

## 4.18 Environmental Justice

This section provides an analysis of the potential environmental justice impacts that would result from implementation of the Los Vaqueros Reservoir Expansion Project. The analysis includes a description of the existing conditions, the associated regulatory framework (including all applicable environmental justice policies), the methodology, and assessment of the expected project-related impacts.

### 4.18.1 Affected Environment

#### Regulatory Setting

This section provides the federal, regional, and local regulations concerning environmental justice that would apply to the Los Vaqueros Reservoir Expansion Project.

#### *Federal*

##### **Executive Order 12898**

On February 11, 1994, President Clinton issued “Executive Order 12898 on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” The order was designed to focus attention on environmental and human health conditions in areas of high minority populations and low-income communities, and to promote nondiscrimination in programs and projects substantially affecting human health and the environment (Federal Register, 1994). The order requires the U.S. Environmental Protection Agency (U.S. EPA) and all other federal agencies (as well as state agencies receiving federal funds) to develop strategies to address this issue. The agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations.

##### **Environmental Justice Implementation Plan**

In 1997, the U.S. EPA’s Office of Environmental Justice released the *Environmental Justice Implementation Plan*, supplementing the U.S. EPA’s environmental justice strategy and providing a framework for developing specific plans and guidance for implementing Executive Order 12898. In 1998, federal agencies received a framework for the assessment of environmental justice in the U.S. EPA’s *Guidance for Incorporating Environmental Justice Concerns in the EPA’s National Environmental Policy Act Compliance Analysis*. This framework emphasizes the importance of selecting an analytical process appropriate to the unique circumstances of the potentially affected community.

#### **State**

While several California state agencies have used the U.S. EPA’s *Environmental Justice Implementation Plan* as a basis for the development of their own environmental justice strategies and policies, the majority of these agencies do not yet have guidance for incorporating environmental

justice impact assessment into the California Environmental Quality Act (CEQA) process. However, the State of California has a number of legislative and agency actions associated with environmental justice, as described below.

### **California Government Code**

Section 65040.12 of the California Government Code states that:

“[E]nvironmental justice” means the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

Under Assembly Bill 1553, signed into law in October 2001, the Governor’s Office of Planning and Research (OPR) is required to adopt guidelines for addressing environmental justice issues in local agencies’ general plans. California Code Section 65040.12 also established the OPR as the “coordinating agency in state government for environmental justice programs;” it also directs the agency to coordinate its efforts and to share information regarding environmental justice programs with federal agencies, and to review and evaluate any information obtained as a result of their respective regulatory activities. To this end, the OPR prepared the *Environmental Justice in California State Government*; this policy report gives a brief history of environmental justice, reports on the status of the OPR’s efforts, and provides for future environmental justice efforts within state government. OPR also provides general environmental justice guidelines in its most recent *2003 General Plan Guidelines*. OPR is currently in the process of updating these Guidelines (Litchney, 2008).

Although the OPR policy report, the California State Lands Commission (CSLC) Environmental Justice Policy (discussed below), and state legislation provide useful background information and guidance on the equitable treatment of environmental justice populations, no specific guidelines have been adopted at the state level to guide environmental justice in CEQA environmental documents. As such, most state agencies have been using federal guidance to assess the environmental justice impacts of the projects under their review.

### **California State Lands Commission Environmental Justice Policy**

The CSLC developed an Environmental Justice Policy to ensure equity and fairness in its own processes and procedures, and in October 2002 adopted an amended policy. The policy ensures that “environmental justice is an essential consideration in its processes, decisions and programs and that all people who live in California have a meaningful way to participate in these activities” (CSLC, 2008). The CSLC implements the policy, in part, by identifying and communicating with relevant populations that could be adversely and disproportionately affected by CSLC projects or programs, and by ensuring that a range of reasonable alternatives is identified to minimize or eliminate environmental impacts affecting such populations. This discussion is provided in this EIS/EIR consistent with and in furtherance of the CSLC’s Environmental Justice Policy. Under the agency’s adopted environmental justice policy, CSLC’s staff is required to report back to the Commission on how environmental justice is integrated into its programs, processes, and activities (CSLC, 2002).

## **Local**

### **Contra Costa County Policy**

In response to Executive Order 12898, metropolitan transportation agencies and councils of governments in some parts of California have developed environmental justice policies. The Contra Costa County Board of Supervisors established an Environmental Justice Policy in 2003, affirming its concurrence with California Government Code Section 65040.12. The Board of Supervisors also indicated that “Contra Costa County will conduct its programs, policies and activities that substantially affect human health or the environment, and promote enforcement of all health and environmental statutes under County jurisdiction in a manner that ensures fair treatment of people of all races, cultures, and income levels, including minority populations and low-income populations of the County.” The Board of Supervisors directed the future development of agency guidelines—a process that is ongoing.

### **Alameda County Policy**

Alameda County does not have an adopted Environmental Justice Policy related to implementing Executive Order 12898 (Bonekempber, 2008).

