





To: Water Resources Committee Members and Alternates / Board of Directors and Alternates

From: Scott Petersen, Water Policy Director

Date: November 3, 2025

RE: Recommendation to Board of Directors to Execute Memorandum of Understanding to Advance a Dredging

and Channel Maintenance Strategy

### Background

The San Luis & Delta-Mendota Water Authority's (Water Authority) Strategic Plan, adopted in late 2023, has a number of key Goals and Objectives that involve the environmental conditions near Jones Pumping Plant and associated river channels leading to it, including the following:

- Goal 1: Sustainable Water Resources
  - Objective 1.1: South-of-Delta water supply reliability is maximized.
  - Objective 1.3: The Water Authority engages in regulatory, legislative, legal, and administrative venues to optimize water supply.
- Goal 3: Reliable and Cost-Effective Operations, Maintenance, and Replacement.
  - Objective 3.2: Preventive maintenance is undertaken with the longest reasonable planning horizon for long-term cost-effectiveness and reliability.

#### History

Starting in about 2017, the Delta Watermaster and South Delta Water Agency met periodically with California Department of Water Resources (DWR), California Department of Fish & Wildlife (CDFW), United States Bureau of Reclamation (USBR), the State Water Contractors (SWC), the Water Authority, and Westlands Water District (WWD), (collectively "Workgroup"), to discuss obtaining permits to remove sediment from the Delta channels.

In June 2020, the Water Authority Board authorized staff to participate in the Sacramento San Joaquin River Delta Channel Restoration Program<sup>1</sup>, as well as the expenditure of up to \$50,000 to participate in a joint effort with the Workgroup supporting the development of a Planning Guide for Delta Channel Maintenance Activities. The Water Authority and other agencies in the Workgroup jointly released a RFP to solicit services to develop this Planning Guide and selected Anchor QEA.

In November 2021, Anchor QEA produced a "Planning Guide for the Channel Depth Restoration Program for the South Delta" (Planning Guide)<sup>2</sup> for the Workgroup. This Planning Guide presents a strategy for implementing a channel depth restoration program (Program) in the Delta channels, with initial emphasis on eight of the South

<sup>&</sup>lt;sup>1</sup> See Attachments

<sup>&</sup>lt;sup>2</sup> Anchor QEA (November 2021) South Delta Channels Planning Guide; request from Authority staff



Delta channels (Middle River, Old River (West/South/East/Side Channel), Fabian & Bell, Paradise Cut, and Tom Paine Slough).

The Planning Guide outlines the framework for developing and managing dredging projects to address sedimentation that has been impacting channel conveyance and water quality. The Planning Guide included discussions that covered dredging methodology, conceptual dredging design, real estate integration for potential dredging sites, environmental compliance and permitting, and conceptual costs. Opportunities were identified to support the use of the dredge material for ongoing maintenance and anticipated improvements of the Delta levee system, and there is a demand for its use to increase turbidity farther west in the Delta estuary within San Pablo Bay to help the native fish species hide from predators.

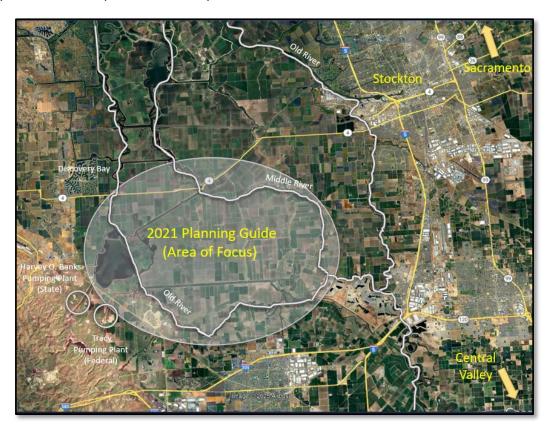


Figure 1 - 2021 Planning Guide (Sediment Removal Area of Focus per Anchor QEA)





Figure 2. South Delta Channels Restoration Program (Middle River, Old River [West/South/East/Side Channel], Fabian & Bell, Paradise Cut, and Tom Paine Slough.

After completion of the Planning Guide, California experienced a drought and flood cycle that led to other priorities taking precedence over the implementation of the Program, and South Delta Water Agency shifted their approach to aligning needed dredging activities with other projects being advanced, like the Paradise Cut project. Water Authority staff's perspective is that an ongoing program to address necessary channel maintenance, paired with potential pilot projects in areas of greatest need, will be the most effective approach to resolving this issue in the near and long-term.

