



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

RECORD OF DECISION

ACTION ID: SPK-2016-00457

APPLICANT: California Department of Water Resources (DWR), Attn: Jon Ericson

PROJECT NAME: Lower Elkhorn Basin Levee Setback

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.

As described in the Final Environmental Impact Statement (FEIS), the proposed action involves the discharge of dredged or fill material into 47.14 acres of waters of the United States under Section 404 of the Clean Water Act to construct a new setback levee in the Yolo Bypass along the Lower Elkhorn Basin, aligned north to south, which would be set back approximately 1,500 feet east of the existing alignment. It would begin just south of I-5 and continue approximately 5.6 miles south, ending at the new Sacramento Bypass Levee. The Sacramento Bypass would be expanded by constructing a new setback levee approximately 1,500 feet north of the existing levee, which would be approximately 1.6 miles long. Although most of the existing Yolo Bypass Levee and Sacramento Bypass North Levee would be removed following construction of the setback levees, up to 3,800 linear feet of levee would remain to provide upland habitat for special-status species. Further design refinements have resulted in the proposed action, described below, which would result in 16.23 acres of permanent impacts and 30.91 acres of temporary impacts. As such, a Department of the Army permit under the Regulatory Program is required for the proposed action. Approval under Section 14 of the Rivers and Harbors Act (33 USC 408, or Section 408) is also required for the alteration of Federal flood management facilities.

I. Background

The location, condition, and functions of the Yolo Bypass and Sacramento Bypass are described in chapter 1.4.1 and shown in Figure 1-1 of the FEIS. The Lower Elkhorn Basin and footprint of the project are described in chapter 1.4.2. Current efforts to expand the Sacramento Weir are described in chapters 3.3.1, 3.5.2, 4.1.1,

A complete application for a Department of the Army permit under Section 404 of the Clean Water Act for the proposed action was received on May 6, 2019. A public notice for the permit application was issued on May 21, 2019. One comment was received in response to the public notice.

The U.S. Army Corps of Engineers, Sacramento District (Corps), as the lead federal agency for compliance with the National Environmental Policy Act (NEPA), determined in July 2016, that the preparation of an EIS would be required. The California Department of Water Resources (DWR) would be the lead agency for the preparation of a Joint EIS/Environmental Impact Review (EIR), in compliance with the California Environmental Quality Act. Scoping for the joint EIS/EIR began on September 8, 2016, with publication of a Notice of Intent to prepare the joint EIS/EIR in the Federal Register (FR Vol. 81, No. 174, Pgs 62106-62107). The Corps issued a public notice for scoping on September 8, 2016. A public scoping meeting was held on September 15, 2016, at the West Sacramento Civic Center. The U.S. Fish and Wildlife Service and National Marine Fisheries Service agreed to be cooperating agencies.

On May 25, 2018, a Draft EIS/EIR (DEIS/DEIR) was issued by the Corps and DWR and the public was notified through a Corps' public notice and a Notice of Availability (NOA) published in the Federal Register (FR Vol. 83, NO. 102, Pg. 24305) on the same day. Public meetings were held on June 7, 2018. During the DEIS/DEIR public review period, nine comments were received and addressed in the FEIS.

The DWR released the Final EIR (FEIR) and approved the Notice of Determination in March 2019.

The Corps issued a FEIS in November 2019. An NOA was published in the Federal Register on November 15, 2019 (FR Vol. 84, NO. 221, Pg. 62530). A public notice announcing the FEIS was issued the same day. One comment was received in response to the public notice.

II. Project Purpose and Need

a. Purpose: The project purpose is to reduce flood risk to the Cities of Sacramento, West Sacramento, and Woodland as well as reduce flood stage throughout the Yolo Bypass in combination with other planned projects consistent with the State-approved Central Valley Flood Protection Plan (CVFPP).

b. Need: The following elements describe the need for the project.

(1) A high risk of flooding threatening life and public safety, property, critical infrastructure, and the environment exists throughout the areas protected by the Yolo and Sacramento Bypasses, including, but not limited to portions of the Cities of Sacramento, West Sacramento, and Woodland.

(2) The Sacramento River Flood Control Project, including the Yolo and Sacramento Bypasses, has inadequate capacity to convey large flood events and needs improvement, as measured in the Yolo Bypass upstream of I-5 and in the Sacramento River at the I Street Bridge.

(3) The existing Sacramento Bypass North Levee and portions of the Yolo Bypass East Levee are deficient (do not meet current design standards), as evidenced by several slope failures in early 2017.

(4) The long-term operation, maintenance, repair, replacement and rehabilitation costs for the flood management facilities are expected to continue to increase as these facilities age.

(5) Climate change may increase hydrologic variability and may put further stress on the flood management system and erode the level of protection provided from previous flood system investments; an increase in system capacity is needed to provide resiliency in the face of uncertain future flow conditions due to climate change.

(6) Impaired hydrologic and geomorphic processes; eliminated, fragmented, and degraded habitat; and other stressors have reduced the abundance, distribution, and diversity of native aquatic and terrestrial species in the Sacramento Basin.

