26 May 2017

Pamela O. Patton
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814

CERTIFIED MAIL
91 7199 9991 7035 8418 2987

ORDER AMENDING NOTICE OF APPLICABILITY
GENERAL ORDER WASTE DISCHARGE REQUIREMENTS
FOR THE SACRAMENTO DEEP WATER SHIP CHANNEL MAINTENANCE DREDGING ACTIVITIES CHANNEL MILE 0.0 TO 43.4
ORDER 5-01-116-001-0001A

UNITED STATES ARMY CORPS OF ENGINEERS AND PORT OF WEST SACRAMENTO
2016 SACRAMENTO DEEP WATER SHIP CHANNEL
MAINTENANCE DREDGING PROJECT
CONTRA COSTA, SACRAMENTO, SOLANO, AND YOLO COUNTIES

This Order responds to the 3 May 2017 request for amendment of the 2016 Sacramento Deep Water Ship Channel Maintenance Dredging Project Notice of Applicability under General Order Waste Discharge Requirements for the Sacramento Deep Water Ship Channel Maintenance Dredging Activities from Channel Mile 0.0 to 43.4, Order 5-01-116 (General Order) as amended by Resolution No. R5-2013-0117 for annual maintenance dredging of the Sacramento Deep Water Ship Channel (DWSC). The original Notice of Applicability (NOA) was issued on 26 August 2016. The requested amendment is hereby approved. The original NOA is therefore amended as described below. Please attach this document to the original NOA.

AMENDMENT:
Due to extra high flows and sedimentation from this winter's above normal precipitation and runoff from the Sacramento River watershed, the United States Army Corps of Engineers is requesting to: 1) include five (5) emergency dredging sites; and 2) modify the timeframe to implement the emergency project. The higher flows and sedimentation is reducing the navigational depth near Navigation Aid Lights 15 and 16, between Navigational Lights 20 and 23, downstream of State Highway (HWY) 12 Bridge in Rio Vista, upstream of the HWY 12 Bridge, and at the Cache Slough confluence. The Sacramento DWSC provides one-way traffic only; therefore, vessels cannot navigate around the shallower depths. In addition, cross current flows from intersecting sloughs, estuary tidal currents, and cross winds create a hazardous situation for vessels as they travel through the DWSC in its current condition.

The five emergency dredging sites will be dredged to re-establish the 30-foot authorized depth.

The NOA is amended as shown in underline/strikeout format in Attachment 1.

CALIFORNIA ENVIRONMENTAL QUALITY ACT:

The Central Valley Water Board has determined that this project meets the Categorical Exemption Section 15301, which exempts maintenance activities for existing facilities, and Section 15304, which exempts minor public alterations in the condition of land, water, and/or vegetation and includes maintenance dredging where the spoil is deposited in a spoil area authorized by all applicable state and federal regulatory agencies.

I hereby issue an Order amending the existing Notice of Applicability, Waste Discharge Requirements for the Sacramento Deep Water Ship Channel Maintenance Dredging Activities from Channel Mile 0.0 to 43.4 (Order 5-01-116-001A). All other conditions and provisions of the original Notice of Applicability 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 Notice of Applicability, previously approved amendments, or of this Order may result in suspension or revocation of the Notice of Applicability.

Original Signed By Adam Laputz for:

Pamela C. Creedon
Executive Officer

cc: (Electronic Copies Only)
Rick Toft, Port of Sacramento, West Sacramento
Arijs Rakstins, United States Army Corps of Engineers, San Francisco District
Chris Goddard, United States Army Corps of Engineers, Sacramento District
Charity Meakes, United States Army Corps of Engineers, Sacramento District

26 August 2016

ATTACHMENT 1

Pamela O. Patton
United States Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814-2922

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NOTICE OF APPLICABILITY
GENERAL ORDER WASTE DISCHARGE REQUIREMENTS
FOR
SACRAMENTO DEEP WATER SHIP CHANNEL MAINTENANCE DREDGING ACTIVITIES
CHANNEL MILE 0.0 TO 43.4
ORDER 5-01-116

