



DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1399

REPLY TO
ATTENTION OF

8 December 2008

CESPD-PD-C

MEMORANDUM FOR Commander, Sacramento District

SUBJECT: 33 USC Section 408 Approval of a Flood Control Project Alteration – Sacramento River Flood Control Project, Feather River Levee Repair Segment 2, California

1. References:

- a. CESPCK-DE memorandum dated 13 November 2008, Subject; Section 408 Approval of a Flood Damage Reduction Alteration – Sacramento River Flood Control Project, Phase 4 Feather River Levee Repair Project, Segment 2, Feather River, Yuba County, CA.
- b. CECW-P memorandum dated 11 April 2008, Subject; Delegation of Authority, Section 408 Permit Request, Feather River Levees, Segment 2, Yuba Basin California.
- c. Record of Decisions (RODs) dated 8 December 2008, Titled: Three Rivers Levee Improvement Authority (TRLIA) for the Feather River Levee Repair Project, Segment 2 33 USC 408 Permission and Department of Army Regulatory permit, Yuba County, California (Enclosure 1)
- d. CECW-P memorandum dated 8 December 2008, Subject; Section 408 Approval of a Flood Control Project Alteration – Sacramento River Flood Control Project, Feather River Levee Repair Segment 2, California (Enclosure 2).

2. The Central Valley Flood Protection Board (CVFPB) application package (Reference 1a.) for the subject 33 USC Section 408 permit request has been reviewed by the South Pacific Division District Support Team (DST). The application package is found to be policy compliant and legally sufficient. The application package meets all the requirements of the Approval Authority Delegation Memorandum (Reference 1b). The CVFPB 33 USC Section 408 permit request is approved and documented in the RODs (Enclosure 1).

3. Please note there are some conditions of the 33 USC Section 408 approval; these conditions are documented in the RODs. Also, per Reference 1d. (Enclosure 2) project alterations which require a Section 408 permit are subject to the requirements of Section 2035 of WRDA 2007. As such, this 33 USC Section 408 permit approval is contingent on compliance with Section 2035 of WRDA 2007 through performance of a Safety Assurance Review (SAR). The SAR is to be planned, conducted, submitted, reviewed and approved prior to initiation of construction of the project elements covered by the

permit. The CVFPB and TRLIA shall work closely with the Sacramento District and the South Pacific Division to develop the SAR plan as soon as possible. Subject plan requires approval from HQUSACE. Preliminary HQUSACE guidance on implementation of Section 2035 and the requirements for compliance will be forward to your office mid January.

4. Point of Contact for this memorandum is Ms. Karen Berresford, District Support Team Lead at (415) 503-6557.

Encls



JOHN R. MCMAHON
BGJ, USA
Commanding

RECORD OF DECISIONS
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY FOR THE
FEATHER RIVER LEVEE REPAIR PROJECT, SEGMENT 2
408 PERMISSION AND DEPARTMENT OF ARMY PERMIT
YUBA COUNTY, CALIFORNIA

The Feather River Levee Repair Project, California Segment 2 is a flood damage reduction and restoration project proposed for construction by the Three Rivers Levee Improvement Authority (TRLIA) as presented by the State of California Central Valley Flood Protection Board (CVFPB). Pursuant to delegated authority, the Division Commander for the U.S. Army Corps of Engineers (USACE or Corps) South Pacific Division issues permission to proceed with the proposed construction pursuant to 33 U.S.C. Section 408 based on finding that the proposed alteration is not injurious to the public interest and will not impair the usefulness of the Sacramento River Flood Control Project. In accordance with 33 CFR Parts 320 to 332, the District Engineer for the USACE Sacramento District is delegated authority to issue Department of Army (DA) permits for discharges of dredged or fill material into "waters of the United States", including wetlands, pursuant to Section 404 of the Clean Water Act and for work or structures in navigable waters under Section 10 of the Rivers and Harbors Act.

I. Background

TRLIA proposes constructing and maintaining a new setback levee along the Feather River approximately 5.7 miles in length and approximately 0.5 miles east of the existing left bank levee, except where it would join the existing levee at the north and south ends. The Above Star Bend (ASB) Setback Levee Alternative (also referred to as the "Applicant Preferred Alternative") includes removing all or portions of the existing levee. The intended outcome of the Applicant Preferred Alternative is to provide a setback levee in Segment 2 that meets the engineering and design standards of the CVFPB, the non-Federal sponsor of the underlying Federal project and the Corps as well as the Federal Emergency Management Agency (FEMA) geotechnical requirements for through-seepage and underseepage at the water surface elevation for the 200-year flood event. The project is proposed as early implementation of the anticipated outcome of the Yuba River Basin General Reevaluation Report.

