

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

RESOLUTION R5-2026-0013

AMENDING

RESOLUTION R5-2019-0041

MEMORANDUM OF UNDERSTANDING WITH THE UNITED STATES ARMY CORPS  
OF ENGINEERS, SAN FRANCISCO DISTRICT, CONCERNING OPERATIONS AND  
MAINTENANCE DREDGING OF STOCKTON AND SACRAMENTO DEEP WATER  
SHIP CHANNELS

Whereas, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds the following:

1. On 6 June 2019, the Central Valley Water Board adopted Resolution Order R5-2019-0041 Authorizing the Executive Officer to enter into a Memorandum of Understanding (MOU) between the United States Army Corps of Engineers, San Francisco District (USACE) and the Central Valley Water Board concerning operations and maintenance dredging of the Stockton and Sacramento Deep Water Ship Channels.
2. The Central Valley Water Board originally adopted Order 5-01-116 on 18 May 2001 that prescribed waste discharge requirements for USACE and the Port of Sacramento's dredging of the Sacramento Deep Water Ship Channel, as well as disposal of dredged material. On 23 April 2004, The Central Valley Water Board adopted Order R5-2004-0061-001 which prescribed waste discharge requirements for USACE, the Port of Stockton, and the Department of Water Resources' dredging of the Stockton Deep Water Ship Channel, as well as disposal of dredged material. On 17 May 2018, the Central Valley Water Board and USACE executed an Interim MOU regarding USACE's maintenance dredging activities in the Sacramento and Stockton Deep Water Ship Channels, including placement of dredge material at authorized Dredge Material Placement sites for the 2018 calendar year.
3. The MOU negotiated between USACE and the Central Valley Water Board coordinates water quality control measures that are required for USACE's ongoing operation and maintenance dredging activities within the Stockton and Sacramento Deep Water Ship Channels.
4. Absent termination by either party, the MOU would remain in effect through the 2029 maintenance dredging fiscal year.
5. On 4 November 2021, USACE submitted a request for the Central Valley Water Board to consider alternative dredging methods to hydraulic pipeline cutterhead dredging which is the preferred method of dredging under the MOU. On 8 March 2022, the Central Valley Water Board denied the request from USACE due to concerns with remobilization and suspension of solids in the water column.

6. On 10 August 2022, USACE proposed a pilot project involving mechanical dredging of the Sacramento Deep Water Ship Channel using a mechanical cable arm environmental clamshell bucket. The clamshell bucket includes a passive venting system which allows for excess clean water to drain from the bucket and minimizes downward pressure, thereby sealing sediment inside the bucket and preventing water from washing material out of the bucket or falling back into the river. The bucket also includes overlapping side plates which also minimizes the loss of material from the bucket. Other environmental benefits from the pilot project include less water taken from the river and less slurry water to be managed at the Dredge Material Placement (DMP) sites and faster dredging rates for projects scattered over several locations. The Central Valley Water Board approved the pilot project for two dredge seasons, 2022 and 2023.
7. USACE reported water quality monitoring results from the pilot project for dredge seasons 2022 and 2023. There were no significant exceedances of turbidity observed, and pH, dissolved oxygen, and temperature measurements were within the allowable range. Results from the pilot project mechanical cable arm environmental clamshell bucket dredging were comparable to hydraulic dredging from previous years.
8. On 10 January 2023, USACE submitted a letter requesting to add McDonald Island to the list of Approved Dredged Material Placement sites due to capacity and cost issues at previously approved DMP sites. USACE submitted technical information as required by Exhibit A, Section D of the MOU which detailed an analysis of background conditions of existing soil and groundwater at McDonald Island. The Port of Stockton, as Lead Agency, adopted an Initial Study/Mitigated Negative Declaration for the McDonald Island DMP Site and filed a Notice of Determination at the State Clearinghouse (SCH) on 23 August 2024 (SCH No. 2022110084). On 30 August 2024, the Central Valley Water Board approved the request for dredge placement at McDonald Island after review and consideration of all material submitted.
9. On 30 April 2025, USACE submitted a request to revise the MOU to include the mechanical cable arm environmental clamshell bucket dredging method, McDonald Island as a dredge material placement site, and other changes to reflect current dredging operations.

