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## Central Valley Regional Water Quality Control Board

20 April 2022

David Mooney  
Bureau of Reclamation, Bay-Delta Office  
801 I Street, Suite 140  
Sacramento, CA 95814  
[dmmooney@usbr.gov](mailto:dmmooney@usbr.gov)

### **ORDER AMENDING CLEAN WATER ACT SECTION 401 TECHNICALLY CONDITIONED WATER QUALITY CERTIFICATION; BUREAU OF RECLAMATION, BAY-DELTA OFFICE, LOWER AMERICAN RIVER ANADROMOUS FISH HABITAT RESTORATION PROJECT (WDID#5A34CR00696A4), SACRAMENTO COUNTY**

This Order responds to the 22 February 2022 request for an amendment of the Lower American River Anadromous Fish Habitat Restoration Project (Project) Section 401 Water Quality Certification (WDID#5A34CR00696). The original Water Quality Certification (Certification) was issued on 8 November 2017. The original Certification was amended on 13 September 2018 (WDID#5A34CR00696A1), 7 August 2020 (WDID5A34CR00696A2), and 13 April 2022 (WDID#5A34CR00696A3). The requested fourth amendment is hereby approved. The original Certification is therefore amended as described below. Please attach this document to the original Certification.

#### **AMENDMENT:**

The Bureau of Reclamation is requesting a minor update to the scope of work for all 10 Project sites identified in the original Certification. Gravel augmentation for habitat restoration will now include any combination of excavation and sorting of material at designated borrow areas, placement of spawning gravel obtained from onsite grading of bars or in-channel areas, placement of imported spawning gravel obtained from a designated borrow site, grading of bar features or in-channel areas to create spawning or rearing habitat, creation or enhancement of side channels, placement of instream woody habitat structures, and/or planting of shaded riverine aquatic vegetation (such as willows) along project margins.

The scope update results in minor and temporary increases to dredge and fill/excavation impacts to waters of the state from restoration activities. Sedimentation and turbidity are also anticipated to increase slightly as a result to scoping changes. The scoping updates are not expected to result in additional indirect effects of loss of waters of the state.

Amendment 3, issued on 13 April 2022, described updates to Nimbus Basin and Lower Sailor Bar, two of the 10 Project sites. This Amendment updates the remaining 8 Project sites for the Project.

The Certification is amended as shown in items 1, 2, and 3 below:

1. Replace the Description of Direct Impacts to Waters of the State in Item VII as follows:

Habitat restoration activities at each site may include any combination of the following actions:

1. Excavation and sorting of material at designated borrow areas,
2. Placement of spawning gravel obtained from onsite grading of bars or in-channel areas,
3. Placement of spawning gravel obtained from a designated borrow site,
4. Grading of bar features or in-channel areas to create spawning or rearing habitat,
5. Creation or enhancement of side channels,
6. Placement of instream woody habitat structures, and/or
7. Planting of shaded riverine aquatic vegetation (such as willows) along project margins.

#### Spawning Habitat Enhancements (Gravel Augmentation)

Spawning gravel placement will occur within ten specific sites included under the Project, shown in Figure 1. Material for spawning gravel augmentation will be derived from designated borrow areas and/or grading activities on each project site. Gravel sorting will use a front-end loader to scoop gravel into a mobile incline screener to sort it into gravel, cobble, and fine materials. Once gravels are sorted and cleaned, front-end loaders and/or haul trucks will pick up gravel from the sorting area or short-term stockpile, drive from the stockpile into the river margins, and distribute the gravel across the channel. In-river bulldozers will grade the gravel surface to reach design specifications. Placement will proceed starting closest to the bank and work progressively farther out into the river. This would allow the loaders/dozers to drive on the newly placed gravel, thereby reducing turbidity from in-river work. Off-road dump trucks will haul the material into the river in areas where the travel distance to an onshore stockpile is excessively long for multiple loader trips. The loaders/dozers will distribute the gravel along the river bottom to create the hydraulic conditions desired for salmonid spawning. Larger gravel and cobble-sized material resulting from sorting operations will be used as needed to enhance stability of habitat features. All gravel placement will occur below the ordinary high water mark (OHWM).

