Meeting of the Central Valley Flood Protection Board
May 23, 2014

Staff Report

Knights Landing Ridge Drainage District
Knights Landing Ridge Cut Levee Repair Project, Yolo County

1.0 – REQUESTED ITEM

Consider Central Valley Flood Protection Board (Board) adoption of Resolution 2014-12 (Attachment B) to approve draft Flood System Improvement Permit No. 18905 (Attachment C) to construct the Knights Landing Ridge Cut (KLRC) levee repair project.

2.0 – APPLICANT

The Knights Landing Ridge Drainage District (KLRDD) is the applicant and local sponsor of the KLRC project. KLRDD maintains 12.6 miles of levee protecting 112.5 square miles of land in Yolo County.

3.0 – PROJECT LOCATION

The project area is located downstream of the town of Knights Landing, approximately 26 miles northwest of Sacramento in eastern Yolo County. The site is surrounded by Sacramento River Flood Control Project (SRFCP) facilities on all sides including the Sacramento River to the north and east, the KLRC to the west, and the Yolo Bypass to the south (Attachment A).

4.0 – PROJECT DESCRIPTION

The KLRC levee repair project proposes improvements to approximately 3.5 miles of levee along the left (east) bank of the KLRC including:

- 18,035 feet of levee crown, landside slope remediation, and levee crown patrol road (from Stations 0+00 to 182+00)
- Relocation of a drainage ditch parallel to the levee

- Access ramps and ditch crossings for private use to adjacent landowners
- Demolition of three existing drainage discharge pipes through the levee at Stations 18+26.00, 42+46.49, and 126+24.90, and replacement with three new pipes to be constructed near the levee surface and within the freeboard at levee crown.
- Construction of an access road on the landside spoil berm parallel to the levee.

Two existing pump stations at Stations 18+26.00 and 126+23.90 are in conflict with the proposed spoils berm, and are proposed to be removed and replaced with two new pump stations at the same levee station landward of the spoils berm. A third pump station at Station 42+47.58 is not in conflict with spoils berm and can remain. Existing discharge pipes do not meet current U.S. Army Corps of Engineers (USACE) design criteria and are shown on the plans to be reconstructed above the channel design water surface elevation.

5.0 – AUTHORITY OF THE BOARD

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

- § 6, Need for a Permit
- § 106, Existing Encroachments within an Adopted Plan of Flood Control
- § 116, Borrow and Excavation Activities – Land and Channel
- § 120, Levees
- § 121, Erosion Control
- § 123, Pipelines, Conduits and Utility Lines
- § 124, Abandonment of Pipelines
- § 130, Patrol roads and Access Ramps
- § 131, Vegetation
- § 108, Existing Encroachments
- California Water Code, Division 5, Part 4, Chapters 3 and 4
- Rivers and Harbors Act of 1899, Title 33 United States Code, § 408, hereafter referred to as Section 408

6.0 – BOARD 408 REQUEST

Pursuant to Section 408 the Board requested permission on behalf of KLRDD to alter a portion of the Sacramento River Flood Control Project by constructing the proposed KLRC levee repair project. The Board's Section 408 request letter (Attachment D) was sent on November 22, 2013.

7.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with the project are as follows and shall be incorporated into the permit as an Exhibit by reference:

- In response to a Board request for Section 408 approval of a locally-sponsored levee improvement project (Board letter USACEKLRC Sacramento District Letter of Permission received April 17, 2014 (Exhibit A)
- KLRDD Local Maintenance Agency letter of endorsement dated April 24, 2014 (Exhibit B)

8.0 – PROJECT ANALYSIS

The proposed KLRC levee repair project includes remediation at Sites 12, 12A, and 13 as denoted in the USACE Mid-Valley Area, Phase III Area 3 (Design Memorandum, Mid-Valley Area, Phase III, Sacramento Flood Control Project, California, June 1996). A summary of project background, design review, hydraulic review, geotechnical review, environmental review is presented below along with project benefits and issues related to easements, minor 408 actions, adjacent property owners, a System-wide Improvement Framework (SWIF), and a proposed project schedule.

8.1 – Project Background

The storms of February 1986 severely affected northern California with record or near record flow in many rivers and streams. After the flood of 1986 the USACE conducted a system-wide analysis (System Evaluation) of the Sacramento River Flood Control Project (SRFCP) to bring the levees up to current design standards. The Knights Landing basin levees which protect the small community of Knights Landing (population 995) were included in the Phase III Mid-Valley Area of System Evaluation.

In 1996 the USACE authorized a Design Memorandum (1996 DM) for conducting a comprehensive analysis of the long-term integrity of the levee system for the SRFCP.

Studies indicated that sections of the project levees are susceptible to seepage and stability problems and do not provide the design level of flood protection. The 1996 DM provided for the preparation of plans and specifications (P&S) for the Mid-Valley Area Levee Reconstruction project of the SRFCP. The 1996 DM recommended 30 levee reconstruction sites in four construction areas. The four areas are Reclamation District 1500 (Area 1), Reclamation District 1001 (Area 2), Knights Landing (Area 3), and Elkhorn (Area 4).

Area 3 is bounded by the right (west) bank levee of the Yolo Bypass, the right (west) bank levee of the Sacramento River, and the left (east) bank of the KLRC.

Several repair sites were identified within Area 3 using the best available information based on knowledge gained during previous flood fighting activities. These repair sites are locations that have exhibited poor performance in terms of slope failure and / or have required prior flood fighting activities.

USACE approved the SRFCP, California, Mid-Valley Area, Phase III Design Memorandum/EA-IS, June 1996 (DM/EA-IS 1996) on August 16, 1996. After Northern California experienced widespread and destructive flooding in December 1997 through January 1998, Congress directed the USACE to re-evaluate the Mid-Valley and additional sites for reconstruction. Minor design modifications were made to the approved DM/EA-IS 1996 along with more detailed plans and specifications.

8.2 – Project Design Review

Board staff has reviewed the following technical documents, provided by the applicant, in preparation of this staff report:

- Revised KLRC Repair Project, Section 408 Application, Project Summary Report (Attachment E)
- Submittal (plans, specifications, and supporting documents) including Attachment F
- Design Documentation Report
- Final Environmental Assessment / Initial Study, Sacramento River Flood Control System Evaluation, Phase III, Mid-Valley, Area 3.
- Borrow Site Investigation, Yolo Bypass Stockpile.

8.3 – Hydraulic Review

The SRFCP water surface elevation profile published by the USACE as "Levee and Channel Profiles, Sacramento River Flood Control Project," dated 15 March 1957 (Attachment G) was the basis for this project. The water surface elevation of 40.6 feet (USED datum) is the1957 Authorized (or design) water surface elevation for the Knights Landing Ridge Cut. Adding three feet of freeboard results in a top of levee elevation of 43.6 feet. Converting from USED datum to NGVD29 requires subtracting 3.0 feet resulting in an NGVD29 top of levee elevation of 40.6 feet. Converting from NGVD ‘29 to NAVD88 requires adding 2.40 feet, resulting in a NAVD88 top of levee elevation of 43.0 feet. Therefore, the levee crown will be restored to 43.0 feet NAVD88 by filling low spots and removing excess material.

The proposed repairs will occur on the landside of the levee and will have no impact on the existing KLRC channel hydraulics.

8.4 – Geotechnical Review

Based on the results of geotechnical analyses submitted by the applicant, the landside slope will be reconstructed with a slope inclined at 3 horizontal to 1 vertical (H:V) and covered with a minimum five-foot thickness perpendicular to the landside face. The scope of the geotechnical analyses included a steady-state seepage analyses to evaluate underseepage, a steady-state stability analyses to evaluate landside stability, and a rapid drawdown stability analyses to evaluate waterside stability conditions.

The existing landside drainage ditch will also be relocated a minimum of 15 feet landward of the new landside toe. Board staff’s review of the geotechnical analyses concluded that the proposed project complies with Title 23 standards, and no adverse geotechnical impacts are anticipated.

The project will require approximately 170,000 cubic yards of imported soil. A stockpile of clean sediments located in the Yolo Bypass adjacent to Fremont Weir (commonly referred to as Mount Meixner) was identified as the borrow source for the project. In an April 18, 2014 letter (Attachment H) from the applicant’s project engineers, the applicant formally requested the Board to provide access for the spoil area within the SSJDD. Site investigation results submitted by the applicant concluded that “the material meets the intent of the design” (Reference: Borrow Site Investigation, Yolo Bypass Stockpile, prepared by Hutgren-Tillis Engineers, dated August 29, 2013).

8.5 – Project Benefits

The proposed levee repairs are consistent with the adopted 2012 Central Valley Flood Protection Plan (CVFPP) because they will:

- address existing geotechnical performance concerns associated with slope stability
- reduce the risk of flooding and its impacts to human health, safety, and welfare
- improve existing facilities of the State Plan of Flood Control
- protect farmland, agricultural commodities, and agricultural infrastructure for this crucial agricultural region
- restore the original design level of flood protection as authorized by the USACE (1953, Supplement to Standard Operation and Maintenance Manual, SRFCP, Unit No. 127)

8.6 – Easements

KLRDD holds easements and fee rights to the land beneath and adjacent to the KLRC left bank levee throughout the project length. KLRDD will acquire additional area adjacent to the levee to accommodate the proposed slope flattening and ditch relocation. Permanent acquisition, relocation, and compensation services will be conducted in compliance with federal and State relocation laws, which are the Uniform Act of 1970 (42 USC 4601 et seq.) and implementing regulation, 49 CFR Part 24; and California Government Code Section 7267 et seq. These laws require that appropriate compensation be provided to displaced landowners and tenants. The applicant is currently conducting land acquisition activities necessary to construct the project.

8.7 – "Minor" 408 Classification of Proposed Repairs

Pursuant to USACE February 6, 2012 "Sacramento District Policy on Classifications of Actions Subject to 33 USC 408", the proposed repairs are deemed to be "minor" 408 modifications to the SRFCP and therefore were reviewed and approved at the USACE Sacramento District without need for USACE headquarters review. The proposed project includes no "major" 408 actions such as levee realignment, change in hydraulic conditions, levee raise, or crediting/reimbursement requests.

8.8 – Adjacent Landowners

In 2013 Board staff mailed adjacent landowner letters to property owners adjacent to the proposed project. No objection or protest letters have been received to date.

8.9 – System-Wide Improvement Framework (SWIF)

The KLRDD has taken the lead in coordinating with local maintaining agencies and the Department of Water Resources (DWR) to develop and implement a System-Wide Improvement Framework (SWIF) for the Knights Landing Unit 2- Yolo Bypass - Service Area 6 Levee System in order to regain "Active" status in the Rehabilitation Program (RP) authorized under Public Law (PL) 84-99. The draft Letter of Intent to develop and implement a SWIF was approved by the Board on December 20, 2013; and is currently under review by the USACE.

8.10 – Proposed Project Schedule

The applicant's proposed construction schedule is as follows:

- CVFPB Permit Hearing - May 23, 2014
- Out to Bid - June 2, 2014
- Open Bids - June 20, 2014
- Award Contract - June 26, 2014
- Issue a Notice to Proceed - July 3, 2014
- Mobilize Equipment - July 21, 2014
- DWR Funding Commitment Letter - July 15, 2014
- DWR Funding Agreement - September 2014

8.11– Utility Relocations

In addition to the proposed repairs selected utility relocations may be necessary. Board approval of said relocations will be executed by either delegated authorization pursuant to Title 23, § 6(e), or through issuance of encroachment permits. The applicant will assist the utility owners to prepare and submit all requests for authorization or encroachment permit applications to Board staff, and will coordinate all relocation work with the levee repair work.

9.0 – CEQA ANALYSIS

Board staff has prepared the following determination pursuant to the California Environmental Quality Act (CEQA):

A Mitigated Negative Declaration was prepared by DWR on behalf of the Board, as lead agency, and adopted on July 26, 2013 through Resolution No. 2013-11 (Attachment I) at a Board public hearing. These documents, including the Final Environmental

Assessment/Initial Study/Mitigated Negative Declaration, may be viewed or downloaded from the Central Valley Flood Protection Board website at http://www.cvfpb.ca.gov/meetings/2014/05-23-2014.cfm under a link for this agenda item. These documents are also available for review in hard copy at Board and KLRDD offices.

The Board finds that its prior CEQA findings made on July 26, 2013 through Resolution 2013-11 regarding the Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3 Project are still valid and that Sites 12, 12A, and 13 were covered in the original project description. The Board finds that construction of the proposed levee rehabilitation project is within the scope of the previously certified Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, and that no new adverse environmental impacts could occur and no new mitigation measures are required as a result of this project pursuant to CEQA Guidelines Section 15162. Therefore no new environmental document is required pursuant to CEQA Guidelines section 15168.

The documents and other materials which constitute the record of the Central Valley Flood Protection Board proceedings in this matter are in the custody of Mr. Jay Punia, Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Room 151, Sacramento, California 95821.

10.0 – CALIFORNIA WATER CODE § 8610.5 CONSIDERATIONS

These considerations are addressed in Resolution 2014-12 (Attachment B).

11.0 – STAFF RECOMMENDATION

Board staff has determined that the proposed KLRC project is consistent with the adopted CVFPP, is not injurious to the SRFCP, and provides an overall betterment to reduce the risk of flooding in the protected areas. Staff recommends that the Board:

Adopt (in substantially the form provided):

- Resolution 2014-12 (including CEQA findings and Water Code 8610.5 Considerations)

Approve (in substantially the form provided):

- Flood System Improvement Permit No. 18905 to construct levee improvements pursuant to permission granted by the USACE Sacramento District through its Section 408 Letter of Permission dated April 17, 2014; and

Delegate:

- authority to the Executive Officer to make minor changes to the permit after issuance, in consultation with the legal counsel, to incorporate future non-substantive design changes proposed by KLRDD. But if substantive changes to the permit are proposed the Board staff will bring those changes to the Board at a future meeting to seek approval; and

Direct the Executive Officer:

- to take the necessary actions to prepare and execute Permit No. 18905 and all related documents, and to prepare and file a Notice of Determination pursuant to CEQA with the State Clearinghouse; and
- to evaluate and consider approval of future utility relocations deemed necessary to construct the project by either (1) delegated authorization pursuant to Title 23, § 6(e), or (2) encroachment permit issuance.