### **Metropolitan Transportation Commission**

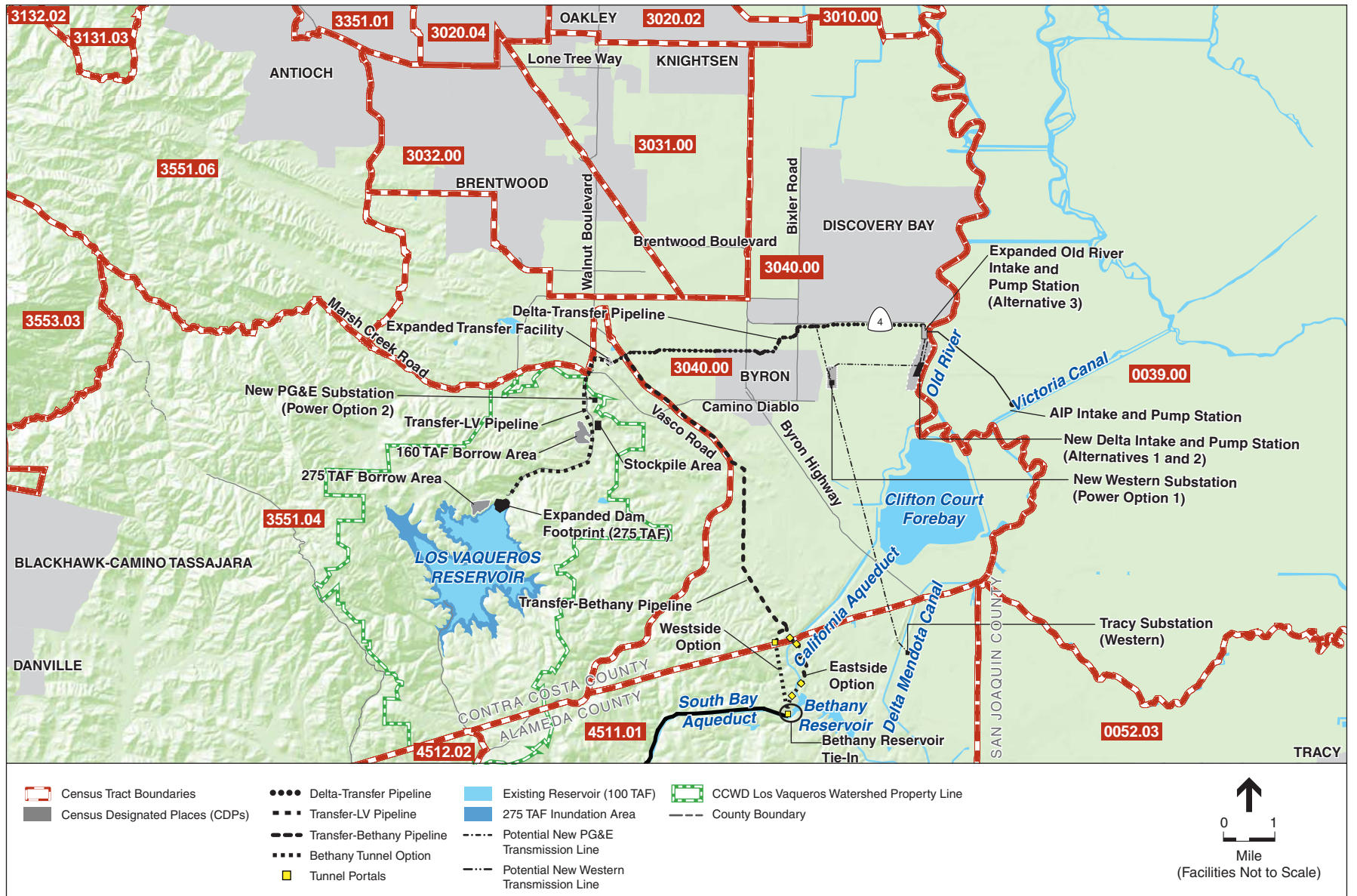
The Metropolitan Transportation Commission’s (MTC’s) *2001 Regional Transportation Plan Equity Analysis and Environmental Justice Report* provides one of the most substantial recent environmental justice analyses and is used by several other Bay Area agencies as a model for their approach and analysis of environmental justice issues.

## **Environmental Setting**

For the purpose of this analysis, the potentially affected environmental justice population was determined to be the communities located within a two-mile radius of the project alternatives. This impact area encompasses the communities that could be subject to construction or operation-related impacts associated with the project. The five corresponding census blocks for these communities are shown in **Figure 4.18-1**, as is the geographic area of the Byron Census-Designated Place (CDP). A CDP is a location that is identified by the United States Census Bureau for statistical purposes. CDPs are delineated to provide data for settled concentrations of population that are identifiable by name but, like the town of Byron, are not legally incorporated.

Census Tract 0039.01 is not included in the analysis, as there is only a very small residential population in close proximity to the Old River Intake and Pump Station or the New Delta Intake and Pump Station.<sup>1</sup>

<sup>1</sup> The vast majority of the 1,549 residents in Census Tract 0039.01 live in western Stockton, which is more than 8 miles from the eastern-most area where construction-related effects might be expected to occur.



SOURCE: USGS, 1993 (base map); and ESA, 2008

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**Figure 4.18-1**  
Census Tracts and CDPs within the  
Project Vicinity

## Minority Populations

According to the federal Council on Environmental Quality (CEQ) guidelines for environmental justice analyses:

Minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the majority population percentage in the general population or other appropriate unit of geographic analysis. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds (CEQ, 1997).

