1.39), with a top width of 55 feet, and a land side slope of three (3) horizontal to one (1) vertical. The minimum top elevation of the berm will be set at elevation 81.2 feet, which is three (3) feet above the 200-year flood elevation of 78.2 feet. The enlarged berm will have a height of approximately 12 feet above the top surface of the existing berm.

The project is located along North Beale Road, south of Marysville, CA. (Section 19, T15N, R4E, MDB&M, Reclamation District 784, Yuba River, Yuba County).

**NOTE:** Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: \_\_\_\_\_

\_\_\_\_\_  
Executive Officer

**GENERAL CONDITIONS:**

**ONE:** This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

**TWO:** Only work described in the subject application is authorized hereby.

**THREE:** This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any



other land.

**FOUR:** The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

**FIVE:** Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

**SIX:** This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

**SEVEN:** It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

**EIGHT:** This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

**NINE:** The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

**TEN:** The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

**ELEVEN:** The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

**TWELVE:** Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

#### **SPECIAL CONDITIONS FOR PERMIT NO. 18986 BD**

#### **LIABILITIES / IMDEMNIFICATION**

**THIRTEEN:** The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board (Board) and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

**FOURTEEN:** The permittee is responsible for all liability and shall defend, indemnify, and hold the Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

**FIFTEEN:** The Board, Department of Water Resources, and Reclamation District 784 shall not be held liable for damages to the permitted project resulting from releases of water from reservoirs, flood fight, operation, maintenance, inspection, or emergency repair.

## **BOARD CONTACTS**

SIXTEEN: The permittee shall contact the Board by telephone at (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

## **PERMITTING AND AGENCY CONDITIONS**

SEVENTEEN: The permittee shall comply with all conditions set forth in the letter of permission from the U.S. Army Corps of Engineers, Sacramento District dated April 20, 2015, which is attached to this permit as Exhibit A and is incorporated by reference.

EIGHTEEN: The permittee agrees to incur all costs for compliance with local, State, and Federal permitting. If any conditions issued by other agencies conflict with any of the conditions of this permit, then the permittee shall resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces.

NINETEEN: If the permittee does not comply with the conditions of the permit and enforcement by the Board is required, the permittee shall be responsible for bearing all costs associated with the enforcement action, including reasonable attorney's fees. Permittee acknowledges that State law allows the imposition of fines in enforcement matters.

## **REAL ESTATE**

TWENTY: If the construction project extends onto land owned in fee and/or easement by the Sacramento and San Joaquin Drainage District acting by and through the Board, the permittee shall secure an easement, license, or temporary entry permit from the Board prior to commencement of work. Contact Tom O'neil at (916) 653-7654.

TWENTY-ONE: Prior to construction, the permittee shall have obtained legal rights to all property where work to be performed under this permit.

## **PRE-CONSTRUCTION**

TWENTY-TWO: The permittee shall provide construction supervision and inspection services acceptable to the Board.

TWENTY-THREE: Prior to commencement of work, the permittee shall create a photo record, including associated descriptions, of the existing site conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or licensed civil engineer registered in the State of California and submitted to the Board within thirty (30) calendar days of beginning the project.

## **CONSTRUCTION**

TWENTY-FOUR: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Board.

TWENTY-FIVE: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Board.

TWENTY-SIX: All addenda and contract change orders made to the approved plans and / or specifications by the permittee after Board approval of this permit shall be submitted to the Board's Chief Engineer for review and approval prior to incorporation into the permitted project. The submittal shall include all supplemental plans, specifications, and necessary supporting geotechnical, hydrology and hydraulics, or other technical analyses. The Board shall acknowledge receipt of the addendum or change submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or local maintaining agencies when necessary. The Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days. Upon approval of submitted documents the permit shall be revised, if needed, prior to construction related to the proposed changes.

TWENTY-SEVEN: No material stockpiles, temporary buildings, or equipment shall remain in the floodway during the flood season from November 1 to April 15, and shall be removed after completion of the project.

TWENTY-EIGHT: All debris generated by this project shall be disposed of outside of the Yuba River floodway.

TWENTY-NINE: All fill materials shall be placed in four to six inch layers and compacted to a relative compaction of not less than 90 percent per ASTM D 1557-91 or 97 percent per ASTM D 698-91 above optimum moisture content. Fill material within two feet of the bridge shall be compacted by appropriate hand operated compaction equipment. Field density tests shall be taken by a certified soils laboratory to verify compaction of the fill placed.

THIRTY: The permittee shall be responsible for all damages due to any construction-induced activities.

## **VEGETATION / ENVIRONMENTAL MITIGATION**

THIRTY-ONE: Trees, brush, sediment, and other debris shall be kept cleared from the site and disposed of outside the floodway to maintain the design flow capacity and flowage area.

