

# RECLAMATION

*Managing Water in the West*

## Draft FINDING OF NO SIGNIFICANT IMPACT

### Renewal of License for Department of Water Resources to Store Dredged Material on Reclamation Property FONSI-11-007

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# Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation), has determined that an environmental impact statement is not required for the renewal of a five-year authorization for the Department of Water Resources (DWR) to place dredging spoils on Reclamation property. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Final Environmental Assessment (EA) Number EA-11-107, *Renewal of Authorization for Department of Water Resources to Store Dredged Material on Reclamation Property*, which is hereby incorporated by reference.

## Background

The South Delta Temporary Barriers Project (TBP), initiated as a test project in 1991, was partially in response to a lawsuit filed by the South Delta Water Agency (SDWA). The suit alleged that operations by DWR and Reclamation on the San Joaquin River reduced the quantity and quality of waters flowing from the San Joaquin River to the south Delta, and that that operation of the State Water Project (SWP) and Central Valley Project (CVP) pumps lowered water levels, reversed flows, and diminished the influence of the tides.

The TBP consists of four rock barriers across South Delta channels that are in place only at certain times of the year. In various combinations, these barriers improve South Delta water levels, water circulation, and conditions for San Joaquin River salmon migration. Of the four temporary rock barriers, the first is at the head of Old River, and is installed twice each year: in the spring, typically from April 15<sup>th</sup> to May 15<sup>th</sup>, and in the fall between September 15<sup>th</sup> and November 30<sup>th</sup>. This barrier has been in place most years since 1963. The barrier installation and removal dates are based on the US Army Corp of Engineers Section 404 Permit, the California Department of Fish and Wildlife 1601 Permit and various Temporary Entry Permits required from landowners and local reclamation districts.

The second feature of the TBP at the head of Old River is a non-physical barrier. The non-physical barrier consists of a multi-stimulus fish barrier, comprising a Bio-Acoustic Fish Fence (BAFF<sup>tm</sup>) with a strobe-lit bubble curtain. The BAFF<sup>tm</sup> is a patented device developed by Fish Guidance Systems which combines acoustic stimuli with a bubble curtain to create a "wall of sound" at frequencies and levels that are repellent to fish. The non-physical barrier was installed in 2009 and 2010, but was not used in 2011 because flows in the San Joaquin River were too high. The remaining three barriers are classified as agricultural barriers because their primary beneficiaries are agricultural water users in the South Delta. These barriers are used on Old River, Middle River and Grant Line Canal, typically between April 15<sup>th</sup> and November 30<sup>th</sup> of each year. Extensive studies are performed each year to evaluate migration conditions for San Joaquin River salmon and steelhead when the fish barriers are in place. The TBP continues to be implemented annually as an interim solution to water levels and circulation until a permanent solution can be implemented.

Over time, silt and debris can collect at various locations in the area waterways. When this material buildup becomes excessive, it can affect flood control efforts, levee stability, Delta

channel navigation function, recreational opportunities and water quality/quantity for downstream users. DWR addresses these problems by removing silt on an as-needed basis. After removal from the waterway, dredge spoils are stored and dried until a beneficial reuse is found.

Due to restrictions by the Central Valley Regional Water Quality Control Board, DWR can only place dredge spoils in locations that have been approved by the Regional Board through their General Order Waste Discharge Requirements. In August 2000, DWR obtained General Order No. 5-00-183 under California Water Code Section 13263. This allowed DWR to place dredged material on the Bureau of Reclamation's land at the west end of Fabian Tract, a 34.4 acre piece of land located in San Joaquin County, California, at the intersection of the Delta Mendota Canal (DMC) and Grant Line Canal southeast of the Clifton Court Forebay. The Fabian Tract property is also known as Parcel APN 189-050-18, or Settlement Pond #1.

Following issuance of the General Order in 2000, settling ponds were constructed at the site to receive dredged material. These ponds were designed for "hydraulic dredging". With this dredging method, a floating hydraulic cutter-head suction dredge churns up the channel bottom sediment with a cutter head and then sucks the churned sediment and water into a conveyance pipe which transports the water-laden sediment to the dredge spoils disposal site. Excess water is then decanted and returned to the river channel. From August to November 2000, approximately 70,000 cubic yards (cy) of dredged material was removed from around Hammer Island and the Rivers End Marina/Livermore Yacht club, and managed in these ponds.