The primary purpose of the project is to correct identified deficiencies in the left bank levee of the Feather River, and consequently to improve flood protection in the Reclamation District (RD) 784 area of Yuba County. The goal for improved flood protection in the RD 784 area is to provide protection against the 0.5% Annual Exceedance Probability (AEP) event. The need for levee repairs is to reduce the increased risk and probability of flooding events in RD 784 Service area as a result of the identified deficiencies in the Feather River east bank levee, thus minimizing the potential for catastrophic flooding where homes would be inundated, agricultural operations and other businesses would be damaged and destroyed, and where there would be a significant social impact as well as potential for loss of life.

The Final Environmental Impact Statement (FEIS), dated October 2008, for the 33 U.S.C. Section 408 Permission to the CVFPB and a DA permit to the Three Rivers Levee Improvement Authority for the Feather River Levee Improvement Repair Project (FRLRP), California, Segment 2, addressed flood damage reduction and restoration opportunities in Yuba County, California. The FEIS evaluated various structural and non-structural alternatives to address

flood damage reduction and habitat restoration in the RD 784, Yuba County, California area. As described in the FEIS, the proposed action consists of the following key features for flood damage reduction, habitat restoration, and mitigation:

- Construction of a new setback levee along the east bank of the Feather River approximately 5.7 miles in length and approximately 0.5 miles east of the existing left bank and tied into the existing Federal levee at the northern and southern ends of the new alignment;
- Installation of about 4.8 miles of slurry cutoff wall;
- Construction of a new Pump Station #3 on the landside of the new levee and decommissioning of the existing pump station;
- Filling of portions of the Plumas Lake Canal;
- Degradation of the existing levee after completion of the new setback levee;
- Creation of up to 525 acres of riparian habitat in the new floodway;
- Implementation of a strategy of no net loss of aquatic resource functions and services;
- Creation of about 20.1 acres of wetlands mitigation adjacent to the project site at Messick Lake;
- Restoration and creation of about 6 acres of open water habitat and adjacent riparian corridor; and
- Monitoring mitigation performance and impacts to wetlands for corrective action, if needed.

An application for a DA permit was originally received in June 2007. An initial public notice describing the proposed project was issued on July 27, 2007. Because the action involves the discharge of dredged or fill material into 10.9 acres of waters of the United States under Section 404 of the Clean Water Act and work in navigable waters under Section 10 of the Rivers and Harbors Act to construct the new setback levee and to degrade the existing levee, a DA permit under the Regulatory Program is required for the proposed action.

A letter requesting 33 U.S.C. Section 408 permission was received in December 2007. The project requires 33 U.S.C. Section 408 Permission to degrade the existing Federally authorized levee and construct a new levee that would become part of the Federally authorized flood damage reduction project.

II. Alternatives Considered

In addition to no action, the following alternatives were considered:

1. Alternative 2: The Levee Strengthening Alternative would involve repairs and improvements to the existing Feather River levee along Segment 2. No setback levee would be constructed. Repairs and improvements would consist of constructing slurry walls, installing relief wells, raising and/or constructing seepage/stability berms at various locations, and correcting identified waterside erosion problem areas.

2. Alternative 3: The Intermediate Setback Levee Alternative would involve constructing a new levee approximately 5.5 miles long, and approximately 1,000 feet west of the alignment proposed for the Above Star Bend Setback Levee. Project features would include constructing slurry cutoff walls, foundation preparation, levee embankment construction, utility relocation and

removal of the existing levee. This alternative would result in approximately 1,100 acres of existing land becoming part of the new Feather River floodway.

3. Alternative 4: The Above Star Bend Setback Levee Alternative would involve constructing a new levee approximately 5.7 miles long, and approximately one half mile east of the existing levee. Project features would include constructing slurry cutoff walls, foundation preparation, levee embankment construction, utility relocation and removal of the existing levee. This alternative would result in approximately 1,300 acres of existing land becoming part of the new Feather River floodway.

The environmentally preferred alternative is the Above Star Bend Setback Levee Alternative.

III. Responses to FEIS Comments

Two comment letters were received concerning the FEIS. Responses to new issues raised follow.

1. U.S. Environmental Protection Agency: EPA raised concerns regarding water quality effects from agricultural practices. While this issue exceeds the Corps' scope and responsibility, TRLIA has agreed to implement EPA's recommendations as described in the attachment to the November 24, 2008 letter. TRLIA will work with agricultural lessees in the setback area to promote use of sustainable agricultural practices and will provide EPA a copy of the draft Best Practices Management Plan for review.