#### **Implications**

If a long-term channel maintenance program is not developed and implemented, channels of the Sacramento-San Joaquin Delta, and, in particular, those in the southern Delta will continue to suffer from diminished water depth due to siltation and siltation impacts including:

- Net flow in the channels (reduced)
- Water temperature (increased)
- Dissolved oxygen (reduced)
- Salinity ("hot spot" buildup)
- Concentration of constituents of concern (increased)
- Toxic algae blooms (increased)
- Navigation (impeded)
- Flood response and levee maintenance (compromised)
- Invasive species (expanded)



#### Issue for Decision

Whether to authorize staff to execute the attached Memorandum of Agreement to Advance a Dredging and Channel Maintenance Strategy<sup>3</sup>, in substantially similar form.

### Recommendation

Staff recommends that the Water Resources Committee and the Board authorize staff to execute the Memorandum of Agreement to Advance a Dredging and Channel Maintenance Strategy, in substantially similar form.

### **Analysis**

The MOU is intended to demonstrate the support of signatory agencies to develop an "integrated dredging and channel maintenance strategy" to address channel maintenance and siltation removal efforts in the relevant areas of the Delta.

The Participants intend to develop an integrated strategy that would allow for streamlined permitting, planning, and implementation of channel-maintenance and -dredging projects through initiatives focused particularly on, but not limited to, the following areas of cooperation:

- 1. Build upon existing science and innovative permitting practices to expedite the pace and scaling of planning, permitting and funding to achieve the desired results.
- 2. Collaborate to identify the full set of potential channel-maintenance and -dredging projects within the focal area to be addressed with streamlined permitting, and to agree upon criteria to prioritize those potential projects, where joint implementation is sought.
- 3. Where reasonably feasible, develop funding formulas that reflect the benefits of potential project(s). The Participants understand and agree that nothing in this MOU requires or constitutes any commitment of federal, State, or local funds or appropriation. Nothing in this MOU obligates the Participants to future payments or cost shares.

The objective would be to: (1) engage permitting agencies early and secure all necessary permits; (2) identify an adequate and consistent source of funds; (3) reestablish adequate channel depths; and (4) provide for regular dredging that removes accumulating sediments to improve long term conditions for beneficial uses and the health of the Bay-Delta estuary. The Program, when implemented, should assist in resolving water level problems in the south Delta which will benefit CVP and SWP operations.

### **Budget**

There are no budget implications anticipated through the remainder of FY26, with no planned expenditures for this program in the FY27 budget, beyond staff and consultant time to work on the advancement and development of this program, in coordination with other MOU partners.

<sup>&</sup>lt;sup>3</sup> See Attachments.



# **ATTACHMENTS**

### MEMORANDUM OF UNDERSTANDING TO ADVANCE A DREDGING AND CHANNEL MAINTENANCE STRATEGY

This Memorandum of Understanding ("MOU") is entered into by the below-signed persons and agencies, hereinafter referred to as the "**Participants**." This MOU is effective as to each Participant as of the date that the last Participant signs (the "**Effective Date**").

#### **RECITALS**

**WHEREAS**, the Participants have an interest in improving environmental conditions, reducing flood risk, and improving water-supply reliability and water quality in the southern Sacramento-San Joaquin Delta.

**WHEREAS**, the Participants agree that properly planned and implemented channel-restoration, -maintenance, and -dredging projects could improve long term conditions in the Delta by increasing net flow in the dredged channels, improve navigation and water quality, reduce invasive species' populations and occurrences of toxic algae blooms, and enhance flood safety (the "desired results").

**WHEREAS**, in recent years, complex permitting requirements and increasing construction costs have made it difficult for individual Participants to plan, permit, and implement such channel-maintenance and dredging projects.

**WHEREAS**, the Participants are interested in working together to improve the ability to plan, permit, and implement channel maintenance and dredging projects. The Participants understand and agree that no collective channel-maintenance or dredging project can be planned, permitted, or implemented absent necessary permissions and funding.

Therefore, the Participants have reached the following understanding:

# SECTION I Objective

The Participants' objective for entering into this MOU is to advance an integrated dredging and channel maintenance strategy that could greatly simplify the planning, permitting, and implementation of dredging and channel-maintenance projects, to make those activities more economical and accessible to those that need to maintain or dredge within the South Delta adjacent channels that have a need, when all necessary permissions and funding are secured.