The 2004 and 2005 dredging projects were much smaller in size and consisted of localized dredging of sediment that had blocked farmers' irrigation siphons. Instead of hydraulic dredging, these operations made use of a "clamshell dredge", which involves using a clamshell bucket mounted on a dredging barge. The barge is held in place using retractable legs ("spuds") that are lowered into the channel bottom. Sediment is excavated and placed in a second barge, which transports the material to an unloading site.

The 2004 project involved removal of approximately 31,000 cy from the west end of Union Island in Old River, northeast of Coney Island. The 2005 project involved removal of approximately 7,000 cy to the south of the 2004 area on Old River, south and southeast of Coney Island. Since the clamshell method does not produce free liquids, the majority of the berms put in place in 2000 were removed.

DWR would like to be prepared for anticipated future dredging needs. These future dredging activities could involve anywhere from a few hundred cubic yards up to tens of thousands of cubic yards. New dredging would likely be located along Old River, Middle River and/or Grant Line Canal in the South Delta. Due to permit restrictions, dredging would only take place in a limited window in the late fall to early winter. Either hydraulic or clamshell dredging could be used. In order to be prepared for these anticipated future needs, DWR is requesting renewal of the existing land use authorization with Reclamation to allow storage of dredged materials on Parcel No. 189-050-18.

## **Proposed Action**

Reclamation proposes to issue a land use authorization to DWR for storage of dredged material from nearby waterways on Reclamation property. Reclamation would also give permission for DWR to use the property for access to install, remove and maintain temporary barriers in adjacent waterways. Although future dredging needs are still uncertain, DWR wants to be prepared so that problems can be dealt with in a timely manner.

### **Temporary Dock and Storage Cell Construction**

In order to prepare the site, a bulldozer and grader would be used to build haul roads and pre-excavate cells where spoils would be placed. A temporary off-loading facility would also be constructed onsite to receive barges and facilitate loading of dump trucks. During previous dredging projects the off-loading facility consisted of a ramp cut into the levee leading to another barge, moored in place in the waterway. It is anticipated that the same method and location would be used for future offloading needs. In order to avoid resource impacts, the dock would only be in place between August 1 and October 15.

### **Dredge Spoil Placement**

Following barge delivery of the dredge spoils to the temporary loading dock, an excavator would load the material into trucks which would then deliver the material to the storage site by way of the temporary haul roads and/or Fink Road. DWR plans to continue to fill from the north end of the site to the south, starting near where spoils from earlier dredging activities were placed. The silt would be neatly spread out or stockpiled to ensure a maintained appearance and discourage unauthorized dumping.

Once in place, the sediment would be allowed to dry. When it meets applicable requirements, it would either be used in place for beneficial purposes or would be removed and transported by truck to other upland sites for reuse.

Land-based equipment to be used would include a grader, bulldozer, dump trucks, track excavator and water truck. Equipment would be stored and operated on Reclamation property while a dredging project is underway. DWR would be responsible for maintaining the site and complying with all permit requirements.

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

## **Findings**

### **Water Resources**

The primary difference in impacts between the Proposed Action and the No Action alternative would be due to construction of haul roads and storage cells, and operation of a temporary dock at the Fabian Tract site rather than at another location.

In order to construct the temporary dock, it would be necessary to clear approximately 1200 square feet (30' x 40') of riparian vegetation along the waterway. A barge would then be positioned against the shore and held stationary. A small cut would be made in the levee and an earthen ramp would be constructed leading from a haul road down to the barge deck. The equipment would be removed and the levee would be restored after the dock is no longer needed. It is anticipated that the dock would be in place from August 1 through October 15, which is the period expected to pose the least risk to sensitive species.

Additional site work would include creation of storage cells for dredge spoils, and temporary haul roads to transport the material. Wetlands are known to have been present on the Fabian Tract property in the past, and although the land and drainage patterns have been heavily modified, some wetland areas may remain. It would be DWR's responsibility to assess the site for jurisdictional features and comply with applicable regulations.