2. Office of Thomas W. Eres on behalf of the Hofman Ranch and Frances Hofman: Mr. Eres raised several concerns in his November 24, 2008 letter. The concerns are focused on certain engineering matters including; a crack that has formed on a newly repaired levee; the possible presence of a subsurface lake; and the validity of assumptions driving the hydraulics, hydrology and geomorphology modeling. The basic concerns about the underlying hydrology and geomorphology and the appropriate design of the levee were addressed in the Responses to Comments received on the Draft EIS and in detail in the FEIS, as well as the Project Summary Report. TRLIA has committed to repairing the crack. The crack has been covered with visqueen, a plastic cover, to prevent damage from runoff. Installation of the visqueen was completed on October 31, 2008. The completed installation was inspected and approved by a flood control specialist for the California Department of Water Resources (DWR). The visqueen performed satisfactorily during the storm event during the subsequent weekend of November 1, 2008. TRLIA and DWR will be monitoring the situation throughout the winter in preparation for a spring 2009 repair. TRLIA has developed an Emergency Action Plan to address any hazard until the crack may be repaired. Appropriate corrective actions are being taken related to the concerns raised. More specific responses to the letter are as follows:

a) According to TRLIA, the crack that formed during construction in Segment 1 of the Feather River Levee Repair Project levee work (just south of Star Bend) apparently resulted from an incipient lateral creep of the levee and upper foundation along soft clay zones in the levee foundation toward the soft, weak soil-bentonite material that fills the cutoff wall. TRLIA's information indicates the localized stretch containing the soft clay foundation layer occurs between soil borings that were drilled for this project. As such, it was not observed during geotechnical explorations and was not accounted for in the design. Special equipment is being used to monitor the crack, which measures up to about 1-2 inches in width and 600 feet in length along the landside of the levee parallel

to the ground. No further movement is being detected at this time and the levee is considered stable. TRLIA, RD 784, the CVFPB, and DWR, and Corps will be closely monitoring the crack. As a safety measure, an Emergency Action Plan has been developed and reviewed by RD 784, CVFPB, DWR and the Corps. The crack has been covered with visqueen to prevent water entry, piezometers and slope inclinometers have been installed for monitoring. TRLIA will be monitoring the situation throughout the winter in preparation for a spring 2009 repair.

b) In regards to the Western Pacific Interceptor Canal (WPIC), on September 17, 2008 TRLIA conducted a field investigation to attempt to locate a historic culvert in the west levee of the WPIC in Reclamation District RD 784. This investigation was conducted at the request of the Corps. No evidence of the historic culvert was found. Trenching occurred between two reaches of slurry wall installed in the WPIC levee as part of Phase 2. Geotechnical analysis determined that the slurry wall did not need to be continuous in this reach because computed seepage exit gradients at the toe of the levee under design conditions were found to not exceed design criteria. The bottom of the trench was saturated due to the presence of a permanent lake on the waterside (east) of the WPIC west levee. A slurry wall is not present where the historic culvert crossed the levee and where the trenching occurred. Some pools of water did form in the bottom of the trench; but to no more than a depth of 1 to 2 inches. The trench did not fill with water, only the bottom of the trench was saturated with some shallow pools of water forming. The saturated conditions do not diminish the levee integrity. From close inspection of the trench walls, no evidence of the suspect culvert was found. It appears that the culvert was removed in the past with no record being made of the removal. Similar levee work as performed in this reach was done at other locations of the WPIC where historic culverts were found and either removed or filled with concrete. This location will be noted and given extra inspection during high water events.

c) For the upcoming work on the Yuba River above Simpson Lane, TRLIA indicated the hydraulic analysis will be done by the Corps as a component of the Yuba River General Reevaluation Report. The impacts of this analysis will be factored into the Yuba River Levee Project by the Corps. Changes to the upstream Yuba River hydraulic analysis has no impact on the Feather or Bear River analyses.

d) As to the question of whether the additional soil borings throughout the project site and the RD 784 area are needed, soil borings do not have a nexus with the hydraulic and hydrology work: The soils information collected to date have been completed using the most current DWR and Corps design criteria. Also, DWR and the Corps have participated and provided comments on the TRLIA levee work, including methods for the collection of soils data, interpretation of that data, and the design of flood protection improvements based on the soils data.

e) TRLIA has been designing all of the levee repairs done in RD 784 to provide a 200-year level of protection. As to the question of what is meant by 200-year flood protection, two approaches are in use today, and DWR is creating a third. TRLIA has used the historic "deterministic" approach in setting the design heights for its levees. This consists of calculating the 200-year water surface using the currently-accepted hydrology/hydraulics for the river system and then setting the levee height based on a need for 3 ft of freeboard above the 200-year water surface. Once the height is determined, TRLIA then uses the Corps' engineering criteria for geotechnical evaluation and design. This "deterministic" approach is consistent with FEMA's criteria and

methodology for certifying levees, although FEMA's certifications are for a lower water surface – the 100-year (Base Flood) event. The water surface elevations determined by TRLIA also took into account the setting-back of the Bear River north levee which lowered water surface elevations in the WPIC approximately 1.5 feet for the 200-year event. The Corps will use a probabilistic approach, which is based on estimates of hydrologic frequencies and water surface elevations along with upper and lower confidence limits based on a statistical analysis. This method does not develop a design water elevation for a levee. Instead it determines the probability for a certain project to pass floods of certain magnitudes. The information presented for a particular design might say that Design A has a 95% probability to pass the 50-year storm, an 85% probability to pass the 100-year storm, and a 70% probability to pass the 200-year storm. Information would also be given on the probabilities of this design for providing certain benefits. Finally, DWR is in the process of creating 200-year design standards for use by the State as required by State Bill 5. DWR's current draft standards allow use of both deterministic and probabilistic methods.

