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### 29.0 Summary Comparison of Alternatives

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines direct California public agencies to inform decision makers and the public about the potential significant environmental effects of proposed activities (see, for example, Pub. Resources Code § 21000; CEQA Guidelines § 15002). CEQA does not require an analysis of environmental justice; however, state legislation, executive orders, and policies instruct state agencies to consider the impacts of their actions on environmental justice (minority and low-income) communities. The California Department of Water Resources (DWR) has included this chapter to document consideration of environmental justice concerns and disclose potential effects of the Delta Conveyance Project (project) on environmental justice communities. Furthermore, DWR has prepared an environmental justice analysis that includes the information necessary to comply with the National Environmental Policy Act (NEPA) because the U.S. Army Corps of Engineers (USACE) is a regulatory agency for major aspects of the project and is the federal lead agency for preparation of an Environmental Impact Statement (EIS) in compliance with NEPA.

NEPA methodology is therefore used as a template for providing the analysis to address state directives on environmental justice. Significant environmental impacts identified in this Draft Environmental Impact Report (Draft EIR) for CEQA resource topics are considered to be surrogates for adverse effects under NEPA. This Draft EIR therefore draws on CEQA analyses of other resource topics to establish which CEQA significant environmental impacts could have the potential for “disproportionately high and adverse” effects on environmental justice communities as defined in federal requirements under Executive Order (EO) 12898 (Section 29.2, *Environmental Justice Context*). The environmental justice analysis is primarily qualitative and conclusions are stated in NEPA terms of adverse effect rather than CEQA significance terminology.

The significance of physical changes to the environment are analyzed in the resource chapters of this Draft EIR and used here to determine if the changes or measures to reduce effects would have disproportionately adverse effects on environmental justice. Because environmental justice communities are widespread throughout the study area, effects are the same for all alternatives in most cases. Effects on environmental justice vary by resource.

If the project is approved and completed, project operations are not expected to result in disproportionately adverse effects on minority and low-income communities in the environmental justice study area. Improving water supply and water quality reliability, seismic and climate change resiliency, and operational flexibility to protect aquatic conditions in the Delta would have no adverse effect, and would have potentially beneficial effects, on environmental justice communities within the project’s footprint in the Delta. The project would improve reliability of water delivery to the 18 participating public water agencies in the State Water Project (SWP) service areas, as described in Chapter 31, *Growth Inducement*. Improved water supply reliability in these areas would have beneficial effects on minority or low-income communities, where most project benefits would accrue equally to both the general and environmental justice populations. Modeling found that project implementation would not change water supply reliability or quality in the San Francisco

1 Bay Area or upstream of the Delta, and resource analyses in Chapters 7 through 32 of this Draft EIR  
2 found no related significant impacts on water supply or water quality for these regions.

3 Construction or operation of project facilities has the potential for significant impacts on Delta  
4 resources such as agricultural resources, aesthetics and visual resources, cultural resources,  
5 transportation, air quality and greenhouse gases (GHG), noise, and public health. Most significant  
6 impacts would be reduced by implementation of environmental commitments described in  
7 Appendix 3B, *Environmental Commitments and Best Management Practices*, or mitigated to a less-  
8 than-significant level by resource-specific mitigation measures. Significant impacts were also  
9 identified for flood protection; groundwater; soils; fish and aquatic resources; terrestrial biological  
10 resources; hazards, hazardous materials, and wildfire; and paleontological resources, but they were  
11 not carried forward for detailed analysis in this environmental justice assessment because  
12 environmental commitments or mitigation measures would reduce impacts to a less-than-  
13 significant level, or, in the case of paleontological resources, unavoidable impacts would not affect  
14 environmental justice (Section 29.4.1.2, *Resource Topics with CEQA Impact Conclusions*).

15 Significant unavoidable impacts on Tribal cultural resources are identified in Chapter 32, *Tribal*  
16 *Cultural Resources*, of this Draft EIR. Effects on Tribal cultural resources, however, cannot be  
17 analyzed with the methods applied to environmental justice analysis because there is no  
18 comparison group for determining whether the effect is disproportionate—the impacts are specific  
19 to Native Americans only. Accordingly, this chapter does not assess Tribal cultural resources in this  
20 comparative environmental justice context; Chapter 32 does thoroughly analyze project impacts on  
21 Tribal cultural resources.