(7) Native fish and riparian habitats have been greatly reduced in the Sacramento River Basin.

(8) Yolo Bypass projects provide unique opportunities to help restore native fish habitat and/or improve fish passage to produce systemwide benefits.

III. Alternatives Considered: A reasonable range of alternatives were considered in the FEIS for the proposed project. The FEIS also identified those alternatives that were considered but rejected from further analysis. On August 9, and September 25, 2019, the applicant submitted information regarding the practicability of alternatives in light of the overall project purpose. The Corps responded with comments on September 4 and 26, 2019, and additional information was received on October 2, 2019. In order to determine if the alternatives meet the project purpose, the additional information included a hydraulic analysis with the inclusion of all planned projects in the CVFPP. This hydraulic analysis differs from the hydraulic analysis in Chapter 4.14 of the FEIS since it includes planned projects in CVFPP which are not authorized and did not meet the definition of “reasonably foreseeable” for analysis in the FEIS. The addition of the planned projects will allow the selection of an alternative that would best facilitate future plans for comprehensive improvements to flood risk reduction in the Yolo Bypass. This information, in conjunction with the analysis of alternatives in Chapters 3 and 4 of the FEIS, is being utilized in this Record of Decision (ROD) to conduct the alternatives analysis

required for compliance with the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines.

a. Alternative 1 (No Action, no permit issued): Under this alternative, no setback levees or related improvements would be constructed. The existing levees would remain in their existing configurations and the existing flood risk would remain. The No Action Alternative would leave the level of flood protection for Sacramento among the lowest for metropolitan areas in the United States, with inadequate bypass capacity, and bypass levees that are deficient per current standards. Under the No Action Alternative, current flood management trends identified in the 2012 CVFPP would likely continue, including: continuing existing Federal, State, and local flood management partnerships under the current funding framework. This framework currently undervalues multi-benefit ecosystem and rural flood projects, results in difficulty conducting annual O&M activities while also being responsive to endangered species and habitat needs within the State Plan of Flood Control, and delays project implementation due to the complex regulatory processes. This alternative would not meet the overall project purpose and is eliminated from further evaluation.

b. Alternative 2 (7-Mile Expanded Setback Partial Degrade, Applicant's Preferred Alternative/Proposed Action): This alternative includes a new setback levee in the Yolo Bypass along the Lower Elkhorn Basin, aligned north to south, which would be set back approximately 1,500 feet east of the existing alignment. It would begin just south of I-5 and continue approximately 5.6 miles south, ending at the new Sacramento Bypass Levee. The Sacramento Bypass would be expanded by constructing a new setback levee approximately 1,500 feet north of the existing levee, which would be approximately 1.6 miles long. Although most of the existing Yolo Bypass Levee and Sacramento Bypass North Levee would be removed following construction of the setback levees, up to 3,800 linear feet of levee would remain to provide upland habitat for special-status species (Figure 3-2 in the FEIS).

This alternative would result in impacts to a total of 47.14 acres of waters of the U.S. Impacts consist of permanent impacts to 16.23 acres and temporary impacts to 30.91 acres of canals and ditches (Table 1). The proposed temporary impacts largely consist of enhancements to existing canals and ditches (17.42 acres) to improve the functions of those features. The enhancements include the widening and deepening of the canals and ditches to improve the capacity and flow of these features. Impacts to waters of the U.S. are described in Impact WATERS-1, in Section 4.6.3 of the FEIS and further refined in the May 6, 2019, Section 404 permit application and Figure 1. *Lower Elkhorn Basin Levee Setback (LEBLS) Existing Wetland Impacts and Proposed Ditches*, dated December 18, 2019.

This alternative meets the project purpose and is considered practicable for implementation.

c. Alternative 3 (7-Mile Expanded Setback Full Degrade): The project includes a setback levee in the Yolo Bypass along the Lower Elkhorn Basin, aligned north to south. It would begin just south of I-5 and would be set back approximately 1,500 feet east of the existing levee in the northern and middle portions of the Basin. Continuing south from there, the levee setback would expand up to 3,000 feet in the southern portion of the Basin, and continue for a total of 5.8 miles of setback levee along the Yolo Bypass, ending at the new Sacramento Bypass Levee. The Sacramento Bypass would be expanded by constructing a new setback levee approximately 1,500 feet north of the existing levee and would be approximately 1.3 miles long. Following construction of the new setback levees, the existing Yolo Bypass East Levee and Sacramento Bypass North Levee would be removed in the project site (Figure 3-3 in the FEIS).

This alternative would result in impacts to a total of 48.54 acres of waters of the U.S. Impacts consist of permanent impacts to 27.03 acres and temporary impacts to 21.51 acres of canals and ditches (Table 1). Impacts to waters of the U.S. are described in Impact WATERS-1, in Section 4.6.3 of the FEIS.