IV. Other Applicable Laws and Policies

1. National Environmental Policy Act (NEPA): The proposed action is considered a major Federal action. On February 15, 2008, the Corps determined the proposed action had the potential to significantly affect the quality of the human environment, and have potentially significant direct, indirect and cumulative effects on the human environment. Scoping for the EIS began on February 29, 2008 with publication of a Notice of Intent to Prepare an EIS in the Federal Register (reference). The Corps issued a public notice for scoping on March 9, 2008. A public scoping meeting was held on March 10, 2008 at the Yuba County Government Center. In July 2008, a Draft Environmental Impact Statement (DEIS) was issued by Corps. A Notice of Availability was published in the Federal Register on July 11, 2008. A public notice for the DEIS was also issued on July 11, 2008. A public meeting was held on August 4, 2008. During the DEIS public review period, five comment letters were received. The Corps issued a FEIS in October 2008. A Notice of Availability was published in the Federal Register on October 24, 2008. A public notice announcing the FEIS was issued October 28, 2008. Two comments were received on the FEIS.

2. Section 401 of the Clean Water Act Section 401 of the CWA: The proposed project is in compliance with the Section 401 of the CWA. On November 24, 2008, the Central Valley Region of the California Regional Water Quality Control Board issued a technically conditioned water quality certification under Section 401 of the Clean Water Act for the proposed action. The certification includes several conditions. The certification is included as a special condition of the DA permit and the Section 408 permission.

3. Endangered Species Act of 1973: Following formal consultation under Section 7 of the Endangered Species Act for the proposed action, the U.S. Fish and Wildlife Service issued a Biological Opinion (BO) on August 28, 2008 for the valley elderberry longhorn beetle, giant garter snake, vernal pool fairy shrimp and vernal pool tadpole shrimp. The BO includes several terms and conditions that implement reasonable and prudent measures. The BO is incorporated into the DA permit and the Section 408 permission through a special condition. The Corps also consulted under Section 7 of the ESA with the National Marine Fisheries Service (NMFS). On December 13, 2007, NMFS concurred that the proposed action was not likely to adversely affect Central Valley spring-run Chinook salmon, Central Valley steelhead and the Southern Distinct population of North American green sturgeon.

4. Fish and Wildlife Coordination Act: The USFWS, NMFS, and the California Department of Fish and Game (DFG) have provided coordinated input on the project through 2006, 2007, and 2008. Coordination with USFWS continues, and ESA Section 7 consultation with NMFS and USFWS has been completed. Consultation with DFG is continuing regarding incidental take authorization. Sacramento District Corps staff coordinated with USFWS regarding preparation of the Coordination Act Report, which was completed on October 2, 2008. The proposed action is in full compliance with the FWCA.

5. Magnuson-Stevens Fishery Conservation and Management Act: In its letter dated December 13, 2007, NMFS determined the proposed action would not adversely affect Essential Fish Habitat for Pacific salmon and had no additional conservation recommendations. As such the proposed action is in compliance with the MSFCMA.

6. Section 106 of the National Historic Preservation Act: Coordination with the State Historic Preservation Officer, in accordance with Section 106 of the National Historic Preservation Act, has led to the determination that one potentially significant cultural resources site could be affected by project activities. A draft Memorandum of Agreement (MOA) was sent to the Enterprise Rancheria and the Advisory Council on Historic Preservation (ACHP). The ACHP declined to participate and no response was received from the Enterprise Rancheria on the draft MOA. Consulting parties completed execution of the MOA on July 22, 2008. A Historic Property Treatment Plan (HPTP) was prepared in accordance with the terms specified in the MOA. The HPTP contains mitigation measures for potential effects on cultural resources that are consistent with those proposed in the FEIS. The proposed action is in full compliance with Section 106 of the NHPA.

7. Section 176(C) of the Clean Air Act (CAA) General Conformity Rule Review: The proposed permit has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under a DA permit and Section 408 permission will not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

8. Executive Order 11998: Floodplain Management: The EO requires Federal agencies to prepare floodplain assessments for proposed actions located in or affecting floodplains. If an agency proposes to conduct an action in a floodplain, it must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If the only practicable alternative involves sitting in a floodplain, the agency must minimize potential harm to or in the floodplain and explain why the action is proposed there. Based on the EIS, the proposed action complies with the EO.

9. Executive Order 11990: Protection of Wetlands: The EO requires Federal agencies to prepare wetland assessments for proposed actions located in or affecting wetlands. Agencies must avoid undertaking new construction in wetlands unless no practicable alternative is available and the proposed action includes all practicable measures to minimize harm to wetlands. Based on the EIS and proposed compensatory mitigation for project impacts, the proposed action complies with the EO.