# SECTION II Areas of Cooperation

The Participants intend to develop an integrated strategy that would allow for streamlined permitting, planning, and implementation of channel-maintenance and -dredging projects through initiatives focused particularly on, but not limited to, the following areas of cooperation:

- a) Build upon existing science and innovative permitting practices to expedite the pace and scaling of planning, permitting and funding to achieve the desired results.
- b) Collaborate to identify the full set of potential channel-maintenance and dredging projects within the focal area to be addressed with streamlined permitting, and to agree upon criteria to prioritize those potential projects, where joint implementation is sought.
- c) Where reasonably feasible, develop funding formulas that reflect the benefits of potential project(s). The Participants understand and agree that nothing in this MOU requires or constitutes any commitment of federal, State, or local funds or appropriation. Nothing in this MOU obligates the Participants to future payments or cost shares.

## SECTION III Coordination

The Participants will identify their roles, including the primary championing entity.

#### SECTION VI No Legal Obligations, Rights, or Remedies

This MOU is a voluntary initiative. It does not create any legally binding rights or obligations and creates no legally cognizable or enforceable rights or remedies, legal or equitable, in any forum whatsoever. In addition, the pledges in this MOU are not conditioned upon reciprocal actions by other Participants; each Participant retains full discretion over implementation of its pledges in light of the Participant's individual circumstances, laws, and policies; and each Participant is free to withdraw from the MOU.

## SECTION VII Availability of Personnel and Resources

This MOU does not involve the exchange of funds, nor does it represent any obligation of funds by any Participant. All costs that may arise from activities covered by, mentioned in, or undertaken pursuant to this MOU will be assumed by the Participant that incurs them, unless otherwise expressly agreed in a future written arrangement in accordance with applicable laws. All activities covered by, mentioned in, or undertaken pursuant to this MOU are subject to the availability of funds, personnel and other resources of each Participant.

# SECTION VIII Compliance with Applicable Laws

This MOU shall be construed consistent with all applicable laws, and activities covered by, mentioned in, or undertaken in connection with this MOU shall be subject to, and shall be undertaken in a manner consistent with, all otherwise-applicable laws.

# SECTION IX Interpretation and Application

Any difference that may arise in relation to the interpretation or application of this MOU will be resolved through consultations between the Participants, which will endeavor in good faith to resolve such differences.

### SECTION X Final Provisions

This MOU is effective for a four-year period from the Effective Date, unless terminated earlier, renewed, or extended by the Participants.

This MOU may be renewed, extended, or modified by mutual consent of the Participants. Any modification shall be made in writing and specify the date on which such modification is to become effective.

Any of the Participants may, at any time, withdraw from this MOU by providing a written notice to the other Participant(s). A Participant that intends to withdraw from this MOU shall endeavor to provide notice in writing of such withdrawal to other Participants thirty (30) days in advance.

Nothing in this MOU is intended to be a pre-decisional commitment of resources. Any commitment to implement the activities described in this MOU is dependent on all necessary environmental review and regulatory approvals.

This MOU may be executed in separate counterparts, each of which when so executed and delivered will be an original. All such counterparts will together constitute but one and the same instrument.

FOR THE [AGENCY NAME] OF [PARTNER NAME]

FOR THE [GOVERNMENT or AGENCY] OF THE STATE OF CALIFORNIA or OF THE UNITED STATES OF AMERICA



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#### SACRAMENTO SAN JOAQUIN RIVER DELTA CHANNEL RESTORATION PROGRAM

Representatives of the above-identified federal agencies, state agencies, local agencies and non-governmental entities are interested in exploring a **Delta Channel Maintenance Program**.

#### **Problem Statement**

Channels of the Sacramento-San Joaquin Delta, and, in particular, those in the southern Delta, suffer from diminished water depth due to siltation. The siltation impacts:

- Net flow in the channels (reduced)
- Water temperature (increased)
- Dissolved oxygen (reduced)
- ° Salinity ("hot spot" buildup)
- Concentration of constituents of concern (increased)
- Toxic algae blooms (increased)
- ° Navigation (impeded)
- ° Flood response and levee maintenance (compromised)
- Invasive species (expanded)

#### **Proposed Action**

Through a transparent, inclusive, and collaborative process, develop and implement a comprehensive, long-term program to remove excess silt buildup from Delta channels, at least initially targeting those in the southern Delta. The program would identify the scope of the problem, criteria for silt removal operations (dredging), and mitigation measures. The objectives would be to: (1) engage permit agencies early and secure all necessary permits, (2) establish an adequate and consistent source of funding, (3) reestablish adequate channel depths, and 4) provide for regular dredging that removes accumulating sediment to improve conditions for beneficial uses and the health of the Bay-Delta estuary.