Information regarding racial diversity in the project area was derived from the 2000 U.S. Census. The racial composition for Contra Costa County and the census tracts within two miles of the project area are presented in **Table 4.18-1**. The non-white population of Census Tract 3031.00 (located approximately a mile north of Byron) was 55.5 percent of the tract's entire population; as a result, in accordance with the CEQ guidelines, this census tract qualifies as minority community of concern.

**TABLE 4.18-1  
RACIAL COMPOSITION (PERCENT) FOR CONTRA COSTA COUNTY AND  
THE SURROUNDING AFFECTED ENVIRONMENT**

	White	Hispanic / Latino <sup>2</sup>	Black	American Indian / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Other
Contra Costa County	57.9%	17.7%	9.2%	0.4%	10.8%	0.3%	3.7%
City of Brentwood	63.1%	28.2%	2.4%	0.4%	2.7%	0.2%	3.1%
Byron CDP	64.3%	25.9%	4.4%	1.1%	2.2%	0.2%	2.0%
Tract 3031.00	44.5%	49.3%	1.6%	0.3%	1.5%	0.1%	2.5%
Tract 3032.00	67.5%	19.0%	1.9%	0.4%	4.4%	0.3%	3.7%
Tract 3040.00	79.6%	13.3%	1.9%	0.7%	1.7%	0.1%	2.7%
Tract 3551.04	72.8%	4.5%	2.5%	0.2%	17.4%	0.1%	2.5%
Tract 4511.01	75.8%	10.5%	2.0%	0.2%	7.3%	0.1%	4.1%

Minority community of concern.

SOURCE: U.S. Census Bureau, 2000a.

## Low-Income Populations

The CEQ's environmental justice guidance does not clearly define low-income populations as those meeting the census poverty thresholds, but states that "Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty."

<sup>2</sup> The federal statistical system and the U.S. Census Bureau classify race and Hispanic/Latino origin as two separate concepts. In other words, each person has two attributes, their race (or races) and whether or not they are Hispanic/Latino, to account for the fact that people of Hispanic/Latino origin may be of any race. For more information on the definition of the term "Hispanic and Latino," see U.S. Census Bureau, 2004, at <http://www.census.gov/population/www/socdemo/compraceho.html>. This EIS/EIR specifically identifies "Hispanic/Latino" residents as a potential minority population of concern for the environmental justice analysis.

Poverty thresholds vary according to a household's size and composition. The most current poverty thresholds (2007) are \$21,027 for a two-parent household with two children (U.S. Census, 2007). These thresholds provide one national measurement of income that is not adjusted for regional costs of living. Among its poverty statistical data, the U.S. Census Bureau also reports population data income ratios from 50 percent to 200 percent of the poverty threshold (U.S. Census Bureau, 2000b) at a census tract population level.<sup>3</sup> For many federal and state programs, eligibility levels are significantly higher than the poverty level (e.g., the eligibility criterion is 185 percent of the poverty level to qualify for food stamp assistance in California under the Women, Infants, and Children program).<sup>4</sup> The MTC's *2001 Regional Transportation Plan Equity Analysis and Environmental Justice Report* definition of low-income community states:

Low-income is defined as the household income that is at or below the U.S. Department of Health and Human Services Poverty Guidelines. For the purposes of this exercise (i.e., the 2001 Regional Transportation Plan Equity Analysis) the definition of low-income to households was established as households at or below 200 percent of poverty. This level was used to reflect the relatively high cost of living in the Bay Area. Zones, where the low-income population was 30 percent of the total population or greater, were included in the Equity Analysis (MTC, 2001).

**Table 4.18-2** presents poverty level data for the project area communities.<sup>5</sup>

**TABLE 4.18-2  
INCOME OF CONTRA COSTA COUNTY AND  
THE SURROUNDING AFFECTED ENVIRONMENT**

	Total Population (2000)	Population with Incomes Below Poverty Level	Population with Incomes Below 200 Percent of Poverty Level	Population with Incomes More than 200 Percent of Poverty Level
Contra Costa County	938,310	7.6%	18.7%	81.3%
City of Brentwood	23,211	5.8%	15.6%	84.4%
Byron CDP	826	14.9%	40.6%	59.4 %
Tract 3031.00	8,304	10.4%	30.5%	69.5%
Tract 3032.00	21,533	4.2%	9.9%	90.1%
Tract 3040.00	10,824	5.4%	11.6%	88.4%
Tract 3510.04	15,997	1.4%	3.6%	96.4%
Tract 4511.01	4,579	2.8%	5.9%	94.1%

Low-income community of concern.

SOURCE: U.S. Census Bureau, 2000b.

<sup>3</sup> The most current census level demographic information available is from the 2000 Census. The proportion of individuals below the poverty level are based on 2000 population, income and poverty level threshold data.  
<sup>4</sup> The Women, Infants, and Children program is a California Department of Health Services nutrition program that helps pregnant women, new mothers, and young children eat well and stay healthy.  
<sup>5</sup> Census Tract 0039.01 is not included in the analysis, as there is a negligible residential population in close proximity to the Old River Pump Station or the New Delta Intake and Pump Station since the vast majority of the 1,549 residents in Census Tract 0039.01 live in western Stockton, which is more than 8 miles from the eastern-most area where construction-related effects might be expected to occur.