22 Because minority and low-income residents meeting or exceeding the respective environmental  
23 justice thresholds are present in high proportions in the study area census block groups, it is  
24 assumed that significant impacts that would not be reduced to a less-than-significant level would  
25 constitute a disproportionately adverse effect on environmental justice. Conversely, when impacts  
26 can be reduced to a less-than-significant level, minority and low-income populations are likely to  
27 benefit proportionately, and effects would not exceed those on the general population; therefore,  
28 effects on environmental justice would not be considered disproportionately adverse. The  
29 environmental justice analysis also considered the potential effects on environmental justice of  
30 implementing the proposed Compensatory Mitigation Plan and found it would have no  
31 disproportionately adverse effect on environmental justice.

32 If the project was not approved and constructed, climate change and other natural processes and  
33 ongoing human activities would continue. How ongoing or changing conditions would affect  
34 environmental justice would depend on unknown individual, social, institutional, and political  
35 responses to change. Public water agencies would likely implement more or larger-capacity water  
36 efficiency projects or policies than might be needed if the project was implemented, as described in  
37 Section 29.4.2.1, *No Project Alternative*. Water efficiency projects could have adverse or beneficial  
38 effects. Effects could be adverse for minority or low-income individuals or businesses if projects  
39 limit water uses in a way that reduces employment opportunities, such as by reducing agricultural  
40 land in production or by increasing the cost of water in the Delta or the SWP service areas. Effects  
41 could be beneficial if projects lead to increased employment opportunities, such as installing water-  
42 efficient building fixtures or upgrades to waterwise infrastructure. Benefits of water efficiency  
43 projects would likely be similar for the general and minority and low-income populations.

## 29.0.1 Summary of Resource Impacts with Disproportionately High and Adverse Effects on Environmental Justice

Where the resource chapters identify significant impacts before mitigation or significant and unavoidable impacts with or without mitigation, the potential effect on environmental justice is analyzed in Section 29.4.2, *Analysis of Disproportionately High and Adverse Effects*. Mitigation measures or environmental commitments implemented to reduce significant impacts identified in the resource chapters would not result in disproportionately adverse effects on environmental justice.

The following impacts were found to be significant and unavoidable and would have a disproportionately adverse effect on environmental justice.

- Impact AG-1: *Convert a Substantial Amount of Prime Farmland, Unique Farmland, Farmland of Local Importance, or Farmland of Statewide Importance as a Result of Construction of Water Conveyance Facilities*
- Impact AG-2: *Convert a Substantial Amount of Land Subject to Williamson Act Contract or under Contract in Farmland Security Zones to a Nonagricultural Use as a Result of Construction of Water Conveyance Facilities*
- Impact AES-1: *Substantially Degrade the Existing Visual Character or Quality of Public Views (from Publicly Accessible Vantage Points) of the Construction Sites and Visible Permanent Facilities and Their Surroundings in Nonurbanized Areas*
- Impact AES-2: *Substantially Damage Scenic Resources including, but Not Limited to, Trees, Rock Outcropping, and Historic Buildings Visible from a State Scenic Highway*
- Impact AES-3: *Have Substantial Adverse Effects on Scenic Vistas*
- Impact CUL-1: *Impacts on Eligible Built-Environment Historical Resources from Construction and Operation of the Project*
- Impact CUL-2: *Impacts on Unidentified and Unevaluated Built-Environment Historical Resources Resulting from Construction and Operation*
- Impact CUL-3: *Impacts on Identified Archaeological Resources Resulting from Project Construction and Operation*
- Impact CUL-4: *Impacts on Unidentified Archaeological Resources That May Be Encountered in the Course of the Project*
- Impact CUL-5: *Impacts on Buried Human Remains*
- Impact AQ-5: *Result in Exposure of Sensitive Receptors to Substantial Localized Criteria Pollutant Emissions*
- Impact AQ-6: *Result in Exposure of Sensitive Receptors to Substantial Toxic Air Contaminant Emissions*
- Impact NOI-1: *Generate a Substantial Temporary or Permanent Increase in Ambient Noise Levels in the Vicinity of the Project in Excess of Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies*

Table ES-2 in the *Executive Summary* summarizes all impacts disclosed in this chapter.

## 29.1 Introduction

California codified environmental justice in California Public Resources Code Sections 71110–71118 and Government Code Section 65040.12. Government Code Section 65040.12(e)(1) defines environmental justice as “the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” The California Natural Resources Agency (CNRA) established an environmental justice policy applicable to “all Departments, Boards, Commissions, Conservancies and Special Programs of the Resources Agency” (California Natural Resources Agency 2003). Beyond the outreach associated with the fair treatment and meaningful involvement, an environmental justice analysis typically assesses whether and to what extent a proposed project would disproportionately locate adverse environmental effects on identified disenfranchised, or “environmental justice,” populations (see below for context and background on environmental justice analysis).