12.0 – LIST OF ATTACHMENTS

A. Project Maps and Site Photos

B. Draft Board Resolution 2014-12

C. Draft Permit No. 18905

Exhibit A – USACE Letter of Permission, April 17, 2014

Exhibit B – KLRDD Endorsement, April 24, 2014

D. Board Section 408 Request to USACE, November 22, 2013

E. Revised Project Summary Report, March 2014

F. Typical Project Design Cross Sections

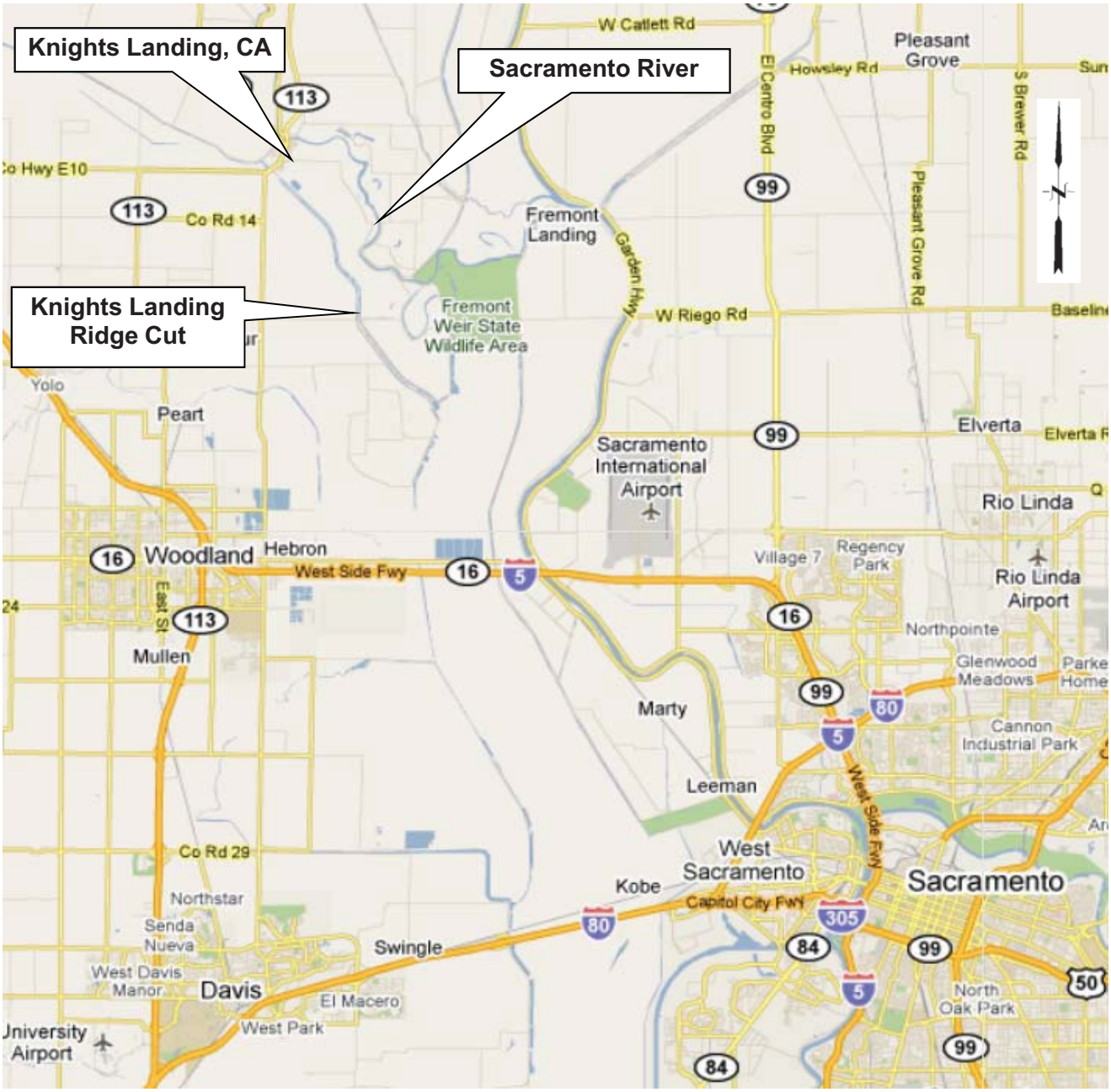
G. Design Water Surface Profile

H. “Spoils Area Access” Request Letter, April 28, 2014

I. Board Resolution 2013-11

Prepared by:	Ali Porbaha, PE, Senior Engineer
Environmental Review:	Andrea Buckley, Senior Environmental Scientist
Document Review:	Eric Butler, PE, Projects and Environmental Branch Chief
	Len Marino, PE, Chief Engineer
Legal Review:	Leslie Gallagher, Chief Counsel

Attachment A1, Vicinity Map



NO SCALE

Map Reference: www.google.com/maps

GENTERRA/Hultgren-Tillis/TABER
3911 West Capitol Avenue
West Sacramento, California 95691
(916) 371-1690
Fax (916) 371-7265

United States Army Corps of Engineers

Mid-Valley Area Phase III Area 3
Left Bank Knights Landing Ridge Cut, Sites 12, 12A, and 13
Yolo County, California

Vicinity Map

Figure 1

Figure 2 - Knights Landing Basin

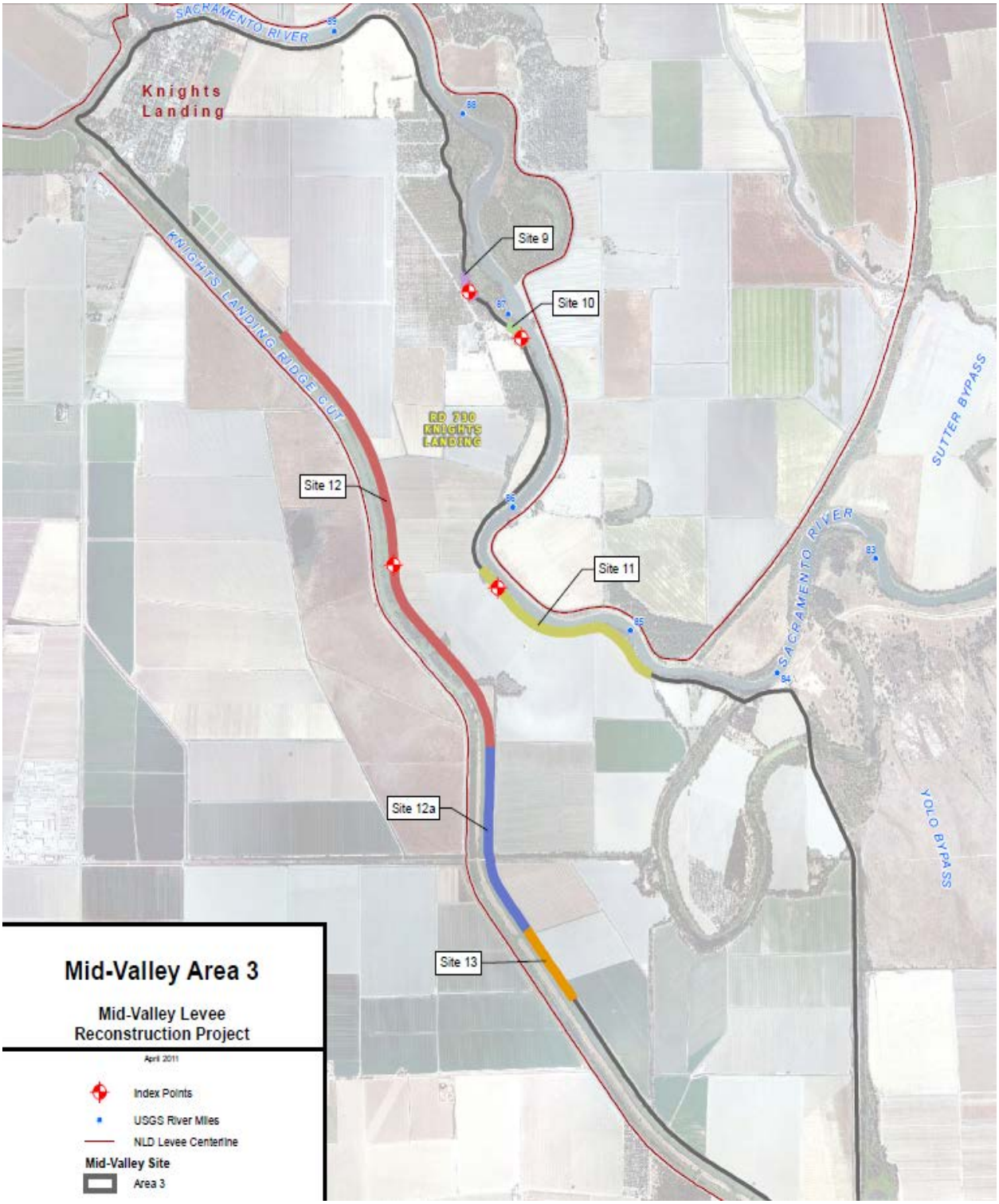


Photo 1 - Near Station 0+00 Looking North (09/07/2009)

Photo 2 - Near Station 0+00 looking South (09/07/2009)

Photo 3 – Pump Station Near Station 18+00 Looking East (09/07/2009)

Photo 4 -Pipe Gate at County Rd 16 Near Station 39+00 Looking North (12/02/2010)

Photo 5 - Pump Station Near Station 42+00 Looking East (09/07/2009)

Photo 6 - Fallow Area Near Station 70+00 Looking South (12/02/2010)

Photo 7 - Fallow Area Near Station 82+00 Looking Southeast (09/07/2009)

Photo 8 - Pond Area Near Station 92+00 Looking East (12/02/2010)

Photo 9 - Farm Area Near Station 120+00 Looking East (12/022010)

Photo 10 - Pump Station Near Station 126+00 Looking Southeast (09/07/2009)

Photo 11 - Near Station 136+00 Looking North

Photo 12 - Near Station 178+00 Looking North (09/07/2009)

STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
CENTRAL VALLEY FLOOD PROTECTION BOARD

DRAFT RESOLUTION NO. 2014-12

FINDINGS AND DECISION AUTHORIZING ISSUANCE OF
FLOOD SYSTEM IMPROVEMENT PROJECT
PERMIT APPLICATION NO. 18905

KNIGHTS LANDING RIDGE CUT DRAINAGE DISTRICT
KNIGHTS LANDING RIDGE CUT LEVEE REPAIR PROJECT
EAST LEVEE, PROJECT SITES 12, 12A AND 13
YOLO COUNTY

WHEREAS, the Central Valley Flood Protection Board (Board), in support of the Knights Landing Ridge Cut Drainage District (KLRDD), approved on November 22, 2013 a request to the U.S. Army Corps of Engineers (USACE) for 33 U.S.C. Section 408 (Section 408) approval to alter approximately 3.4 miles of levee along the left (east) bank levee of the KLRC downstream of the town of Knights Landing in Yolo County; and

WHEREAS, KLRDD submitted an application and supporting documentation to the Board on April 1, 2014 to construct Project Sites 12, 12A and 13; and

WHEREAS, the USACE and the Board as lead agency pursuant to the California Environmental Quality Act, Public Resources Code sections 21000 *et seq*. ("CEQA") circulated the joint NEPA/CEQA Draft Environmental Assessment/Initial Study for the Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3, with a Finding of No Significant Impact and Mitigated Negative Declaration (SCH No. 2012082015) for a 30-day agency and public review beginning on August 3, 2012, and responses to comments received have been incorporated into the Final Environmental Assessment/Initial Study; and

WHEREAS, in April 2013, the USACE completed the Final Environmental Assessment/Initial Study (SCH No. 2012082015, April 2013) (document may be viewed or downloaded from the Board website at http://www.cvfpb.ca.gov/meetings/2014/05-23-2014.cfm) for the Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3 incorporating by reference a 1992 Programmatic Environmental Impact Statement/Environmental Impact Report, a 1996 Environmental Assessment/Initial Study, and a 1999 Environmental Assessment/Initial Study; and

WHEREAS, a NEPA Finding of No Significant Impact (FONSI) was signed on April 18, 2013, by the USACE Sacramento District Commander; and

WHEREAS**,** the Board adopted Resolution 2013-11, certified the Mitigated Negative Declaration, and made findings pursuant to CEQA at the July 26, 2013 Board public hearing for

Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3 Project, and filed a Notice of Determination with the State Clearinghouse on August 2, 2013; and

WHEREAS, the USACE Sacramento District issued a Section 408 Letter of Permission on April 17, 2014 in response to the Board's November 2013 408 request, and Board staff reviewed and incorporated all conditions of the Letter of Permission into the draft permit; and

WHEREAS, the KLRDD Board endorsed the Project on April 24, 2014; and

WHEREAS, Board staff completed a comprehensive technical review of the KLRDD permit application including 100 percent design plans, specifications, and supporting documentation; and

WHEREAS, construction of Project Sites 12, 12A and 13 will:

- address existing geotechnical performance concerns associated with slope stability
- reduce the risk of flooding and its impacts to human health, safety, and welfare
- improve existing facilities of the State Plan of Flood Control
- protect farmland, agricultural commodities, and agricultural infrastructure for this crucial agricultural region
- restore the original design level of flood protection as authorized by the USACE (1953, Supplement to Standard Operation and Maintenance Manual, Sacramento River Flood Control Project (SRFCP), Unit No. 127)

WHEREAS, The Board conducted a public hearing on Permit Application No. 18905 on May 23, 2014, and has reviewed the Staff Report and Attachments, the documents and correspondence in its file, and the environmental documents prepared by the KLRDD.

NOW, THEREFORE, BE IT RESOLVED THAT,

Findings of Fact

1. The Board hereby adopts as findings the facts set forth in the accompanying Staff Report.

2. The Board has reviewed all Attachments, Exhibits, Figures, and References listed in the Staff Report.

CEQA Findings

3. The Board finds that its prior lead agency CEQA findings made on July 26, 2013 through Resolution 2013-11 regarding the Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3 Project are still valid, and the proposed project Sites 12, 12A, and 13 are within the scope of the previously adopted Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program (MMRP).

4. The Board finds that construction of the proposed levee rehabilitation project described herein would result in no new adverse environmental impacts, and no new mitigation measures are required pursuant to CEQA Guidelines Section 15162. Therefore, no new environmental document is required pursuant to CEQA Guidelines Section 15168.

5. **Custodian of Record**. The custodian of the CEQA record for the Board is its Executive Officer, Jay Punia, at the Board offices at 3310 El Camino Avenue, Room 151, Sacramento, California 95821. These documents may be viewed or downloaded from the Board website at http://cvfpb.ca.gov/meetings/2014/05-23-2014.cfm on the May 23, 2014 Board meeting page. The documents are also available for review in hard copy at the Board and KLRDD offices.

Considerations pursuant to California Water Code Section 8610.5

6. **Evidence Admitted into the Record**. The Board has considered all evidence presented in this matter, including the application for Permit No. 18905, and all supporting technical documentation provided by KLRDD, past and present Staff Reports and attachments, prior Board Resolution 2013-11, the Mitigated Negative Declaration and the MMRP.

7. **Best Available Science**. In making its findings, the Board has used the best available science relating to the issues presented by all parties. On the important issue of hydraulic impacts and the computed water surface profiles, KLRDD used the SRFCP water surface elevations published by the USACE as "Levee and Channel Profiles, Sacramento River Flood Control Project," dated 15 March 1957 as the basis for this project. Geotechnical and overall standards for levee design including those of the USACE and Board have been taken into consideration, and the design is in compliance with these standards.

8. **Effects of the Decision on the State Plan of Flood Control**. This project has positive effects on the State Plan of Flood Control as it includes features that will provide a minimum required freeboard of three (3) feet along the east levee of the KLRC. The Board finds that the project design, including changes to the original USACE project design made by KLRDD, will result in no adverse geotechnical or hydraulic impacts to facilities of the State Plan of Flood Control.

   The Board further finds that the proposed project will result in an overall betterment to the SRFCP and State Plan of Flood Control, and is consistent with the adopted 2012 CVFPP because it meets goals of the State Systemwide Investment Approach to (1) provide overall increased levels of flood protection throughout the system reflecting improved capacity to manage flood peaks, and (2) provide substantial reduction in expected annual damages.

   The Board further finds that the proposed project alterations can be constructed in a manner not injurious to the public interest, and that will not impair the usefulness of the SRFCP.

9. **Effects of Reasonably Projected Future Events**. The project was designed to restore adequate freeboard above the authorized design water surface elevation profile for a levee in a rural area.

