4.15 RECREATION

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Affect existing recreational opportunities?	☐	☐	☒	☐
b. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
c. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

4.15.1 Environmental Setting

The Delta provides a wide variety of public recreational opportunities including motorized boating, fishing, camping, sailing, hunting, windsurfing, and waterskiing. The Delta accommodated approximately 6.5 million user days in 2000, while visitation is projected to increase to about 8 million user days in 2020 (Cal Boating 2002). A statewide survey of registered boat owners found that 30 to 40 percent of boaters who visit the Delta recreate in the winter months, compared to over 80 percent in the summer. Roughly two-thirds of those interviewed recreated in the Delta during the spring. Duck hunting is a popular activity on the weekends and holidays in the area in the fall and early winter; there is also some hunting on the weekdays at hunting clubs (DFG 2008).

The Old River and Connection Slough sites are in an area that the California Department of Boating and Waterways (Cal Boating) defines as the West Zone (one of six recreation zones in the Delta). Over half of the total acres of navigable waters in the Delta are in the West Zone, which encompasses the Old River and portions of the Middle River. This zone contains approximately 152 linear miles of navigable waterways, and is considered the water recreation hub of the Delta. About 15 percent of the total visitation in the Delta is in the West Zone. This zone contains over half of the 95 marinas in the Delta and the greatest number of boats on the water. Two marinas are located approximately 0.8 and 1.7 miles south and southwest of the Old River site (Holland Riverside Marina and Linquist Landing/Rock Slough Resort), and 21 additional marinas are located at Bethel Island, on the northwest side of Holland Tract. The West Zone is noted for fishing, sailing, and windsurfing; waterskiing is not as popular as in other zones in the Delta, although it does occur (Cal Boating 2002). A number of large vessels also are docked at Discovery Bay.

Boats are currently able to travel on the Old River between Bacon and Holland islands and on Connection Slough between Bacon and Mandeville Islands throughout the year, although a bridge just west of the Connection Slough site must be opened to allow large vessels to pass. Although the general area appears to be popular with boaters, no specific visitation information is available for the areas directly proximate to the proposed gate sites. Also, no specific information is available regarding the routes boaters travel when in the area. A Contra Costa County Sheriff's Department representative indicated that the Old River area is heavily used by recreational boaters, including water skiers and wakeboarders and those using personal watercraft. Some

yachting also occurs. Connection Slough is less heavily used than Old River (personal communication, D. Powell 2008).

4.15.2 Regulatory Setting

The U.S. Coast Guard (USCG) manages maritime mobility as one of its missions and is the lead federal agency on waterways management. USCG creates guidelines (such as for signage or lighting) that are subsequently incorporated by reference by Cal Boating, a state agency whose mission, in part, is providing safe and convenient public access to California waterways. The Project's waterway markers must be consistent with USCG standards (included in California Boating Law, Title 14, Article 6, Waterway Marking System). Each USCG District also prepares weekly Local Notices to Mariners, which are the primary means for disseminating information concerning aids to navigation, hazards to navigation, and other items of marine information of interest to mariners on the waters of the United States, including the Old River and Connection Slough. Specific types of information include reports of channel conditions, obstructions, hazards to navigation, dangers, restricted areas, and similar items. The Project must comply with California Harbors and Navigation Code, Section 660, which states that except in emergencies, any measure relating to boats or vessels adopted by any governmental entity other than Cal Boating shall be submitted to the department prior to adoption and at least 30 days prior to the effective date thereof. No local regulations relating to recreational boating are applicable to the Project.

4.15.3 Impacts and Mitigation Measures

4.15.3.1 No Project

The No Project alternative would not result in impacts to recreation because no development would occur.