### **Land Use**

Under the proposed action, use of the project site would not change. It would continue to be undeveloped beyond storage of dredge spoils. Storage of dredge spoils onsite would not interfere with any other uses, although changing the topography of the site could alter the flooding profile of the property. The Corps and DWR would be responsible for ensuring that the project does not create new flood hazards or worsen existing flooding.

### **Biological Resources**

#### **Special-Status Wildlife**

Effects are similar to the No Action Alternative. Most of the habitat types required by species protected by the ESA do not occur in the project area. The project area is dominated by agricultural habitat, and any remaining habitat consists of isolated fragments supporting small, highly vulnerable animal and plant populations.

Provisions for the avoidance of effects to federally-protected species under ESA have been incorporated into the proposed action (see specific Environmental Protection Measures and Commitments in Table 2-1). Therefore, Reclamation has determined the proposed project is *not likely to adversely affect (NLAA)* SJKF and VELB and is in consultation with the USFWS.

Avoidance measures for burrowing owl and Swainson's hawk have also been incorporated into the proposed action (see specific Environmental Protection Measures and Commitments in Table 2-1). By following these measures, Reclamation has determined there would be *no take* of bird species protected under the MBTA. If burrowing owls are detected during the preconstruction surveys the Reclamation biologist shall be notified and the project halted. Reclamation would then consult with the CDFW on appropriate mitigation measures.

#### **Special-Status Fish Species and Critical Habitat**

Impacts to special-status fish species that may be in the Proposed Action area during dock installation would include short-term loss of habitat and degradation of water quality. Environmental Protection Measures and Commitments have been incorporated into the Proposed Action to protect special-status species (Table 2-1). As specified above, the dock would be installed only temporarily, and habitat conditions would be returned to pre-existing conditions.

Central Valley steelhead. Reclamation has determined that the project is *NLAA* the Central Valley steelhead or its designated critical habitat and is in consultation with NMFS. Any adverse effects from the project to this listed fish species are extremely unlikely to occur and are considered discountable. No foreseeable potential for take of individuals exists. Designated critical habitat for Central Valley steelhead exists within the Action area but the PCEs would not be diminished by the project, i.e., rearing habitat and migration corridors would not be demonstrably affected by the action.

Delta smelt. Reclamation has determined that the project is *NLAA* delta smelt or designated critical habitat in the area and is in consultation with the USFWS. There is no foreseeable potential for take of individuals resulting from this project because they would be from the area during the in-water work window. The Fabian Tract lies within delta smelt critical habitat designated boundaries but the PCEs of the designated critical habitat would not be diminished by the project, i.e., rearing habitat and migration corridors would not be demonstrably affected by the action.

Green sturgeon. Reclamation has determined that the project is *NLAA* green sturgeon or its designated critical habitat and is in consultation with NMFS. The potential for take of individuals is discountable. It is unlikely this species in the Action area during the in-water work window. Critical habitat for green sturgeon exists within the Action area but the PCEs of the designated critical habitat would not be diminished by the project, i.e., rearing habitat and migration corridors would not be demonstrably affected by the action.

### **Air Quality**

Under the proposed action, DWR would operate construction machinery and vehicles to transport dredged spoils to storage cells for later use. Land-based equipment would include a grader, bulldozer, dump trucks, track excavator and water truck. Depending on the type of dredging used, additional equipment could include a hydraulic dredge or a tugboat, a dredging barge and a transport barge. Operating this equipment would produce air emissions of criteria pollutants. However, emission quantities cannot be calculated at this time because they depend on the hours that equipment would be operated, which cannot be known until dredging locations and volumes are identified.

In addition to vehicle emissions, earthmoving operations can produce fugitive dust as loose soil becomes airborne. The dredge spoils themselves would still be wet and are unlikely to be a source of airborne dust. However, construction of haul roads and the proposed storage cells could produce particulate matter emissions if not properly managed. To address this concern, contractors would be required to use best management practices to limit the extent to which grading, excavation and material stockpiling could impact air quality.

### **Global Climate**

GHG emissions would be produced by the vehicles and equipment necessary to dredge waterways, construct containment cells and place dredge spoils for storage. However, emission quantities cannot be calculated at this time because they depend on the hours that equipment would be operated, which cannot be known until dredging locations and volumes are identified.