As shown in the table, Byron has nearly twice the Contra Costa County average of residents living below the poverty level. In addition, under the MTC's more inclusive low-income community definition, Census Tract 3031.00 (located about a mile north of Byron)—with almost a third of its population living below 200 percent of the poverty level compared to the countywide average of 18.7 percent—would also be recognized as a low-income community. Therefore in assessment of the project alternatives, both Census Tract 3031.00 and the community of Byron (Byron CDP) are considered low-income communities.

As indicated in the Environmental Setting discussion, above, the communities of concern for the project environmental justice analysis is the larger minority and low-income populations within Census Tract 3031.00 as well as the low-income Byron CDP area.

## 4.18.2 Environmental Consequences

### Methodology

This section analyzes the distributional patterns of high-minority and low-income populations on a regional basis and characterizes the distribution of such populations adjacent to the project area. This analysis focuses mainly on whether the project has the potential to disproportionately affect area(s) of high-minority population(s) and low-income communities and thus create an adverse environmental justice impact. According to Executive Order 12898, an environmental justice impact would be considered significant and would require mitigation if the construction or operation of the project would cause any minority or low-income population to bear a disproportionate share of an adverse impact.

According to CEQ and EPA guidelines established to assist Federal and State agencies, the first step in conducting an environmental justice analysis is to define minority and low-income populations. Based on these guidelines, a minority population is present in a project area if: (1) the minority population of the affected area exceeds 50%, or (2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. By the same rule, a low-income population exists if the project area consists of 50% or more people living below the poverty threshold, as defined by the U.S. Census Bureau, or is significantly greater than the poverty percentage of the general population or other appropriate unit of geographic analysis. The second step of an environmental justice analysis requires a finding of a high and adverse impact. The CEQ guidance indicates that when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact "are significant (as employed by NEPA) or above generally accepted norms." The final step requires a finding that the impact on the minority or low-income population be disproportionately high and adverse. While none of the published guidelines define the term "disproportionately high and adverse," the CEQ includes a non-quantitative definition stating that an effect is disproportionate if it appreciably exceeds the risk or rate to the general population.

## Significance Criteria

The following thresholds use factors taken into account under NEPA to determine the significance of an action in terms of its context and the intensity of its effects. To make a finding that disproportionately high and adverse effects would likely fall on the minority or low-income population, three conditions must be met simultaneously: (1) there must be a minority or low-income population in the impact zone; (2) a high and adverse impact must exist; and (3) the impact must be disproportionately high and adverse on the minority or low-income population.

The project alternatives would result in a significant environmental justice impact if it would result in both the following:

- A significant environmental effect that would result in a high and adverse impact on an identified minority or low-income population that is disproportionately high and adverse, exceeding the impact on the general population or other appropriate comparison group. Potential adverse environmental impacts associated with this type of major infrastructure project and therefore analyzed in this EIS/EIR include (1) construction or operation related nuisance effects (e.g. – traffic, noise, dust and/or hazards); and (2) construction or operation effects on local employment opportunities; and
- The identified minority or low-income population would be disproportionately affected by cumulative or multiple adverse exposures impacts.

## Impact Summary

**Table 4.18-3** provides a summary of the impact analysis for issues related to environmental justice based on actions outlined in Chapter 3.

## Impact Analysis

### ***No Project/No Action Alternative***

Under the No Project/No Action Alternative, no physical changes to the environment would occur. The project alternative facilities would not be constructed, and existing Contra Costa Water District (CCWD) facilities would continue to be operated as under current conditions. Because no physical activities would occur, there would be no potential for harm or disproportionate disturbance to minority and low-income communities.

**Impact 4.18.1: Construction and operation of the project alternatives would result in air quality, noise, and/or other environmental impacts related to traffic and other construction activities that would not disproportionately affect nearby minority and/or low-income communities. (Less than Significant)**

### ***Alternative 1***

The project area extends throughout southeastern Contra Costa County and northeastern Alameda County. As indicated above, the City of Brentwood (in Contra Costa County) is located about



**TABLE 4.18-3  
SUMMARY OF IMPACTS – ENVIRONMENTAL JUSTICE**

Impact	Project Alternatives			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
<b>4.18.1:</b> Construction and operation of the project alternatives would result in air quality, noise, and/or other environmental impacts related to traffic and other construction activities that would not disproportionately affect nearby minority and/or low-income communities.	LS	LS	LS	LS
<b>4.18.2:</b> Construction and operation of the project alternatives would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project.	NI	NI	NI	NI
<b>4.18.3:</b> Construction and operation of the project alternatives when combined with construction of other past, present, and probable future projects, would result in air quality, noise, and/or other environmental impacts related to traffic and other construction activities that would not disproportionately affect nearby minority and/or low-income communities.	LS	LS	LS	LS
<b>4.18.4:</b> Construction and operation of the project alternatives, when combined with construction of other past, present, and probable future projects, would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project.	NI	NI	NI	NI

NOTES:  
 SU = Significant Unavoidable Impact  
 LSM = Less-than-Significant Impact with Mitigation  
 LS = Less-than-Significant Impact  
 NI = No Impact

four miles north of the project area, and the City of Livermore in Alameda County is located seven miles south of the project area. Two unincorporated towns are located in the project area - Byron and Discovery Bay (see Figure 4.18-1).