THIRTY-TWO: No further work, other than that covered by this application, shall be performed in the area without prior approval of the Board.

## **POST-CONSTRUCTION**

THIRTY-THREE: The work area shall be restored to the condition that existed prior to start of work.

THIRTY-FOUR: Within 120 days of completion of the project, the permittee shall submit to the Board as-built drawings and a certification report, stamped and signed by a licensed civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with the Board permit conditions and submitted drawings and specifications.

THIRTY-FIVE: Within 180 days of the completion of the project, the permittee shall submit to the Board proposed revisions to the U. S. Army Corps of Engineers, Supplement to Standard Operation and Maintenance Manual, Sacramento River Flood Control Project, and the associated "as-built" drawings for the system alterations that are to be incorporated into the federal Sacramento River Flood Control Project.

## **OPERATIONS AND MAINTENANCE**

THIRTY-SIX: The permittee shall maintain the permitted project within the utilized area in accordance with applicable current or future local, State, and federal standards in the manner required as requested by an authorized representative of the Board, Department of Water Resources, or any other agency responsible for maintenance.

THIRTY-SEVEN: The permitted project shall not interfere with operation and maintenance of the flood control project. If the permitted project is determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted project under direction of the Board or Department of Water Resources. If the permittee does not comply, the Board may modify or remove the project at the permittee's expense.

THIRTY-EIGHT: At the request of either the permittee or Board the permittee and Board shall conduct joint inspections of the project and floodway after significant flood events or flood seasons to assess the integrity and operation of the project, and to assess and respond to any adverse impacts on the floodway or adjacent properties.

## **PROJECT ABANDONMENT, CHANGE IN PLAN OF FLOOD CONTROL**

THIRTY-NINE: If the project, or any portion thereof, is significantly damaged or is to be abandoned in the future, the permittee shall abandon or repair the project under direction of the Board at the permittee's cost and expense.

FORTY: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted project if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with implementation of the Central Valley Flood Protection Plan or other future flood control plan or project, or if damaged by any cause. If the permittee does not comply, the Board may perform this work at the permittee's expense.



**END OF CONDITIONS**



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT  
1325 J STREET  
SACRAMENTO CA 95814-2922

REPLY TO  
ATTENTION OF

Executive Office

APR 20 2015

Ms. Leslie M. Gallagher, Acting Executive Officer  
Central Valley Flood Protection Board  
3310 El Camino Avenue, Room 151  
Sacramento, California 95821


Dear Ms. Gallagher:

Pursuant to U.S.C. Title 33, Chapter 9, Subchapter 1, Section 408, the Sacramento District Engineer of the U.S. Army Corps of Engineers has approved your request to alter the Federal flood risk reduction project, Sacramento River Flood Control Project (SRFCP), by enlarging an existing stability berm along the left bank landside levee slope of the Yuba River (Unit 1) of Reclamation District 784. Permission has been granted for you to alter the project works as described in detail in the Central Valley Flood Protection Board Encroachment Permit Application 18986 dated October 13, 2014. It has been determined that such alteration will not be injurious to the public interest and will not impair the usefulness of the project works.

The work includes construction of a 55 foot wide, 12 foot high, and 500 foot long berm on top of an existing berm on the Yuba River left bank landside levee slope. The berm will be constructed of approximately 7,700 cubic yards of material.

As a condition of this letter of permission, the Central Valley Flood Protection Board (CVFPB) is required to comply with the special conditions provided in the attached enclosures. My point of contact for this action is Ryan Larson, Chief, Flood Protection and Navigation Section. He may be reached at 916-557-7568 or by email at [ryan.t.larson2@usace.army.mil](mailto:ryan.t.larson2@usace.army.mil).

Sincerely,

  
Michael J. Farrell  
Colonel, U.S. Army  
District Commander

Enclosures



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT  
1325 J STREET  
SACRAMENTO CA 95814-2922

**33 U.S.C. §408 Letter of Permission**  
**Yuba River South Levee**  
**ULDC Remediation**  
**Enlargement of Stability Berm at 1986 Levee Break Site**

The term "you" and its derivatives, as used in this approval letter, means the Central Valley Flood Protection Board or any future transferee. The term "this office" refers to the Sacramento District of the U.S. Army Corps of Engineers. Alteration of this project must be in accordance with the following conditions:

**General Conditions:**

- a. That the proposed work shall not interfere with the integrity or hydraulic capacity of the flood risk reduction project; easement access; or maintenance, inspection, and flood fighting procedures.
- b. That you must accept the operation and maintenance responsibility of the completed work.
- c. That you are responsible for continued operations and maintenance for this project during construction.
- d. That if construction activities will last longer than 1 week, you are required to submit to this office on a weekly basis construction records documenting field conditions.
- e. The proposed work shall not be performed during the flood season of November 1 to April 15, unless otherwise approved in writing by your Board.
- f. That in the event trees and brush are cleared, they shall be properly disposed of by either complete burning or complete removal outside the limits of the project right-of-way.
- g. That representatives from this office are allowed to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of this approval.

