SECTION 5

Other Sections Required by CEQA and/or NEPA

This section addresses other issues that are required by California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA). Climate change is not included in the standard CEQA environmental checklist (Section 4), but is now commonly addressed in many CEQA and NEPA documents. Additionally, NEPA requires that a project's impacts on wild and scenic rivers, Indian Trust Assets, socioeconomics, and environmental justice be considered. ***Note: discussions of growth inducement and irreversible and irretrievable impacts will be added to this section.***

5.1 CLIMATE CHANGE

5.1.1 Environmental Setting

Climate change refers to long-term fluctuations in temperature, precipitation, wind, and other elements of Earth's climate system. Natural processes such as solar-irradiance variations, variations in Earth's orbital parameters, and volcanic activity can produce variations in climate. The climate system can also be influenced by changes in the concentration of various gases in the atmosphere, which affect Earth's absorption of radiation. State law defines these greenhouse gases (GHG) to include the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health and Safety Code, Section 38505(g)). The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide (OPR 2008).

The Bay Area Air Quality Management District (BAAQMD) has prepared a GHG emissions inventory using 2002 as the base year. The BAAQMD estimated that 85.4 million tons of CO_2-equivalent GHGs were emitted from anthropogenic sources in the Bay Area in 2002. Fossil-fuel consumption in the transportation sector (on-road motor vehicles) accounted for approximately 43 percent. Stationary sources, including industrial and commercial sources, power plants, oil refineries, and landfills, were responsible for approximately 49 percent. Construction and mining equipment was estimated to account for approximately 2 percent (or about 1.7 million tons of CO_2-equivalent) of the total anthropogenic GHG emissions (BAAQMD 2006). Comparable information is not available for the San Joaquin Air Basin.

5.1.2 Regulatory Setting

5.1.2.1 Global Warming Solutions Act (AB 32)

The Global Warming Solutions Act of 2006 (AB 32) codifies California's goal of reducing statewide emissions of GHGs to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased-in starting in 2012 to achieve maximum technologically feasible and cost-effective GHG reductions. In order to effectively implement the cap, AB 32 directs the California Air Resources Board (CARB) to

develop appropriate regulations and establish a mandatory reporting system to track and monitor GHG emissions.

5.1.2.2 Executive Order S-3-05

On June 1, 2005 Governor Arnold Schwarzenegger signed S-3-05 (Order) which established GHG emission reduction targets as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

5.1.3 Impacts and Mitigation Measures

5.1.3.1 No Project Alternative

The No Project alternative would not affect climate change because no development would occur.

5.1.3.2 2-Gates Project

There currently is no federal, state, or local regulatory guidance for determining whether a project advances or hinders California's greenhouse gas reduction goals, and no standards of significance for GHG impacts have been established. For purposes of this analysis, an impact would be considered significant if the Project would:

- Individually impede the state's ability to meet its 2020 GHG emission reduction goal
- Cumulatively impede the state's ability to meet its 2020 GHG emission reduction goal

During construction (gate installation and removal), the Project would temporarily cause direct GHG emissions from the combustion of fossil fuels (i.e., diesel, gasoline) used to run construction equipment and vehicles, both onsite and offsite. Over its lifetime, the Project would directly and indirectly cause negligible GHG emissions from occasional maintenance and personal vehicle use, the periodic use of diesel-powered generators, and/or the use of electric power used to run hydraulic pumps on an intermittent basis. Therefore, this analysis focuses on construction impacts.

Table 5-1 shows estimated GHG gas emissions for the Project based on the U.S. Environmental Protection Agency and CARB's Emission Factors model (EMFAC) for diesel and gasoline fuel internal combustion.

Table 5-1 Estimated Total GHG Emissions during Construction

Emission Type	Quantity (tons)	CO_2-Equivalent Quantity
Carbon Dioxide (GHG - CO_2)	802	802
Nitrous Oxide (GHG - N_2O)	0.021	6.22
Methane (GHG - CH_4)	0.045	1.04
Carbon Dioxide Equivalents (CO_2eq)	--	809

Source:
Compilation of Air Pollution Emission Factors (AP-42), Fifth Edition, USEPA, 1995
EMFAC 2007
Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006, 2008

As shown in Table 5-1, the entire Project would emit approximately 809 tons of CO_2–equivalent GHG. This amount is miniscule in comparison to the 85.4 million tons of CO_2 generated per year in the Bay Area alone. The generation of direct onsite and offsite GHG emissions would be intermittent and would terminate following completion of installation and removal activities. Additionally, in order to minimize emissions to the extent feasible, construction contractors would be required to implement the following measures:

- On-road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and reinflated at regular intervals
- Construction equipment engines shall be maintained to manufacturer's specifications
- Any onsite vegetation shall be preserved or replaced (if removal is necessary for Project activities) as a means of providing carbon sequestration

The Project would not impede the state's ability to meet its 2020 greenhouse gas emission reduction goal, and impacts associated with climate change would be less than significant.