Two communities of concern have been identified for analysis within the Los Vaqueros Reservoir Expansion project area. The population living within Census Tract 3031.00, located south of the Knightsen area and east of the City of Brentwood, is recognized as a minority and low-income population; the population living within the Byron CDP is recognized as a low-income population. Together the residents of these areas compose the project area communities of concern.

#### **Proximity of Project Facilities to Communities of Concern**

The proximity of project facilities to the identified minority and low-income areas, and the relative effect upon those communities, is discussed below.

**Reservoir Expansion and Recreational Facilities.** Alternative 1 involves a 275 TAF Reservoir Expansion/Dam Modification project with borrow areas, PG&E substation (under Power Option 2) and recreation facilities constructed within the CCWD Watershed property. Project facilities

located in the CCWD Watershed property are over two miles from Census Tract 3031.00 and the Byron CDP.

**New Delta Intake and Pump Station.** The new Delta Intake and Pump Station site is located in an agricultural area about 3.4 miles from Census Tract 3031.00 and about 1.6 miles from the Byron CDP.

**Conveyance Facilities.** Alternative 1 includes construction of three water conveyance pipelines and expansion of the existing Transfer Facility. Under Alternative 1, approximately 18.7 miles of water pipelines would be constructed; only 6 percent of the total miles of pipeline would border on the Byron CDP. Of the 16 rural residences and the numerous residences in Discovery Bay that are located along the Delta-Transfer Pipeline, only 3 are located within the Byron low-income area.

- The Delta-Transfer Pipeline would be located within the existing road rights-of-way that pass approximately one mile south of Census Tract 3031.00 and adjoin the Byron CDP for about 1.1 miles of the pipeline's 6.5 mile alignment. Approximately 3 rural homesteads are located within the Byron CDP near this portion of the pipeline, while an additional 13 residences adjacent to this pipeline alignment would be located in non low-income communities.
- The Transfer Facility Expansion would occur on CCWD land next to the existing Transfer Facility, approximately 1.7 miles southwest of Census Tract 3031.00 and approximately 2.0 miles east of the Byron CDP.
- The Transfer-LV Pipeline alignment would pass in close proximity to numerous individual residences, however the facility would be approximately 1.7 miles southwest of Census Tract 3031.00 and approximately 2.0 miles east of the Byron CDP.
- The Transfer-Bethany Pipeline would pass south along Vasco Road, near but not through the Byron CDP approximately 3,000 feet to the east.

**Power Supply.** To accommodate a New Delta Intake and Pump Station as well as the expansion of the Transfer Facility, additional overhead electrical power lines and a substation would be required. Two options for electrical facilities are under consideration: Power Option 1 (Western Only) and Power Option 2 (Western and PG&E).

- Construction of Power Option 1 includes a new power line from Western's Tracy Substation to the New Delta Intake facilities, with a new Western substation at the eastern terminus of Camino Diablo Road. The new powerline, which would largely be located within an existing transmission corridor, would be located approximately 2.0 miles southeast of Census Tract 3031.00 and could be as close as 100 feet east of the Byron CDP. A new Western substation along this alignment could be located approximately 1.5 miles south of Census Tract 3031.00 and as close as 100 feet east of the Byron CDP. Review of aerials photographs shown in Chapter 3 indicates that there is agricultural land and no residences located along this eastern border of the Byron CDP or in the substation siting zone for Power Supply Option 1.
- Power Option 2 would entail a new PG&E substation within the CCWD Watershed property in an area to the north of the staging area, plus a new distribution line connecting the new PG&E substation to the expanded Transfer Facility. Most of the power facilities would occur

within an existing right-of-way or on Watershed land, a minimum 1.7 miles southwest of Census Tract 3031.00 and approximately 2.0 miles east of the Byron CDP. Power Option 2 would also involve powerlines on the eastern side of the project area, a minimum of 1.9 miles southeast of Census Tract 3031.00 and approximately 500 feet east of the Byron CDP.

As shown on Figure 4.18-1 and discussed above, about 1.1 mile of the Delta-Transfer Pipeline (portion along Kellogg Creek Road) would be located on the border of the Byron CDP. It is also possible that a Power Supply Option 1 (Western Only) substation and power lines would be constructed directly east of the Byron CDP. It should be noted that the eastern end of the Byron CDP contains few residences and the substation siting zone is located in an agricultural area with no residences. No project construction and operation activities would occur in Census Tract 3031.00. In effect, a low proportion of the Alternative 1 facilities would be in close proximity (within 1 mile) of low-income populations of concern, and the majority of the project pipelines, power supply and other facilities would be located in non-minority and non-low-income areas.

### **Construction Impacts**

The type of construction activities that would occur under Alternative 1, and the relative effect on the identified minority and low-income population, is discussed below.