Although this alternative meets the project objectives and is considered practicable, it would result in an additional 10.80 acres of permanent impacts. This alternative was eliminated due to the additional permanent impacts to waters of the U.S.

d. Alternative 4 (5-Mile Expanded Setback Partial Degrade): Alternative 4 excludes levee setbacks in the northern part of the Lower Elkhorn Basin to avoid potential land acquisition constraints. This alternative includes a new setback levee in the Yolo Bypass along the Lower Elkhorn Basin, aligned north to south. It would begin approximately 2.5 miles south of I-5 (just south of the existing RD 785 Cross Levee), where it would be set back approximately 1,500 feet, and would continue south. From there, the levee setback would expand up to 3,000 feet in the southern portion of the Basin, for a total of 3.3 miles of setback levee along the Yolo Bypass, and ending at the new Sacramento Bypass Levee. The Sacramento Bypass would be expanded by constructing a new setback levee approximately 1,500 feet north of the existing levee, which would be approximately 1.3 miles long. Although most of the existing Yolo Bypass Levee and Sacramento Bypass North Levee would be removed following construction of the setback levees, up to 2,400 linear feet of levee would remain to provide upland habitat for special-status species (Figure 3-4 in the FEIS).

This alternative would result in impacts to a total of 30.42 acres of waters of the U.S. Impacts consist of permanent impacts to 17.29 acres and temporary impacts to 13.13 acres of canals and ditches (Table 1). Impacts to waters of the U.S. are described in Impact WATERS-1, in Section 4.6.3 of the FEIS. This alternative would result in an additional 1.06 acres of permanent impacts.

Alternative 4 is approximately 2.3 and 2.5 miles shorter than Alternatives 2 and 3, respectively, resulting in less expansion of the Yolo Bypass for both flood risk reduction and improved floodplain habitat. Chapter 3.7 of the FEIS found that although an improvement in flood risk reduction, Alternative 4, with a shorter setback of the Yolo Bypass East Levee, would result in less flood risk reduction than Alternatives 2 and 3. Consequently, Alternative 4 could cause substantial environmental impacts if a flood event occurred.

DWR performed an additional hydraulic comparison of alternatives using the With-Project Cumulative condition, which analyzed the future condition in the bypass with the proposed project and all proposed flood risk reduction projects within the bypass as part of the CVFPP, consistent with the project purpose. Due to the shorter setback levee, Alternative 4 would result in an increase in flood stage immediately below the Knights Landing Ridge Cut, one of 11 locations sampled within the Yolo Bypass. Alternative 4 was eliminated because it fails to meet the project purpose to reduce flood stage within the Yolo Bypass.

e. Alternative 5 (5-Mile Setback Full Degrade): Similar to Alternative 4, Alternative 5 excludes levee setbacks in the northern part of the Lower Elkhorn Basin to avoid potential land acquisition constraints, but maintains a full removal of the affected portion of the Yolo Bypass Levee. This alternative includes a new setback levee in the Yolo Bypass along the Lower Elkhorn Basin, aligned north to south, which would be set back approximately 1,500 feet east of the existing alignment. It would begin approximately 2.5 miles south of I-5 (just south of the existing RD 785 Cross Levee) continuing approximately 3 miles south, ending at the new Sacramento Bypass Levee. The Sacramento Bypass would be expanded by constructing a new setback levee approximately 1,500 feet north of the existing levee and would be approximately 1.6 miles long. Following construction of the setback levees, the existing Yolo Bypass East Levee and Sacramento Bypass North Levee would be degraded in the project site (Figure 3-5 in the FEIS).

This alternative would result in impacts to a total of 30.22 acres of waters of the U.S. Impacts consist of permanent impacts to 17.09 acres and temporary impacts to 13.13 acres of canals and ditches (Table 1). Impacts to waters of the U.S. are described in Impact WATERS-1, in Section 4.6.3 of the FEIS. This alternative would result in an additional 0.86 acre of permanent impacts.

Alternative 5 is approximately 2.6 and 2.8 miles shorter than Alternatives 2 and 3, respectively, resulting in less expansion of the Yolo Bypass for both flood risk reduction and improved floodplain habitat. Chapter 3.7 of the FEIS found that although an improvement in flood risk reduction, Alternative 5, with a shortest setback of the Yolo Bypass East Levee, would result in less flood risk reduction than Alternatives 2 and 3. Consequently, Alternative 5 could cause substantial environmental impacts if a flood event occurred.

The hydraulic comparison of alternatives, including all proposed flood risk reduction projects in the CVFPP, found that the shorter setback levee proposed in Alternative 5 would result in an increase in flood stage immediately below the Knights Landing Ridge Cut, one of 11 locations sampled within the Yolo Bypass. Alternative 5 was eliminated because it fails to meet the project purpose to reduce flood stage within the Yolo Bypass.