Because the DWR Sacramento River Basinwide Feasibility Study and Lower Sacramento / Delta North Regional Flood Management Plan are under development neither KLRDD nor Board staff can determine consistency with these documents. The KLRC project is however in compliance with all federal, State, and local standards, and Board staff expects it to be consistent with these future plans. Therefore there are no currently anticipated effects of reasonably projected future events on the project.

Other Findings/Conclusions regarding Issuance of the Permit

10. This resolution shall constitute the written decision of the Board in the matter of Permit No. 18905.

Approval of Flood System Improvement Permit No. 18905

11. The Board adopts Resolution 2014-12 (including CEQA findings and Water Code 8610.5 considerations), and

12. The Board approves Flood System Improvement Permit No. 18905 to construct levee improvements pursuant to permission granted by the USACE Sacramento District through its Section 408 Letter of Permission dated April 17, 2014; and

13. The Board delegates authority to the Executive Officer to make minor changes to the permit after issuance, in consultation with the legal counsel, to incorporate future non-substantive design changes proposed by KLRDD. But if substantive changes to the permit are proposed the Board staff will bring those changes to the Board at a future meeting to seek approval, and

14. The Board directs the Executive Officer to take the necessary actions to prepare and execute Permit No. 18905 and all related documents, and to prepare and file a Notice of Determination pursuant to the California Environmental Quality Act with the State Clearinghouse, and

15. The Board directs the Executive Officer to evaluate and consider approval of future utility relocations deemed necessary to construct the project by either (1) delegated authorization pursuant to Title 23, Section 6(e), or (2) encroachment permit issuance.

PASSED AND ADOPTED by vote of the Board on _____, 2014

_____	_____
William H. Edgar	Jane Dolan
President	Secretary

DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY

THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18905 BD

This Permit is issued to:

Knights Landing Ridge Drainage District
P.O. Box 50
Grimes, California 95950-0050

Remediate approximately 18,000 feet of the Knights Landing Ridge Cut left bank levee to eliminate the cause of landside levee slope failures by replacing the landside levee face with lean clay, constructing a spoils berm, replacing pump station discharge lines, and relocating the portion of the drainage ditches affected by the construction away from the levee slope.

The project is located along the left (east) bank levee of the Knights Landing Ridge Cut in Yolo County from project Station 0+00 to Station 182+00. (Section 6, T10N, R3E, MDB&M, Knights Landing Ridge Drainage District, Knights Landing Ridge Cut, Yolo 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. 18905 BD

LIABILITIES / IMDEMNIFICATION

THIRTEEN: 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 Central Valley Flood Protection Board, the Department of Water Resources, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, arising out of failure on the permittee's part to perform the obligations under this permit, the permittee shall defend and shall hold each of them harmless from each claim. This condition shall supersede condition TEN.

FOURTEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection 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 Central Valley Flood Protection 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.

FIFTEEN: The permittee is responsible for all liability and shall defend, indemnify, and hold the Central Valley Flood Protection 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 such claims and damages arising from construction of 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.

SIXTEEN: The Central Valley Flood Protection Board, Department of Water Resources, and Knights Landing Ridge Drainage District shall not be held liable for damages to the permitted alterations resulting from releases of water from reservoirs, flood fight or emergency operations, maintenance, inspection, or repair.

EASEMENT, LICENSE, TEMPORARY ENTRY PERMIT, AND LAND ACQUISITION

SEVENTEEN: 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 Central Valley Flood Protection Board (hereafter Board), the permittee should secure an easement, license, or temporary entry permit from the Board prior to commencement of work. Contact Angelica Aguilar at (916) 653-5782.

EIGHTEEN: Prior to construction the permittee shall have obtained legal possession of all property where work to be performed under this permit is located.

BOARD CONTACTS

NINETEEN: The permittee shall contact the Board by telephone at (916) 574-0609, and the Board's Construction Supervisor at (916) 651-1299 to schedule a preconstruction conference. Failure to do so at least 20 working days prior to start of work may result in delay of the project.

PERMITTING AND AGENCY CONDITIONS

TWENTY: The Knights Landing Ridge Cut (KLRC) project is permitted pursuant to 33 U.S.C. Section 408 authority of the U.S. Army Corps of Engineers. The KLRC levee is a facility of the Sacramento River Flood Control Project and State Plan of Flood Control regulated by the Board. By acceptance of this permit, the permittee acknowledges the authority of the Board to regulate all future flood system improvement projects and encroachments along the project levee reach.

TWENTY-ONE: The permittee shall comply with all general and special conditions set forth in the USACE Letter of Permission dated April 17, 2014, which is attached to the permit as Exhibit A and is incorporated by reference.

TWENTY-TWO: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY-THREE: The permittee agrees to incur all costs for compliance with local, State, and federal permitting and resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations they administer and enforce.

TWENTY-FOUR: The permittee shall cooperate with the Board such that any encroachment that must be relocated, modified or otherwise altered to accommodate construction of flood system

improvements permitted herein is relocated, modified or otherwise altered in compliance with current applicable State and federal standards. If the affected encroachment has an existing Board permit or is subject to other Board authorization, the permittee shall cooperate with the Board such that the permit or other authorization is appropriately amended to reflect the changed condition as shown on as-built drawings for the encroachment and KLRC project. If the encroachment does not have a Board permit or other Board authorization the permittee shall cooperate with the Board to determine whether a Board permit is required. If required the permittee shall cooperate with the Board to ensure that the permit application is made and, if granted, the permit reflects the changed condition(s) as shown on as-built drawings for the encroachment and the KLRC project.

TWENTY-FIVE: If the permittee does not comply with the conditions of this 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.

TWENTY-SIX: Upon completion of this flood system improvement project, the permittee will cooperate with the Board to update the "Supplement to the Standard Operations and Maintenance Manual" (O&M Manual) covering the project area, and to cooperate with the Board to obtain federal acceptance of the project works into the Sacramento River Flood Control Project by the U.S. Army Corps of Engineers, followed by federal turnover to the State for operations and maintenance through existing assurance agreements.

TWENTY-SEVEN: 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 works 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.

TWENTY-EIGHT: The permittee shall develop a Stormwater Water Pollution and Prevention Plan and shall make a copy readily available for review at the project site during construction.

PRE-CONSTRUCTION

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

THIRTY: The permittee shall contact the U. S. Army Corps of Engineers regarding inspection of the project during construction as the proposed work is an alteration to an existing federal flood control project that will be incorporated into the Sacramento River Flood Control Project, a facility of the State Plan of Flood Control.

THIRTY-ONE: Prior to commencement of excavation, the permittee shall create a photo record, including associated descriptions, of the levee conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or professional engineer registered in the State of California and submitted to the Board within 30 days of beginning the project.

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

THIRTY-THREE: Thirty (30) calendar days prior to the start of any demolition and / or construction activities within the floodway or within the existing levee prism, the permittee shall submit to the Board's Chief Engineer two sets of detailed plans and specifications and supporting geotechnical and / or hydraulic impact analyses, for any and all temporary, in channel, or levee prism work that may have an impact during the flood season from November 1 through April 15. The Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or the local maintaining agency when necessary. The Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) working days.

THIRTY-FOUR: A profile of the existing levee crown roadway and access ramps that will be utilized for access to and from the borrow area in they Yolo Bypass shall be submitted to the Board prior to commencement of excavation.

THIRTY-FIVE: Keys shall be provided to local levee maintenance agencies and the Department of Water Resources for all locks on gates providing access to the floodway, levee ramp, levee toe, and along the levee crown.

CONSTRUCTION

THIRTY-SIX: All work approved by this permit shall be in accordance with the approved plans and specifications, except as modified by special permit conditions herein. Any subsequent plans, specifications, and / or addenda shall be submitted immediately to the Board's Chief Engineer as outlined in Special Condition THIRTY-SEVEN. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Board.

THIRTY-SEVEN: 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 forty five (45) calendar days. Upon approval of submitted documents the permit shall be revised, if needed, prior to construction related to the proposed changes.

THIRTY-EIGHT: Any additional project features proposed by the permittee in the floodway, on or in the levee section, and within the project right of way as shown on the approved plans (typically 20 feet in fee plus 10 feet in easement from the landward levee toe, but less in selected areas as described in the approved plans) will require either incorporation by amendment to this permit, or will require issuance of a separate encroachment permit to the encroachment owner from the Board.

THIRTY-NINE: Existing or proposed utility poles and guy anchors shall be relocated or installed a minimum distance of 10 feet landward of the landward levee toe.

FORTY: All debris generated by this project shall be disposed of outside the floodway, levee prism

and proposed right-of-way.

FORTY-ONE: No material stockpiles, temporary buildings, or equipment shall remain in the floodway during the flood season from November 1 to April 15 without prior approval from the Central Valley Flood Protection Board.

FORTY-TWO: During construction of the project, any and all anticipated or unanticipated conditions encountered which may impact levee integrity or flood control shall be brought to the attention of the Board inspector immediately and prior to continuation of construction. Any encountered abandoned encroachments shall be completely removed or properly abandoned under the direction of the Board inspector.

FORTY-THREE: The stability of the levee shall be maintained at all times during construction.

FORTY-FOUR: Any damage to the levee crown roadway or access ramps that will be utilized for access for this project shall be promptly repaired to the condition that existed prior to this project.

FORTY-FIVE: The permittee shall be responsible for all damages due to settlement, consolidation, or heave from any construction-induced activities.

FORTY-SIX: All existing fencing, gates and signs removed during construction of this project, which are shown on the approved plans to be replaced, shall be replaced in kind and at the locations indicated on the approved plans. If it is necessary to relocate any fence, gate or sign that is not shown on the approved plans or to a location different than shown on the approved plans, the permittee is required to obtain written authorization from the Board's Chief Engineer prior to installation at a new location. All fencing, gates, and sign locations shall be accurately shown on any submitted as-built plans.

FORTY-SEVEN: Fill on the levee slopes shall be keyed into the existing levee section with each lift or as specified in the approved contract plans and specifications.

FORTY-EIGHT: The fill surface areas shall be graded to direct drainage away from the toe of the levee.

CONSTRUCTION MATERIALS

FORTY-NINE: The pemittee will use a portion of the existing stockpile of clean sediments located just downstream of the Fremont Weir in the Yolo Bypass as the source of borrow material for the KLRC project.

FIFTY: The pemittee will access the Yolo Bypass borrow site through Parcel 057-020-099-000 to remove approximately 170,000 cubic yards of existing stockpile material for the KLRC project.

FIFTY-ONE: The pemittee will not utilize any fill material with hydraulic conductivity lower than the exisiting embankment soil material for repair of levee slopes.

FIFTY-TWO: Fill material shall be placed only within the area indicated in the approved plans and

specifications. Placement of additional fill in excess of 1,500 cubic yards beyond what is specified in these plans shall require written authorization from the Board's Chief Engineer.

FIFTY-THREE: All fill material shall be as stated in the contract specifications and free of lumps or stones exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material.

FIFTY-FOUR: Impervious material, with twenty (20) percent or more of its passing the No. 200 sieve, and having a plasticity index of eight (8) or more, and a liquid limit of less than fifty (50), must be used for the reconstruction of exisitng levees.

FIFTY-FIVE: Backfill material for excavations within the existing levee sections and within the project right of way shall be placed in 4 to 6-inch layers, moisture conditioned ranging from 3 above to 1 below optimum moisture content, and compacted to a minimum of 97 percent relative compaction as measured by ASTM Method D698.

VEGETATION / ENVIRONMENTAL MITIGATION

FIFTY-SIX: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to April 15.

FIFTY-SEVEN: The permittee shall replant or re-seed the levee slopes to restore sod, grass, or other non-woody ground covers if damaged during project work.

FIFTY-EIGHT: The mitigation measures approved by the permittee and found in its Mitigation and Monitoring Reporting Program (MMRP) are made a condition of this permit. The permittee shall implement all such mitigation measures. The measures in the MMRP may be modified without triggering the need for subsequent or supplemental analysis under CEQA Guidelines section 15162. The permittee shall notify the Board's Environmental Section staff in advance of any proposed changes and shall submit supporting documentation for staff review and comment.

FIFTY-NINE: In the event existing revetment on the channel bank or levee slope is disturbed or displaced, it shall be restored to its original condition upon completion of the proposed installation.

SIXTY: In the event that levee or bank erosion injurious to facilities of the State Plan of Flood Control occurs at or adjacent to and as a result of the permitted flood system improvement project or related encroachment work, the permittee shall repair the eroded area and propose measures, to be approved by the Board, to prevent further erosion.

CONSTRUCTION COMPLETION

SIXTY-ONE: All temporary fencing, gates and signs shall be removed upon completion of project.

SIXTY-TWO: The project site including the levee section and access ramps shall be restored to at least the condition that existed prior to commencement of work.

SIXTY-THREE: When DWR releases the completed Central Valley Floodplain Evaluation and Delineation Program data the permittee will recalculate levee freeboard using only that data for both cross section and top of levee elevations. If inconsistencies or deficiencies are found the permittee will develop and present a plan for Board approval to correct any freeboard deficiencies under this or a future phase of construction.

SIXTY-FOUR: Upon completion of the project, the permittee shall perform a levee crown profile survey and create a photo record, including associated descriptions, of "as-built" levee conditions. The levee crown profile survey and photo record shall be certified (signed and stamped) by a licensed land surveyor or professional engineer registered in the State of California and submitted to the Board within 120 days of project completion.

SIXTY-FIVE: Upon completion of the construction the permittee will conduct a Final Construction Walk-through for Board, Department of Water Resources, and U.S. Army Corps of Engineers staff. The walk-through is a condition for Board project acceptance, State funding, and as predecessor to U.S. Army Corps of Engineers system wide acceptance and eligibility for Public Law 84-99 rehabilitation and inspection program. This walk-through is critical to successful permit and project close-out.

POST-CONSTRUCTION

SIXTY-SIX: Within 120 days of completion of the project, the permittee shall submit to the Board a certification report, stamped and signed by a professional civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with Board permit conditions and the permittee's submitted drawings and specifications, addenda and contract change orders.

SIXTY-SEVEN: Within three years from completion of the construction of the work authorized under this permit, the permittee shall provide the Sacramento and San Joaquin Drainage District, acting by and through the Board, a permanent easement or joint use agreement granting all flood control rights upon, over and across the property to be occupied by the existing or to-be-reconstructed levee. The easement must include the project right of way if the area is not presently encumbered by a Board easement. For information regarding Board easements please contact Angelica Aguilar at (916) 653-5782.

SIXTY-EIGHT: If the project, or any portion thereof, is to be abandoned in the future, the permittee shall abandon the project under direction of the Board and Department of Water Resources, at the permittee's cost and expense.

OPERATIONS AND MAINTENANCE

SIXTY-NINE: Haul ramps and utilized levee crown roadway shall be maintained during construction in a manner prescribed by authorized representatives of the Board, Department of Water Resources, Knights Landing Ridge Drainage District or any other agency responsible for maintenance.

SEVENTY: The permittee shall operate and maintain the permitted project works as required by the current O&M Manual during construction and until such time that the permitted and constructed project improvements are accepted into the Sacramento River Flood Control Project by the U.S. Army

Corps of Engineers, and revised operations and maintenance responsibilities are transferred from the State of California (through the Board) to the permittee.

SEVENTY-ONE: Within 180 days of completion of the project, the permittee shall submit to the Board proposed revisions to the O&M Manual and associated "as-built" drawings for system alterations to be incorporated into the federal Sacramento River Flood Control Project. The permittee will assist the Board to obtain U.S. Army Corps of Engineers approval of the submitted revisions to the O&M Manual.