Climate change could be expected to affect water cycles, which would affect the amount and timing of water available to users. CVP water allocations are made dependent on hydrologic conditions and environmental requirements. Since Reclamation operations and allocations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operational flexibility and therefore water resource changes due to climate change would be the same with or without the Proposed Action.

### **Cumulative Impacts**

The Council on Environmental Quality regulations implementing NEPA define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Future cumulative impacts should not be speculative but should be based upon known or reasonably foreseeable long-range plans, regulations, operating agreements, or other information that establishes them as reasonably foreseeable.

The following actions are considered in the analysis of cumulative impacts for the Proposed Action:

### **California Department of Water Resources Temporary Barriers Project**

The TBP consists of a proposal to seasonally install up to three rock flow control structures and one rock fish control structure in south Delta channels at various times of the year, until permanent flow control structures are constructed. The program was initiated in 1991 to protect San Joaquin salmon migrating through the Delta and provide an adequate agricultural water supply in terms of quantity, quality, and channel water levels to meet the reasonable and beneficial needs of water users in the SDWA.

The TBP is interrelated with this action because the dredging project's goal is to mitigate for siltation in the waterways. The proposed action is not expected to interfere with the TBP, or other mitigation actions.

### **Proposed South Delta Improvements Program**

The South Delta Improvement Program (SDIP) will improve the reliability of existing SWP facilities and operations within the South Delta. In addition it will ensure that water of adequate quantity and quality is available for diversions to beneficial use within the SDWA service area, as well as contributing to restoring the ecological health of aquatic resources in the lower San Joaquin River and South Delta. The proposed SDIP will cost \$53.9 million to construct and includes the following project components:

- Construction and operation of a new screened intake structure for the SWP Clifton Court Forebay. This new intake would be located on Byron Tract north of the Forebay and would use a new channel to move water from the screens into the Forebay.
- Possible channel dredging in a reach of Old River north of Clifton Court Forebay.
- Construction and seasonal operation of a permanent barrier in spring and fall to improve fishery conditions for salmon migrating along the San Joaquin River. This barrier is also referred to as the Head of Old River Barrier.

- Construction and operation of permanent flow control structures on Middle River and Old River near the DMC (also possibly in Grant Line Canal) to improve existing water levels and circulation patterns for agricultural users in the south Delta.
- Increased diversions into Clifton Court Forebay up to a maximum of 20,430 acre-feet per day on a monthly averaged basis. This results in the ability to pump an average of 10,300 cfs at Banks Pumping Plant (with additional annual average SWP water deliveries of 46,000 acre feet per year under existing demand conditions and 122,000 acre feet per year under future demand conditions, estimated for the year 2020).

The SDIP is the follow-on project to the Temporary Barriers Project, and provides permanent facilities to replace the temporary rock barriers. The permanent facilities provide far greater flexibility in operations than the rock barriers, and provide improved boat passage and fish passage capabilities.

The proposed action and the SDIP are complementary, since both are intended to improve function of the adjacent waterways for downstream users.

### **West Delta Water Management Program**

The objective of the West Delta Program is to implement a land-use management program for effectively controlling subsidence and soil erosion on Sherman and Twitchell islands while also providing habitat for wildlife and waterfowl. DWR and CDFG have jointly developed the wildlife management plan for the two islands. That plan is also designed to benefit species of wildlife that occupy wetland, upland, and riparian habitats and provide recreational opportunities for hunting and wildlife viewing. In addition, property acquired and habitat developed through DWR's effort will be available for use as mitigation for impacts associated with DWR's ongoing Delta water management programs.

As a result of implementing the wildlife management plan, subsidence would be significantly reduced through minimizing oxidation and erosion of the peat soils on the islands. Minimizing oxidation and erosion would be accomplished by replacing present agricultural practices with land-use management practices designed to stabilize the soil. Those practices range from minimizing tillage to actively establishing wetland habitat. Altering land-use practices could result in up to 13,600 acres of managed wildlife and waterfowl habitat; increased flood control; additional protection of water quality in the Delta; increased reliability of SWP and CVP water supplies; and additional recreational opportunities in the Delta. Establishing wetland and wildlife habitats on the two islands also is consistent with national and State policies designed to enhance and expand wetlands.

The proposed action is expected to be compatible with the goals and activities of the West Delta Water Management Program.