4.16 TRANSPORTATION / TRAFFIC

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e. Result in inadequate emergency access?	☐	☐	☒	☐
f. Result in inadequate parking capacity?	☐	☐	☐	☒
g. Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
h. Result in rail, water borne or air traffic impacts?	☐	☐	☒	☐

4.16.1 Environmental Setting

4.16.1.1 Ground Transportation

The general Project area is accessed by SR 4, which begins in Hercules and passes through Martinez, Concord, Pittsburg, Antioch, and Oakley before intersecting with Interstate 5 in Stockton. Traffic counts at selected intersections in these communities are shown in Table 4.16-1. Local access roads to the Old River and Connection Slough sites are shown on Figure 2-3. The levee on Holland Tract is on the west bank of Old River and is accessible by road by proceeding through the Town of Knightsen and crossing Delta Road Bridge on Delta Road. Access to the Old River Project site is on a private road. The east side of Old River is accessible through West Bacon Island Road through an unpaved section of road approximately 10 miles from SR 4. The Bacon Island levee on Connection Slough is accessible by taking Bacon Island Road off SR 4. Mandeville Island can be accessed by a private bridge at Connection Slough.

Table 4.16-1 SR 4 Traffic Counts at Selected Intersections

Description	Back Peak Hour	Back AADT	Ahead Peak Hour	Ahead AADT
Hercules, Junction Route 80			3400	38,000
Junction Route 680	8000	89,000	7000	86,000
Concord, Port Chicago Highway West	7100	97,000	11,700	159,000
Pittsburgh, Railroad Avenue Interchange	8800	126,000	7900	114,000
Antioch, Contra Loma Boulevard Interchange	7800	112,000	7200	104,000
Oakley Road	2450	35,000	2150	30,500
Brentwood, South City Limits	1550	16,900	1900	20,600
Discovery Bay Boulevard	1550	19,600	820	9200
Contra Costa/San Joaquin County Line	830	9200		
Contra Costa/San Joaquin County Line			830	9200
Stockton, South Junction Route 5	2850	29,000	2050	17,200
Stockton, North Junction Route 5	2050	17,200	7200	88,000

Source: CalTrans 2007

4.16.1.2 Vessel Transportation

The inundated portions of the Connection Slough and Old River Project sites are navigable from the San Joaquin River. 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 the bridge just west of the Connection Slough site must be opened to allow large vessels to pass. Per USC Title 33: Navigation and Navigable Waters, Section 117.150, the drawbridge shall open on signal from May 1 through October 31 from 6 a.m. to 10 p.m., and from November 1 through April 30 from 9 a.m. to 5 p.m. At all other times, the draw shall open on signal if at least four hours notice is given to the drawtender during regular operating hours or to the Rio Vista Bridge across the Sacramento River, mile 12.8. The draw shall open on signal if at least one hour notice is given for emergency vessels owned, operated or controlled by the United States or the State of California, for commercial vessels engaged in rescue or emergency salvage operations, or for vessels in distress.

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, wakeboarders, and those using personal watercraft. Some yachting also occurs. Connection Slough is less heavily used than Old River (personal communication, D. Powell 2008).

4.16.2 Regulatory Setting

No federal regulations are relevant to the ground transportation impacts associated with the Project. The California Department of Transportation (CalTrans) has authority over the state highway system, including mainline facilities, interchanges, and arterial state routes. CalTrans approves the planning and design of improvements for all state-controlled facilities. Both CalTrans and local jurisdictions generally assess the impact of long-term, not short-term, traffic conditions. Plans and policies included in the Contra Costa County (2005) and San Joaquin County (1992) General Plans related to transportation seek to plan for and accommodate future growth and the vehicular, transit, pedestrian, and bicycle demand associated with that growth and are not applicable to short-term construction traffic, the primary source of traffic associated with the Project. Federal and state regulations relating to vessel traffic are described under Section 4.15, Recreation.

4.16.3 Impacts and Mitigation Measures

4.16.3.1 No Project

The No Project alternative would not affect either ground transportation or vessel transportation because no development would occur.

