

FINDING OF NO SIGNIFICANT IMPACT

Delta Cross Channel Temporary Closure Multi-Year Study

United States Department of the Interior
Bureau of Reclamation
Bay-Delta Office
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BACKGROUND

The lower Mokelumne River (LMR) produces a substantial Chinook salmon (*Oncorhynchus tshawytscha*) return in most years and significantly contributes to the Central Valley Chinook salmon population and associated commercial and sport fisheries. The LMR also supports a significant population of federally threatened Central Valley steelhead (*Oncorhynchus mykiss*) and is designated critical habitat for this species. Over the past several years there has been a significant decline and slow recovery in the abundance of returning fall-run Chinook salmon throughout the Central Valley. Natural production of Chinook salmon in the LMR has been significantly impacted due to the reduced escapement. One factor that has been identified as contributing to low returns in the LMR is straying to other rivers, particularly the lower American River. By limiting the straying of fish reared on the LMR, the Mokelumne Joint Settlement Agreement Partnership and the National Marine Fisheries Service (NMFS) hypothesize that the proportion of LMR spawning fish will increase. In the long-term, limiting straying should increase the overall annual number of spawning fish and may lead to a more sustainable population of fish that annually return to the LMR.

The Delta Cross Channel (DCC) is located on the Sacramento River near Walnut Grove, California. The DCC connects to Snodgrass Slough, which in turn connects to the Mokelumne River. Reducing straying of LMR fall-run Chinook salmon to other river systems has been identified as one of the key parameters that may be impacted positively by implementing changes to DCC operations. It is hypothesized that having the DCC closed during a portion of October would strengthen migration cues for migratory fish, including Chinook salmon.

During 2012 through 2016, the U.S. Bureau of Reclamation (Reclamation) proposes closing the DCC for up to 10 days during the first half of October. The duration of the closure in each year would be determined by evaluating in-season water quality modeling to ensure compliance with State Water Resources Control Board Decision 1641 water quality standards and minimization of potential adverse impacts to water supply, as further described in the attached Final Environmental Assessment (EA). Using real-time data sources, annual closures would be scheduled between 0 and 10 days in accordance with the proposed water quality concern level targets. The purpose of the proposed action is to evaluate the effects of short term modifications to DCC gate operations annually in the fall over a five-year period on reduction of LMR fall-run Chinook salmon straying.

Reclamation and the California Department of Water Resources (DWR) would not need to modify their upstream reservoir releases to accommodate the proposed action or for improvement of Delta water quality conditions. During the study period, if water quality has the potential to exceed concern levels, the proposed action would not be undertaken.

If unanticipated impacts to water management capabilities are reported in the vicinity due to the proposed action, Reclamation will modify the duration of the closure as appropriate. If delta smelt or longfin smelt monitoring suggests an increased risk of entrainment of these species into the lower San Joaquin River, the proposed action would not be undertaken. Reclamation would coordinate closing the DCC gates with East Bay Municipal Utility District's (EBMUD's) anticipated series of pulse flows on the LMR in October. This coordinated water operation is intended to reduce straying to other river systems and therefore further improve returns of LMR origin Chinook salmon to the LMR beyond those observed with a fall pulse flow and no closure of the DCC.

FINDINGS

An EA was prepared to evaluate the potential environmental impacts associated with the proposed action and the no action alternative. The Final EA is attached for reference.

In accordance with the National Environmental Policy Act of 1969, as amended, Reclamation's Bay-Delta Office has found that the proposed closure of the DCC gates for up to 10 days in October from 2012 through 2016 would not be a major Federal action that would significantly affect the human environment. Therefore, an environmental impact statement is not required.

This finding of no significant impact is based on the following:

- The proposed action would not affect the following resources: groundwater, geology and soils, vegetation and wildlife, air quality, power, cultural resources, Indian trust assets, socioeconomics, environmental justice, climate change, aesthetics, noise, hazardous and toxic waste, and transportation. The proposed action would not have any adverse cumulative effects.
- The proposed action is not anticipated to adversely affect, and may benefit, fisheries, as the short-term impacts would be to direct the adult escapement of LMR fall-run Chinook salmon and California Central Valley steelhead back to their natal river. The proposed action would also reduce outmigrating juvenile salmon exposure to alternate routes into the south Delta. Also, a reduction in straying by these species to other river systems may reduce competition for spawning habitat on other tributaries of the Bay-Delta. Because the area is very infrequently occupied by listed juvenile salmonids in the early fall, and the proposed action is anticipated to have a beneficial effect on LMR adult fall-run Chinook salmon by reducing straying, the proposed action is anticipated to have a beneficial effect on fall-run Chinook salmon.

Juvenile California Central Valley steelhead are not likely to be outmigrating during the project period or proximate period. Therefore, California Central Valley steelhead are not likely to be adversely impacted by the proposed action. While green sturgeon may occupy the Delta year round, temporary closure of the

DCC would not likely negatively impact them since historically no juvenile green sturgeon have been observed around the DCC and closure of the manmade DCC would emulate historic natural conditions. Delta smelt and longfin smelt are not anticipated to be in the project area during the time of the proposed closure, but delta smelt and longfin smelt distributions will be reviewed annually to avoid entrainment into the lower San Joaquin River. Additionally, Reclamation has committed to open the DCC gates if water quality monitoring indicates the potential exceedance of water quality standards during the proposed action. This would avoid potential impacts to water quality and eliminate potential cumulative effects on fisheries from the proposed temporary closure of the DCC.

- The proposed action is within the range of historical operation of the CVP, as the opening and closing of the gates to manipulate flows in the eastern Delta is the primary function of the DCC. The timing of this limited closure coincides with the most favorable tidal cycle. The operational criteria included as part of the proposed action are designed so that the impacts to water quality would be de minimis, as the limited closure would be timed based on existing conditions each October so that no water quality objectives would be exceeded. Also, Reclamation will coordinate with DWR to model salinity at several locations and will adapt the duration of the proposed action if the proposed action's Delta water quality concern levels are exceeded in modeling runs completed prior to and during the proposed action period. Planning efforts for annual implementation of the proposed action will be coordinated with the CALFED Operations Group, Water Operations Management Team, and Delta Smelt Working Group. Reclamation and DWR will review modeling approximately half way through the proposed closure and earlier if unexpected water quality conditions are observed. Also, if unanticipated impacts to water management capabilities are reported in the vicinity due to the proposed action, Reclamation will modify the duration of the closure as appropriate. The temporary nature of the closure (up to 10 days) and the commitment by Reclamation to open the DCC if water quality modeling or monitoring indicates compliance points are approaching concern levels, would avoid and minimize potential impacts to water supply from the proposed action. Additionally, EBMUD will coordinate fall pulse flows from the San Joaquin River tributaries in close proximity to the timing of the proposed action to improve water quality conditions in the South Delta. Therefore, the proposed action would have a less than significant impact on water supply and water quality.
- While closure of the DCC could potentially impact boaters by causing them to detour around the closure, the proposed action would occur outside of the peak recreation season, and would only occur for a maximum of ten days. Reclamation will release information to the press regarding details of the closure each fall prior to implementing the closure to ensure public awareness. Therefore, the proposed action would have less than significant impacts on recreation resources.