SEVENTY-TWO: Permittee acknowledges that the adopted 2012 Central Valley Flood Protection Plan will be regularly updated by the State and that the plan and future updates could include improvements that would change the flow and water surface elevation associated with permittee's design storm, possibly reducing the level of protection provided by the permitted improvements. Permittee agrees to participate in future modifications to these levees as may be required by the State to implement the Central Valley Flood Protection Plan and subsequent updates. Permittee's level of participation shall be equivalent to the level required of other local jurisdictions by the Plan. Permittee further agrees that should the Plan include measures that reduce the level of protection provided by the permitted improvements, permittee shall have no basis for a claim of hydraulic impacts.

END OF CONDITIONS

DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

APR 17 2014

Executive Office

Mr. Jay Punia, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, California 95821

Dear Mr. Punia,

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 constructing *Knights Landing Ridge Cut Levee Repair Project, Sites 12, 12A, and 13*, included in the Central Valley Flood Protection Board (CVFPB) encroachment permit number 18905. This permission approves your proposed work as defined in the Project Summary Report, dated March 2014, and within the design drawings, *Mid-Valley Phase III Area 3, Left Bank Knights Landing Ridge Cut, Sites 12, 12A, and 13*, dated March 2014 and specifications, *Mid-Valley Phase III Area 3, Left Bank Knights Landing Ridge Cut, Sites 12, 12A, and 13*, dated July 17, 2011. 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 *Knights Landing Ridge Cut Levee Repair Project* consists of constructing levee crown and landside slope remediation; constructing 18,085 feet of patrol road; relocating an interior drainage ditch away from the landside toe; constructing access ramps and ditch crossings; and replacing three drainage discharge lines.

As a condition of this letter of permission, the CVFPB is required to comply with the special conditions provided in the attached enclosure. Additionally, the CVFPB must adhere to the Environmental Assessment and Finding of No Significant Impact as well as all of the corresponding best management practices and mitigation measures therein, enclosed.

My point of contact for this action is Mr. Randy Olsen, Chief, Operations and Readiness Branch. He may be reached at 916-557-5275 or by emailing Randy.P.Olsen@usace.army.mil.

A copy of this letter is being furnished to Mr. Lewis Bair, Knights Landing Ridge Drainage District, P.O. Box 50, Grimes, California 95950.

Sincerely,

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

Enclosures

DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

33 U.S.C §408 Letter of Permission
Special Conditions
Knights Landing Ridge Cut (KLRC) Levee Repair Project
Sites 12, 12A, 13

The term "you" and its derivatives, as used in this approval letter, means the Central Valley Flood Protection Board (CVFPB) 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:

Special Conditions:

a. This letter of permission does not authorize you to take any threatened or endangered species or designated critical habitat. In order to legally take a listed species, you must have a separate authorization under an Endangered Species Act Section 10 permit, or a Biological Opinion under Endangered Species Act Section 7, with incidental take provisions with which you must comply. The U.S. Fish and Wildlife Service (USFWS) Biological Opinions (BO) Number 08ESMF00-2012-F-0660-R001, dated October 5, 2012, contains mandatory terms and conditions, as well as mandatory conservation measures, to implement the reasonable and prudent measures associated with incidental take for the proposed action. Your approval is conditional on compliance with all of the mandatory terms and conditions, as well as conservation measures, in the USFWS BO (incorporated herein by reference). Failure to comply with these terms and conditions and conservation measures associated with the BO would constitute an unauthorized take and constitute non-compliance with your USACE permission. The USFWS and NMFS are the appropriate authority to determine compliance with the terms and conditions, as well as conservation measures, of the Biological Opinion and with the Endangered Species Act.

b. You are required to comply with the Environmental Assessment/Initial Study (EA/IS) for the Sacramento River Flood Control System Evaluation, Phase III, Mid-Valley, Contract Area 3, Yolo County, California, dated April 2013, and Finding of No Significant Impact (FONSI), dated April 18, 2013. This letter of permission applies to the three sites along the Knights Landing Ridge Cut and thus compliance with the EA/IS shall be in that regard. You are required to comply with the best management practices and mitigation measures outlined therein.

c. You are required to submit a revision to the Operation and Maintenance (O&M) manual for this office's review within 180 days of the overall project completion. The revision shall contain a short description of the modification and descriptions of any new features not included in the existing manual. 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 USACE acknowledging that the work was completed in accordance with this letter of permission. Construction data is required to be provided to this office for review by our Engineering Division during construction. Within 180 days of the overall project completion, you must furnish a certification report that the work has been completed in accordance with the conditions of this permission.

d. There must be no disposal, including temporary disposal, of any material into any wetlands or other waters of the United States, except as authorized and in compliance with a Department of the Army permit under Section 404 of the Clean Water Act. Best management practices, such as silt fences and mulching, must be employed to ensure exposed soils do not erode and wash into any waters of the United States.

e. 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 USACE can determine the significance of the find. If human bone is uncovered, the coroner and the California Native American Heritage Commission (NAHC) 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 descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work regarding the means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code, Section 5097.98, or (c) the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission. 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).

f. The work in this permit is to construct levee crown and landside slope remediation; construct 18,085 feet of patrol road; relocate an interior drainage ditch away from the landside toe; construct access ramps and ditch crossings; and replace three drainage discharge lines, which encroach upon the project.

General Conditions:

g. You must accept the operation and maintenance responsibility of the completed work.

h. You are responsible for continued operations and maintenance for this project during construction.

i. Construction should be coordinated with this office. Additionally, the proposed work shall not be performed or remain during the flood season of November 1 to April 15, unless otherwise approved in writing.

j. You must allow representatives from this office 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.

k. You are required to submit to this office on a weekly basis construction records documenting field conditions.

l. You are required to submit to this office cross-sections and a survey of the levee centerline with your as-builts. Surveys shall extend from 100 feet waterward or to the water level of the levee toe to 100 feet landward of the levee toe. All data shall be in Geographic Information System (GIS) format (ESRI Version 10.0 or latest version) in correct projection for seamless geographic location, referenced in North American Vertical Datum of 1988 (NAVD 88) using Geoid03 and North American Datum of 1983 (NAD

83), using the relevant California State Plane Zone. Data shall also be provided in GIS ready georeferenced computer-aided design and drafting (CADD) data format as well as pdf format.

Further Information:

a. Limits of this permission.

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

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

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

b. 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.

c. The USACE 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:

1. You fail to comply with the terms and conditions of this approval.

2. 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 though a request from the CVFPB.

3. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

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

e. The USACE 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 works.

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

KNIGHTS LANDING RIDGE DRAINAGE DISTRICT

COLUSA AND YOLO COUNTIES
P.O. Box 50, Grimes, CA 95950-0050
Telephone: (530) 437-2221 Fax: (530) 437-2248

April 24, 2014

Mr. Mohammad Porbaha
Central Valley Flood Protection Board
331 El Camino Avenue, Room 151
Sacramento CA 95821

Mr. Porbaha,

The Knights Landing Ridge Drainage District is the applicant for an Encroachment Permit to remediate approximately 18,000 feet of the Knights Landing Ridge Cut left bank levee to eliminate landside levee slope failures. The proposed work includes replacing the landside levee face with lean clay, constructing a spoils berm, replacing pump station discharge lines, and relocating portions of drainage ditches affected by the construction away from the levee slope.

Please accept this letter as Knights Landing Ridge Drainage District's endorsement of our permit application.

Sincerely,

Lewis Bair,
General Manager

Attachment D

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

November 22, 2013

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

Subject: Knights Landing Ridge Cut Levee Repair Project, Knights Landing Ridge Drainage District, 33 U.S.C. Section 408 Request

Dear Colonel Farrell:

The Central Valley Flood Protection Board (Board) is requesting permission from the U.S. Army Corps of Engineers (USACE) to alter approximately 3.4 miles (18,200 linear feet) of Sacramento River Flood Control Project (SRFCP), Knights Landing Ridge Cut (KLRC) left (east) levee in Yolo County. This request is based on the Policy and Procedural Guidance for the Approval of Modification and Alteration of Corps of Engineers Projects dated October 23, 2006, and the Clarification Guidance dated November 17, 2008, and on behalf of the Knights Landing Ridge Drainage District (KLRDD). The project consists of Sites 12, 12A, and 13 of the Mid-Valley Area Phase III project. The Board is making this request pursuant to 33 U.S.C. Section 408.

USACE approved the Sacramento River Flood Control Project, California, Mid-Valley Area, Phase III Design Memorandum/EA-IS, June 1996 (DM/EA-IS 1996) on August 16, 1996. After Northern California experienced widespread and destructive flooding in December 1997 through January 1998, the U.S. Congress directed the USACE to re-evaluate the Mid-Valley sites, and to evaluate additional sites for reconstruction. Minor design modifications were made to the approved DM/EA-IS 1996 along with more detailed plans and specifications.

In June 2012, the Board adopted the Central Valley Flood Protection Plan (CVFPP) which represented the first comprehensive update of the State Plan of Flood Control in the Central Valley in more than five decades. The proposed KLRC levee repair project is one of many proposed incremental improvements consistent with implementation of the CVFPP.

The proposed KLRC levee repair project consists of replacing a portion of the landside slope with lean clay, constructing a toe berm at the landside toe, and relocating the drain ditch further from the levee. The Board has reviewed the Design Documentation Report, specifications, plans and drawings, geotechnical analyses, and other relevant documents submitted by KLRDD. These documents indicate that the proposed repairs would reduce the risk of flood loss and minimize the effect of floods on human health, safety, and welfare by improving existing authorized flood management infrastructure, and would increase protection for the existing population. Importantly, the KLRC levee repairs would help further protect farmland, agricultural commodities, and agricultural infrastructure for this crucial agricultural region. The KLRC levee repairs would restore the level of flood protection, not increase it beyond that

which was originally authorized by the USACE (1953, Supplement to Standard Operation and Maintenance Manual, SRFCP, Unit No. 127).

Strengthening portions of the federal project levee system protecting the basin as proposed by KLRDD would not result in any significant, adverse hydraulic impacts or induce flooding to other sub-basins protected by the SRFCP. Indeed, the work proposed will restore the KLRC left bank levee to the authorized level of protection. The KLRC levee repair work will occur on the landside of the levee and will have no impact on the existing channel hydraulics.

The USACE has prepared for the Mid Valley Area 3 project an Environmental Assessment/Initial Study (EA/IS) for the purposes of complying with the National Environmental Protection Act (NEPA) and the California Environmental Quality Act (CEQA). The EA/IS analyzed the potential impacts (including cumulative) of the proposed project on all relevant resource areas, including aesthetics, agriculture and land use, air quality, sensitive species and wetlands, cultural resources, hazardous waste, hydrology and water quality, noise, recreation, and transportation. Based on the EA/IS analysis, the USACE deemed the proposed project to be a logical and desirable alternative. Furthermore, the USACE determined that the project would have no significant effects on the environment and the USACE issued a Finding of No Significant Impact on April 18, 2013.

Based on the information provided by KLRDD to date, the Board supports the proposed KLRC levee repair project and believes the alterations will not be injurious to the public interest, and will not impair the usefulness of the SRFCP. A Project Summary Report, as required by the October 26, 2006 and November 17, 2008 policies and procedural guidance, is enclosed as supplemental information as part of this request.

If, upon completion, the USACE formally incorporates the KLRC levee repair project into the SRFCP, the State of California, acting through the Board, will accept the altered project for operation and maintenance and will hold and save the United States free from damage due to the constructed works.

If you have any questions regarding this request, please contact me at (916) 574-0609, or your staff may contact Mr. Ali Porbaha, Senior Engineer, Projects and Environmental Branch at (916) 574-2378 or by email at mohammad.porbaha@water.ca.gov.

Sincerely,

Jay S. Punia
Executive Officer

Enclosure: Project Summary Report

cc: (See attached list)

cc: Mr. Lewis Bair, General Manager
Knights Landing Ridge Drainage District
P.O. Box 50
Grimes, California 95950-0050

Mr. Barry O'Regan
Peterson Brustad, Inc.
119 E. Weber Avenue
Stockton, California 95202

Attachment E

Knights Landing Ridge Cut Levee Repair Project

Section 408 Application

Project Summary Report

Prepared for:
U.S. Army Corps of Engineers
1325 J Street
Sacramento, CA 95814

Prepared by:
Knights Landing Ridge Drainage District
975 Wilson Bend Road
Grimes, CA

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1.0 Non-Federal Request for Alteration

The Knights Landing basin is located in eastern Yolo County, approximately 26 miles northwest of Sacramento. The basin is surrounded by Sacramento River Flood Control Project (SRFCP) facilities on all sides: the Sacramento River to the north and east, the Knights Landing Ridge Cut to the west, and the Yolo Bypass to the south. The SRFCP was authorized by the Flood Control Act of 1917 and received subsequent authorizations under the Flood Control Acts of 1928, 1936, and 1941 as well as the Rivers and Harbors Act of 1937. The Flood Control Acts of 1944 and 1950 authorized additional modifications.

After the 1986 flood, which caused significant stress on the SRFCP levees throughout the Valley, the Corps conducted a system-wide analysis of the Sacramento River Flood Control Project (System Evaluation) in five phases.

- Phase I – Sacramento Urban Area.
- Phase II – Marysville/Yuba City Area.
- Phase III – Mid-Valley Area.
- Phase IV – Lower Sacramento Area.
- Phase V – Upper Sacramento Area.

The Knight Landing basin levees which protect the small community of Knights Landing (population 995) were included in the Phase III- Mid-Valley Area of the System Evaluation. The Mid Valley Project was further subdivided in Contract Areas 1, 2, 3, and 4 (see figure 1). The Local Maintaining Agencies (LMAs) signed agreements supporting the State's project commitments under a Project Cooperative Agreement (PCA) with the Corps to implement the Phase III- Mid-Valley Area project. To date, only Contract Area 1, RD 1500 area, has been completed (in 1998 under a separate PCA).

Mid-Valley Project Contract Area 3 is comprised of repairs to levees along the right bank of the Sacramento River and along the left bank of the Knights Landing Ridge Cut (KLRC), (see figure 2). The Knights Landing Ridge Drainage District (KLRDD) is the LMA for the KLRC levees. Due to lack of progress with the Mid Valley phase of the System Evaluation KLRDD wishes to use local funds to construct the repairs to the KLRC levees already developed and designed by the Corps as part of the Mid-Valley project. KLRDD initially attempted to construct the Corps designed KLRC levee repairs under their existing PCA with the Corps. However that PCA does not contain the language which would allow in-kind credit for construction work. Efforts by the Corps to amend the PCA to insert language which would allow construction to proceed under the existing PCA have stalled. Therefore KLRDD is requesting a Section 408 permit to allow the KLRC levee repairs to be constructed in 2014.