Table 1. Impacts to Potentially Jurisdictional Waters

Impact Type	Approximate Impact Acreage*			
	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Permanent	16.23	27.03	17.29	17.09
Temporary	30.91	21.51	13.13	13.13
Total Impact	47.14	48.54	30.42	30.22

*Source: Refined impact acreages for Alt 2 are from Table 3 in Attachment A of the Section 404 permit application, dated April 29, 2019. Data for Alts 3-5 are from Table 4.6-2 in the FEIS.

f. Determination of Practicable Alternatives: We have determined that Alternatives 1, 4 and 5, would not meet the overall project purpose. These alternatives fail to reduce the flood risk, while Alternatives 4 and 5 were both found to increase the flood stage within the Yolo Bypass when analyzed with all proposed improvements in the Yolo Bypass. We have determined that Alternatives 2 and 3 would meet the overall project purpose and are practicable.

g. Alternative Considered to be Environmentally Preferable: The practicable alternative considered to be environmentally preferable is Alternative 2. Although Alternative 3 would meet the overall project purpose and is practicable, this alternative would result in additional impacts to the aquatic environment. As described above and in Table 1, Alternative 2 would result in the least permanent impacts to the waters of the U.S. than all other alternatives. Chapter 7 of the FEIS found that Alternative 2 would have lesser environmental impacts than Alternative 3; provide a high level of flood risk reduction very similar to Alternative 3; and would best meet the project purpose, need, and objectives.

IV. Comments on the Final Environmental Impact Statement: The following comments include the May 21, 2019, public notice for the permit application and the November 15, 2019, public notice for the FEIS.

a. Conaway Preservation Group (CPG): A letter to USACE on June 19, 2019, contained the following six comments. 1) Concerns that adding height to the new levee setback would reduce flood protection for the land being protected by the west levee of the Yolo Bypass, including the eastern part of the City of Woodland. 2) A 100-foot to 120-foot strip of CPG property along the East Levee is proposed to be degraded and potentially established as habitat mitigation. 3) The project would steepen the local hydraulic gradient and increase the head drop across the Cross

Canal, resulting in increased scour to the Cross Canal and increased costs to CPG to repair the Cross Canal. 4) The proposed project would negatively impact CPG's planned salmon restoration project using an operable water control structure and fish bypass channel. 5) Implementation of the proposed project and related Sacramento Weir expansion would increase inflows and slow drain times, resulting in delays in agricultural production and diminished yields. 6) CPG actively uses the current levee for patrolling and the proposed east levee degrade does not accommodate driving access. CPG is also concerned with the impact that unsupervised public access would have on agriculture operations, private tours, and hunting on the CPG property.

Corps Response: 1) The west levee from the Sacramento Bypass to Willow Sough Bypass is between 4.6 to 5.4 feet higher than the approximate 100-year stage for the existing condition. Implementation of the proposed project along would result in a stage increase of 0.1 feet. Flood stages would be decreased in the bypass when combined with all CVFPP proposed projects. The reduction of freeboard of 0.1 feet is insignificant and would not increase the risk of flooding.

2) CPG owns the fee property, while the levee is part of the Sacramento-San Joaquin Drainage District system and is included in the easement. Under the easement rights, DWR can degrade the levee in conjunction with the levee setback as an allowable use. Any environmental enhancements would be coordinated with the applicable stakeholders.

3) The with-project condition would increase the existing hydraulic gradient for the 100-year event from 0.000127 to 0.000156. The change in hydraulic gradient is insignificant in this portion of the bypass.

4) All proposed and ongoing projects were included in the environmental review. CPG had not filed any environmental planning or scoping documents for a proposed restoration project and thus it was not included for consideration in the LEBLS project environmental review. Details on a proposed project still have not been provided. Potential impacts to threatened and endangered species and critical habitat within the project area were considered and analyzed resulting in a determination that the LEBLS project will not adversely affect listed salmonid species or critical habitat. The project will not impact the current functions of Tule Canal, or affect CPG water rights.

5) DWR coordinated with Yolo County on potential agricultural impacts and designed the project to minimize impacts to agriculture to the greatest extent feasible. Potential effects to agriculture from an increased frequency of flood events was not analyzed since the proposed project would not affect the frequency of flood events.

6) Use of the existing East Levee of the Yolo Bypass by CPG to prevent unauthorized access to CPG's property was not a designated use for the levee. The new setback levee will be managed by the reclamation district and will be gated, restricting unauthorized access. The LEBLS project does not include creating any new recreational areas or access. DWR also analyzed whether the LEBLS project was likely to increase use of existing neighborhood and regional parks or other recreational facilities, including Elkhorn Regional Park, the Sacramento Bypass

Wildlife Area, and fishing and boating along the Sacramento River. The analysis determined that the project would not increase existing recreational facilities or uses. Post-project site access is outside of the Corps' scope and any future request or concerns would be between the individual party and the reclamation district.

a. U. S. Environmental Protection Agency (USEPA): A letter to USACE on December 12, 2019, referenced the responses to comments submitted on the DEIS/DEIR. The comments focused on construction noise impacts to two residences and compliance assistance regarding the Clean Air Act General Conformity regulations. The USEPA recommend that the Record of Decision reflect the commitment of the Corps to ensure emission reductions occur pursuant to the general conformity regulations.