4.15.3.2 2-Gates Project

a. Affect existing recreational opportunities

Less than Significant. Boating is the only recreational activity that would be affected by the Project. The Project would place temporary, operable gates across Old River and Connection Slough that would affect boaters by:

- Obstructing passage during construction
- Causing a delay for vessels requiring passage through the barriers while the gates are closed
- Limiting the maximum vessel size to the clear channel dimensions provided by the gate opening (75 feet at Old River and 60 feet at Connection Slough)
- Increasing the local current velocity through the gate opening due to the constriction of the channel cross-section
- Adding an obstruction to the river channels

Obstructing Passage during Construction and Removal

Most construction/removal would occur within the Old River and Connection Slough river channels. Construction equipment, such as barges and dredges could obstruct vessel passage, as could the actual placement of the barge-gate structures. As discussed in Section 2, however, during construction, the contractor would be required to maintain vessel access as needed.

Notices of construction would be posted at local marinas and in the Local Notice to Mariners. Navigational markers would be used to prevent boaters from entering the construction area, and speed limits would be posted. Safe vessel passage procedures would be coordinated with the USCG and Cal Boating.

Potential Delays during Operations

Recreational vessel passage on the Old River channel is of greater concern than along Connection Slough due to the higher volume of traffic. The Project has the potential to affect existing recreational opportunities by impeding vessel passage at certain times. The proposed operations scenario is described in Table 2.XX. It is anticipated that the gates would be in an open position much of time. The gates would be open throughout April and May and from July through November, during which time all vessels could pass and be minimally impeded. From December until March, the gates would be closed for approximately 0.5 hour to 2.5 hours a day. During March, the Old River gates would be closed on flood tide, up to 10 hours a day, and the Connection Slough gates would be closed except during a 4-hour period, during slack tides. During June, the Old River gates would be closed about 10 hours per day on flood-tide and open on ebb-tides (including slack-tides) about 14 hours per day, and the Connection Slough gates would be open about 4 hours per day on slack-tides. The gates would be open during weekends in June, which would facilitate access by recreational vessels.

The gate system was designed to be sufficiently flexible to allow for vessel passage as needed. Smaller vessels (24 feet or smaller and 10,000 pounds or less) could use the boat ramps, trailers, and tow vehicles that would be available to portage around the barrier while the gates are closed. The gates would be staffed 24 hours per day when operational, and the operator would be able to assist boaters using the boat ramp system. Larger vessels that need to move through this part of the central Delta while the gates are closed could be accommodated by opening the gate briefly to allow passage; smaller recreational vessels in the vicinity could pass at this time as well.

The lead agencies would keep the Sector Waterways Management Division (USCG Station Yerba Buena Island) informed about the Project, so that relevant information regarding the gates, methods of vessel passage, expected closure schedule, and duration of barrier installation activities was included in the Local Notice to Mariners as appropriate. The USCG also would update navigation charts as appropriate.

Additionally, an educational program would be implemented to inform boaters of the purpose of the Project, expected duration of installation activities and gate closures, and operational characteristics of the gates. The program would include notices in local newspapers and boater publications as appropriate; notices also would be posted at local marinas and boat launches.

No restrictions to boater access would occur once the gates were removed in 2014.

Limits to Vessel Size

The Old River site has been designed with a 75-foot clear channel, which is sufficiently large to accommodate the large recreational vessels that use the area (Moffatt & Nichol 2008). Such vessels are currently passing through a 75-foot-wide navigation opening at the Orwood Railroad Bridge, which is just south of the Old River barrier site. The Connection Slough site has a 60-foot opening, which would accommodate the types of vessels that use this portion of the affected river channel.

Increased Local Current Velocity

The gates could be opened within minutes if needed, providing sufficient time for the water levels to equalize and to ensure safe navigation through the gate. A boat safety exclusion zone would be established to keep small boats clear of the closed gates in case the gates began to open, both to avoid gate swing and changes in current velocity.

Channel Obstruction

Signage would comply with navigation requirements established by the U.S. Aids to Navigation System and the California Waterway Marker system. The boat safety exclusion zone would keep small boats clear of the closed gates to prevent collisions in case the gates began to swing open and to prevent accidents resulting from changes in current velocity. The exclusion zone would also keep small boats clear of the upstream side of the barrier during floods when the barrier is spilling and boats could be swept over the barrier. Channel markers also would be installed to show that the center opening (between the gate pivot posts) is the only navigable opening in the structure, and the side openings are not to be used (between the pivot post and the abutment). Gate structure markers would be used to indicate the limits of the structure and to indicate when the gate was closed or open to vessel traffic. The marker system would function for both day and night operation, and in times of reduced visibility (fog). Three sets of flood lights also would be included in the design, allowing the eastern and western gates and boat ramp to be illuminated.