**Special Conditions:**

- h. You are required to submit a revision to the Operation and Maintenance (O&M) (33 CFR Section 208.10) Manual for this office's review within 180 days of project completion. Any additional non-Federal O&M or real estate requirements resulting from this modification must be documented in the O&M manual and the project real estate documents. Stamped As-Built drawings and permanent maintenance easement boundaries shall be submitted in conjunction with the draft O&M manual. Upon receipt of the draft O&M manual, this office will schedule a transfer inspection with you to verify all construction has been completed in accordance with this permission. Any features found to be deficient during that inspection will require your correction prior to the Corps acknowledging that the work was completed in accordance with this letter of



**SUBJECT: 33 U.S.C. §408 Letter of Permission, Yuba River South Levee, ULDC Remediation, Enlargement of Stability Berm at 1986 Levee Break Site**

permission. Construction data is required to be provided to this office for review by our Engineering Division during construction. Within 180 days of project completion, you must furnish a certification report that the work has been completed in accordance with the conditions of this permission.

i. That no work may result in a discharge, including a temporary discharge, of any material into any waters of the United States, including wetlands.

j. If any cultural artifact or an unusual amount of bone, shell, or nonnative stone is uncovered during construction, work should be halted in that area so that a professionally qualified archaeologist approved by the Corps can determine the significance of the find. If human bone is uncovered, the Yuba County Coroner should be contacted immediately. If human remains are discovered in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until (a) the county coroner has been informed and has determined that no investigation of the cause of death is required; and if the remains are of Native American origin, (b) the landowner has satisfied the requirements of California Public Resources Code, Section 5097.98 including conferral with the Most Likely Descendant as designated by the California Native American Heritage Commission (NAHC), or (c) the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within the time prescribed by Public Resources Code, Section 5097.98. According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052).

k. That all areas to receive fill shall be cleared of vegetation prior to fill placement.

l. That imported material shall be used for the fill.

m. That no construction of any kind shall take place on the proposed erosion berm.

n. That surveyed cross-sections are submitted with the as-builts. Cross-sections shall be taken at important break points along the approximately 500 feet long enlarged berm. Surveys shall extend from 100 feet waterward to 300 feet landward of the levee toe, to the landward end of the existing berm. All data shall be in GIS format (ESRI Version 10.0 or latest version) in correct projection for seamless geographic location, referenced in NAVD88 using Geoid03 and NAD83, using the relevant California State Plane Zone. Data shall also be provided in GIS ready georeferenced CADD data format as well as pdf format.

Further Information:

1. Limits of this permission.

a. This permission does not obviate the need to obtain other Federal, state or local authorizations, approvals or permissions required by law.

b. This permission does not grant any property rights or exclusive privileges.

c. This permission does not authorize any injury to the property or rights of others.



**SUBJECT: 33 U.S.C. §408 Letter of Permission, Yuba River South Levee, ULDC Remediation, Enlargement of Stability Berm at 1986 Levee Break Site**

2. The determination of this office to approve this action as not injurious to the public interest, nor will it impair the usefulness of the project works, was made in reliance on the information you provided.