Attachment E

This Section 408 request includes the construction of the following features along the left levee of the Knights Landing Ridge Cut at Sites 12, 12a, and 13:

1. 18,035 feet of levee crown and landside slope remediation
2. 18,085 feet of patrol road
3. Relocation of an interior drainage ditch.
4. Access ramps and ditch crossings for private use to adjacent landowners.
5. Demolition and replacement of three drainage discharge lines through the levee

Figure 1 – Mid Valley Area

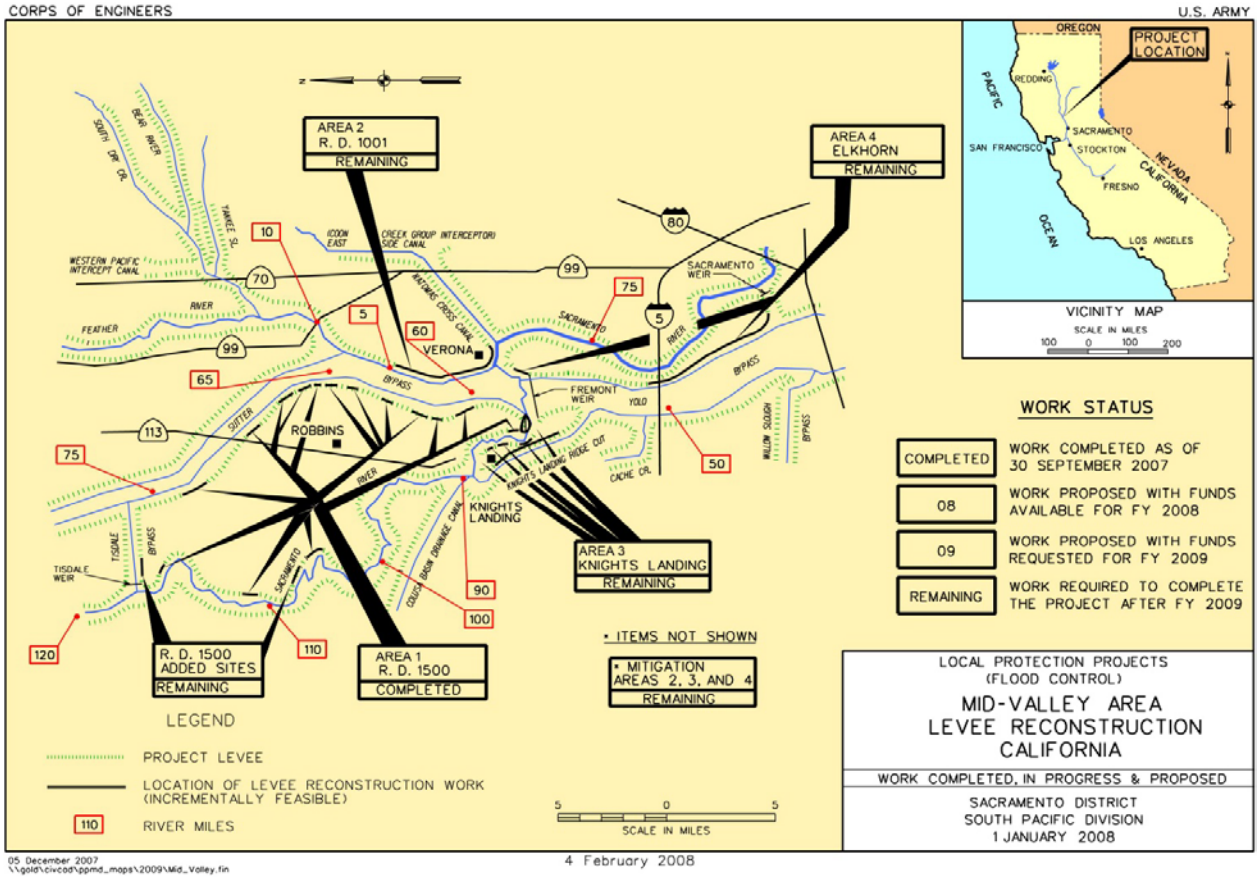
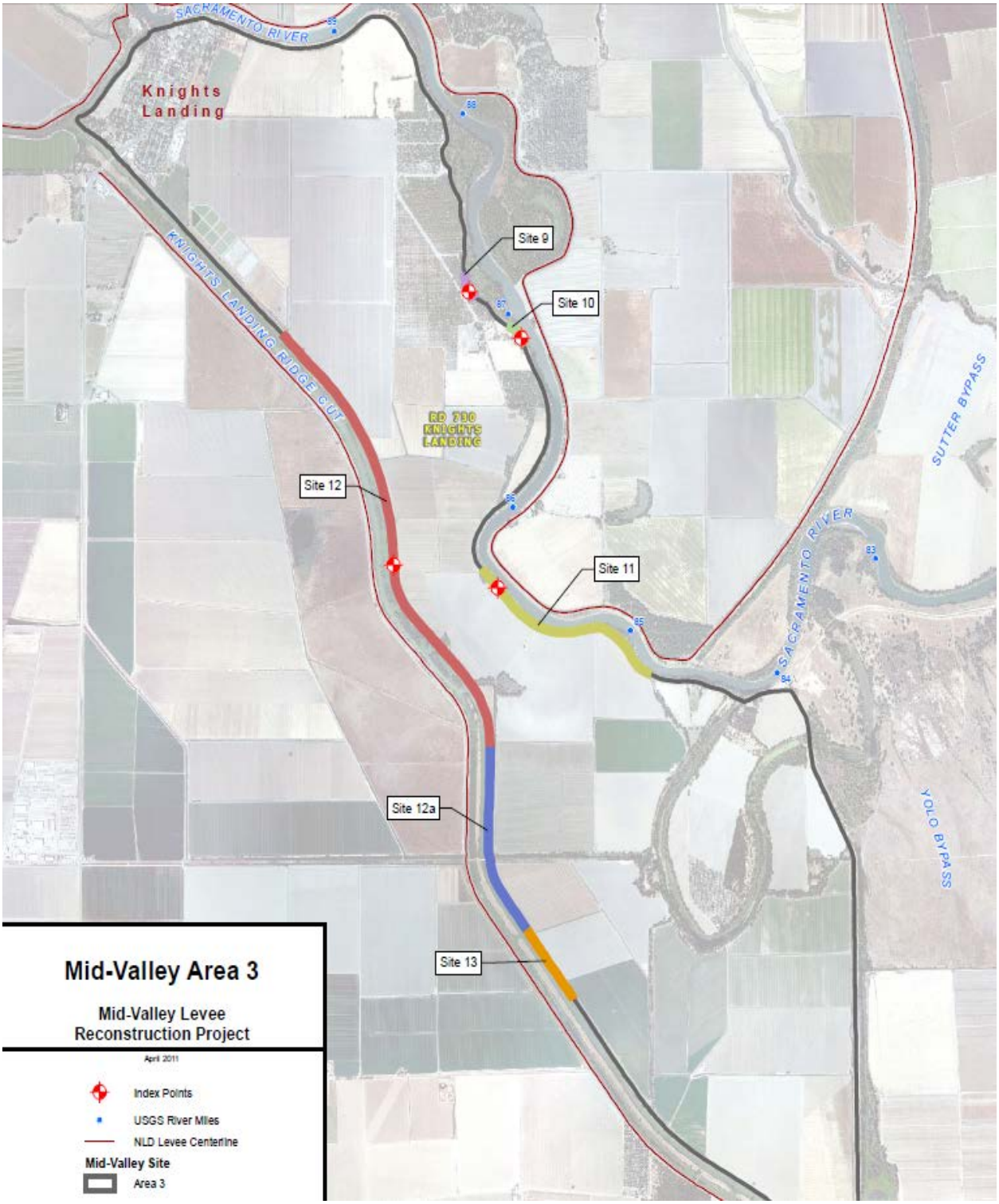


Figure 2 - Knights Landing Basin



2.0 Description of the Existing Project

2.1 Project History & Authorization

The Sacramento River Flood Control Project (SRFCP) was authorized by the Flood Control Act of 1917 and received subsequent authorizations under the Flood Control Acts of 1928, 1936, and 1941 as well as the Rivers and Harbors Act of 1937. The Flood Control Acts of 1944 and 1950 authorized additional modifications. The Knight Landing Ridge Cut (KLRC) levees are part of the SRFCP and protect the small community of Knights Landing (population 995). The KLRC levees were originally constructed by local interests and later accepted and reconstructed by the Corps of Engineers (Corps) and completed in 1955. The water surface elevations have been agreed upon by the Central Valley Flood Protection Board (formerly The Reclamation Board), the State of California, and the Corps, and published as "Levee and Channel Profiles, Sacramento River Flood Control Project," dated 15 March 1957.

After the 1986 flood, which caused significant stress on the SRFCP levees throughout the Valley, the Corps conducted a system-wide analysis of the Sacramento River Flood Control Project (System Evaluation) in five phases in which Phase III became the Mid Valley Area. The Phase III, Mid-Valley Area projects restores levees on the Feather and Sacramento Rivers and tributaries just north of Sacramento to design standards. Phase III was divided into four construction contract areas. Construction of the first contract area (Reclamation District (RD) 1500) was completed in 1998. The other three construction contract areas have completed plans and specifications in project specific design memoranda recommending minor changes based on seepage observed during 1997 and 1998 floods.

The System Evaluation led to the Corps preparing the *Sacramento Flood Control Project, California, Mid-Valley Area, Phase III, Design Memorandum* which was completed in June 1996 (1996 DM). The 1996 DM proposed remediation work along various levee locations in the Phase III area and separated the designs for the Mid-Valley Phase III remediation work into four construction contract areas (see figure 1). The repairs included in the 1996 DM included portions of the Sacramento River (RM 70 to 118), Feather River (RM 0 to 3), KLRC, Sutter Bypass (Tisdale Bypass to the Feather River), and Yolo Bypass (Fremont Weir to the Sacramento Bypass). To date only Contract Area 1 (the RD 1500 area), has been completed.

Mid-Valley Project Contract Area 3 is comprised of repairs to levees along the right bank levee of the Sacramento River and along the left bank levee of the KLRC (see figure 2). This Section 408 request is confined to the KLRC left bank levee repairs to sites 12, 12a, and 13 for which the Corps has completed environmental review, geotechnical design, and civil engineering plans and specifications. Construction of the Sacramento River levee repairs

(Sites 9, 10 & 11) will continue to be pursued through completion of the Mid Valley Project but not as a part of this Section 408 request.

2.2 Failure Mechanisms Warranting Remediation

According to the 1996 DM, the KLRC levees have a long history of stability problems. Records dating to 1951 have described levee deformation, slippage, and partial collapse. Many of the failures have been on the landside slope and are often shallow, involving approximately the upper 5 feet of the levee. Deeper slides, sometimes resulting in significant slumping of the crown, have also occurred. Past repairs have included removal and recompaction of the failed material with flatter slopes and inclusion of a stabilizing berm to counterbalance the tendency for rotational failures of the levee fill. A total of 67 levee repair and reconstruction sites have been noted in the Corps documents since 1956. The Corps has previously evaluated the levees and developed a rehabilitation scheme that consists of replacing a portion of the landside slope with lean clay, constructing a toe berm at the landside toe, and relocating the drain ditch further from the levee.

3.0 Purpose and Need for the Modification

The primary purpose of the KLRC levee repairs are to reduce flood risk for the Knights Landing basin by addressing known levee deficiencies identified in the 1996 DM. The deficiencies could cause portions of the existing levee system to fail, triggering flooding and damage to the planning area's existing residential, commercial, and agricultural uses and the potential loss of life.

4.0 Description of the Proposed Alteration

4.1 Physical Description of the Alteration

The objective of the KLRC project is to eliminate the cause of landside levee slope failures by replacing the landside levee face with lean clay, constructing a spoils berm, filling low spots along the levee crown to restore a minimum of 3 feet of freeboard, removing excess material along levee crown to the authorized levee crown elevation of 43.00 feet NGVD, replacing pump station discharge lines, and relocating the portion of the drainage ditches affected by the construction away from the levee slope. The recommended levee repair work is on the landside at Sites 12, 12A, and 13 located on the left bank levee of the KLRC south of Knights Landing (see figure 2) at the following locations:

- Site 12 starts approximately 0.75 mile south of the town of Knights Landing at channel mile (CM) 5.0 and extends 14,100 feet downstream to CM 2.3.
- Site 12A is contiguous with the south end of Site 12 and extends 2,100 feet downstream to CM 1.9.
- Site 13 is contiguous with the south end of Site 12A and extends 2,000 feet downstream to CM 1.5.

The levee repair work is detailed in the Corps' *Knights Landing Ridge Cut Sites 12, 12A & 13, July 2011 Design Documentation Report,* and in the accompanying *Knights Landing Ridge Cut, Sites 12, 12A & 13, Design Plans and Specifications, August 2011.* The project applicant will adopt these plans for their use. Table 1 below lists the proposed work.

Table 1 – Proposed Work

Site 12	Flatten 3H to 1V, and stabilize landside slope by importing embankment fill material of lean clay on landside slope for 5 ft. depth (perpendicular to landside face). Place removed material as berms at the landside toe of the levee. Relocate the irrigation ditch a minimum of 15 ft. landside from the new toe. Restore levee crown elevation to 43.00 feet NGVD by filling low spots and removing excess material.	Station 41+00 to Station 182+00
Site 12 A	Flatten 3H to 1V, and stabilize landside slope by importing embankment fill material of lean clay on landside slope for 5 ft. depth (perpendicular to landside face). Place removed material as berms at the landside toe of the levee. Restore levee crown elevation to 43.00 feet NGVD by filling low spots and removing excess material.	Station 20+00 to Station 41+00
Site 13	Flatten 3H to 1V, and stabilize landside slope by importing embankment fill material of lean clay on landside slope for 5 ft. depth (perpendicular to landside face). Place removed material as berms at the landside toe of the levee. Relocate the irrigation ditch a minimum of 15 ft. landside from the new toe. Restore levee crown elevation to 43.00 feet NGVD by filling low spots and removing excess material.	Station 0+00 to Station 20+00

A typical cross section of the proposed repair is shown in figure 3 below.