**Construction Traffic.** Earthmoving activities such as excavation, grading, soil stockpiling, and filling would occur during construction. Pipelines would be installed through trenching and jack-and-bore tunneling. These activities would result in some short-term increases in vehicle trips by construction workers and construction vehicles and may require use of some alternative travel routes by local residents. Based on information found in Section 4.9 Transportation and Circulation, the roadways that would be most affected by construction activities during the project's 3-year duration include SR4, Vasco Road, Byron Highway, Walnut Boulevard and Camino Diablo. These roads, and in particular Byron Highway, pass through or near the communities of concern. However, due to both the nature of the construction activities and the road network, the construction activities (and its related traffic impacts) will vary in both their location and occurrence. Consequently, the construction traffic is expected to have some temporary, localized impacts to the area residents. However, the duration and magnitude of these and the other indirect traffic impacts are projected to be less than significant with implementation of Mitigation Measure 4.9.1. Since no significant traffic impact is expected to affect the broader project area (see Section 4.9, Transportation and Circulation), and only a small proportion of the construction would occur within areas with low-income populations, no disproportionate adverse impacts on minority or low-income communities would occur.

**Construction Air Quality and Noise.** Project-related construction activities could cause short-term increases in fugitive dust, equipment exhaust emissions, and sound levels. Although construction would cause temporary air quality and noise impacts, these short-term impacts would be localized to a smaller construction area. Such impacts are typical of construction projects, are temporary, and would be less than significant with mitigation (see Section 4.10, Air Quality; and Section 4.11, Noise). Further, only a small proportion of the construction would occur within the Byron CDP (and none within Census Tract 3031.00), therefore no disproportionate adverse air quality or noise impacts to minority or low-income communities would occur.

**Electric and Magnetic Fields Health Impacts.** As described in Section 3.5.5, Power Supply Infrastructure, the project would involve construction of new power supply facilities to support operation of the expanded Los Vaqueros system. New electrical transmission lines would be extended to the new Delta Intake and Pump Station and the Expanded Transfer Facility and one or two new electrical substations would be required in the project area. Since there would be new transmission lines and other power facilities constructed as part of the Los Vaqueros Reservoir Expansion Project, EMF levels would increase, and there would be some potential for increased exposure by people and the environment to EMF. However, as indicated in Section 4.13.1, Affected Environment, there are no federal or state regulations governing EMF except near schools. None of the project components would be located within one-quarter mile of an existing or proposed school so this criterion would be met and impacts related to EMF would be less than significant. Since the potential for electric and magnetic fields impacts are less than significant, no disproportionate electric and magnetic fields impacts to minority or low-income communities would occur.

### **Summary**

All of the project construction planned for Alternative 1 would be located in non-minority communities since all project construction would occur a minimum of 1 mile from Census Tract 3031.00. Approximately 6 percent of the total pipeline construction for the project (1.1 mile of the Delta Transfer Pipeline) construction would directly border the Byron CDP. It is also possible that under Power Option 1 (Western Only) powerlines and a substation would be located as close as 100 feet from the eastern border of the Byron CDP. However, based on a review of a current aerial photograph for Power Supply Option 1, there are no residences along the eastern border of the Byron CDP or in the substation siting zone. Furthermore, none of the project components would be located within one-quarter mile of an existing or proposed school and therefore the potential for electric and magnetic field impacts are less than significant. Because relatively little construction would occur near the Byron CDP and none in Census Tract 3031.00, construction impacts to areas with minority or low-income populations would not cause a disproportionate impact to the minority and low-income community in the area. Construction of the project would involve activities and use equipment typical for any construction project; temporary traffic, air quality and noise effects would be mitigated to less than significant levels. Alternative 1 would not cause a disproportionate impact to the minority and low-income community in the area, and environmental justice impacts would be less than significant.

### **Alternative 2**

The facilities included in Alternative 2 would be the same as those under Alternative 1. Therefore, like Alternative 1, construction and operation of the Project under Alternative 2 would not disproportionately affect the identified populations of concern, and environmental justice impacts would be less than significant.

### **Alternative 3**

Construction of Alternative 3 would largely include the same components as discussed above for Alternative 1 with three relevant differences. First, expansion of the Old River Intake and Pump

Station would occur within the facility's existing site area. The Old River facility is located approximately 3.3 miles southeast of Census Tract 3031.00 and approximately 1.9 miles east of the Byron CDP and therefore is not considered close enough to affect those communities of concern.

Also, Alternative 3 would exclude construction of a New Delta Intake and Pump Station and Transfer-Bethany Pipeline, reducing the amount of construction in eastern Contra Costa County and northeastern Alameda County. Without this new construction, there would be no potential to effect communities of concern.

In summary, as with Alternative 1, Alternative 3 would not cause a disproportionate impact to the minority and low-income community in the area, and environmental justice impacts would be less than significant.

#### ***Alternative 4***

Alternative 4 would involve a 160 TAF Reservoir Expansion/Dam Modification project with a borrow area and recreational facilities to be constructed within CCWD Watershed property lines. Under this alternative, the existing Transfer Station capacity would be expanded, but there would be no change in the facility structure or footprint. Alternative 4 would not include construction of any Delta Intake, Conveyance or Power Supply facilities, and would avoid areas with identified populations of concern.

Alternative 4 would not implement any project activities within 2 miles of Census Tract 3031.00 or the Byron CDP, whereas under Alternative 1 construction of some facilities would occur within 2 miles of these communities. Construction and operation of Alternative 4 would not cause a disproportionate impact to the minority and low-income communities in the area, and environmental justice impacts would be less than significant.