5.1.3.3 Cumulative Impacts

Other projects described in Section 3 would generate GHG emissions, primarily during construction. The proposed Project's contribution to GHG emissions would be temporary and negligible in comparison to those emissions that already exist, and measures would be implemented to reduce emissions to the extent practicable. The Project, in combination with other projects, would not impede the state's ability to meet its 2020 GHG emission reduction goal. Thus, cumulative impacts would be less than significant.

5.2 ENVIRONMENTAL JUSTICE

5.2.1 Environmental Setting

5.2.1.1 Population Living below the Poverty Level

The Old River and Connection Slough sites are located in a sparsely developed, rural portion of unincorporated San Joaquin and Contra Costa counties. The nearest communities are the City of Oakley, located approximately 2.4 miles west of the Old River site, and Discovery Bay, located about 4.8 miles south of the Old River site. Nearby marinas, located about 0.8 and 1.8 miles from the Old River site, also include some live-aboard residents. The percentage of persons living below the poverty level in San Joaquin and Contra Costa counties is shown in Table 5-2, as is the percentage in Oakley and Discovery Bay. Information is not available for those living at the marinas. As shown, the percentage of persons living below the poverty level in the nearby communities is less than that of the counties as a whole.

Table 5-2 Percentage of Population Living below the Poverty Level

San Joaquin County (2006)	Contra Costa County (2006)	City of Oakley (2000)	Discovery Bay (2000))
14.2	7.9	5.0	3.3

Source: U.S. Census Bureau 2008

5.2.1.2 Minority Populations

The percentage of minority residents of San Joaquin and Contra Costa counties, Oakley and Discovery Bay is shown in Table 5-3. The percentage of minorities in the nearby communities is considerably less than that of the counties as a whole.

Table 5-3 Population Distribution by Race/Ethnicity

Racial/Ethnic Background	San Joaquin County 2006 (Percent)	Contra Costa County 2006 (Percent)	City of Oakley 2000 (Percent)	Discovery Bay 2000 (Percent)
White (non-Hispanic)	26.3	37.8	50.5	77.2
Hispanic	35.7	21.9	25.0	10.4
Black	7.1	9.2	3.4	1.8
American Indian/Alaskan Native	1.3	0.4	0.9	0.8
Asian	14.2	13.3	2.9	1.8
Native Hawaiian/Pacific Islander	0.5	0.4	0.3	0.2
Some other race	11.1	13.0	10.6	4.0
Two or more races	4.3	4.0	6.5	3.8

Source: U.S. Census Bureau, 2008
Note: Numbers do not total 100 percent due to rounding

5.2.2 Regulatory Setting

In 1994, the president issued Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority and Low-income Populations. The objectives of the EO include developing federal agency implementation strategies, identifying minority and low-income populations where proposed federal actions could have disproportionately high and adverse human health and environmental impacts, and encouraging the participation of minority and low-income populations in the NEPA process.

Minority populations include all persons identified by the Census of Population and Housing to be of Hispanic or Latino origin, regardless of race, as well as non-Hispanic persons who are Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander. Low-income populations are those that fall within the annual statistical poverty thresholds from the Bureau of the Census "Current Population Reports, Series P-60 on Income and Poverty."

5.2.3 Impacts and Mitigation Measures

5.2.3.1 No Project Alternative

The No Project alternative would not result in environmental justice effects because no development would occur.

5.2.3.2 2-Gates Project

The Project is located in a remote, rural area, well-removed from the nearest populated areas. Moreover, the nearest communities have lower percentages of minorities and persons living below the poverty threshold than the counties as a whole, therefore, the Project would not have the potential to disproportionately affect minority or low-income populations in these

communities. Farm workers on adjacent properties could potentially be minorities and/or considered low-income populations. No significant, unavoidable environmental impacts would result from the Project, however. Air and noise emissions would be temporary and would not exceed regulatory thresholds, and no health risks would be posed by the Project. Therefore, disproportionate effects would not occur.

5.2.3.3 Cumulative Impacts

No cumulative impacts would occur because the Project would not result in disproportionate effects on minority or low-income populations.

5.3 INDIAN TRUST ASSETS

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the federal government for federally recognized Indian tribes or individual Indians. All federal bureaus and agencies are responsible for protecting ITAs from adverse impacts resulting from their programs and activities. Each federal bureau or agency, in cooperation with potentially affected tribe(s), must inventory and evaluate assets, and then mitigate or compensate for adverse impacts to the asset. While most ITAs are located on reservation lands, they can also be located off-reservation. Examples of ITAs include, but are not limited to, land; minerals; rights to hunt, fish, and gather; and water rights.

No ITAs are located on or near the Project site. The nearest ITA is Lytton Rancheria, which is approximately 41 miles west (P. Rivera, personal communication, 2008); thus no impacts on ITAs would occur.

5.4 SOCIOECONOMICS

The proposed Project would result in minor socioeconomic benefits by providing periodic jobs for construction workers and gate operators. These workers would be drawn from the local labor pool, and no impacts on housing would occur. (Refer also to Section 4.13, Population and Housing.)

5.5 WILD AND SCENIC RIVERS

Neither the San Joaquin River, Old River, nor Connection Slough is considered a wild and scenic river, nor are any of the other rivers located in the vicinity of the Project. No impacts on wild and scenic rivers would result from Project implementation.