UNITED STATES ARMY CORPS OF ENGINEERS AND PORT OF WEST SACRAMENTO
2016 SACRAMENTO DEEP WATER SHIP CHANNEL MAINTENANCE DREDGING PROJECT
CONTRA COSTA, SACRAMENTO, SOLANO, AND YOLO COUNTIES

On 27 July 2016, the U.S. Army Corps of Engineers (Discharger) submitted a Notice of Intent (NOI) requesting coverage under General Order Waste Discharge Requirements for the Sacramento Deep Water Ship Channel Maintenance Dredging Activities Channel Mile 0.0 to 43.4, Order 5-01-116 (General Order) as amended by Resolution No. R5-2013-0117 for annual maintenance dredging in the Sacramento Deep Water Ship Channel (DWSC). After reviewing the NOI submitted by the Discharger, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has determined that the project qualifies for enrollment under this General Order.

The Discharger is hereby assigned 5-01-116-001-0001. Please include this number on all correspondence related to this discharge.

A copy of the General Order is enclosed. You can also find the General Order on the Central Valley Water Board's website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/

The project must proceed in accordance with the requirements contained in this Notice of Applicability, General Order, and NOI application package. Coverage under this General Order is no longer valid if the project (as described in this Notice of Applicability and the NOI application package) is modified.

PROJECT DESCRIPTION:
The 2016 Sacramento DWSC Maintenance Dredging Project (Project) will dredge the Sacramento DWSC to a depth of 30 feet (plus two-foot allowable overdredge) for navigation of ship traffic to the Port of Sacramento. The Discharger will conduct dredging and dredge material disposal activities at the following ~~seven (7)~~ twelve (12) reaches and dredge material disposal (DMD) sites as described in Table 1.

Table 1: Dredging and Placement Sites

Reach	Approximate River Mile		Station (ft)		Placement Site	Location	Amount of Dredge Material (cubic yards)
	From	To	From	To			
1	4.55	6.06	240.00	320.00	~~Decker Island~~ Augusto Pit S-20	Decker Island	50,646
2	6.25	6.82	330.00	360.00	Decker Island		12,703
3	7.01	7.48	370.00	395.00	Decker Island		2,484
4	7.39	7.86	390.00	415.00	Rio Vista S-16		1,864
5	9.09	9.47	480.00	500.00	~~Rio Vista~~ Grand Island S-14	Rio Vista	3,587
6	12.10	12.69	639.00	670.00	Grand Island S-14		2,298
7	12.76	13.31	672.00	703.00	S-31		6,308
SAC 1	5.40	6.57	285.00	347.00	Augusto Pit S-20	Decker Island	40,500
SAC 2	9.09	10.02	480.00	529.00	Rio Vista S-16	Rio Vista	32,200
SAC 3	12.71	12.88	671.00	680.00	Rio Vista S-16		16,490
SAC 4	12.25	12.58	647.00	664.00	Decker Island	Decker Island	25,408
SAC 5	18.50	18.58	977.00	981.00	S-31	Rio Vista	700
					TOTAL		**~~79,890~~ 195,188**

Dredged material will be removed by hydraulic cutter head suction dredge, or with suction dredge (when dredging within 50 feet of utility crossings), and transported by pipeline for placement into the dredged material placement (DMP) sites listed above, which are authorized for use under the General Order. Clamshell dredging may be employed in limited cases where access is restricted or debris is too large for hydraulic dredging.