10. Executive Order 13175: Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: The proposed action does not implement any regulations, legislation, policies, or actions that have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes..

11. Environmental Justice (Title VI of the Civil Rights Act and Executive Order 12898): The proposed action is not expected to negatively impact any community, and therefore is not expected to cause disproportionately high and adverse impacts to minority or low-income communities.

V. Consideration of Mitigation Measures

All practicable means to avoid, minimize, and mitigate adverse effects on environmental resources have been incorporated into the authorized project. There is one unavoidable significant effect. Local emission standards established by the Feather River Air Quality Management District will be exceeded as a result of the construction activities, regardless of the action alternative. Even with the implementation of mitigation measures required by FRAQMD, the emission standards will be exceeded. The air quality impacts are considered temporary, as they are directly related to the period of construction. The applicant has agreed to pay offset fees for exceeding the local emission standards.

Through coordination with U.S. Fish and Wildlife Service (FWS), the project includes mitigation for impacts to both the valley elderberry longhorn beetle (VELB) and the giant garter snake (GGS) and their habitats. Threatened and endangered species compensation includes transplanting 53 elderberry shrubs, planting 2,754 elderberry seedlings and 4,746 associated native species in a Service-approved site, protected in perpetuity, or by purchasing 750 credits (equivalent to approximately 31 acres) at a Service-approved VELB conservation bank. The project applicant shall also purchase the equivalent of 86.52 acres of snake habitat credits at a Service-approved conservation bank or site for impacts to the GGS. The amount of snake habitat credits is determined by a 3:1 ratio for permanent effects to 16.60 acres of aquatic habitat and 12.24 acres of upland habitat. This compensation is included in the Biological Opinion from FWS. Monitoring of the mitigation site(s) will occur for at least 3 years.

Coordination with the State Historic Preservation Officer, in accordance with Section 106 of the National Historic Preservation Act, has led to the determination that one potentially significant cultural resources site could be affected by project activities. This has led to the development of a Memorandum of Agreement and a Historic Property Treatment Plan (HPTP). The HPTP contains mitigation measures for potential effects on cultural resources that are consistent with those proposed in the FEIS.

The Record of Decision completes the National Environmental Policy Act process. The Record of Decision will be publicly available upon request, or can be found on the Sacramento District and TRLIA websites. No action related to the proposal under consideration was taken on this decision prior to the 30-day review period after posting of the FEIS on October 24, 2008.



DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1399

PERMISSION UNDER 33 U. S. C. 408

I. Special conditions

In order to assure that the proposed project does not impair the usefulness of the existing Federal project and that it not be injurious to the public interest, the following conditions are imposed and are as follows:

1. This Corps 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 Opinion Number 81420-2008-F-0344-4, dated August 28, 2008 contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with incidental take that is also specified in the Biological Opinion. Your authorization under this Corps permission is conditional upon your compliance with all of the mandatory terms and conditions associated with the Biological Opinion, which terms and conditions are incorporated herein by reference. Failure to comply with the terms and conditions associated with the incidental take statement in the Biological Opinion, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permission. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its Biological Opinion, and with the Endangered Species Act. The Central Valley Flood Protection Board must comply with all conditions of this Biological Opinion, including those ascribed to the Corps. The National Marine Fisheries Services (NMFS) letter, dated December 13, 2007, stated that Segment 2 of the Feather River Levee Repair project is not likely to adversely affect Central Valley steelhead, Central Valley spring-run Chinook salmon, or North American green sturgeon or their designated critical habitat or the Essential Fish Habitat of Pacific salmon.

2. You are required to submit a revision to the RD 784 Operation and Maintenance (O&M) (33 CFR Section 208.10) Manual for this office's review within 180 days of project completion. As-Built drawings and permanent maintenance easement boundaries shall be submitted in conjunction with the draft Operation and Maintenance manual. Upon receipt of the draft O&M manual, this office will schedule a transfer inspection with you to verify all construction has been completed in accordance with this permission. Any features found to be deficient during that inspection will require your correction prior to the Corps accepting the alterations as part of the Federal project. Construction data is required to be provided to this office for review by our Engineering Division during construction. Within 180 days of project completion, you must furnish a certification report that the work has been completed in accordance with the conditions of this permission.

3. There shall be no disposal, including temporary disposal, of any material in any wetlands or other waters of the United States (US). Best management practices, such as silt fences and mulching, shall be employed to ensure exposed soils do not erode and wash into

any waters of the US. Erosion control matting shall not be used to avoid entangling giant garter snakes in it.

4. To insure your project complies with Section 106 of the National Historic Preservation Act, you must comply with all terms of the *Memorandum of Agreement Among the U.S. Army Corps of Engineers, The Three Rivers Levee Improvement Authority, and The California State Historic Preservation Officer Regarding Segment 2 of the Feather River Levee Repair Project Yuba County, California*, signed on July 22, 2008.