A fender system is proposed to provide protection to the gate structure resulting from potential vessel impact. The fenders would consist of six timber pile dolphins constructed at each site. Three fenders would be placed at the sides of the navigation channels on the upstream and on the downstream approaches to the gates approximately 40 feet from the face of the barge. Vessel and recreational boating traffic intending to pass through the gates would enter the channel aligned with the gate opening and would not change direction until it has passed through.

Summary of Impacts

Access would be provided during construction in a manner that complied with the appropriate regulations, and boaters would be notified about the construction activities in advance. Once operational, the Project would have minimal effects on recreation during much of the year because the gates would remain open for all or much of the time. During March and June, longer closures would be required, but the gates would be open for the majority of the time, and they would be open on weekends in June. Small vessels would be able to portage around the barrier using the boat ramps, trailers, and tow vehicles, and the gates could be opened to allow large vessels to pass if needed. ***Note: the project description needs to describe the process for allowing large vessels to pass when the gates are closed.*** The Project has been designed to allow access by vessels up to 75 feet wide at Old River and up to 60 feet wide at Connection Slough, which would accommodate the types of vessels that typically use the affected river channels. Changes in current velocity would not pose a hazard to boaters because the water would equalize during the few minutes it would take for the gates to open and because the Project includes a safety exclusion zone. The Project would comply with all navigation marking requirements imposed by the USCG and Cal Boating. The lead agencies also would provide information about gate closures to recreational boaters to allow them to plan their trips to occur when gates are open or provide notice to the gate operator so that gates could be opened when they approached. Impacts would be less than significant because safe boater access would be maintained at all times.

b. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated

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Less than Significant. The Project would not significantly affect other nearby or outlying recreation facilities. Some boaters may choose to launch their boats at other private facilities while the gates are closed, but fees paid by the boaters would offset any deterioration that might result. Public recreational facilities would not be affected. Some boaters might choose to take different routes during periodic gate closures, but this would not result in the deterioration of any recreational facilities.

c. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment

Less than Significant. The Project includes boat ramps, navigation markings, and other measures to facilitate the safe passage of vessels while the Project facilities are in place. The Project would not require the construction or expansion of other recreational facilities.

4.15.3.3 Cumulative Impacts

Note: the SDIP and Franks Tract text may change pending information from Reclamation.
Both the South Delta Improvements Project (SDIP) and Franks Tract Project would add barriers across Delta waterways. The SDIP would replace three seasonal rock gates with permanent operable flow gates on Middle River, Grantline Canal and Old River (near the city of Tracy). The permanent gates (except the Middle River gate) will feature boat locks to avoid any potential adverse effects to Delta boaters. This project has completed its environmental review, which concluded that the project will be a net improvement to the existing rock gates, which have seasonal boat ramps at gate sites. No adverse effects to boating or recreation are expected from SDIP.

The Franks Tract project involves installing and operating flow control gates on up to two Delta waterways (3 Mile Slough and West False River). Four flow control gate locations on 3 Mile Slough are under consideration: 1) approximately 700 feet east of the State Route 160 bridge; 2) approximately 4,100 feet from the bridge; 3) approximately 8,600 feet north of the southwestern corner of Twitchell Island along 3 Mile Slough, and 4) approximately 1,600 feet north of the southwestern corner of Twitchell Island along 3 Mile Slough. On West False River, only one flow control gate location is being considered, approximately 1,800 feet east of the confluence with the San Joaquin River. Boat passage facilities would be installed to allow boat movement during periods when gates are operating. Cumulative impacts of these projects in combination with those of the proposed Project would be less than significant because each incorporates boat passage into the Project design.