**Mitigation:** None required.

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**Impact 4.18.2: Construction and operation of the project alternatives would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project. (No Impact)**

#### ***Alternative 1***

The project would generate approximately 1,200 full-time-equivalent (FTE) positions during the estimated three-year construction period (400 FTEs per year). The expansion of the reservoir and associated facilities would offer a range of labor opportunities for area workers of low to high skill levels. Construction of the Los Vaqueros Reservoir Expansion and associated facilities could offer employment opportunities to a wider workforce than other large construction projects in the region (such as the Bay Bridge replacement project) that have a greater need for specialized construction skills. Based on this information, and to provide a conservative estimate of the potential job benefits to Contra Costa County, an assumption that 40 percent of the project's employment would come

from county residents is used in this analysis. These project-related jobs would include a high proportion of low-skilled labor positions and apprenticeships that would be open to vicinity residents, including minority and low-income residents in the communities of concern. Of the estimated 1,200 projected employment opportunities, up to a third of the positions (400 positions) could be relatively low-skilled employment. These jobs would be accessible to minorities living in the area based upon their proximity to the open positions, and their relatively low cost of commuting to project job sites. Furthermore, since construction would not occur in the sensitive communities, construction would not interfere with businesses in minority communities. Instead, construction workers would be likely to bring some new business to local restaurants, retail outlets, and lodging.

While completion of Alternative 1 would end the short term construction employment opportunities, there would be no long-term local job reductions associated with the new expanded Los Vaqueros Facility. Future operation of the expanded Los Vaqueros reservoir and associated facilities would require a very minor increase in the staffing levels for its future operations and maintenance. As a result there would be no future adverse impacts on the local job opportunities available to the local low-income and minority community members.

Upon completion, the expanded reservoir would also increase low-cost recreation options and access to fishing at the reservoir. These are beneficial impacts that would improve the quality of life for all CCWD customers and citizens of the county, and particularly populations that reside in close proximity and chose to take advantage of low cost recreation and fishing opportunities.

### **Summary**

The construction of Alternative 1 would temporarily increase the employment opportunities available locally to minority or low-income populations. The future operation of the expanded Los Vaqueros reservoir and associated facilities would require a very minor increase in the staffing levels for its future operations and maintenance. The increased local recreation opportunities at the future expanded Los Vaqueros Reservoir would also be beneficial to local residents.

These effects would generally be beneficial to local residents and none would cause a disproportionate impact to the minority and low-income community in the area. Therefore construction and operation of Alternative 1 would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project; there would be “No Impact”.

### **Alternative 2**

The facilities included in Alternative 2 would be the same as those under Alternative 1. Therefore construction and operation of Alternative 2 would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project; there would be “No Impact”.

### **Alternative 3**

Construction of Alternative 3 would largely include the same components as discussed above for Alternative 1 with three modifications: expansion of the Old River Intake and Pump Station would occur within the facility's existing site area. However, Alternative 3 would exclude the New Delta Intake and Pump Station and Transfer-Bethany Pipeline, reducing the amount of construction in eastern Contra Costa County and northeastern Alameda County. Opportunities for local employment would still be available for local residents although they would be correspondingly reduced given the somewhat smaller amount of project construction under Alternative 3.

In summary, as with Alternative 1, construction and operation of Alternative 3 would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project; there would be "No Impact".

### **Alternative 4**

Alternative 4 would involve a 160 TAF Reservoir Expansion and Dam Modification with a borrow area and recreational facilities to be constructed within the watershed. Under this alternative, the existing Transfer facility would be upgraded, however this facility would not expand its footprint as would occur for other alternatives. Alternative 4 would exclude construction of any Delta Intake, Conveyance or Power Supply facilities, and would avoid areas with identified populations of concern.

Unlike Alternative 1, Alternative 4 would not implement any project activities within 2 miles of Census Tract 3031.00 or the Byron CDP. As a result, construction and operation of Alternative 4 would not cause a disproportionate impact to the minority and low-income community in the area; there would be "No Impact".

**Mitigation:** None required.

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**Impact 4.18.3: Construction and operation of the project alternatives when combined with construction of other past, present, and probable future projects, would result in air quality, noise, and/or other environmental impacts related to traffic and other construction activities that would not disproportionately affect nearby minority and/or low-income communities. (Less than Significant)**

### **All Alternatives**

Impact 4.18.1 evaluates the potential for environmental justice impacts associated with temporary traffic, air quality, noise and other environmental impacts resulting from project construction activities. As discussed above, because relatively little construction would occur near the Byron CDP and none in Census Tract 3031.00, construction impacts to areas with minority or low-income populations would not cause a disproportionate impact to the minority and low-income community in the area. As also discussed above, construction of the project would involve activities and use equipment typical for any construction project; temporary traffic, air quality and noise effects would be mitigated to less than significant levels with mitigation. None of the alternatives would

cause a disproportionate impact to the minority and low-income communities in the area, and project-related environmental justice impacts would be less than significant.