The gravel will be free of oils, clay, debris, and organic material. Each site design is refined annually, based on ongoing monitoring. Following an adaptive management

approach, the Restoration Team selects specific restoration sites for a given year based on the results of ongoing monitoring directed by Reclamation in partnership with the Water Forum within the LAR. To accommodate site selection by adaptive management, the study footprint of each restoration reach has been expanded slightly to allow maximum flexibility for implementation of the various covered restoration activities, as needed. The entire area of each restoration reach would not be filled with habitat elements; the larger areas are included to allow flexibility to implement restoration actions appropriate to the local hydrodynamics, restoration goals, and individual site characteristics, within the larger boundary at each site. The updated site boundaries are shown on Figure 1.

#### Rearing Habitat Enhancements (Side Channel Creation and Floodplain Grading)

Side channels and floodplain rearing habitat will be created or enhanced by excavation and grading using river-friendly heavy equipment (i.e., bulldozer, front-end loader, and excavator). Where the excavated material is of the appropriate size distribution, it will be sorted and placed into main channel areas as spawning gravel. Trees may be removed, if necessary, from areas where grading may occur. However, the project will not create new islands within the floodway or below the OHWM. Some previously enhanced CVPIA habitat sites have experienced sedimentation in previously excavated side channels or graded areas due to natural sedimentation and hydraulic processes in the LAR and therefore may need to be revisited for additional “touch-up” excavation during future implementation years.

#### Woody Habitat Structure Placement

Woody habitat structures, consisting of trees, trunks, rootwads, or willows, will be placed within rearing habitat areas along any project construction reach at approximately one piece per 20 feet of stream, along banks, and 20-40 pieces per acre along floodplain restoration areas. If needed, woody material will be secured with wood piles or with boulder ballast and roped/anchored to keep the material from washing downstream during high-flow events, as appropriate for each site’s hydraulic conditions.

#### Riparian Plantings

Riparian plantings will be willow or cottonwood-type flexible vegetation sourced from cuttings taken from the region or from native commercial nurseries. Cuttings will be planted using hand tools or handheld motorized tools, like an auger, if needed. Riparian plantings will comprise a maximum of four acres at all sites except for the Sacramento Bar site where the plantings will comprise a maximum of 6.5 acres.

#### Temporary Crossing(s)

To facilitate individual site access, a temporary crossing may be constructed across an intermittent drainage, as needed. Crossings will be constructed by placing geotextile on the bed and bank and piling cobble to a height that will accommodate construction equipment. The cobble and geotextile will be removed immediately after construction. No permanent impacts to waters or the floodway will result from

construction or use of temporary crossings at any site.

#### Stockpiling and Staging

If needed, a short-term stockpile area will be located within restoration site boundaries or staging areas shown on Figure 1. Exact locations will be determined in consultation with Sacramento County Parks but will be 0.5 acre or less and will be placed in existing clearings where ground disturbance will be minimized. If stockpiling is needed, gravel will be brought from the borrow area or graded portion of the restoration site, dumped onto the short-term stockpile, and placed directly in-river within the same day. Thus, there will be no long-term gravel storage at restoration sites. Parking and equipment storage will be within existing parking lots, or within designated access routes and staging areas. No grading or improvements will be necessary at the parking or staging areas.

#### Excess Graded Material

Excess material may be generated during grading activities at any of the habitat sites. Priority will be given to beneficial reuse of excess grading materials within the American River Parkway, where possible, in coordination with other entities/agencies conducting work along the LAR. If in-Parkway reuse is not possible, a portion of the Mississippi Bar Borrow Area, located north of Lake Natoma and outside of the OHWM, may be used for excess material disposal resulting from work at any of the habitat sites, if needed.

#### Equipment

All equipment used for gravel placement, grading, habitat structure placement, and plantings will be conducted using river-friendly construction equipment. River-friendly equipment is pressure washed and uses food-grade vegetable oil in lieu of traditional hydraulic fluid to protect water quality during in-river work. The proposed project will use proven construction methods for previous restoration activities conducted since 2008.