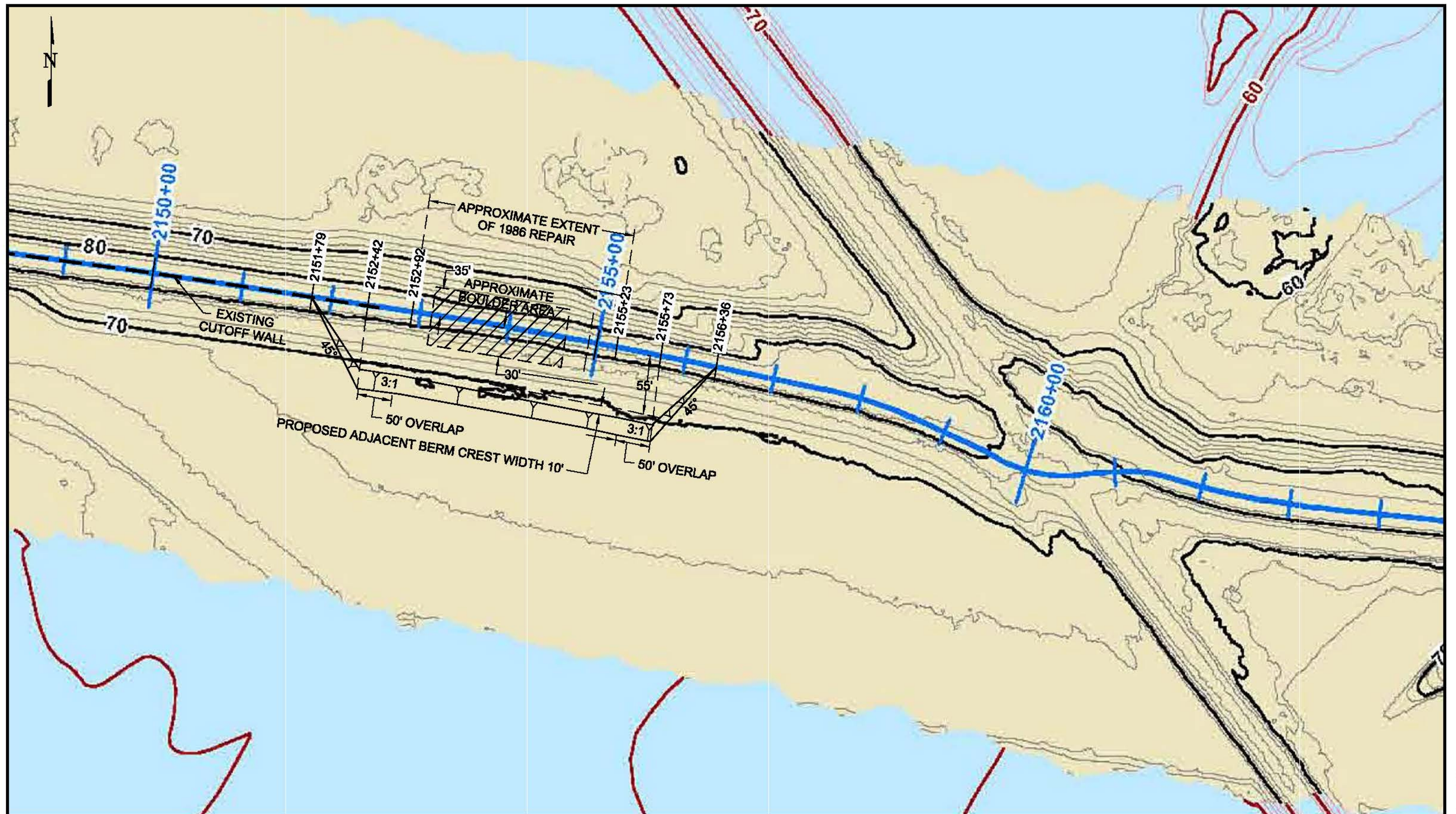
3. The Corps may reevaluate its decision on this approval at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to the following:

- a. You fail to comply with the terms and conditions of this approval.
- b. The information provided by you in support of your application proves to have been false, incomplete, or inaccurate. Should field conditions or future investigations require a deviation from the Final Plans, this deviation must be approved by this office through a request from the Board.
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

4. This approval should not be construed as an endorsement of certification for the FEMA base flood event.

5. The Corps acknowledges your commitment to accept the altered project for operation and maintenance and hold and save the United States free from damage due to the construction work.

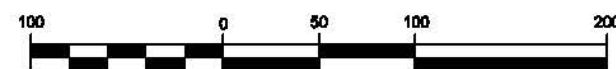




REFERENCE: BASE MAP PLATE L-12 FROM URS, 2010, "SUPPLEMENTAL GEOTECHNICAL DATA REPORT (SDR) RD 784 STUDY AREA URBAN LEVEE GEOTECHNICAL EVALUATIONS PROGRAM, CONTRACT 4800007418, JUNE 2010.

#### LEGEND

--- Inferred Contact



APPROXIMATE SCALE: 1 inch = 100 feet



PROJECT NO.	126494
DRAWN:	07/14/2014
DRAWN BY:	D. Ross
CHECKED BY:	M. Beswick
FILE NAME:	DETAIL.dwg