CEQA and the State CEQA Guidelines direct California public agencies to inform decision makers and the public about the potential significant environmental effects of proposed activities (see for example, Pub. Resources Code § 21000; CEQA Guidelines § 15002). The CEQA Guidelines, however, define the environment as the “physical conditions which exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” Section 15382 of the CEQA Guidelines specifically states that “an economic or social change by itself shall not be considered a significant effect on the environment” (CEQA Guidelines § 15360; see also § 15131). Consistent with this limitation, lead agencies do not typically include an environmental justice analysis in the documents prepared to comply with CEQA.

While CEQA does not require an analysis of environmental justice, State legislation, executive orders, and policies, however, do instruct state agencies to consider the impacts of their actions on environmental justice communities. Therefore, while not a requirement of CEQA, DWR has included this chapter to document consideration of environmental justice concerns and disclose potential effects of the project on environmental justice communities. In addition, DWR has prepared an environmental justice analysis that includes the information necessary to comply with NEPA because USACE is a regulatory agency for major aspects of the project and is the lead agency for preparation of an EIS in compliance with NEPA. A discussion of a federal agency’s requirements regarding environmental justice follows.

Environmental justice was first identified as a national policy in 1994 when President Clinton signed EO 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 *Federal Register* [FR] 7629, February 16, 1994). This order requires that each federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid “disproportionately high and adverse” effects on minority and low-income populations. EO 12898 applies to a wider population than Title VI, which does not cover low-income non-minority populations.

This Draft EIR draws on CEQA analyses of other resource topics to establish which CEQA significant impacts could have the potential for “disproportionately high and adverse” effects on environmental justice communities but does not make any significance determinations for environmental justice. Section 29.2, *Environmental Justice Context*, provides the regulatory background for the topic,

1 defines “environmental justice communities,” and summarizes the results of outreach to the Delta  
2 environmental justice communities to provide context for the analysis provided in Section 29.4,  
3 *Environmental Justice Analysis*. The analysis evaluates the potential for effects of construction,  
4 operation, and maintenance of project alternatives, as identified in other CEQA chapters, to result in  
5 disproportionately high and adverse environmental or health consequences for minority and low-  
6 income populations. The environmental justice analysis also explains how actions to reduce effects  
7 on other resources may or may not reduce disproportionately adverse environmental effects on  
8 environmental justice communities and provides additional actions to offset disproportionate  
9 effects where applicable.

10 This chapter does not analyze effects on community character, social and economic characteristics,  
11 or the balance of population, employment, and housing. These topics are covered in Chapter 17,  
12 *Socioeconomics*, Sections 17.3.3, *Socioeconomic Effects*, and 17.3.4, *Cumulative Analysis*.

## 13 29.2 Environmental Justice Context

14 This section provides the background for environmental justice analysis and describes the study  
15 area for the environmental justice analysis for the project. Consistent with USACE requirements  
16 described below, DWR uses the analytical methodology for determining the potential for the project  
17 alternatives to cause disproportionately high and adverse environmental effects on minority and  
18 low-income populations based on federal requirements under EO 12898. EO 12898 requires federal  
19 agencies to develop environmental justice plans to analyze federal actions that have the potential to  
20 result in disproportionately high and adverse environmental effects (including human health,  
21 economic, and social effects) on minority and low-income populations, including Tribal populations  
22 (U.S. Department of Energy 2012:1). The White House Council on Environmental Quality (CEQ)  
23 issued *Environmental Justice Guidance Under the National Environmental Policy Act* in 1997 (CEQ  
24 Guidance) (Council on Environmental Quality 1997) to provide guidance for complying with  
25 EO 12898 and evaluating the equity of impacts imposed on minority and low-income populations,  
26 including Tribal populations, relative to the benefits of a federal action.

27 Significant concentrations of minority or low-income individuals are sometimes referred to as  
28 *environmental justice populations or communities*. The CNRA environmental justice policy (2003:2)  
29 explains, “Environmental justice communities are commonly identified as those where residents are  
30 predominantly minorities or low-income; where residents have been excluded from the  
31 environmental policy setting or decision-making process; where they are subject to a  
32 disproportionate impact from one or more environmental hazards; and where residents experience  
33 disparate implementation of environmental regulations, requirements, practices and activities in  
34 their communities.”

35 The study area for environmental justice consists of the census tracts and block groups intersected  
36 by the footprint of the project. The project footprint is the area in which temporary or permanent  
37 physical effects of the project may occur—intakes, tunnel shaft pad sites, reusable tunnel material  
38 treatment and storage areas, and Southern Complex or Bethany Complex facilities, along with  
39 parking areas, power and supervisory control and data acquisition lines, new or modified roads and  
40 railroad facilities, and compensatory mitigation areas. Mapbook 3-1 for the central alignment,  
41 Mapbook 3-2 for the eastern alignment, and Mapbook 3-3 for the Bethany Reservoir alignment  
42 illustrate the project route and physical components of each alignment overlaid on aerial imagery.