5. To insure there is mitigation for any increased residual flood risk, you are required to develop and submit a Floodplain Management Plan that includes elements for flood information dissemination, public awareness training, flood warning and evacuation plans, emergency flood operations plan with annual exercise, dedicated evacuation resources, post-flood recovery plans. You are required to participate in and comply with applicable Federal floodplain management and flood insurance programs.

6. You will cooperate and participate in the Safety Assurance Review plan development and implementation per the USACE guidance of November 17, 2008, forthcoming USACE guidance, and Section 2035 of the Water Resources Development Act of 2007.

II. Findings

Based on my review of the FEIS and the 33 U.S.C. 408 request package, the views of other Federal, State, and local agencies, and input from the public I find the alternative recommended in the document to be technically adequate and not detrimental to the existing Federal project, to be in accordance with environmental statutes, to be without significant adverse hydraulic impacts, and to be in the public interest. Therefore, pursuant to my delegated authority under 33 U.S.C. Section 408 and subject to the above special conditions, the request for alteration of the Sacramento River Flood Control Project, Feather River East Levee, Segment 2, is approved. I hereby grant permission to State of California Central Valley Flood Protection Board to allow Three Rivers Levee Improvement Authority to construct the Above Star Bend Setback Levee Alternative and to alter the Federal project where the setback levee ties into the existing Federal levee and where the existing Federal levee will then be degraded.

8 DEC 2008





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

**DEPARTMENT OF THE ARMY PERMIT
UNDER SECTION 10 OF THE RIVERS AND HARBORS ACT
AND SECTION 404 OF THE CLEAN WATER ACT**

I. Compliance with 404(b)(1) Guidelines

1. Are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into "waters of the U.S." or at other locations within these waters?

Yes ___ No X

2. If the project is in a special aquatic site and is not water dependent, has the applicant clearly demonstrated that there are no practicable alternative sites available?

Yes X No ___

3. Will the discharge:

Violate state water quality standards?

Yes ___ No X

Violate toxic effluent standards under Section 307 of the Clean Water Act?

Yes ___ No X

Jeopardize endangered or threatened species or their critical habitat?

Yes ___ No X

Violate standards set by the Department of Commerce to protect marine sanctuaries?

Yes ___ No X

4. Evaluation of the information in EIS indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s):

(X) based on the available information, the material is not a carrier of contaminants.

() the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.

() acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

5. Will the discharge contribute to significant degradation of "waters of the U.S." through adverse impacts to:

Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and/or special aquatic sites?

Yes ___ No X

Life stages of aquatic life and/or wildlife?

Yes ___ No X

Diversity, productivity, and stability of the aquatic life and other wildlife? Or wildlife habitat or loss of the capacity of wetlands to assimilate nutrients, purify water or reduce wave energy?

Yes ___ No X

Recreational, aesthetic and economic values?

Yes ___ No X

f. Will all appropriate and practicable steps be taken to minimize adverse impacts of the discharge on the aquatic ecosystem? Does the proposal include satisfactory compensatory mitigation for losses of aquatic resources?

Yes X No ___

II. Public Interest Review

The decision whether to issue a permit is based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluating the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. If the proposed activity complies with the U.S. Environmental Protection Agency's 404(b)(1) guidelines, a permit will be granted unless the district engineer determines that it would be contrary to the public interest.

The EIS analyzed a number of factors relevant to the public interest review. These factors include but are not limited to socioeconomics, aesthetics, wetlands, historic properties, fish and wildlife, flooding and floodplain values, land use, recreation, water quality, energy needs, safety, and agriculture.

1. The relative extent of the public and private need for the proposed work has been considered: The proposed action is needed to provide flood protection for the Plumas Lakes area, including existing residents and public facilities. The project will also allow private interests to continue to construct residential and commercial developments in the area.

2. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated: Several reasonable alternatives have been reviewed as part of the permit process, including practicable alternatives in the EIS. With mitigation, the Applicant Preferred Alternative is the environmentally preferred alternative.

3. The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses which the area is suited has been reviewed: The area is primarily used for private agricultural purposes. The proposed action will result in a permanent change in use along the setback levee alignment. However, some agricultural use will continue between new levee and degraded levee.

III. Special Conditions for the DA Permit

1. The permittee understands and agrees, that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. To insure Three Rivers Levee Improvement Authority compliance, the document entitled Three Rivers Levee Improvement Authority Messick Lake and Floodplain Drainage Swale Mitigation Areas Habitat Mitigation and Monitoring Proposal/Plan and Long-Term Operations and Maintenance Plan, dated November 2008, is incorporated by reference as a condition of this authorization except as modified by the following special conditions.