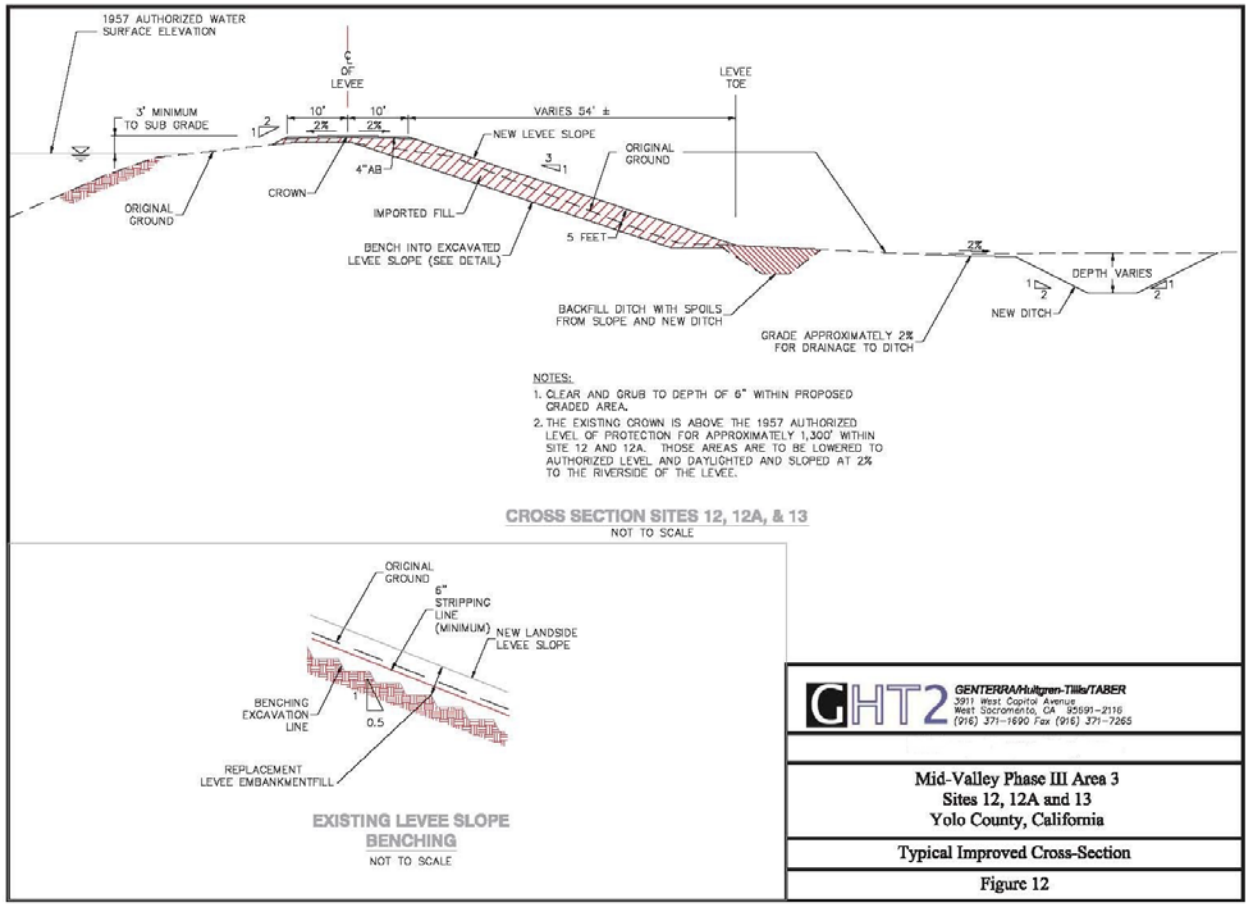


Figure 3 – Typical Cross Section of Proposed Levee Repair

The existing levee crown elevation varies significantly along the project length with some areas having freeboard in excess of 7-feet above the authorized 1957 water surface elevation and other areas having less than 3-feet of freeboard. The Corps' design, detailed in the *Knights Landing Ridge Cut, Sites 12, 12A & 13, Design Plans and Specifications,* proposes reconstructing the levee crown to a consistent elevation of 42.5 feet (NAVD 88) to best match the existing crown elevation. Reconstructing the levee crown at 42.5 feet would in some locations, 'raise' the levee crown and provide more than 3 feet of freeboard above the authorized 1957 water surface elevation. The Central Valley Flood Protection Board is concerned that this may be construed as a 'levee raising' requiring a Section 408 'Major' review which could result in delays to project implementation. Therefore the KLRDD is proposing to modify the Corps' design to limit restoring of the levee crown to 3-feet above the authorized 1957 water surface elevation in those areas with currently less than 3-feet of freeboard.

4.2 O&M Considerations

The KLRC is part of the SRFCP as previously discussed and its O&M is covered in the current SRFCP O&M Manual. The proposed alterations will not change the existing typical maintenance activities which include vegetation control through mowing, herbicide application, and/or slope dragging; rodent control; patrol road maintenance; and erosion control and repair. Vegetation control typically is performed twice a year. Erosion control and slope repair activities include re-sloping and compacting; fill and repair of damage from rodent burrows is treated similarly.

4.3 Mitigation Commitments

Environmental commitments are measures incorporated as part of the project description, meaning they are proposed as elements of the proposed action. To avoid and minimize construction-related effects, KLRDD will implement environmental commitments to reduce or offset short-term, construction-related effects as described in the *Phase III, Mid-Valley, Contract Area 3 Final Environmental Assessment/Initial Study, dated April 2013*.

4.4 Real Estate Analysis

Throughout the project length, KLRDD holds easements and fee rights to the land beneath and adjacent to the KLRC left bank levee. No easements or fee rights to the land are held by the Corps. KLRDD will acquire additional area adjacent to the levee to accommodate the slope flattening and ditch relocation. Permanent acquisition, relocation, and compensation services will be conducted in compliance with Federal and state relocation laws, which are the Uniform Act of 1970 (42 USC 4601 et seq.) and implementing regulation, 49 CFR Part 24;

and California Government Code Section 7267 et seq. These laws require that appropriate compensation be provided to displaced landowners and tenants.

4.5 Encroachments

Table 2 below lists the existing encroachments in and adjacent to the levee and the proposed project action for each encroachment.

Table 2 - Encroachments

Encroachment	Proposed Action	Beginning Sta.	End Sta.
Irrigation ditch at landside levee toe.	Relocate outside of project right of way	00+43	18+19
Irrigation ditch at landside levee toe.	Relocate outside of project right of way	52+19	66+00
Irrigation ditch at landside levee toe.	Relocate outside of project right of way	80+91	91+00
Irrigation ditch at landside levee toe.	Relocate outside of project right of way	94+86	176+50
PG&E overhead powerline at landside levee toe.	Relocate outside of project right of way	18+50	68+00
PG&E underground gas line	Relocate outside of project right of way	39+00	67+50
Pump Station Discharge 18” Pipe	Replace in kind	18+45	
Gravity 24” drainage pipe through the levee	Replace in kind	18+50	
Pump Station Discharge 18” Pipe	Replace in kind	42+47	
Pump Station Discharge 18” Pipe	Replace in kind	126+32	
Pump Station Discharge 24” Pipe	Replace in kind	126+38	

4.6 Vegetation

Existing vegetation on the landside levee slope, and directly adjacent to the landside levee toe will be removed by the project to facilitate construction, and to allow relocation of directly adjacent landside irrigation districts. The project will not remove any waterside vegetation. The Knights Landing Drainage District has submitted to the Central Valley Flood Project Board a Letter of Intent (LOI) to prepare a System Wide Improvement Framework (SWIF) Plan to address any remaining vegetation considered non-compliant with ETL 1110-2-571 “Guidelines For Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures”.

5.0 Related Actions, Programs, and Planning Efforts

This section provides an overview of other flood management activities that comprise the regional planning context.

5.1 Sacramento River Flood Control System Evaluation

As discussed in Section 2 of this document, following the flood of 1986, the Corps and the State of California, along with local partners, completed a comprehensive evaluation of the Sacramento River Flood Control System and initiated a flood risk management program aimed at repairing, raising, and strengthening urban levees, among other activities. This effort, known as the Sacramento River Flood Control System Evaluation (commonly referred to as System Evaluation) resulted in the repair of more than 70 miles of deficient levees by the Corps. The KLRC is part of the SRFCP and is included in Phase III of the System Evaluation.

5.2 Central Valley Flood Protection Act

The Central Valley Flood Protection Act (CVFPA), enacted in California in 2009, called for DWR to prepare the Central Valley Flood Protection Plan (CVFPP), which was adopted by the Central Valley Flood Protection Board (CVFPB) in June 2012. The CVFPP provides a comprehensive framework for system-wide flood management and flood risk reduction in the Central Valley. The CVFPA also establishes a new standard of 200-year flood protection for urban areas in the Central Valley and requires this standard to be achieved by 2025.

The CVFPP presents three preliminary approaches for addressing current challenges and affordably meeting the CVFPP goals. The State has assembled what it views as the most promising, affordable, and timely elements of the three preliminary approaches into the State Systemwide Investment Approach (SSIA), which provides guidance for future State participation in projects and programs for integrated flood management in the Central Valley. The Knights Landing project is consistent with the SSIA.

The people of California passed two bond measures (Propositions 84 and 1E) that provide approximately $5 billion toward flood improvements to reduce flood risk, particularly to state-Federal levees protecting urban areas in the Central Valley. These levee improvements are expected to occur over the 10-years since authorization of the bonds in 2006 with much of the bond money spent after the year 2012. However, there were urgent needs to improve inadequate flood protection in advance of the overall comprehensive effort. These advance efforts are termed early implementation projects (EIPs). EIPs can be implemented ahead of and in parallel with the comprehensive effort as long as they are

designed to ensure that they do not eliminate opportunity or prejudice future flood risk-management alternatives that would provide regional or system-wide benefits. Local agencies and the State are identifying and planning EIPs in a parallel process to be compatible with comprehensive, system-wide studies. Several EIPs have been implemented, such as those under the programs of SAFCA, SBFCA, and WSAFCA. KLRDD will implement the KLRC levee repairs as an EIP.

6.0 Environmental Considerations

The Corps has prepared for the Mid Valley Area 3 project an Environmental Assessment/Initial Study (EA/IS) for the purposes of complying with the National Environmental Protection Act (NEPA) and the California Environmental Quality Act (CEQA). The EA/IS analyzed the potential impacts (including cumulative) of the proposed project on all relevant resource areas, including aesthetics, agriculture and land use, air quality, sensitive species and wetlands, cultural resources, hazardous waste, hydrology and water quality, noise, recreation, and transportation. The EA/IS tiered off the Programmatic Environmental Impact Statement/Environmental Impact Report for the System Evaluation completed by the Corps in May 1992. The EA/IS determined that potential adverse effects would be avoided, minimized, or reduced to less than significant by implementing best management practices and mitigation measures as discussed in the EA/IS. The loss of riparian vegetation will be compensated onsite by planting similar vegetation, and potential take of the federally listed valley elderberry longhorn beetle and giant garter snake would be avoided by complying with all terms and conditions in the U.S. Fish and Wildlife Service's (USFWS) Biological Opinion issued for the project. USFWS also prepared a Coordination Act Report (CAR) for the project.

Based on the EA/IS analysis the Corps deemed the proposed project to be a logical and desirable alternative. Furthermore, the Corps determined that the project would have no significant effects on the environment. Based on the results of the environmental evaluation and completion of interagency coordination the Corps issued a Finding of No Significant Impact on April 18, 2013.

7.0 Public Interest Determination

Proposed Federal projects are to be reviewed to determine a project's probable impacts (including cumulative impacts) on the public interest (33 CFR §320.4). The public interest review is described as a balancing of the benefits which reasonably may be expected to accrue from the proposal against its reasonably foreseeable detriments, with consideration of the national concern for both protection and utilization of important resources (33 CFR §320.4). In the case of the proposed Project, this review was conducted in an EA/IS prepared and completed by the Corps for the purposes of complying with NEPA (40 CFR §1508.9). The EA/IS analyzed the potential impacts (including cumulative) of the proposed project on all relevant resource areas, including aesthetics, agriculture and land use, air quality, sensitive species and wetlands, cultural resources, hazardous waste, hydrology and water quality, noise, recreation, and transportation.

8.0 Executive Order 11988

Executive Order 11988 (May 24, 1977) requires a Federal agency, when taking an action, to avoid short- and long-term adverse effects associated with the occupancy and the modification of a floodplain. In February 1978, the Water Resources Council issued Floodplain Management Guidelines for Implementing Executive Order 11988. These guidelines provide analysis of the Executive Order, definitions of key terms, and an eight-step decision-making process for carrying out the Executive Order's directives.

In February 1978, the Water Resources Council issued Floodplain Management Guidelines for Implementing Executive Order 11988. These guidelines provide analysis of the Executive Order, definitions of key terms, and an eight-step decision-making process for carrying out the Executive Order's directives. The process contained in the Water Resources Council guidelines incorporates the basic requirements of the Executive Order. Briefly, the eight-step process is outlined below, followed by discussion of the KLRC levee repair project application of the process to demonstrate compliance.

Step 1: Determine if a proposed action is in the base floodplain (100-year floodplain or 1% chance flood or 500-year or 0.2% if the action falls under the definition of critical, discussed separately below). The KLRC levee is located within the Knights Landing basin which has been designated by the Federal Emergency Management Agency (FEMA) as being within a 100-Year floodplain.

The Water Resources Council Floodplain Management Guidelines presented the concept of a critical action. While there is no precise definition of critical action, the guidelines

(under Part II, Decision-Making Process, Step 1C) outline the parameters of critical actions. To summarize, as noted in the guidelines, a critical action is "any activity for which even a slight chance of flooding is too great." This definition is intended to apply to Federal actions where that action would involve facilities or infrastructure that are sensitive to flooding, where the consequences of flooding would be severe in terms of ability to provide essential community services or to protect life and welfare. For the KLRC levee repair project, it is the levee project itself that would reduce the chance of flooding, rather than being sensitive to or compromised by flooding; i.e., the project purpose is to manage flood risk. Therefore, the KLRC levee repair project is not considered a critical action because it is intended to withstand flood conditions, reduce flood risk, and increase flood protection.

Step 2: Provide public review. The NEPA/CEQA process provides for public disclosure and an Environment Assessment/Initial Study was prepared by the Corps for the project.

Step 3: Identify and evaluate reasonable and feasible alternatives to locating in the base floodplain. Since this is an in-place levee repair project, the project cannot be located elsewhere.

Step 4: Identify the effects of the proposed action. The Environment Assessment/Initial Study prepared for the project analyzed the environmental effects potentially resulting from the project per NEPA/CEQA requirements. Review under the Endangered Species Act was also completed and a Biological Opinion was issued by the U.S. Wildlife Service. The Environment Assessment/Initial Study determined the project would have no significant effects on the environment.

Step 5: Minimize threats to life and property and to natural and beneficial floodplain values. The KLRC levee repairs would reduce flood risk for the Knights Landing Basin and increase protection for life and property within the affected area. The existing levee system was originally designed and constructed to provide a minimum level of protection. The KLRC levee repairs are designed to restore that minimum level of protection.

Step 6: Reevaluate alternatives. The Corps System Reevaluation discussed in Section 2 of this document and the subsequent 1996 DM evaluated repairs alternatives and demonstrated that the proposed remediation actions are the most practicable alternatives.

Step 7: Issue findings and a public explanation. To conclude the NEPA process, a Finding of No Significant Impact was issued by the Corps on April 18, 2013. To conclude the CEQA process, the Central Valley Flood Project Board adopted a Mitigated Negative Declaration at their regularly scheduled Board meeting on July 26, 2013.

Step 8: Implement the action. KLRDD intends to construct the KLRC levee repairs in 2014 following conclusion of the project approval processes.

The KLRC levee repairs would reduce the risk of flood loss and minimize the effect of floods on human health, safety, and welfare by improving existing, authorized flood management infrastructure, and would increase protection for the existing population. Importantly, the KLRC levee repairs would help further protect farmland, agricultural commodities, and agricultural infrastructure for this crucial agricultural region. The KLRC levee repairs would restore the level of flood protection, not increase it beyond that envisioned with the SRFCP. Therefore, the KLRC levee repairs are not in conflict with Executive Order 11988 because the project would restore flood protection and because there is no reasonable and feasible alternative.

9.0 Residual Risk and Transfer of Risk Effects of the Proposed Modification

9.1 Residual Risk

Construction of the KLRC levee repairs would lessen the probability of flooding in the Knights Landing basin. However, the Knights Landing basin would remain subject to risk from flooding from failure of the Sacramento River levees, and from larger storm events larger that could overwhelm the system. Construction of the KLRC levee repairs will not remove the Knights Landing basin from the FEMA 100-Year floodplain, therefore National Flood Insurance Program (NFIP) restrictions preventing new development from occurring within a FEMA designated 100-Year floodplain will remain in place. These restrictions will prevent increases in residual risk after project implementation, and the project will not result in additional development within the basin.

9.2 Transfer of Risk

Strengthening portions of the federal project levee system protecting the basin as proposed by KLRDD would not result in any significant, adverse hydraulic impacts or induce flooding to other sub-basins protected as part of the SRFCP. Indeed, the work proposed will bring the KLRC left bank levee closer to the authorized level of protection. Furthermore, these improvements would be consistent with the principles that have guided the management of the SRFCP over the past century. The KLRC levee repair work will have no impact on the existing channel hydraulics of the KLRC.