APPROXIMATE TIME FRAME OF PROJECT IMPLEMENTATION:
27 August 2016 to ~~31 October 2016~~31 July 2017

PROJECT LOCATION:
Start: Latitude: 38.086555°; Longitude: -121.7488441°
End: Latitude: 38.161767°; Longitude: -121.681838°

ADDITIONAL CONDITIONS:

Dredged Material Placement Sites

1. Dredged material is authorized to be reused in locations in which the Port of Sacramento and/or United States Army Corp of Engineers has demonstrated to the Central Valley Water Board that depth-to-groundwater, background soil conditions, distance from surface waters, and/or foundation soil attenuation capacity, are sufficient, with a conservative margin of error, to ensure that no adverse impacts to ground or surface waters will occur. Dredged material may not be reused, without prior authorization, in locations where direct hydraulic connections or direct contact with surface waters may occur. Dredged material may not be reused, without prior authorization, in sensitive ecological areas, such as wetlands.

2. For all reuse activities undertaken according to this Notice of Applicability, in which a separate NOI has not been submitted, the Discharger shall provide the Central Valley Water Board a written notice of the following:

    1) Quantity of dredged material removed from DMD site for reuse;
    2) Dates of transfer of material;
    3) Location of reuse;
    4) Name of contractor;
    5) Copy of signed contract/manifest for removal of dredged material;
    6) Copy of Dredged Material Reuse Agreement signed by end-user which states agreement to all conditions of reuse specified in this Notice of Applicability.

3. Notice of reuse of dredged material shall be provided in writing to the Board within 30 days of removal from the DMD sites.

    Direct beneficial use of dredged material at placement sites other that the DMD sites listed above may be authorized after review and approval by the Central Valley Water Board staff.

Special Studies, Technical Reports, and Additional Monitoring Requirements

1. In addition to the required Receiving Water Monitoring for the DMD Site Discharge described in Monitoring and Reporting Program 5-01-116 and amended by Resolution No. R5-2013-0117, the Discharger shall monitor for the constituents of concern in Table 2.

Table 2: Receiving Water Monitoring for the DMD Site Discharge

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Mercury	ng/L	24-hour Composite[d]	1x when discharging	[a,c]
Mercury (methyl)	ng/L	24-hr Composite[d]	1x when discharging	[a,c]
Specific Conductance	µmhos/cm	24-hour Composite[d]	1x when discharging	
Chloride	mg/L	24-hour Composite[d]	1x when discharging	
Total Dissolved Solids	mg/L	24-hour Composite[d]	1x when discharging	[a]
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hour Composite[d]	1x when discharging	[a]
Total Organic Carbon	mg/L	24-hour Composite[d]	1x when discharging	[a]
Ammonia Nitrogen, Total (as N)	mg/L	24-hour Composite[d]	1x when discharging	[a, b]

a. Constituent shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved the Central Valley Water Board or the State Water Board.

b. pH and temperature shall be recorded at the time of ammonia sample collection.

c. Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2), The analysis of methyl mercury and total mercury shall be by U.S. EPA method 1630 and 1631 (Revision E), respectively, with a reporting limit of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.

d. Collect composite samples with a minimum of three grab samples combined into each composite sample. Samples shall be taken for analysis for each of the constituents listed above.

Grab samples shall be taken at two depths: (1) five feet below the surface of the receiving water; and (2) approximately 2/3 of the distance to the bottom. The two grab samples from each station shall be composited in equal volumes resulting in one sample from each station for analysis. Water samples shall be taken from the following stations:

Station	Description
R-3	Upcurrent of the discharge location and undisturbed by the effluent discharge from the DMD site, not to exceed 300 feet from the point of discharge.
R-4	300 feet downstream or at the edge of an approved mixing zone.

2. The Discharger shall minimize methylmercury concentrations in ponded water by implementing, to the extent feasible, best management practices. Minimizing the occurrences of organic carbon sources and vegetation at placement ponds is one of the identified best management practices.

   These best management practices are evaluated and supported by the Central Valley Water Board's multi-year coordinated study, in cooperation with the United States Army Corps of Engineers, which investigated the potential for mercury methylation to occur in hydraulic slurry dredging ponds.