THEREFORE, BE IT RESOLVED THAT:

Effective immediately, Resolution R5-2019-0041 is amended as shown in items 1 through 6 below:

1. Replace "District" with "USACE" throughout the document.
2. Exhibit A. Replace Section A.I.A.ii in its entirety with the following:

Prior to annual maintenance dredging operations, USACE agrees to notify the Central Valley Water Board by submitting a Dredge Operation Plan. Central Valley Water Board staff will review the Dredge Operation Plan and provide comments, if necessary. USACE will address all comments from the Central Valley Water Board prior to dredging.

3. Exhibit A. Replace Section A.III.A in its entirety with the following:

Maintenance dredging will be performed using the following methods:

- i. Hydraulic Pipeline Cutterhead Dredging, as described in the USACE Engineer Manual for Engineering and Design of Dredging and Dredge Material Management, dated 31 July 2015;
- ii. Mechanical cable arm environmental clamshell bucket dredging;  
or
- iii. Another dredging method that provides similar or better environmental protection and reduction of environmental impacts compared to i and ii. Additional dredging methods must be requested by USACE and approved by the Executive Officer prior to use.

4. Exhibit A. Replace Section B.II Dredge Material Placement Site Monitoring footnote 3 in its entirety with the following:

Samples will be collected at a depth of one foot from each pond in use, opposite the inlet location. Monitoring for dissolved oxygen may cease under the following conditions:

- i. Any time that daily freeboard measurements indicate the level of water confined in the disposal facility is less than 0.5 feet, or;
- ii. There has been significant rainfall (1" or more within a 3-day period), or;
- iii. Other activities or discharge cause the water onsite to no longer be representative of the dredged material (e.g. water discharged into the DMPS due to fire fighter training activities).

5. Exhibit A. Replace Section B.II Reporting in its entirety with the following:

USACE agrees to immediately notify the Central Valley Water Board by telephone or email whenever an exceedance or adverse condition occurs as a result of the dredging and disposal operation or the discharge of effluent. If notification is provided via telephone, written confirmation will follow within 2 weeks.

For the purposes of this MOU, an "Adverse Condition" means any actions or incidents capable of posing a risk to public health and safety, creating a

condition of pollution or nuisance as defined by Water Code section 13050, or causing or contributing to a violation of applicable water quality standards. An “Adverse Condition” includes (without limitation):

- a) Actual or imminent failure of containment dikes at Existing DMP Sites (see, e.g., Engineering Manual at Ch. 4.6.4.5 et seq.);
- b) Unplanned releases or discharges of dredged material and “return water” from an existing DMP site; and
- c) Discharges to surface water not typically associated with routine dredging activity (e.g., fuel spills, pipeline failures).

In the event of an Adverse Condition, the Executive Officer of the Central Valley Water Board may require USACE to perform sampling and analysis for parameters reasonably related to the Adverse Condition and remediate the Adverse Condition.

USACE agrees, to the extent feasible, to compile and summarize the data from the dredge season and submit an Annual Report to Board staff within 120 days of project completion.

USACE agrees to compile and summarize the data from the pre-dredge sediment sampling and analysis and submit a Pre-Dredge Sediment and Leachate Analytical Report by 1 November of years 3 (2021) and 7 (2026) of the MOU. The submission should include a technical report describing site specific factors for consideration for the placement of sediment that exceed discharge criteria values.

If dredge material from a project has restrictions on beneficial reuse options, the owner of the DMP site will be responsible for tracking and documenting the location of that material while it is in the site. If the material is removed from the site, the owner will notify Board staff within 10 days and provide a description of how the material was appropriately reused. If the material is sold or used in another location, the owner of the DMP site will inform the recipient of the restrictions and his or her responsibility for proper use of the material.

6. Exhibit A. Add the following dredge material placement site to the Approved Dredge Material Placement Sites table:

<b>Placement Site</b>	<b>Location</b>	<b>Discharge Receiving Water Body</b>
McDonald Island	McDonald Island	San Joaquin River

I, PATRICK PULUPA, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 27 February 2026.

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PATRICK PULUPA, Executive Officer