10.0 Technical Analysis and Adequacy of Design

The KLRC levee repair designs were completed by the Corps in accordance with Corps guidance (see Table 2). The project applicant will revise these plans to show a changed final levee height of 43.0 feet, and will adapt these plans for their use. The Corps *Design Documentation Report for the Knights Landing Ridge Cut Sites 12, 12A & 13, July 2011,* provides the technical basis of design for the KLRC levee repairs.

Table 3- Standards and Design Guidance References

Design Component	Manual	Reference
Datum		The referenced vertical datum for the FRWLP is the North American Vertical Datum of 1988 (NAVD88). The referenced horizontal projection for the FRWLP is NAD 1983 State Plane, California Zone II.
Levee		
Guidance	EM 1110-2-1913 (30 April 00)	Design and Construction of Levees
Misc. Guidance	SOP03 (11 April 2008)	Sacramento Geotechnical Levee Practice
Vegetation	ETL 1110-2-571 (10 April 09)	Engineering and Design: Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures
Misc. Guidance	CA Title 23	California Code of Regulations Title 23 "Water"
Hydraulic		
Design Water Surface Elevation	EM 1110-2-1619 (01 Aug 96)	Risk Based Analysis for Flood Damage Reduction Studies
Geotechnical		
Bearing	EM 1110-1-1905 (30 Oct 92)	Engineering and Design - Bearing Capacity of Soils
Earthquake loading	ER 1110-2-1806 (31 Jul 95)	Earthquake Design & Evaluation for Civil Works Projects
Drainage	EM 1110-2-2007 (30 Apr 95)	Structural Design of Concrete Lined Flood Control Channels
Slope Stability	EM 1110-2-1902 (31 Oct 03)	Slope Stability
Underseepage	ETL 1110-2-569 (01 May 05)	Design Guidance for Levee Underseepage

10.1 Geotechnical Analysis

A geotechnical analysis was prepared by GENTERRA/Hultgren – Tillis/TABER, LLC (GHT2) for the Corps as part of their work under contract *W91238- 09-D-0064, Task Order 2, for Mid-Valley Area Phase III Area 3, Left Bank Knights Landing Ridge Cut, Sites 12, 12A, and 13, Yolo County, California*. This contract included collection of data from 19 borings, 28 CPTs, and geotechnical laboratory testing. Borings and CPTs were advanced from the levee crest, the landside levee toe, and landside of the toe. Laboratory tests included 120 moisture content tests, 40 sieve analysis tests, 4 unconsolidated-undrained (UU) triaxial shear tests, 4 consolidated-undrained (CU) triaxial shear tests, and 4 consolidation tests. Boring logs, CPT logs and laboratory data were published by GHT2 in a report titled Geotechnical Data Report - FINAL on November 2, 2010.

GHT2 found that the KLRC levee area is generally blanketed by clay and materials encountered at the site were broadly categorized into four types: levee fill, foundation clay, silt, and sand. At most locations below the levee a layer of sand with occasional gravel was found below the native clay. At some locations there are layers of silt between the native clay and the sand. At most exploration locations below the levee, the sand layer extended to the depths explored.

The geotechnical analysis included evaluation of the existing levee configuration for the two separate water levels for seepage and stability. Steady state seepage analysis was performed using the computer program SEEP/W 2007 (version 7.17). Limit equilibrium slope stability analysis was performed using the computer program SLOPE/W 2007 (version 7.17). For stability, the long-term and rapid drawdown cases were also evaluated. For seepage, the long-term case was also evaluated.

Slope stability analyses were performed using Spencer's method and computer program SLOPE/W. Phreatic surfaces and steady state pore pressures obtained from the SEEP/W steady-state seepage analyses imported into SLOPE/W and were used for the analysis. Factors of safety for landside slope stability were evaluated for two cases: existing configuration with steady state seepage (existing case), and improved conditions with steady state seepage (long-term case). Factors of safety for waterside slope stability were evaluated for a rapid drawdown case.

As described in EM 1110-2-569 (2005), current USACE criteria require seepage remediation if there is a history of severe seepage or if computed vertical exit gradients exceed 0.5 at the landside toe. Historical documents do not describe problematic seepage at the site and

computed vertical exit gradients do not exceed 0.5, therefore remedial measures to reduce underseepage are not required.

Based on the results of the analysis and consideration of historic slope performance, GHT2 found that the landside slope should be rehabilitated to improve performance. GHT2 recommended that the landside slope should be reconstructed with a slope inclined at 3H:1V and should be covered with a minimum 5-foot thickness (perpendicular to landside face) of soil meeting the USACE fill guidelines. GHT2 recommended that the existing landside drainage ditch should be relocated a minimum of 15 feet landside of the new landside toe.

10.2 Hydraulic Analysis

The SRFCP water surface elevations have been agreed upon by the Central Valley Flood Protection Board (formerly the Reclamation Board), State of California, and the Corps, and published as "Levee and Channel Profiles, Sacramento River Flood Control Project," dated 15 March 1957 (see Figure 4). From the 1957 Authorized Water Surface elevation Knight Landing Ridge Cut water surface elevation is shown as 40.6 feet (USED datum). Adding three feet for freeboard results in a top of levee elevation of 43.6 feet. Converting from USED datum to NGVD ’29 requires subtracting 3.0ft, resulting in an NGVD ’29 top of levee elevation of 40.6 feet. Converting from NGVD ‘29 to NAVD ‘88 requires adding 2.40 feet, resulting in a NAVD ’88 top of levee elevation of 43.0 feet. Therefore the levee crown will be restored to 43.0 feet NGVD by filling low spots and removing excess material. The KLRC levee repair design plans which were completed by the Corps will be revised by the applicant to show a revised final levee height of 43.0 feet.

10.3 Risk and Uncertainty Analysis

The KLRC levee repairs do not impact channel hydraulics, therefore a risk analysis was not performed for this 408 application.

10.4 Safety Assurance Review

The KLRC levee repair designs have been developed by the Corps and have been extensively reviewed as part of the System Evaluation and the Mid Valley Area 3 project therefore a Safety Assurance Review (SAR) will not be prepared for this project and the proposed work will not threaten life safety.

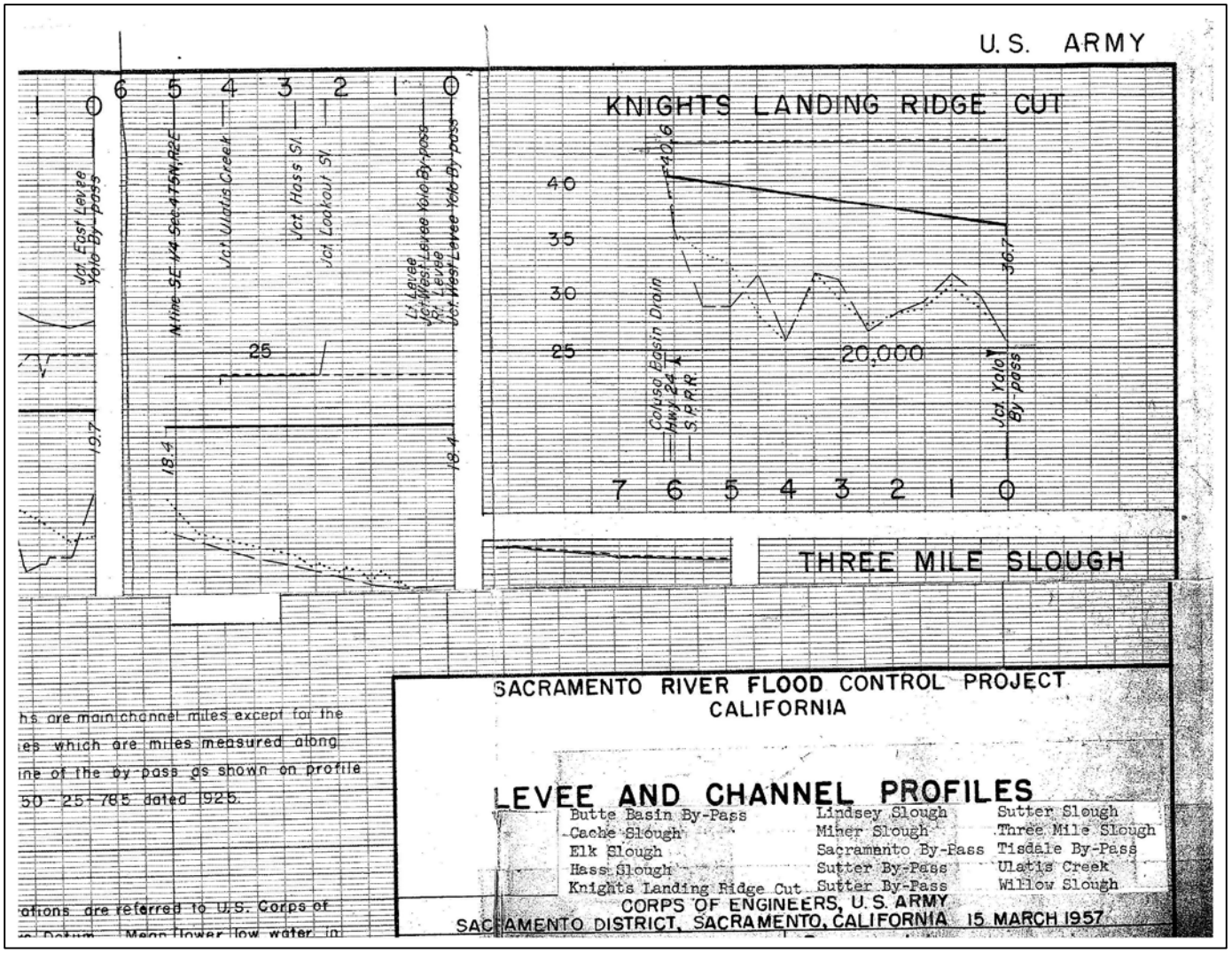


Figure 4 - 1957 Water Surface Profile

11.0 Technical Support Documents

Design topographic survey "Mid-Valley Area, Phase III, Knights Landing" prepared by Andregg Geomatics, 11/20/2009

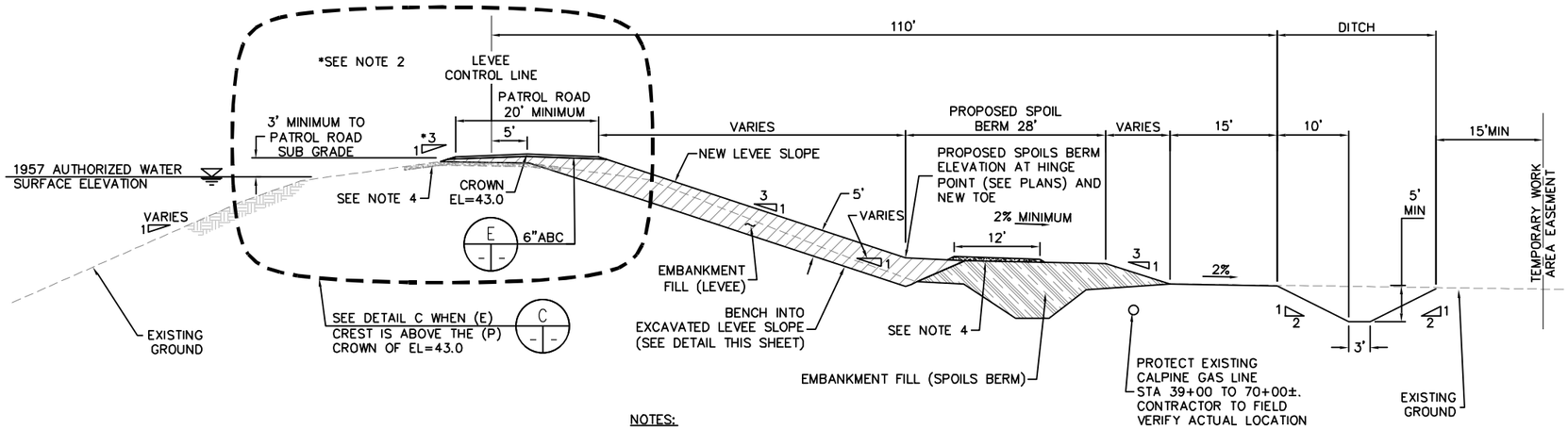
Evaluations of Results and Remediation Method Development Report (Project Geotechnical Report) prepared by GHT2, 12/22/2010

Knights Landing Ridge Cut Sites 12, 12A & 13, Design Documentation Report, July 2011

Knights Landing Ridge Cut, Sites 12, 12A & 13, Design Plans and Specifications, August 2011.

Sacramento Flood Control Project, California, Mid-Valley Area, Phase III, Design Memorandum completed, June 1996

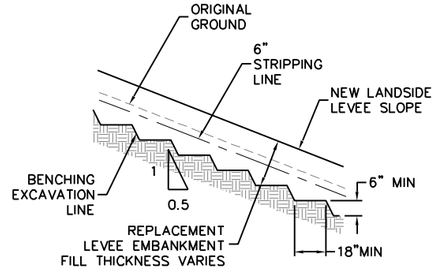
Final Environmental Assessment/Initial Study, Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3, April 2013



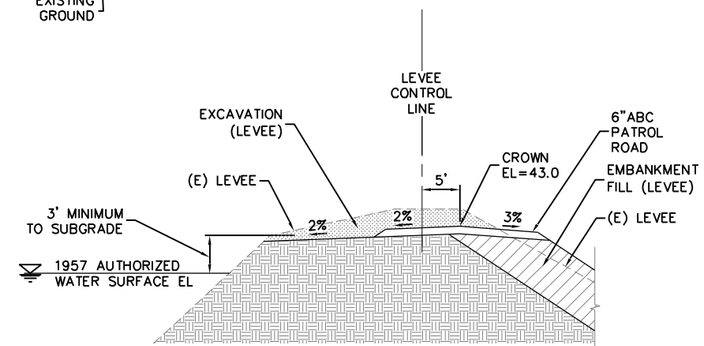
NOTES:

1. CLEAR AND STRIP TO A DEPTH OF 6" WITHIN PROPOSED GRADED AREA.
2. SLOPE ON THE RIVERSIDE ARE 3:1 UNLESS OTHERWISE NOTED ON THE PLANS.
3. HYDROSEED ALL DISTURBED AREAS NOT TO RECEIVE ABC.
4. SALVAGE SUITABLE ABC FROM EXITING LEVEE CROWN FOR USE AS ACCESS ROAD ON SPOILS BERM.