#### General Schedule

Project work below the OHWM would occur annually between July 1 and October 30 to minimize adverse effects to steelhead trout and fall-run Chinook salmon in the LAR. If the need for construction outside of these work windows is foreseen, Water Forum and/or Reclamation would consult with the applicable regulatory agencies prior to the work.

2. Replace the potential dredge and potential fill/excavation quantities in Tables 2 and 3 as follows:

**Table 2: Total Project Potential Dredge Quantity**

AQUATIC RESOURCE TYPE	TEMPORARY IMPACT			PERMANENT IMPACT		
	Acres	Cubic Yards	Linear Feet	Acres	Cubic Yards	Linear Feet
Stream Channel		359,220				

**Table 3: Total Project Potential Fill/Excavation Quantity**

AQUATIC RESOURCE TYPE	TEMPORARY IMPACT			PERMANENT IMPACT		
	Acres	Cubic Yards	Linear Feet	Acres	Cubic Yards	Linear Feet
Stream Channel	128.1	271,218	19,604			

3. Replace the temporary impacts for the remaining 8 Project sites in Attachment B, Table 2, as follows:

**TABLE 2 – INDIVIDUAL DIRECT IMPACTS**

SITE ID	LATITUDE	LONGITUDE	DIRECT IMPACT DURATION	DREDGE (CUBIC YARDS)	FILL/EXCAVATION		
					Acres	Cubic Yards	Linear Feet
Upper Sailor Bar	38°38'3.45" N	121°13'48.46" W	Temporary	11,261	5,491	13,804	1,413
Sunrise	38°38'05.07" N	121°16'0.00" W	Temporary	13,621	8.926	36,118	1,561
Lower Sunrise	38°37'43.94" N	121°16'34.11" W	Temporary	22,491	5.963	1,911	1,796
Sacramento Bar	38°37'17.58" N	121°17'07.44" W	Temporary	38,394	21.595	59,441	2,321
El Manto	38°37'37.25" N	121°17'25.18" W	Temporary	22,937	8.865	23,340	999
Ancil Hoffman	38°36'55.952" N	121°18'19.97" W	Temporary	37,128	16.055	36,441	1,457
Upper River Bend	38°36'10.89" N	121°19'08.52" W	Temporary	169,353	30.767	41,184	4,767
River Bend	38°35'16.92" N	121°19'46.50" W	Temporary	15,987	9.574	13,376	2,010

**APPLICATION FEE RECEIVED:**

Federal dischargers involved in Dredge and Fill Operations only are not subject to permit fees as required by sections 3833(b)(3)(A) and 2200(a)(3) of the California Code of Regulations.

**CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD CONTACT:**

Peter Minkel, Engineering Geologist  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6114  
Peter.Minkel2@waterboards.ca.gov

**PUBLIC NOTICE:**

The Central Valley Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from 11 February 2022 to 4 March 2022. The Central Valley Water Board did not receive any comments during the comment period.

**WATER QUALITY CERTIFICATION:**

I hereby issue an Order amending the existing Clean Water Act, Section 401 Technically Conditioned Water Quality Certification for the Lower American River Anadromous Fish Habitat Restoration Project (WDID#5A34CR00696A4). All other conditions and provisions of the original Water Quality Certification and any previously approved amendments remain in full force and effect, except as modified based on the conditions of this Order. Failure to comply with the terms and conditions of the original Water Quality Certification, previously approved amendments, or of this Order may result in suspension or revocation of the Water Quality Certification.

*Original Signed By James Marshall for:*

Patrick Pulupa  
Executive Officer

Attachment: Figure 1 – Site Locations Map

cc: Distribution List, page 7

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**via email only**

United States Army Corps of Engineers (SPK-2015-00380)  
Sacramento District Office  
Regulatory Division  
SPKRegulatoryMailbox@usace.army.mil

United States Environmental Protection Agency  
R9CWA401@epa.gov

California Department of Fish and Wildlife, Region 2  
R2LSA@wildlife.ca.gov

CWA Section 401 WQC Program  
Division of Water Quality  
State Water Resources Control Board  
StateBoard401@waterboards.ca.gov