Corps Response: 1) No response is required to the comments on the DEIS/DEIR. These comments were fully addressed in the FEIS. The Corps' response to the general conformity rule review can be found in Section V.g. below.

V. Consideration of Applicable Laws and Policies

a. National Environmental Policy Act (NEPA): The proposed action is in compliance with NEPA. The FEIS was completed to evaluate a reasonable range of alternatives and the direct, indirect, and cumulative effects associated with five alternatives. The Corps followed the NEPA process identified in 40 CFR 1500, 33 CFR 230, and 33 CFR 325, Appendix B, including noticing and timeline requirements, to produce an EIS that discloses to the public the probable impacts of each alternative, taking into account mitigation. The FEIS is being utilized to make a permit decision on the proposed action.

b. Section 401 of the Clean Water Act: The proposed action is in compliance with Section 401 of the CWA. The Water Quality Certificate (WQC) was issued on January 13, 2020, and is included in Appendix A. Pursuant to 33 U.S.C. 1341(d), special conditions of the Section 401 WQC will be added as a special condition of any DA permit.

c. Endangered Species Act of 1973 (ESA): The proposed action is in compliance with Section 7 of ESA. Chapters 4.4 and 4.5 of the FEIS identifies the impacts of the proposed action on Federally-listed threatened and/or endangered species. On March 1, 2019, the National Marine Fisheries Service (NMFS), issued a Letter of Concurrence (LOC) (NMFS # WCR-2019-11359) for proposed impacts to the federally endangered Sacramento River winter-run Chinook salmon (*O. tshawytscha*), and the federally threatened California Central Valley steelhead (*Oncorhynchus mykiss*), Central Valley spring-run Chinook salmon (*O. tshawytscha*), and the southern Distinct Population Segment of North American green sturgeon (*Acipenser medirostris*) and their associated critical habitats.

On May 2, 2019, the U.S. Fish and Wildlife Service (USFWS), issued a Biological Opinion (BO) (USFWS #08ESMF00-2018-F-0479-1) for proposed impacts to the federally endangered least Bell's vireo (*Vireo bellii pusillus*), and the federally threatened western yellow-billed cuckoo (*Coccyzus americanus*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), and giant garter snake (*Thamnophis gigas*). Compliance with the LOC and BO will be added as a special condition of any DA permit. The LOC and BO are located in Appendices B and C, respectively.

d. Fish and Wildlife Coordination Act (FWCA): The proposed action is in compliance with the FWCA. Chapters 4.4 and 4.5 of the FEIS identifies the impacts of the proposed action on fish and wildlife species. The USFWS was a cooperating agency in the preparation of the DEIS/DEIR and the Corps worked closely with the USFWS. The USFWS did not provide additional comments on the DEIS/DEIR for compliance with the Fish and Wildlife Coordination Act.

e. Magnuson-Stevens Fishery Conservation and Management Act (MSA): The proposed action is in compliance with the MSA. In the March 1, 2019, LOC, NMFS concluded that the proposed action would not adversely affect Essential Fish Habitat and determined that consultation under the MSA is not required for this action.

f. Section 106 of the National Historic Preservation Act (NHPA): The proposed action is in compliance with Section 106 of the NHPA. Chapter 4.8 of the FEIS identifies impacts of the proposed action on cultural resources.

The Corps has determined that the proposed action would have an adverse effect on resources eligible for listing on the National Register of Historic Places. The State Historic Preservation Officer (SHPO) concurred with this determination on May 31, 2018. The Corps, SHPO, and DWR executed a Memorandum of Agreement (MOA) on December 17, 2019. Compliance with the requirements of the MOA and the development of a Historic Properties Treatment Plan will be added as a special condition of any DA permit. The MOA is located in Appendix D.

g. Section 176(C) of the Clean Air Act (CAA) General Conformity Rule Review: The proposed action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. The Corps has determined that direct emissions from the proposed activities that require a DA permit will not exceed de minimis levels of a criteria pollutant or its precursors and are exempted by 40 CFR 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 action.

h. Executive Order 11988: Floodplain Management: The proposed action is located within the Yolo Bypass and Sacramento Bypass, designated floodplains for

the Sacramento River and within a Federal Emergency Management Agency (FEMA) mapped 100-year floodplain. The Yolo Bypass is regularly flooded two out of three years. A floodplain assessment per Engineer Regulation 1165-2-26 is provided in Chapter 6 of the FEIS. The assessment found that the proposed action would have beneficial effects on the floodplain through expanding the floodplain, reducing flood risk, and increasing floodplain habitat. Therefore, the proposed action is in compliance with Executive Order 11988.