**Cumulative Construction Projects.** There is the potential for cumulative impacts associated with select other projects to be built in the same 3-year timeframe as the Los Vaqueros Expansion project (approximately 2012 to 2015) and within the same geographic area. As discussed in Section 4.1 – Approach to Analysis (see subsection 4.1.3 Approach to Cumulative Analysis), a review of local and regional development, infrastructure and transportation projects was conducted to provide a list of relevant projects (see Table 4.1.2). Construction-related impacts, including traffic, dust and noise result in localized effects; therefore, only other projects or activities in relatively close proximity (within one mile of Census Tract 3031.00 and the Byron CDP) would have the potential to add to anticipated project-generated construction impacts and create cumulative construction-related effects.

Of the projects listed, development or public works projects proposed for construction during the same timeframe as the Los Vaqueros Reservoir Expansion Project include the Cecchini Ranch development and the Brentwood Solid Waste Transfer Facility Expansion (located in Brentwood). However, these construction projects would not be located within 1 mile of Census Tract 3031.00 or the Byron CDP, and are therefore not considered relevant to a discussion of cumulative environmental justice impacts.

There are also various Road Safety Improvement and Widening Projects (SR 4, Vasco Road, Walnut Boulevard Widening and the Byron Highway) which, although scheduled for completion prior to the Los Vaqueros Reservoir Expansion, do have the potential to overlap in time and geographic area with the project alternatives. As such, they could impact minority and low-income communities where construction occurs within 1 mile of these populations. However, the improvements would not disproportionately affect Census Tract 3031.00 or the Byron CDP, since they are located throughout the region and would impact other communities at the same time. Based on this review of probable future projects, Los Vaqueros Reservoir Expansion Project construction activities would not contribute considerably to any significant cumulative effects.

**Cumulative Operations.** With respect to cumulative, short-term operational impacts resulting from project-related traffic and air quality sources combined with other projects and their effects, there does appear to be the potential to make a cumulatively considerable contribution to traffic and air quality effects. As discussed in their respective section (Transportation Impact 4.9.6; Air Quality Impact 4.10.2), operation of the Los Vaqueros Reservoir Expansion project under all alternatives would result in less than significant effects. But, when operation of the Los Vaqueros Reservoir Expansion project is considered in combination with operation of relevant cumulative projects, traffic and air quality, there is the potential for significant cumulative impacts for traffic and air quality to occur. However, these operational impacts to traffic and air quality would not disproportionately affect Census Tract 3031.00 or the Byron CDP, since impacts would be spread throughout the region and would impact other (non-minority and higher income) communities at the same time.



Noise levels, by comparison, are more localized than traffic and air quality, and are not anticipated to increase above ambient levels enough to result in cumulative noise impacts (see Section 4.11.2). As such, cumulative noise impacts are not anticipated.

Based on this review of probable future projects, Los Vaqueros Reservoir Expansion Project operation would not result in significant cumulative operational impacts to identified populations.

In summary for all alternatives, the cumulative impact to the County's minority and low-income populations from area construction is not cumulatively considerable and disproportionate to minority or low-income populations. Cumulative, operational impacts related to traffic and air quality may result in cumulatively considerable impacts, however these impacts would not disproportionately affect minority and low-income communities. Therefore, cumulative environmental justice impacts are considered to be less than significant.

**Mitigation:** None required.

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**Impact 4.18.4: Construction and operation of the project alternatives, when combined with construction of other past, present, and probable future projects, would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project. (No Impact)**

### ***All Alternatives***

The geographic area for employment opportunities is broader than the local (i.e.- two-mile) range for potential construction impacts. Therefore, the following discussion of cumulative impacts will focus upon countywide employment opportunities and their potential cumulative effects upon minority and low-income populations.

**Cumulative Construction Projects.** In Section 4.17 Socioeconomic Effects, discussion under Impact 4.17.2 identified temporary beneficial countywide impacts related to new income and local employment during project construction. Discussion under Impact 4.17.4 identified beneficial cumulative impacts related to new income and local employment during project construction (also Countywide). These beneficial countywide effects could also be available to identified minority and low-income populations during the construction period.

In this Environmental Justice section, discussion under Impact 4.18.2 finds that construction of the project would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project. Instead, there would be work opportunities associated with the project that could increase income and local employment associated with construction of one of the project alternatives. Therefore, there would be no project related adverse contribution to the any significant cumulative impacts on local employment opportunities that would disproportionately affect minority and/or low-income communities in the project's vicinity.

**Cumulative Operations.** With respect to cumulative, long-term operational impacts resulting from project-related employment opportunities combined with other projects and their effects, there does not appear to be the potential to make a cumulatively considerable contribution. This is because there are anticipated to be only about 3 new employment positions filled after project construction is completed. Whether all the new positions were filled by minority and/or low-income residents or not, there would be no impact related to operational employment. Therefore, there would be no opportunity for a contribution to local employment and no opportunity to impact cumulative operational effects.

In summary for all alternatives, the cumulative impact to the County's minority and low-income populations from county-wide construction and operational employment opportunities is not cumulatively considerable and disproportionate to minority or low-income populations. Cumulative, construction and operational impacts related to employment opportunities may result in cumulatively considerable impacts, however these impacts would not disproportionately affect minority and low-income communities. Therefore, cumulative environmental justice impacts are considered to be less than significant.

**Mitigation:** None required.

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