1 The tunnel itself would have no permanent footprint at the ground surface. The path of the tunnel,  
2 where there is potential to cause significant impacts, is also part of the study area, and effects during  
3 construction of both surface and subsurface facilities are considered (Figure 29-1). Waterways  
4 within the census tracts and block groups affected by the project are part of the study area.

## 5 **29.2.1 Identification of Environmental Justice Populations in** 6 **the Study Area**

7 This section identifies the minority and low-income populations in the study area based on data  
8 from the U.S. Census Bureau (2019). The U.S. Census Bureau collects comprehensive demographic  
9 data every 10 years during the decennial census. The Notice of Preparation (NOP) for this EIR was  
10 published in 2020, when the 2020 census data were being collected and tabulation had not yet been  
11 completed or published for all geographies.<sup>1</sup> Therefore, this analysis uses the most recent data  
12 available from the U.S. Census American Community Survey, 2019 5-year estimates for years 2015–  
13 2019. The American Community Survey conducts monthly surveys of a sample of addresses in all 50  
14 states, the District of Columbia, and Puerto Rico, and publishes yearly and 5-year estimates to help  
15 decision makers understand changes in their communities (U.S. Census Bureau 2021a).

16 The U.S. Census Bureau collects demographic information on ethnicity at the level of census blocks  
17 (the smallest geographic unit used by the U.S. Census Bureau). Generally, several census blocks  
18 make up block groups, which make up census tracts. The population of a census block can vary,  
19 depending on the urban or rural nature of the area. Hispanic status is considered a geographic place  
20 of origin, rather than ethnicity or race, by the U.S. Census Bureau and is collected at the block level.

21 This section first identifies the census tracts with total minority populations of 50% or more, then  
22 describes places where low-income households compose 20% or more of the population.

### 23 **29.2.1.1 Minority Populations**

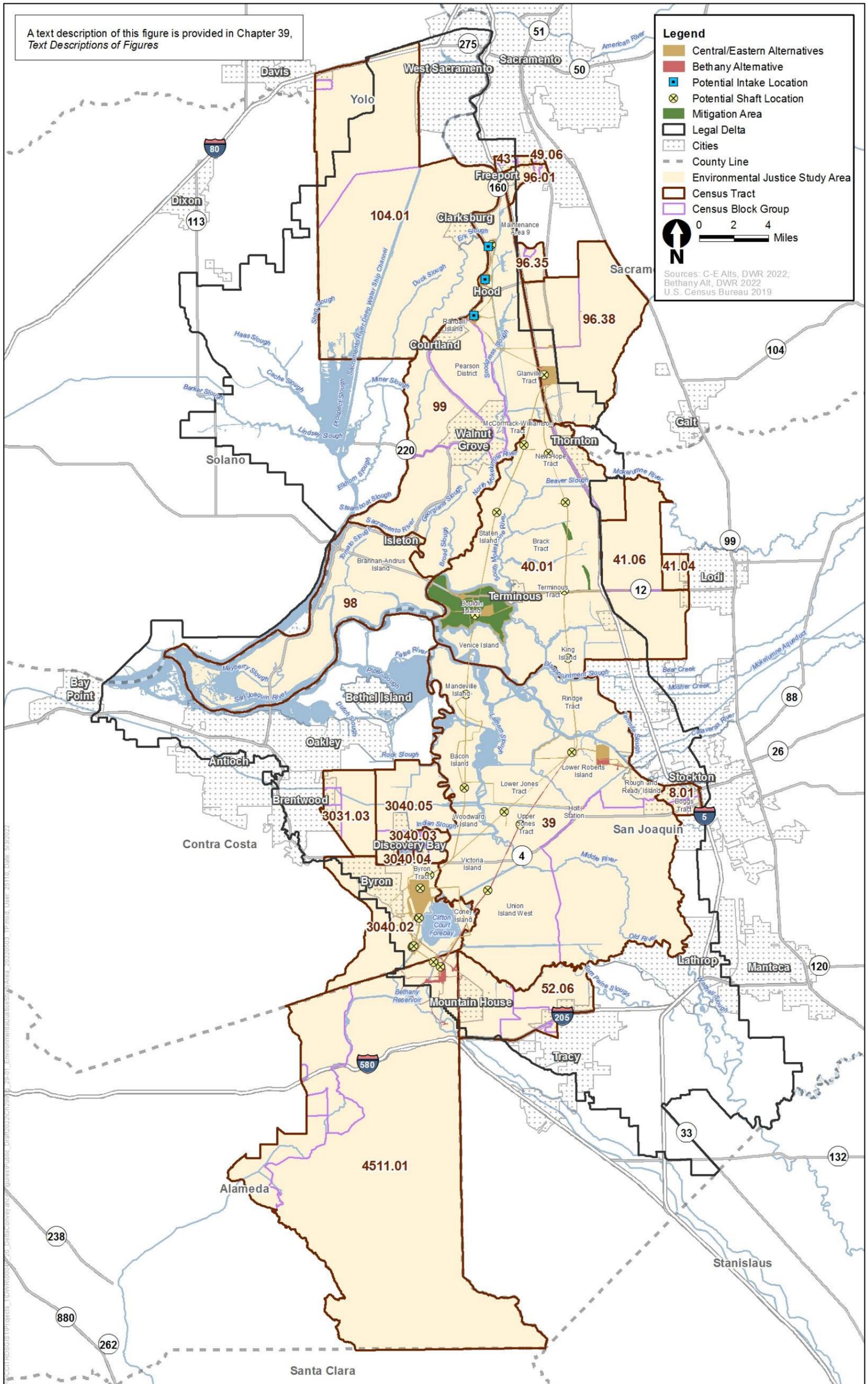
24 This analysis uses the definitions of minority populations provided in Appendix A of the CEQ  
25 Guidance (Council on Environmental Quality 1997:25), consistent with practices of the USACE.