i. Executive Order 13175: Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: The proposed action is in compliance with Executive Order 13175. Consultation with Native American tribes is provided in Chapter 4.8 of the FEIS. The Corps initiated tribal coordination with letters on September 2, 2016, to three Native American tribes identified by the Native American Heritage Council, the Cortina Band of Indians, United Auburn Indian Community of the Auburn Rancheria (UAIC), and Yocha Dehe Wintun Nation (Yocha Dehe). A response was received from the UAIC and multiple meetings held regarding areas of concern within the permit area. Letters were sent on November 28, 2017, to transmit the cultural resources inventory and evaluation report and initiate consultation with three additional tribes, the Lone Band of Miwok Indians, Shingle Springs Band of Miwok Indians, and Wilton Rancheria. Responses were received from UAIC and Yocha Dehe and additional meetings were held with UAIC. UAIC requested to participate in the Section 106 MOA described above in Section V(f) and is included as a Concurring Party to the agreement. Documentation of all Native American coordination is located in the administrative record.

j. Executive Order 12898: Environmental Justice: The proposed action is in compliance with Title VI of the Civil Rights Act and Executive Order 12898. An analysis of compliance with Executive Order 12898 is provided in Chapter 4.10 of the FEIS. The proposed action is not expected to negatively impact a minority or low-income community, and therefore is not expected to cause disproportionately high and adverse impacts to minority or low-income communities.

k. Effects on Corps Civil Works Projects (33 USC 408): The Floodplain and Navigation Section assisted in preparation of the FEIS to include the environmental review for the Section 408 action. A Section 408 permission was requested by the Central Valley Flood Protection Board (CVFPB) (CVFPB number 19153) on July 29, 2016. A ROD was signed by the South Pacific Division Commander on February 21, 2020. A Section 408 letter of permission was issued by the Sacramento District on April 17, 2020.

VI. Consideration of Mitigation Measures: The FEIS included a number of mitigation measures to reduce or offset impacts that fall outside of the Corps responsibility and generally cannot be practicably controlled by the Corps, such as those associated with traffic, air quality, and noise. Many of the mitigation measures are requirements of the local land use agency (Yolo County). As such, these mitigation measures are enforced by Yolo County and the DWR, not the Corps.

The Corps requires mitigation measures to reduce or offset impacts to waters of the U.S. as special conditions of each DA permit issued. These special conditions are identified in Section IX, and take into account the mitigation measures identified in Chapter 4.6 of the FEIS, and also include additional conditions that avoid, minimize, and compensate for effects to waters of the U.S., and those that ensure compliance with Section 7 of the ESA, Section 106 of NHPA, and Section 401 of the Clean Water Act.

A part of the proposed project is the relocation and enhancement of canals and ditches to maintain irrigation and drainage within the project area and Lower Elkhorn Basin. The in-kind replacement of aquatic resources would maintain the functions and services being provided by the existing resources. A total of approximately 65.79 acres of canals and ditches would be created as a result of the proposed action, fully offsetting permanent impacts to 16.23 acres of canals and ditches at a ratio of approximately 4:1, resulting in no net loss of aquatic resource functions and services. No compensatory mitigation is required.

VII: Compliance with Section 404(b)(1) Guidelines

a. Restrictions on Discharge:

Yes No Based on the discussion in Section III, 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 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? *The proposed action is not within a special aquatic site.*

Will the discharge:

Yes No Violate state water quality standards?

Yes No Violate toxic effluent standards under Section 307 of the Clean Water Act?

Yes No Jeopardize endangered or threatened species or their critical habitat?

Yes No Violate standards set by the Department of Commerce to protect marine sanctuaries?

Evaluation of Chapter 4.13 of the FEIS indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s):

based on the above 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.

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

Yes No Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and/or special aquatic sites?

Yes No Life stages of aquatic life and/or wildlife?

Yes No 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 Recreational, aesthetic and economic values?

Yes No 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?

b. Factual Determinations:

(1) Physical Substrate Determination: Chapters 4.6, *Biological Resources – Wetlands and Other Waters*, and 4.11, *Geology, Soils, and Paleontological Resources* of the FEIS, identify the nature and degree of effect that the proposed action will have, individually and cumulatively, on the characteristics of the substrate at the disposal site for development of the proposed action. The creation of approximately 65.79 acres of waters of the U.S. on the site and the Special Conditions identified in Section IX would minimize effects to the substrate.

(2) Water circulation, fluctuation, and salinity determinations: Chapters 4.4, *Biological Resources – Fish and Aquatic Organisms*, 4.6 *Biological Resources – Wetlands and Other Waters*, 4.14, *Hydrology, Hydraulics, and Flood Risk Management*, 4.22, *Water Quality*, 5, *Cumulative Impacts*, and 6, *Other Statutory Requirements*, of the FEIS, identify the nature and degree of effect that the proposed action will have, individually and cumulatively on water, current patterns,

circulation including downstream flows, and normal water fluctuation for development of the proposed action. The addition of approximately 1,000 acres of floodplain created by the levee setback would improve the flood flows and lower the surrounding flood stage resulting in a beneficial effect on water circulation, fluctuation, and salinity.