#### **Background Information**

<u>Impacts Generally</u>: Siltation in the Delta channels has occurred and, left unaddressed, is reasonably expected to continue to result in more severe consequences. The buildup of silt fundamentally alters the hydrodynamics to the detriment of all beneficial uses. As sediment accumulates, the amount of flow which can travel in and through the channels decreases. With decreased channel capacity, incoming flows (whether from river or tidal action) encounter greater resistance and thus reduced flows pass into and through the channels. When flows are reduced, the beneficial uses are impaired, and the health of the Bay-Delta estuary suffers.

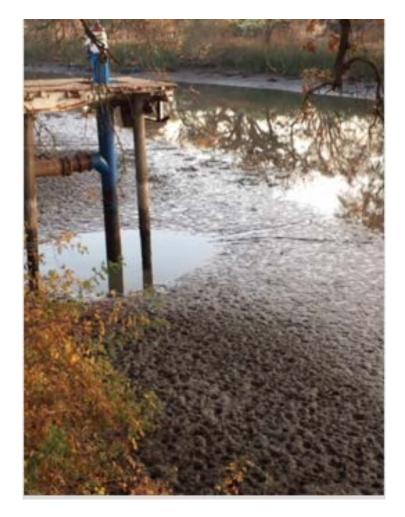
<u>Ecosystem Impacts</u>: Shallower channels constrict flow for habitat, increase temperatures and decrease dissolved oxygen in the water, all of which adversely affect fish and other water-dependent species. Reduced channel capacities also decrease capacity to dilute pollutants, such as salts and metals, and encourage the growth of invasive plant species and harmful algae blooms. These invasives further degrade aquatic as well as terrestrial habitat in areas that have been designated critical habitat for protected fish species.

<u>Navigation Impacts</u>: Reduced depth impacts the accessibility of south Delta channels for commerce, recreation, emergency response, and marine construction including water-based levee repairs.

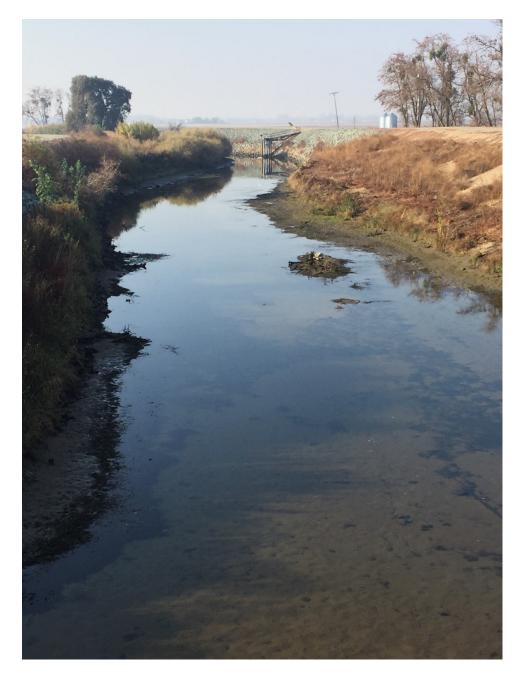
<u>Water Supply Impacts</u>: For in-Delta water users, shallow channels impede diversions due to pumps' and siphons' inability to divert water without adequate depth. The silt deposition is also not uniform and can create mounds or channel features that block water from reaching areas that otherwise would have sufficient water elevation for diversion. Also, because of the effect on hydrodynamics, water levels, and quality, the excess silt buildup generates avoidable and unnecessary friction among regulators, recreational interests, in-Delta water users, and the operators of the CVP and SWP, both of which depend on Delta channels to convey water for use in areas south of the Delta.

<u>High Flow Events</u>: Very high flows entering the Delta might have formerly been expected to flush accumulated sediment out of the area and improve channel capacity. This is no longer the case; recent high flows, like those that occurred in 2017, actually increased sediment buildup in many South Delta channels. The fast-moving flows on the San Joaquin River bring heavy sediment loads which then settle out in the meandering and slow-moving Delta channels. Thus, it is now reasonable to expect that the adverse effects of the diminished channel capacity are increasing, and high flow events are unlikely to solve the problem.

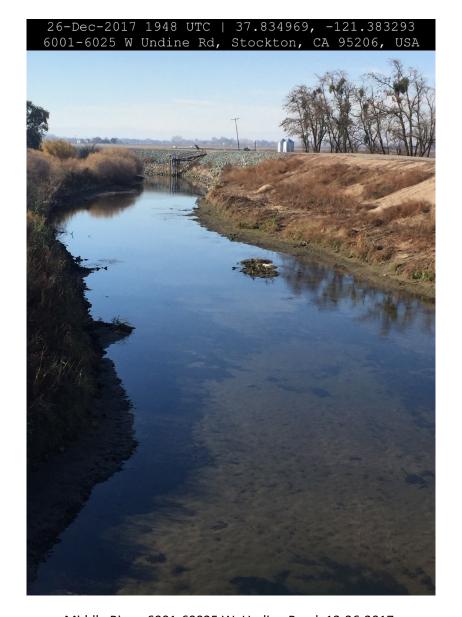
<u>Potential Uses of Dredge Material</u>: Although dredge material is expected to improve levees by depositing the material on the land side of levees to form stability berms, other uses, such as supporting Delta restoration projects would be explored.