#### ADJACENT BERM PLAN VIEW

LINDA BREAK REPAIR SITE  
YUBA RIVER SOUTH LEVEE  
LINDA, CALIFORNIA

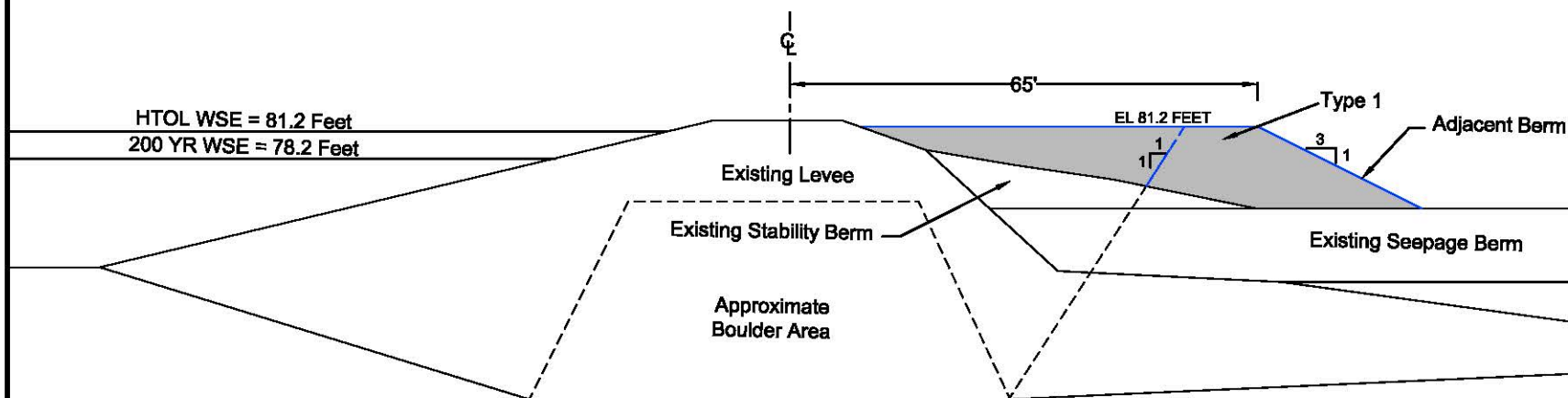
PLATE

FIGURE 3  
Graphic representation has been compiled from a variety of sources. Kleinfelder makes no representations or warranties, completeness, timeliness, or rights in the use of a map intended for use as a land survey product nor is it a design document. The use or misuse of the information shown is at the sole risk of the party using or releasing the information.



WATERSIDE

LANDSIDE



NOTES: Elevation Datum: NAVD88.

NOT TO SCALE

4  
The information contained herein is for informational purposes only and does not constitute a contract. The user of this information is at the sole risk of the party using or misusing the information.

**KLEINFELDER**  
Bright People. Right Solutions.  
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PROJECT NO. 126494	<b>TYPICAL ADJACENT BERM CROSS SECTION</b>	PLATE
DRAWN: 07/14/2014		
DRAWN BY: D. Ross	LINDA BREAK REPAIR SITE YUBA RIVER SOUTH LEVEE LINDA, CALIFORNIA	
CHECKED BY: M. Beswick		
FILE NAME: Typical.dwg		

State of California

DEPARTMENT OF WATER RESOURCES  
CENTRAL VALLEY FLOOD PROTECTION BOARD

California Natural Resources Agency

APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD  
ENCROACHMENT PERMITApplication No. \_\_\_\_\_  
(For Office Use Only)

1. Description of proposed work being specific to include all items that will be covered under the issued permit.

Enlargement of an existing stability berm along the land side levee slope of the Yuba River South Levee (Unit 1) of Reclamation District 784. Berm will be 55 feet wide, 12 feet high and will extend for 500 feet from Levee Mile (LM) 1.39 to LM 1.48. Approximately 7,700 cubic yards of material will be used to enlarge the berm.

## 2. Project

Location: South of Marysville in Yuba County, in Section Section 24  
(N) (E)  
Township: 15 N (S), Range: 3 E (W), M. D. B. & M.  
Latitude: 39° 07' 46.64" N Longitude: 121° 34' 33.26" W  
Stream: Yuba River, Levee: South Levee Designated Floodway: Yuba  
APN: 020020001 & 020020091

3. Three Rivers Levee Improvement Authority  
Name of Applicant / Land Ownerof 114 Yuba Street, Suite 218

Address

Marysville California 95901 530-749-7841  
City State Zip Code Telephone Number  
PBrunner@co.yuba.ca.us  
E-mail

4. Larry Dacus

Name of Applicant's Representative

of MBK Engineers

Company

Sacramento California 95815 (916) 437-7515  
City State Zip Code Telephone Number  
dacus@mbkengineers.com  
E-mail

## 5. Endorsement of the proposed project from the Local Maintaining Agency (LMA):

We, the Trustees of Reclamation District 784 approve this plan, subject to the following conditions:  
Name of LMA

☐ Conditions listed on back of this form☒ Conditions Attached☐ No Conditions

[Signature] 8/5/14 [Signature] 8/5/14  
Trustee Date Trustee Date  
[Signature] 8/5/14 [Signature] 8/5/14  
Trustee Date Trustee Date



Reclamation District No. 784 has the following conditions to be included on the Central Valley Flood Protection Board Encroachment Permit. The conditions are as follows:

- All improvements shall meet or exceed Central Valley Flood Protection Board Title 23, Department of Water Resources, DWR Urban Levee Design Criteria, FEMA, and U.S Army Corps of Engineers Standards and requirements.
- All work endorsed by this permit shall be in accordance with the submitted drawings and specifications. No further work, other than approved by this permit, shall be done in the area without prior endorsement of Reclamation District No. 784.
- A copy of operation and maintenance manual shall be provided to Reclamation District No. 784 upon completion of the work. The O&M manual shall include provisions for annual inspection which meet or exceed the CVFPB, DWR, USACE, and RD 784 standards. The results of the annual inspection shall be provided to RD 784 no prior to November 1 each year.
- The encroachment permit shall include a provision that the permittee shall be required to remove or alter all or any part of the herein permitted project if removal or alteration is necessary as part of or in conjunction with any present or future flood control plan or project, or if damaged by any cause. If the permittee or successor does not comply, RD 784, USACE, and/or the CVFPB may remove or modify the herein permitted project at the permittee's expense.
- The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation and maintenance of the flood control project to interfere, the permittee shall be required, at permittee's or successor's sole cost and expense, to modify or remove the permitted encroachment(s).
- If the project or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project, at the permittee's or successor's sole cost and expense.
- A set of As-Built Mylar plans and specifications shall be provided to Reclamation District No. 784 upon completion of the work.
- A copy of the final Central Valley Flood Protection Board Permit shall be provided to Reclamation District No. 784 prior to any work.
- Reclamation District No. 784 shall be notified five (5) working days prior to any construction activities.

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR

**CENTRAL VALLEY FLOOD PROTECTION BOARD**

3310 El Camino Ave., Rm. 151  
SACRAMENTO, CA 95821  
(916) 574-0609 FAX: (916) 574-0682  
PERMITS: (916) 574-0685 FAX: (916) 574-0682



March 30, 2015

Colonel Michael J. Farrell, District Commander  
U.S. Army Corps of Engineers  
Sacramento District  
1325 J Street  
Sacramento, California 95814

Subject: Three Rivers Levee Improvement Authority, Yuba River South Levee Stability  
Berm Enlargement, 33 USC Section 408 Request

Dear Colonel Farrell:

Pursuant to Title 33, United States Code Section 408 (Section 408) as described by the U.S. Army Corps of Engineers (USACE) Engineering Circular 1165-2-216, *Section 7c(2) Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408*, the Central Valley Flood Protection Board (Board), on behalf of the Three Rivers Levee Improvement Authority (TRLIA), is requesting permission to alter approximately 500 linear feet of the Sacramento River Flood Control Project (SRFCP) along the Yuba River South Levee in Yuba County, California.

TRLIA (including Reclamation District 784) levee system was authorized by the SRFCP by Congress in the Flood Control Act of 1917 as modified by the Acts of 1928, 1937, and 1941, and was completed in 1941.

The California Department of Water Resources' Urban Levee Evaluation program identified a need to remediate current conditions at the 1986 Yuba River levee failure site (See Enclosure where rocks within the foundation may have created voids). During high water events hydrostatic pressures may cause fine material in the levee to migrate into these voids. This migration of fine materials could lead to a levee slump and potential overtopping. To mitigate this condition TRLIA is proposing to enlarge the existing landside stability berm so that the levee is able to withstand future flood forces.

Colonel Michael J. Farrell  
March 30, 2015  
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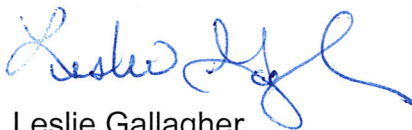
The proposed berm enlargement will be constructed on top of the existing berm and will consist of general fill. The proposed enlargement is approximately 500 feet in length extending from station 2151+79 (Unit 1 Levee Mile (LM) 1.48) to station 2156+36 (LM 1.39), with a top width of 55 feet, and a land side slope of 3 horizontal to 1 vertical. The minimum top elevation of the berm will be set at elevation 81.2 feet NAVD88, or 3 feet above the 200-Year flood elevation of 78.2 feet NAVD88. The enlarged berm will have a height of approximately 12 feet above the top surface of the existing berm. The project will not raise the existing levee height. TRLIA proposes to complete the work during the 2015 construction season.

The Board has reviewed all documents submitted by TRLIA including the project plans and drawings. If, upon completion of the proposed project, the USACE formally incorporates the project into the SRFCP, the Board will adhere to the following:

- 1) That if the proposed project is formally incorporated within the federal SRFCP by the USACE, the State of California, acting through the Board, will accept the altered project for operation and maintenance and hold and save the United States free from damage due to the construction works.
- 2) That the Board has reviewed the relevant documents and has determined that the improvement will not be injurious to the public interest and will not impair the usefulness of the SRFCP.
- 3) That within 180 days of completion of the proposed alteration, the Board will provide both information to the USACE for the purpose of preparing a revised Operation and Maintenance Manual for this portion of SRFCP and as-built Plans and Specifications for the alteration.