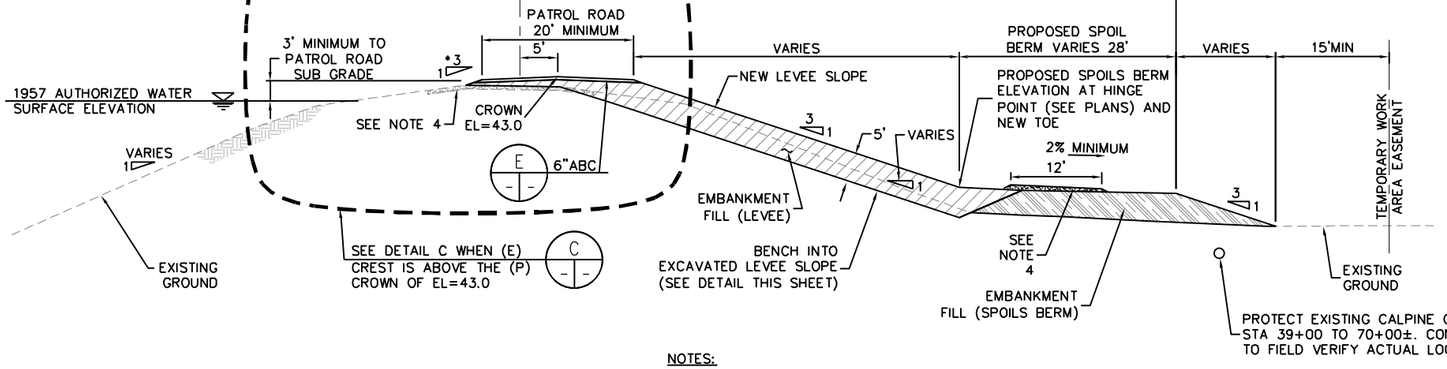
TYPICAL CROSS SECTION SITES 12, 12A, & 13
NOT TO SCALE
A | C-101 TO C-139 | C-301



EXISTING LEVEE SLOPE BENCHING DETAIL
NOT TO SCALE



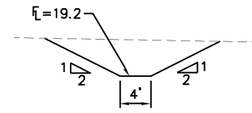
EXISTING LEVEE CREST ABOVE PROPOSED CROWN TYPICAL CROSS SECTION
NOT TO SCALE C



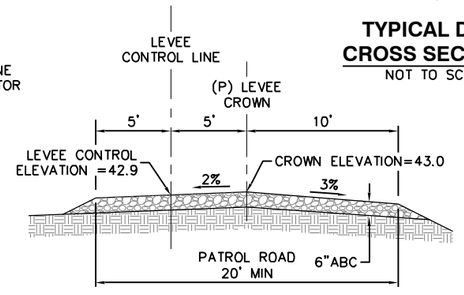
NOTES:

1. CLEAR AND STRIP TO A DEPTH OF 6" WITHIN PROPOSED GRADED AREA.
2. SLOPE ON THE RIVERSIDE ARE 3:1 UNLESS OTHERWISE NOTED ON THE PLANS.
3. HYDROSEED ALL DISTURBED AREAS NOT TO RECEIVE ABC.
4. SALVAGE SUITABLE ABC FROM EXITING LEVEE CROWN FOR USE AS ACCESS ROAD ON SPOILS BERM.

TYPICAL CROSS SECTION SITES 12, 12A, & 13
NOT TO SCALE
B | C-101 TO C-139 | C-301



TYPICAL DITCH CROSS SECTION
NOT TO SCALE D | C-127 | C-301



PATROL ROAD SECTION
NOT TO SCALE E

CALL BEFORE YOU DIG 1-800-227-2600 UNDERGROUND SERVICE ALERT

Rev.	Description	Date	Approved

Designed by: JAM | Date: MARCH 2014
Drawn by: JAM | Spec No.: 1816 | Project Number: 2166-0020
Reviewed by: BDR | Drawing Code:
Submitted by: KSN INC. | File name: Plot scale: Dwg scale:

KJELDSEN SINNOCK NEUDECK INC.
711 N. Pershing Avenue, Suite A, Stockton, CA 95203 (209) 948-8200
1535 Tidwell Drive, Suite 180, Redding, CA 96001 (916) 403-3660
www.ksninc.com
GHT2
391 West Capitol Avenue, West Sacramento, CA 95691-2116 (916) 371-7305

MID-VALLEY AREA PHASE III
AREA 3, LEFT BANK
YOLO COUNTY, CALIFORNIA
KNIGHTS LANDING RIDGE CUT, SITES 12, 12A, & 13

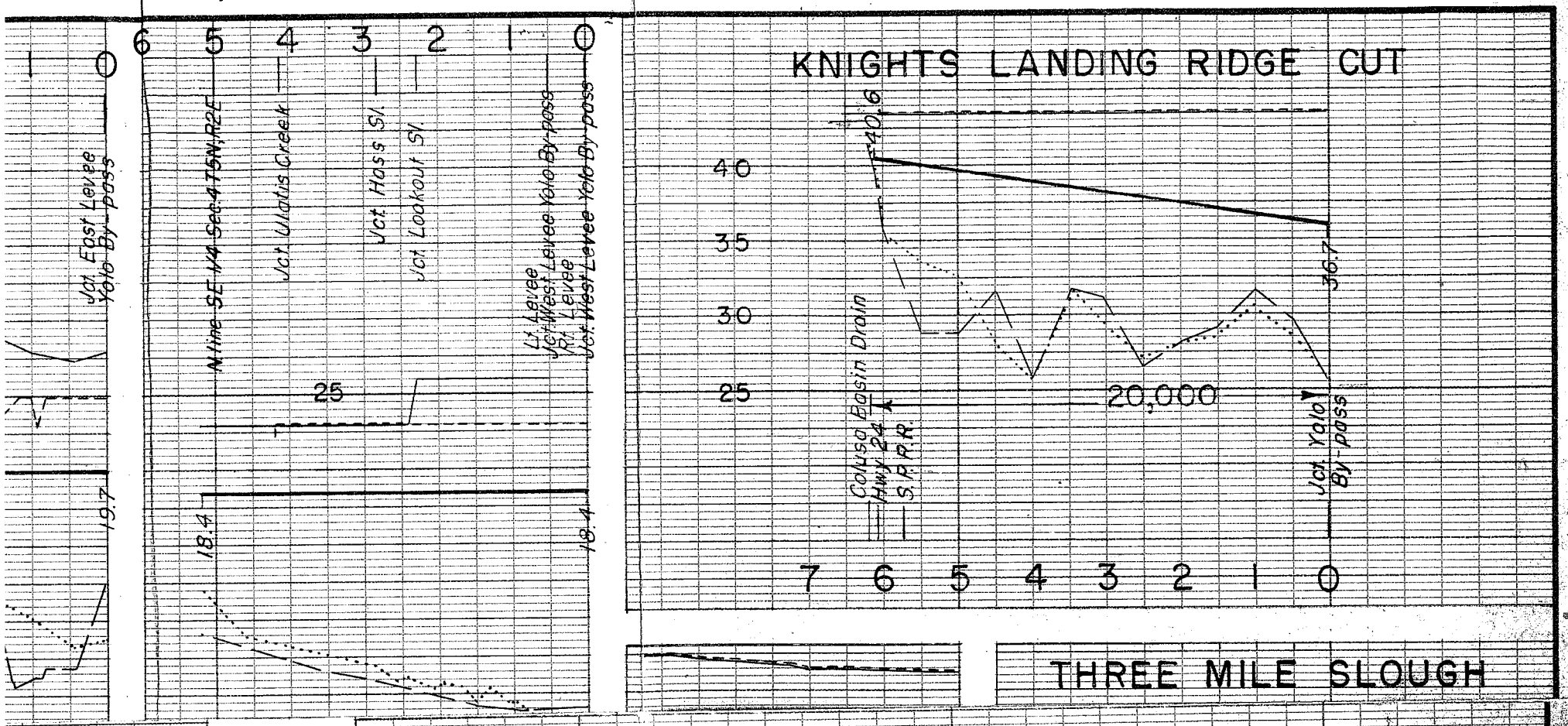
LEVEE CROSS SECTIONS SITE 12, 12A, & 13

Sheet reference number: **C-301**
Sheet 77 of 82

FILE SPEC: P:\2166_Knights_Landing_Levee_Repair\05_Civil\300_Design\MGE_Knights_Landing-CADD_Files\PltShts\MVIII-C-301.dwg
PLOT DATE: Mar 19, 2014 - 9:46pm

Attachment G

U. S. ARMY



hs are main channel miles except for the
es which are miles measured along
ine of the by-pass as shown on profile
50 - 25- 785 dated 1925.

ations are referred to U.S. Corps of
e Datum - Mean lower low water in

SACRAMENTO RIVER FLOOD CONTROL PROJECT
CALIFORNIA

LEVEE AND CHANNEL PROFILES

Butte Basin By-Pass	Lindsey Slough	Sutter Slough
Cache Slough	Miner Slough	Three Mile Slough
Elk Slough	Sacramento By-Pass	Tisdale By-Pass
Hass Slough	Sutter By-Pass	Ulatis Creek
Knights Landing Ridge Cut	Sutter By-Pass	Willow Slough

CORPS OF ENGINEERS, U.S. ARMY
SACRAMENTO DISTRICT, SACRAMENTO, CALIFORNIA 15 MARCH 1957

Attachment H

KSN INC.
KJELDSEN SINNOCK NEUDECK
Civil Engineers and Land Surveyors

Stephen K. Sinnock, P.E.
Christopher H. Neudeck, P.E.
Neal T. Colwell, P.E.

Kenneth L. Kjeldsen, P.E. - Retired

2166-0020
01-002

April 28, 2014

Mr. Len Marino
Chief Engineer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, CA 95821

Re: Knights Landing Ridge Cut Levee Repair Project – Spoils Area Access

Dear Mr. Marino,

The Knights Landing Ridge Drainage District (District) is planning to begin construction of the Ridge Cut Levee Repair Project (Project) this summer. The U.S. Army Corps of Engineers have granted Section 408 permission for the Project, and the Project is currently under review by Board staff. It is anticipated that the Board will consider the Project for issuance of an Encroachment Permit at their May 23, 2014 Board meeting.

The Project which is being funded through the Department of Water Resources' Early Implementation Program (EIP), proposes to remediate approximately 18,000 feet of the Knights Landing Ridge Cut left bank levee to eliminate the cause of landside levee slope failures by replacing the landside levee face with lean clay. The key element to making the Project affordable is finding suitable borrow material in close proximately to the Project. The stockpile generated from cleaning sediment from the Fremont Weir and located within the upper Yolo Bypass (informally referred to Mt. Meixner within the Department), was identified as an ideal borrow source for the Project. Following extensive collaboration with the Department it has determined that the stockpile can be made available for use by the Project. The project will need approximately 170,000 cubic yards of material which we estimate is almost two thirds of the current stockpile. Please see enclosed Exhibit A for a map of the area. The District wishes to formally request Board approval for access through Parcel 057-020-009-000 to access and remove the stockpiled material.

Please contact me at (209) 323-9864 if you have any questions or would like to discuss further.

Sincerely,
KJELDSEN, SINNOCK & NEUDECK, INC.

Barry O'Regan, PE, CFM

w/enclosures

cc: Lewis Bair, Knights Landing Ridge Drainage District
Mohamad Porbaha, CVFPB
Elizabeth Bryson, DWR, DFM

Attachment H

FILE SPEC: P:\2166_Knights_Landing_Levee_Repair\0020_MVIII_Pre-Construction\05_Civil\300_Design\Borrow Site\140109_Borrow_Site_Map.dwg
PLOT DATE: Apr 21, 2014 - 1:08pm

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

RESOLUTION NUMBER 2013-11

SACRAMENTO RIVER FLOOD CONTROL SYSTEM EVALUATION – PHASE III
MID-VALLEY CONTRACT AREA 3 PROJECT
YOLO COUNTY, CALIFORNIA

WHEREAS, the Sacramento River Flood Control Project was authorized by Congress in the Flood Control Acts of 1917, 1928, and 1941, as well as the Rivers and Harbors Act of 1937; and

WHEREAS, the Sacramento River Flood Control System Evaluation – Phase III, Mid-Valley Contract Area 3 Project, herein referred to as the "Project," is a component of the Sacramento River Flood Control Project; and

WHEREAS, California Water Code Sections 8617 and 12648 authorize the State of California to cooperate on the Sacramento River Flood Control Project, and authorize the Central Valley Flood Protection Board, formerly the Reclamation Board, to give satisfactory assurances to the United States Department of the Army that the required local cooperation will be furnished by the State in connection with the Project; and

WHEREAS, after flooding and levee failures during the winter of 1986, Congress directed the U.S. Army Corps of Engineers to conduct a system-wide evaluation of the Sacramento River and its tributaries with authority granted by the Energy and Water Development Appropriation Act for 1987 (Public Law 99-591); and

WHEREAS, in May 1992, the U.S. Army Corps of Engineers prepared the *Sacramento River Flood Control System Evaluation, Phase II-V, Programmatic Environmental Impact Statement/Environmental Impact Report;* and

WHEREAS, in March 1996, the U.S. Army Corps of Engineers prepared the *Sacramento River Flood Control System Evaluation, Phase III, Mid-Valley Area, Environmental Assessment/Initial Study*, which described 30 project restoration sites, impacts on environmental resources, and proposed mitigation; and

WHEREAS, in June 1996, the U.S. Army Corps of Engineers completed the *Sacramento Flood Control Project, California, Mid-Valley Area, Phase III, Design Memorandum*, which proposed site-specific levee remediation work in the Phase III area; and

WHEREAS, after the 1997 flood event, the U.S. Army Corps of Engineers prepared a *Supplemental Environmental Assessment/Initial Study, Sacramento River Flood Control System Evaluation, Phase III - Mid-Valley Area,* dated November 1999, with proposed

project changes, impacts on environmental resources, and mitigation; and

WHEREAS, on April 4, 2000, the Central Valley Flood Protection Board executed a Project Cooperation Agreement with the U.S. Army Corps of Engineers for the construction of the Project; and

WHEREAS, the U.S. Army Corps of Engineers and the Central Valley Flood Protection Board determined that, due to design refinements and environmental NEPA and CEQA compliance requirements, a new site-specific Environmental Assessment/Initial Study was required; and

WHEREAS, the U.S. Army Corps of Engineers and the Central Valley Flood Protection Board circulated the joint NEPA/CEQA Draft Environmental Assessment/Initial Study for the Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3, with a Finding of No Significant Impact and Mitigated Negative Declaration for a 30-day agency and public review beginning on August 3, 2012, and responses to comments received have been incorporated into the Final Environmental Assessment/Initial Study; and

WHEREAS, in April 2013, the U.S. Army Corps of Engineers completed the Final Environmental Assessment/Initial Study for the Sacramento River Flood Control System Evaluation Phase III, Mid-Valley, Contract Area 3 incorporating by reference the 1992 Programmatic Environmental Impact Statement/Environmental Impact Report, 1996 Environmental Assessment/Initial Study, and 1999 Environmental Assessment/Initial Study; and

WHEREAS, a NEPA Finding of No Significant Impact (FONSI) was signed on April 18, 2013, by the District Commander of the U. S. Army Corps of Engineers.

NOW, THEREFORE, LET IT BE RESOLVED that the Central Valley Flood Protection Board:

1. Has considered the Final EA/IS and finds that on the basis of the whole record, including comments received on the draft EA/IS and mitigation measures that have been included in the Project, there is no substantial evidence that the proposed Project will have a significant effect on the environment, and that the Mitigated Negative Declaration reflects the independent judgment and analysis of the Board; and

2. Adopts the Mitigated Negative Declaration, Findings, and Mitigation Monitoring and Reporting Plan for the Mid-Valley Contract Area 3 Project; and

3. Approves the design refinements for the Mid-Valley Contract Area 3 Project and delegates authority to the Executive Officer to execute the Notice of Determination.

PASSED AND ADOPTED by vote of the Board on July 26, 2013.

BY: William H. Edgar
William H. Edgar
President

Date: 7/26/2013

BY: _____
Jane Dolan
Secretary

Date: July 26, 2013

Approved as to Legal Form and Sufficiency

_____
Jeremy Goldberg
Staff Attorney