(3) Suspended particulate/turbidity determinations Chapters 3, *Alternatives*, 4.4, *Biological Resources – Fish and Aquatic Organisms*, 4.6 *Biological Resources – Wetlands and Other Waters*, 4.22, *Water Quality*, and 5, *Cumulative Impacts*, of the FEIS, identify the nature and degree of effect that the proposed action will have, individually and cumulatively, in terms of potential changes and concentrations of suspended particulate/turbidity in the vicinity of the disposal site for the proposed action. Adherence to the Section 401 Water Quality Certification and National Pollutant Discharge Elimination System (NPDES) permit, Stormwater Pollution Prevention Plan (SWPPP), and implementation of mitigation measures WQ-1 through WQ-6, GEO-2, and AZ-1 would minimize effects from suspended particulates and turbidity.

(4) Contaminant determinations: Chapters 4.4, *Biological Resources – Fish and Aquatic Organisms*, 4.13, *Hazards and Hazardous Materials*, 4.22, *Water Quality*, and 5, *Cumulative Impacts*, of the FEIS, identify the degree to which the material proposed for discharge will introduce, relocate, or increase contaminants for the proposed action. No known contaminants occur on the proposed action site, and imported fill material would be obtained from an existing commercial source. Adherence to the Section 401 Water Quality Certification and National Pollutant Discharge Elimination System (NPDES) permit, SWPPP, and implementation of mitigation measures GEO-2 and HAZ-1 would minimize the potential release of contaminants and ensure that effects would be less-than-significant.

(5) Aquatic ecosystem and organism determinations: 4.4, *Biological Resources – Fish and Aquatic Organisms*, and 4.6 *Biological Resources – Wetlands and Other Waters*, of the FEIS, identify the nature and degree of effect that the proposed action will have, individually. Implementation of the proposed ecosystem project elements, including the addition of approximately 1,000 acres of floodplain created by the levee setback and the creation of 65.79 acres of canals and ditches would result in beneficial effects and ensure no net loss of aquatic resource functions and services.

(6) Proposed disposal site determination: Because excavated soil would be reused onsite or disposed of at an appropriate offsite disposal site, no effects to the mixing zone would occur. After taking into account the factors identified in 40 CFR 230.11(f)(2), the mixing zone is confined to the smallest practicable zone within the disposal site that is consistent with the type of dispersion determined to be appropriate.

(7) Determination of cumulative effects on the aquatic ecosystem: Chapter 5, *Cumulative Impacts*, of the FEIS identifies the cumulative effects of the proposed

action on the aquatic ecosystem. The compensatory mitigation in Special Condition 1 ensures no net loss of aquatic resource functions and services. The creation of waters of the U.S. as compensatory mitigation required in Special Condition 1 would ensure that cumulative effects on the aquatic ecosystem are minimized to the maximum extent practicable.

(8) Determination of secondary effects on the aquatic ecosystem: Chapters 4.1 through 4.22 of the FEIS include an analysis of direct and indirect effects resulting from proposed action. Implementation of the proposed ecosystem project elements, including the addition of approximately 1,000 acres of floodplain created by the levee setback and the creation of 65.79 acres of canals and ditches, would minimize any secondary effects to waters of the U.S.

VIII. Public Interest Review

a. The relative extent of the public and private need for the proposed work has been considered: There is a public and private need for improved flood risk reduction provided by the proposed project for the areas protected by the Yolo and Sacramento Bypasses, including, but not limited to portions of the Cities of Sacramento, West Sacramento, and Woodland. In addition to additional flood capacity, portions of the existing Sacramento Bypass North Levee and Yolo Bypass East Levee are deficient and experienced slope failures during 2017. There is also a public need for increased and improved habitat for native aquatic and terrestrial species in the Sacramento River Basin. This includes restoration of salmon rearing habitat and migration corridors proposed by the project.

b. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated: The proposed action is one part in a comprehensive strategy to reduce the flood stage within the Yolo Bypass. Other locations are also under review for related actions in this comprehensive strategy. The location of the action is an essential to address the specific need at the Sacramento bypass and Elkhorn Basin.

c. 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 proposed action, in combination with all CVFPP flood risk reduction actions proposed within the Yolo Bypass, including the adjacent project to widen the Sacramento Weir, would result in a reduction of flood stage and added flood protection to neighboring communities.

IX. Special Conditions

The following special conditions will be included in the DA permit to ensure the project is not contrary to the public interest and complies with the 404 (b)(1) Guidelines:

1. This Corps permit does not authorize you to take an endangered species, in particular least Bell's vireo (*Vireo bellii pusillus*), yellow-billed cuckoo (*Coccyzus americanus*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), and giant garter snake (*Thamnophis gigas*). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service (USFWS) BO (Number 08ESMF00-2018-F-0479-1, dated May 2, 2019) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. 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 BO, 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 BO, 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 USFWS is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

Rationale: *This condition is necessary to ensure compliance with Section 7 of the Endangered Species Act for impacts to threatened and/or endangered species (16 USC 1531 et seq.; 50 CFR 402; 33 CFR 320.4(j)(4); 33 CFR 325.2(b)(5); 33 CFR 325.4(a)(1)).*

2. To ensure your project complies with the Federal Endangered Species Act, you must implement all of the mitigating measures proposed as part of your project description, which are identified in the enclosed National Marine Fisheries Service letter of concurrence (Number WCR-2019-11359, dated March 1, 2019). If you are unable to implement any of the proposed 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.