If you have any questions regarding this request, please contact me at (916) 574-0609, or your staff may contact staff engineer, Deb Biswas at (916) 574-2383 or by email at [Debabrata.Biswas@water.ca.gov](mailto:Debabrata.Biswas@water.ca.gov).

Sincerely,



Leslie Gallagher  
Acting Executive Officer

Colonel Michael J. Farrell  
March 30, 2015  
Page 3 of 3

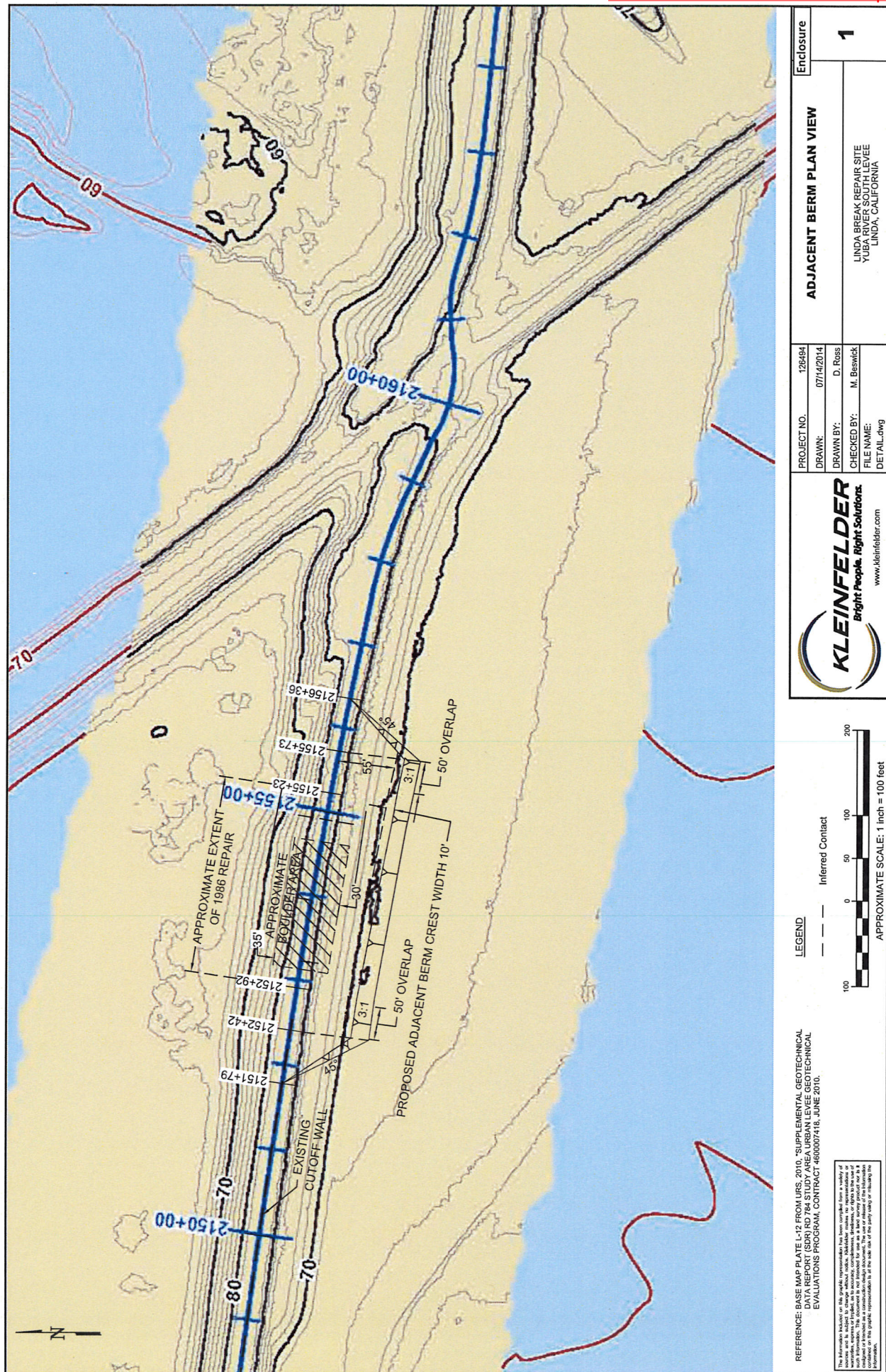
Enclosure: Attachments for project location, plans and sections

cc: (via electronic file)