3. To mitigate for the loss of 6.7 acres of waters of the United States and temporary impacts to 4.2 acres of waters of the United States, you shall restore and create 6.0 acres of waters in the floodplain drainage swale and restore 23 acres of jurisdictional waters at an on-site preserve as proposed in the above document.

4. In no case shall initiation of the construction of compensatory mitigation be delayed beyond June 30, 2010. Construction of compensatory mitigation shall be completed no later than December 31, 2010.

5. To insure that mitigation is completed as required, you shall notify the District Engineer of the start date and the completion date of the mitigation construction, in writing and no later than ten (10) calendar days after each date.

6. To provide a permanent record of the completed mitigation work, you shall provide two complete sets of as-builts of the completed work within the on-site and off-site mitigation, preservation, and avoidance areas to the Corps of Engineers. The as-builts shall indicate changes made from the original plans in indelible red ink. These as-builts shall be provided to this office no later than 60 days after the completion of construction of the mitigation area wetlands.

7. You shall establish and maintain a 30.4 acre preserve containing 29 acres of created, avoided, and preserved waters of the United States, as depicted on the exhibit entitled Conceptual Mitigation Plan (Figure 3.6-3), not dated, but on page 3.6-17 of the Habitat Mitigation And Monitoring Proposal/Plan, dated November 2008, in perpetuity. The purpose of this preserve is to insure that functions and values of the aquatic environment are protected.

8. To minimize external disturbance to preserved waters of the United States, you shall establish a buffer, consisting of native upland vegetation of at least 200 feet in width from the outer limit of jurisdiction of the entire perimeter of all created, preserved, and avoided waters of the United States, including wetlands within the proposed preserve.

9. To protect the integrity of the preserve and avoid unanticipated future impacts, no roads, utility lines, trails, benches, equipment or fuel storage, grading, firebreaks, mowing, grazing, planting, discing, pesticide use, burning, or other structures or activities shall be

constructed or occur within the on-site and off-site mitigation, preservation, and avoidance areas without specific, advance written approval from the Corps of Engineers.

10. This Corps permit does not authorize you to take an endangered species, in particular giant garter snake (*Thamnophis gigas*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), or designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (e.g., 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 Fish and Wildlife Service Biological Opinion (Number 81420-2008-F-0344-4, dated August 28, 2008), contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the Biological Opinion. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with "incidental take" of the attached Biological Opinion, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the Biological Opinion, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its Biological Opinion, and with the Endangered Species Act. The permittee must comply with all conditions of this Biological Opinion, including those ascribed to the Corps.

11. To insure your project complies with the Federal Endangered Species Act, you must implement all of the mitigating measures identified in the National Marine Fisheries Service letter of concurrence (Number 2007/07371, dated 12/13/07), including those ascribed to the Corps therein. If you are unable to implement any of these measures, you must immediately notify this office and the National Marine Fisheries Service so we may consult as appropriate, prior to initiating the work, in accordance with Federal law.

12. To insure your project complies with Section 106 of the National Historic Preservation Act, the permittee must comply with all terms of the *Memorandum of Agreement Among the U.S. Army Corps of Engineers, The Three Rivers Levee Improvement Authority, and The California State Historic Preservation Officer Regarding Segment 2 of the Feather River Levee Repair Project Yuba County, California*, signed on July 22, 2008, and is incorporated by reference as a special condition of the permit.

13. Prior to initiating any activity authorized by this permit, you shall, to insure long-term viability of mitigation, preservation, and avoidance areas:

- a. Establish a fully-funded endowment to provide for maintenance and monitoring of on-site and off-site mitigation, preservation, and avoidance areas.
- b. Designate an appropriate conservation-oriented third party entity to function as preserve manager and to hold the required conservation easements.
- c. Record permanent conservation easements and deed restrictions maintaining all mitigation, preservation, and avoidance areas as wetland preserve and wildlife habitat in perpetuity. Copies of the proposed deed restriction language shall be provided to the Corps of Engineers for approval prior to recordation.

14. Provide copies of the recorded documents to the Corps of Engineers no later than 30 days prior to the start of construction of any of the activities authorized by this permit.

15. To assure completion of compensatory mitigation measures, the permittee shall post a performance bond or irrevocable standby letter of credit (Performance Security) for the amount of the land acquisition, studies, construction and long term management with a federally approved surety. This Performance Security shall not be released until the District Engineer has determined in writing that all mitigation success criteria have been met. A draft letter for the Performance Security must be submitted to this office for review and approval. The Performance Security must be posted prior to the start of any work otherwise authorized by this permit.

16. You must allow representatives from the Corps of Engineers to inspect the authorized activity and any mitigation, preservation, or avoidance areas at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

17. To assure success of the preserved and created waters of the United States, you shall monitor compensatory mitigation, avoidance, and preservation areas for eight years or until the success criteria described in the approved mitigation plan are met, whichever is greater. This period shall commence upon completion of the construction of the mitigation wetlands. Additionally, continued success of the mitigation wetlands, without human intervention, must be demonstrated for three consecutive years, once the success criteria have been met. The mitigation plan will not be deemed successful until this criterion has been met.