Rationale: *This condition is necessary to ensure compliance with Section 7 of the Endangered Species Act (16 USC 1531 et seq; 50 CFR 402; 33 CFR 320.4(j)(4); 33 CFR 325.2(b)(5); 33 CFR 325.4(a)(1)).*

3. You shall implement the enclosed December 17, 2019, Memorandum of Agreement (MOA), titled *Memorandum of Agreement Among the U.S. Army Corps of Engineers, the California State Historic Preservation Officer, and the California Department of Water Resources Regarding the Lower Elkhorn Basin Levee Setback Project, Yolo County, California*, and signed by these entities, in its entirety. This office has been designated the lead federal agency responsible for implementing and enforcing the MOA as signed. If you fail to comply with the implementation and associated enforcement of the MOA, this office may determine that you are out of compliance with the conditions of your permit and suspend the permit. Suspension may result in modification or revocation of the authorized work.

Rationale: *This condition is necessary to ensure compliance with Section 106 of the National Historic Preservation Act (16 USC 470; 33 CFR 320.3(g); 33 CFR 325.2(b)(3); 33 CFR 325; Appendix C; 36 CFR 800).*

4. Within 60 days following completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, you shall submit as-built drawings and a description of the work conducted on the project site to this office for review. The drawings shall be signed and sealed by a registered professional engineer and include the following:

a. The Department of the Army Permit number.

b. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings. The drawing should show all "earth disturbance," wetland impacts, structures, and the boundaries of any on-site and/or off-site mitigation or avoidance areas. The drawings shall contain, at a minimum, 1-foot topographic contours of the entire site.

c. Ground and aerial photographs of the completed work. The camera positions and view-angles of the ground photographs shall be identified on a map, aerial photograph, or project drawing.

d. A description and list of all minor deviations between the work as authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings the location of any deviations that have been listed.

Rationale: *This condition is necessary to ensure compliance with the permit and applicable conditions and to ensure that the proposed work and final restoration work has been conducted in accordance with the permit and all applicable conditions. (33 USC 1344(a); 33 USC 401 et. seq.; 33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 326).*

5. You are responsible for all work authorized herein and ensuring that all contractors and workers are made aware and adhere to the terms and conditions of this permit. You shall ensure that a copy of the permit and associated drawings are available for quick reference at the project site until all construction activities in waters of the U.S. authorized by this permit are completed.

Rationale: *This condition is necessary to ensure that all workers on site are aware of the terms and conditions of the permit in order to ensure compliance with the permit and applicable conditions (33 CFR 325.4; 33 CFR 326).*

X. Findings

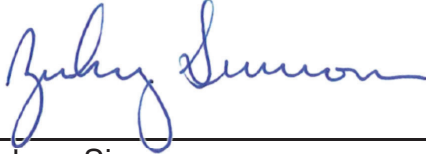
a. The evaluation of the proposed action and alternatives was done in accordance with all applicable laws, executive orders, regulations, and agency regulations. The FEIS and supporting documents are adequate and contain sufficient information to make a reasoned permit decision.

b. The selected alternative is Alternative 2, the proposed action, 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 proposed action, as mitigated by these conditions, is considered the environmentally preferred alternative under NEPA.

c. The discharge complies with the Section 404(b)(1) guidelines, and the proposed action is considered the least environmentally damaging practicable alternative, with the inclusion of appropriate and practicable general and special conditions in the permit to minimize pollution or adverse effects to the affected ecosystem.

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

PREPARED BY:



Zachary Simmons
Senior Project Manager
Enforcement/Special Projects Branch

5/7/2020

Date

REVIEWED BY:



Lisa M. Gibson
Regulatory Permit Specialist
Regulatory Division

7 May 2020

Date



Paul Maniccia
Chief
Enforcement/Special Projects Branch

7 May 2020

Date

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Date: 2020.05.07 16:18:53 -07'00'

Lisa Clay
Deputy Counsel
Office of Counsel

Date

APPROVED BY:



Michael S. Jewell
Chief
Regulatory Division

07MAY2020

Date

Appendix A

401 Certification
WDID#5A57CR00182

January 13, 2016

Appendix B

National Marine Fisheries Service
Letter of Concurrence
WCR-2019-11359

March 1, 2019

Appendix C

U.S. Fish and Wildlife Service
Biological Opinion
08ESMF00-2018-F-0479-1

May 2, 2019

Appendix D

*Memorandum of Agreement Among
the U.S. Army Corps of Engineers,
the California State Historic
Preservation Officer, and the
California Department of Water
Resources Regarding the Lower
Elkhorn Basin Levee Setback
Project, Yolo County, California*

December 17, 2019