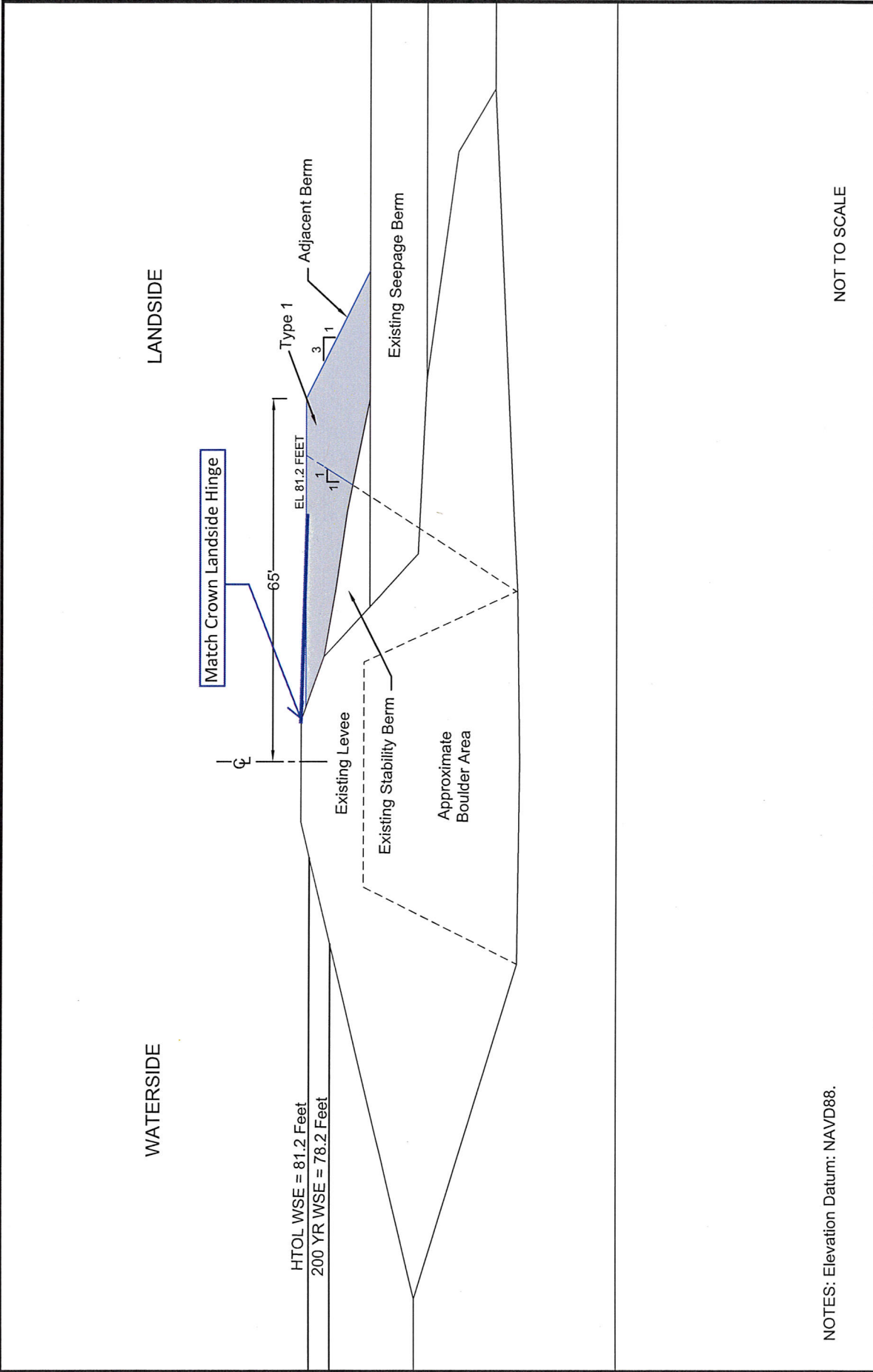
Mr. Paul Brunner, Executive Director  
Three Rivers Levee Improvement Authority

Mr. Larry Dacus  
MBK Engineers









NOT TO SCALE

NOTES: Elevation Datum: NAVD88.

 <b>Bright People. Right Solutions.</b> <a href="http://www.kleinfelder.com">www.kleinfelder.com</a>		PROJECT NO. 126494	<b>TYPICAL ADJACENT BERM CROSS SECTION</b>		Enclosure
		DRAWN: 07/14/2014			
		DRAWN BY: D. Ross			
		CHECKED BY: M. Beswick			
		FILE NAME: Typical.dwg			
			LINDA BREAK REPAIR SITE YUBA RIVER SOUTH LEVEE LINDA, CALIFORNIA		
			2		

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