Bill Jennings  
CA Sportfishing Protection Alliance  
DeltaKeep@me.com

John Hannon  
Bureau of Reclamation  
jhannon@usbr.gov

Eric Htain  
GEI Consultants  
ehtain@geiconsultants.com

Erica Bishop  
Water Forum  
ebishop@waterforum.org

Luke Davis  
Bureau of Reclamation  
ldavis@usbr.gov

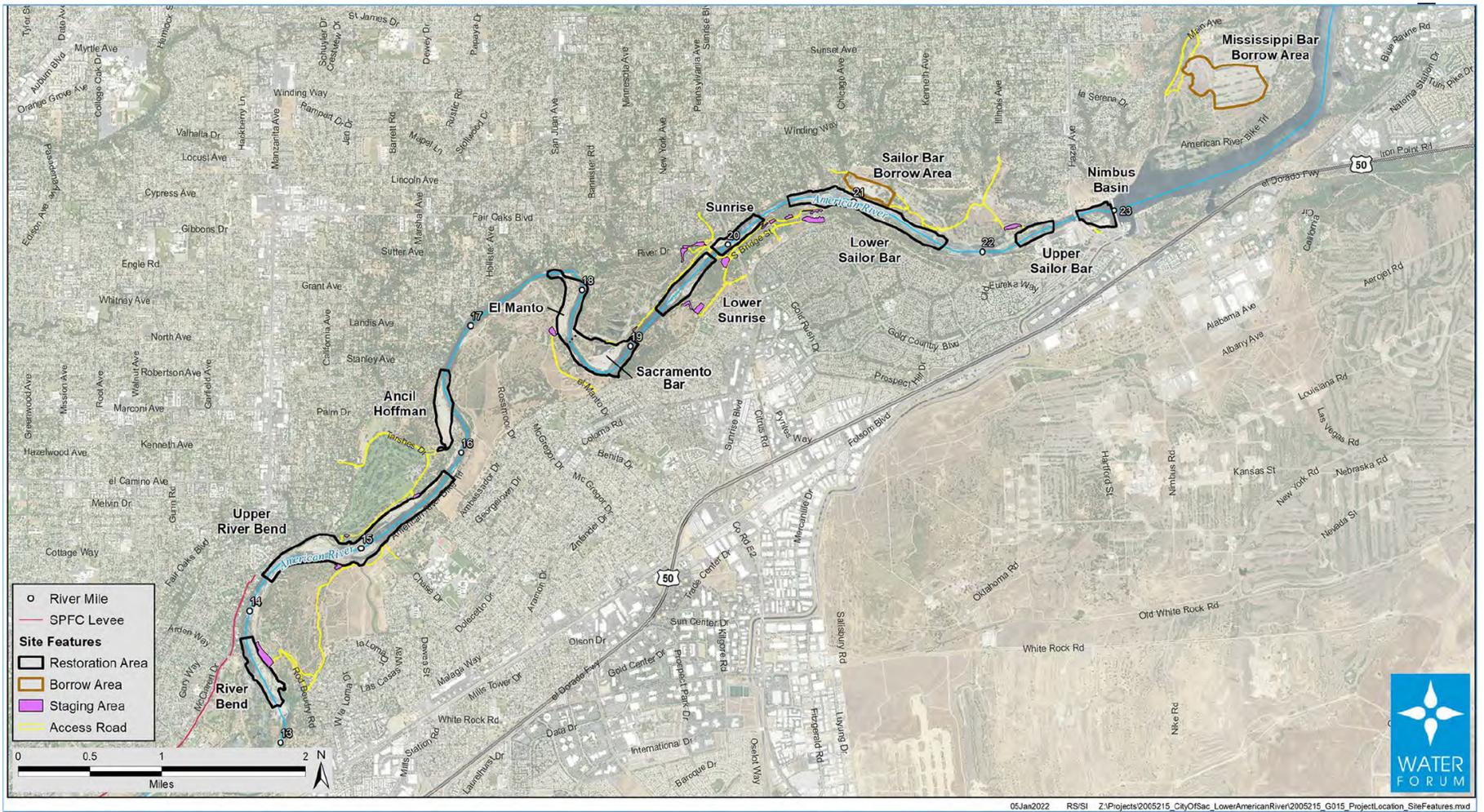


Figure 1 – Site Locations Map