4.16.3.2 2-Gates Project

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)

Less than Significant. Most materials would be delivered to or removed from the Project sites via barge. A maximum of four to eight daily truck trips would be required during the installation of the Project components, and approximately 60 daily trips would be associated with the up to 30 construction workers. Removal is not expected to generate more trips than construction. During operations, trips would be limited to those associated with any inspection or maintenance that was required and trips generated by the operators arriving at and departing the control house at each of the sites. SR 4 is a heavily traveled road, and very little traffic is expected on local roads that allow access to the Project sites due to their remote location. The minor number of trips periodically generated by the Project would not cause a perceptible increase in traffic or affect the capacity of the street system.

b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways

Less than Significant. The minor amount of intermittent traffic generated by the Project would not exceed any level of service standards.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks

No Impact. The Project would not affect air traffic patterns.

d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

Less than Significant. The Project would be located in a remote area and would not involve any design features that would affect roadways. Farm equipment could be present in the vicinity of each of the sites, but Project construction activities would be confined to limited areas and would not conflict with the equipment use. Any impacts to levee roads, associated maintenance roads and access roads that result from land based construction equipment use would be restored to pre-construction conditions. For example, it may be necessary to grade and apply gravel to the Holland Tract access road. It may be necessary to grade and gravel the access road across Bacon Island to the dredge disposal site. It may be necessary to pave small sections on the Bacon Island road between SR 4 and Connection Slough to ensure safe passage of land based construction equipment.

As discussed under Section 4.15, Recreation (a), the Project would comply with navigation requirements established by the U.S. Aids to Navigation System and the California Waterway Marker system, and therefore would not substantially increase hazards to navigation. Barges would be used to transport equipment to the Project sites, but they are commonly used on Delta waterways and would not substantially increase hazards to navigation.

e. Result in inadequate emergency access

Less than Significant with Mitigation Incorporated. Passage along the levee roads in the immediate vicinity of the Old River and Connection Slough sites would be restricted during the construction/removal periods, but this area is remote, and the likelihood of emergency access being required is low. On Bacon Island, it is possible that one traffic lane could be kept open, but the roads are narrow on Holland Tract and Mandeville Island, and this may not be feasible at those locations. Impacts would be lessened during subsequent installation and removal because some of the sheet pile would be left in place and less would be located within the construction laydown area. This impact is considered potentially significant because there is a potential for emergency access to be restricted, but it would be reduced to less than significant given the implementation of the following mitigation measure:

Mitigation Measure TRANS-1: The lead agencies shall coordinate with the Contra Costa and San Joaquin County Sheriff's and Fire Departments to notify them of the construction schedule and identify alternative access methods if needed.

As discussed in Section 4.15, Recreation, the gates would restrict access to Old River and Connection Slough while they were closed, but they could be opened in about three minutes. They would be staffed by an operator 24 hours per day when the gates were functioning to accommodate any potential emergency and would be opened or closed at the request of the Contra Costa County Sheriff's Department or the USCG. Thus, any impacts associated with emergency access requiring the use of waterways would be less than significant.

f. Result in inadequate parking capacity

No Impact. Workers would park onsite and would not affect parking capacity elsewhere.

g. Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)

No Impact. The Project would not affect policies supporting alternative transportation.

h. Result in rail, water borne or air traffic impacts

Less than Significant with Mitigation Incorporated. Rail and air traffic would not be affected by the 2-Gates Project. Sheriff's Department and USCG vessels pass through Old River frequently and occasionally pass through Connection Slough. The vessel passage is being designed with a 75-foot clear channel in Old River and a 60-foot channel at Connection Slough, and discussions with commercial operators have confirmed that such an opening is adequate to accommodate commercial vessels (Moffatt & Nichol 2008). Impacts to recreational boaters are addressed in detail in Section 4.15, Recreation, and would be similar for commercial vessels. As discussed, the gates would cause a temporary delay while they were closed, but they would be opened upon request to accommodate larger, commercial vessels. Impacts would be less than significant.

4.16.3.3 Cumulative Impacts

The 2-Gates Project is in a remote area, and no other projects would generate traffic on the same local roads; therefore, no cumulative impacts on local roads would occur. The 2-Gates Project would generate only minor amounts of traffic on SR 4 for a brief period of time, and any cumulative impacts would be less than significant.