3. **Mixing Zone Study.** This Notice of Applicability does not approve a mixing zone at this time. The Discharger shall conduct a mixing zone study for the discharges from the DMD sites to the Sacramento River. A work plan and schedule for conducting the study shall be submitted to the Central Valley Water Board **within 30 days** after initiation of the discharge to the Sacramento River. On the basis of the mixing zone study, the Executive Officer may grant a mixing zone consistent with the provisions of the General Order. The work plan should include:
   a. a description of the parameters collected for data;
   b. a description of historical parameter data used;
   c. a map and description of the sampling locations (i.e., site name, site ID, latitude, and longitude);
   d. a description of the sampling preparation, equipment calibration and testing, and mixing zone equipment;
   e. a description of the sample collection methods;
   f. a description of sample handling and custody;
   g. a description of the model used in the analysis;
   h. a sensitivity analysis;
   i. the critical parameters that impact the analysis (e.g., river flow, river stage, tidal influence, effluent temperature, flow rate, and wind speed);
   j. a description of the field verification of the model; and
   k. the results of the model verification.

   The mixing zone study shall be completed and submitted to the Central Valley Water Board **with the 2017 Notice of Intent for the annual maintenance dredging activity**.

   Under the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP):

   "A mixing zone shall be as small as practicable. The following conditions must be met in allowing a mixing zone:

   A: A mixing zone shall not:

   1. *compromise the integrity of the entire water body;*
   2. *cause acutely toxic conditions to aquatic life passing through the mixing zone;*
   3. *restrict the passage of aquatic life;*

4. adversely impact biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws;
5. produce undesirable or nuisance aquatic life;
6. result in floating debris, oil, or scum;
7. produce objectionable color, odor, taste, or turbidity;
8. cause objectionable bottom deposits;
9. cause nuisance;
10. dominate the receiving water body or overlap a mixing zone from different outfalls; or
11. be allowed at or near any drinking water intake. A mixing zone is not a source of drinking water. To the extent of any conflict between this determination and the Sources of Drinking Water Policy (Resolution No. 88-63), this SIP supersedes the provisions of that policy."

4. SWAMP guidelines shall be followed for the collection of samples for quality assurance/quality control (QA/QC) evaluation (e.g., field duplicates, travel blanks, and matrix spike/matrix spike duplicate samples), except for the number of travel blanks, which, instead of one per cooler, shall be one per sample site, plus one additional random travel blank taken during the sampling period.

5. The Discharger shall summarize data from the Self Monitoring Reports and Annual Report in an Excel format.

Dredging operations and the subsequent disposal of dredge material of the reaches described are authorized under General Order 5-01-116 and as by Resolution No. R5-2003-0117. The Project activities shall be operated in accordance with the requirements of the General Order Waste Discharge Requirements and Monitoring and Reporting Program 5-01-116 as revised by Resolution No. R5-2003-0117, Standard Provisions and Reporting Requirements, dated 1 March 1991, and with the information submitted in the Notice of Intent. Central Valley Water Board staff shall be notified immediately if any nuisance or detriment to receiving waters is observed during the Project activities. Failure to abide by the conditions of the General Order may result in an enforcement action as authorized by provisions of the California Water Code.

Upon Project completion, please notify the Central Valley Water Board so that a Notice of Termination may be issued. If you have any questions regarding this Notice of Applicability, contact Dr. Philip Giovannini at (916) 464-4812 or at Phillip.Giovannini@waterboards.ca.gov.

Original Signed by Adam Laputz for

Pamela C. Creedon
Executive Officer

Enclosures: *Attachment A* - California Regional Water Quality Control Board, Central Valley Region, Order 5-01-116, General Order Waste Discharge Requirements for the Sacramento Deep Water Ship Channel Maintenance Dredging Activities Channel Mile 0.0 to 43.4

Attachment B - California Regional Water Quality Control Board, Central Valley Region, Resolution No. R5-2003-0117, Amending Waste Discharge Requirements for the Sacramento Deep Water Ship Channel Maintenance Dredging Activities Channel Mile 0.0 to 43.4 and Stockton Deep Water Ship Channel Maintenance Dredging Activities Channel Mile 0.0 to 15.0

cc: (Electronic Copies Only)
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