Old River at 17500 S. Tracy Blvd. No date.



Middle River 6001-6025 W. Undine Rd. No date.



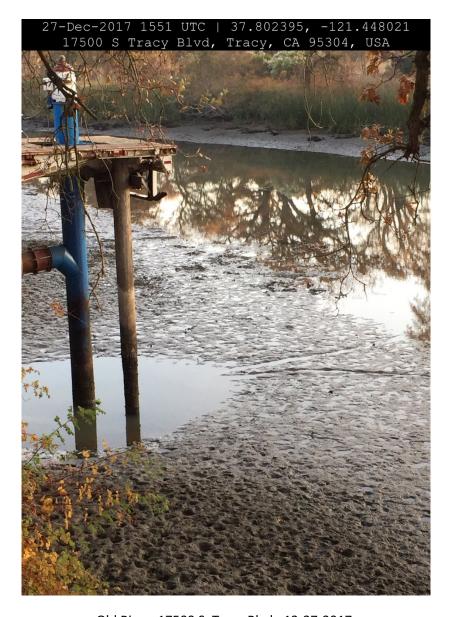
Middle River, 6001-60025 W. Undine Road, 12-26-2017.



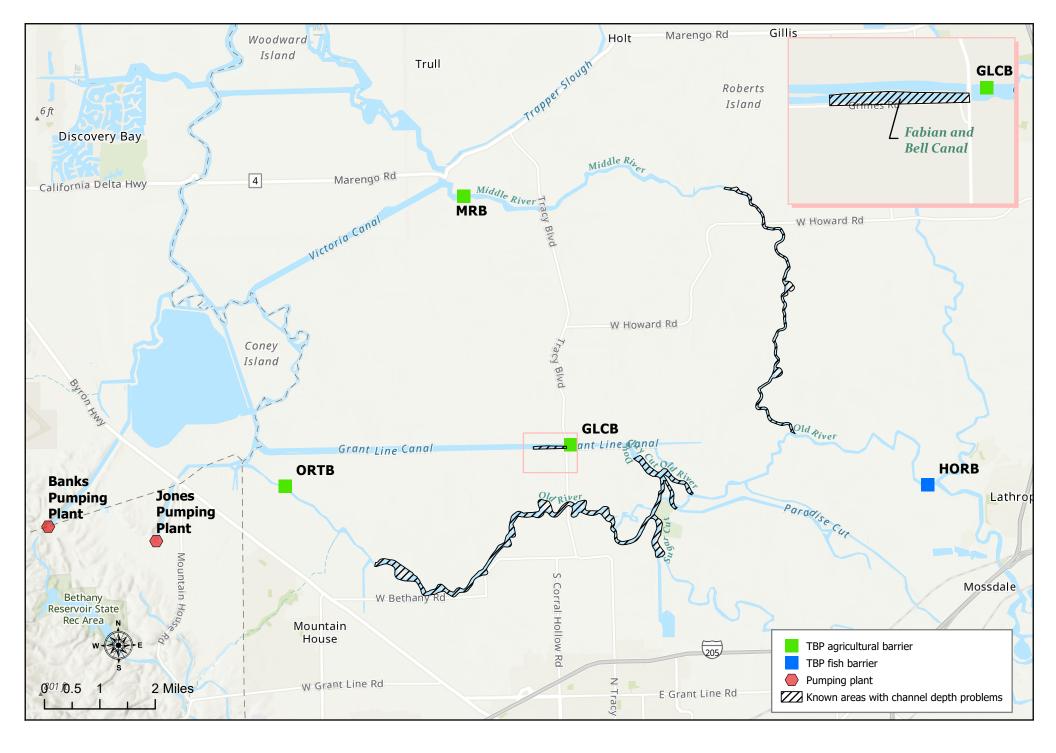
Old River, 17500 S. Tracy Blvd. 12-26-2017.



Old River 17500 S. Tracy Blvd, 12-27-2017.



Old River, 17500 S. Tracy Blvd., 12-27-2017.



Sacramento and San Joaquin River Delta Channel Restoration Program