18. You shall submit monitoring reports to this office for each year of the eight - year monitoring period, and for each additional year, if remediation is required, by January 31st of each year. You shall submit an additional monitoring report at the end of the three-year period demonstrating continued success of the mitigation program without human intervention.

19. All terms and conditions of the 24 November 2008 Section 401 Water Quality Certification are expressly incorporated as conditions of this permit.

20. Your responsibility to complete the required compensatory mitigation as set forth in Special Condition 3 and 7 will not be considered fulfilled until you have demonstrated mitigation success and have received written verification from the U.S. Army Corps of Engineers.

IV. Findings

1. The evaluation of the proposed action and alternatives was done in accordance with all applicable laws, executive orders, regulations, and agency regulations. The EIS and supporting documents are adequate and contain sufficient information to make a reasoned permit decision.

2. The selected alternative is the Applicant Preferred Alternative, and with appropriate and practicable mitigation measures to minimize environmental harm and potential adverse impacts of the discharges on the aquatic ecosystem and the human environment. The applicant's proposed project, as mitigated by these conditions, is considered the environmentally preferred alternative.


3. The discharge complies with the Section 404(b)(1) guidelines, with the inclusion of appropriate and practicable general and special conditions in the permit to minimize pollution or adverse effects to the affect ecosystem.

4. Issuance of a Department of the Army permit, with the inclusion of special conditions on the permit, as prescribed by regulations published in 33 CFR Parts 320 to 330, and 40 CFR Part 320 is not contrary to the public interest.

I have reviewed and evaluated, in light of the overall public interest, the documents and factors concerning the permit application for the proposed action, as well as the stated views of interested agencies and the public. In doing so, I have considered the possible consequences of the proposed action in accordance with regulations published in 33 Code of Federal Regulations (CFR) Parts 320 through 332 and 40 CFR Part 230. Based on these considerations, and pursuant to my delegated authority under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, I am issuing DA permits to TRLIA to construct the Above Star Bend Setback Levee Alternative subject to special conditions.

8 Dec '08

Date


Thomas C. Chapman, P.E.
Colonel, U.S. Army
District Engineer



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET NW
WASHINGTON, D.C. 20314-1000

CECW-P

DEC 08 2008

MEMORANDUM FOR Commander, South Pacific Division

SUBJECT: Section 408 Approval of a Flood Control Project Alteration – Sacramento River Flood Control Project, Feather River Levee Repair Segment 2, California

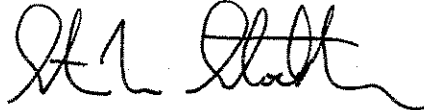
1. Reference CESPCK-DE Memorandum dated 13 November 2008, subject as above, and CESPDP-PDS endorsement via email dated 1 December 2008.
2. The application package for the subject Section 408 permit request has been reviewed by the HQ Section 408 team. The application package meets all the requirements and conditions of my 11 April 2008 memo which delegated approval authority to the Commander, South Pacific Division, for this particular permit request.
3. Note that we have determined that project alterations which require a Section 408 permit will be subject to the requirements of Section 2035 of WRDA 2007. This requirement is included in my 17 November 2008 memorandum which clarified Section 408 permit request guidance and requirements for approval. As such, the Section 408 permit approval for the subject project must include a contingency that the Safety Assurance Review requirement per Section 2035 be accomplished, submitted, reviewed and approved prior to initiation of construction of the project elements covered by the permit.
4. In accordance with Section 2035, the review shall inform on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare. It shall focus on whether the assumptions made for the hazards remain valid as additional knowledge is gained and the state of the art evolves. In addition, the panel should advise whether project features adequately address redundancy, robustness, resiliency and that the findings during construction reflect the assumptions made during design. Further, as required by with Sec 2035, additional reviews will be completed periodically, on a regular schedule, until construction activities are completed.
5. The Safety Assurance Reviews shall be conducted by an independent panel of individuals who are distinguished experts in engineering, hydrology, or other appropriate disciplines depending on the scope of the project.. The National Academy of Sciences policy for selecting reviewers to ensure there is no conflict of interest shall be applied when selecting the review panel members. The district shall determine the skill sets necessary for the review panel.
6. Preliminary guidance on implementation of Section 2035 and the requirements for compliance will be forward to your office mid January.

ENCLOSURE 2

SUBJECT: Section 408 Approval of a Flood Control Project Alteration – Sacramento River
Flood Control Project, Feather River Levee Repair Segment 2, California

7. Request you provide this office your proposed plan and process for review and approval to ensure the Section 2035 requirements are satisfied.

FOR THE COMMANDER:

A handwritten signature in black ink, appearing to read 'S. L. Stockton', written in a cursive style.

STEVEN L. STOCKTON, P.E.
Deputy Director of Civil Works