26 *Minority individuals* are defined as members of the following population groups, defined by the U.S.  
27 Census in accordance with the 1997 Office of Management and Budget standards on race and  
28 ethnicity (U.S. Census Bureau 2020).

- 29 • American Indian or Alaskan Native—A person having origins in any of the original peoples of  
30 North and South America (including Central America) and who maintains Tribal affiliation or  
31 community attachment.

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<sup>1</sup> The U.S. Census Bureau announced it would delay the release of the 2016–2020 American Community Survey 5-year data, originally scheduled for December 2021, due to the impacts of COVID-19 on data collection (U.S. Census Bureau 2021b).



1  
2 **Figure 29-1. Environmental Justice Study Area**

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- 1       • Asian or Pacific Islander—A person having origins in any of the original peoples of the Far East,  
2       Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan,  
3       Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. Native Hawaiian or  
4       Other Pacific Islander is defined as a person having origins in any of the original peoples of  
5       Hawaii, Guam, Samoa, or other Pacific Islands.
- 6       • Black, not of Hispanic origin—A person having origins in any of the Black racial groups of Africa.
- 7       • Hispanic—“Hispanic or Latino” is a person of Cuban, Mexican, Puerto Rican, South or Central  
8       American, or other Spanish culture or origin regardless of race. Census respondents may  
9       categorize themselves as “Mexican, Mexican Am., Chicano;” “Puerto Rican;” “Cuban;” and  
10      “another Hispanic, Latino, or Spanish origin” or write in a different answer.

11      *Minority populations* are identified by either of the following factors.

- 12      • Where the minority population of the affected area exceeds 50%.
- 13      • Where the minority population percentage of the affected area is meaningfully greater than the  
14      minority population percentage of the general population or other appropriate unit of  
15      geographical analysis. Agencies may consider as a community either a group of individuals  
16      living in geographic proximity to one another, or a geographically dispersed/transient set of  
17      individuals (such as migrant workers or Native Americans), where either type of group  
18      experiences common conditions of environmental exposure or effect.

19      A minority population also exists if there is more than one minority group present and the minority  
20      percentage, as calculated by aggregating all minority persons, meets one of the above-stated  
21      thresholds.

22      Figure 29-2 depicts the places and census blocks with greater than 50% minority populations within  
23      the study area. These data were generated based upon census data collected for all minority  
24      populations within the study area and provided in Table 29-1. Areas exhibiting high proportions of  
25      minority residents are present in both urban and rural areas, with many agricultural areas in the  
26      interior Delta exhibiting high proportions of minority residents.

27      As Figure 29-2 shows, minority populations are widely distributed in the study area. Overall, the  
28      study area is 61% minority, which includes the 26% of the population that is Hispanic. Areas with  
29      50% or more minority residents occur in and around Clarksburg, Franklin, Hood, Courtland, Walnut  
30      Grove, Thornton, Isleton, parts of Stockton and Tracy, and Mountain House. Large rural areas  
31      outside designated communities, such as the Delta islands comprising most of Census Tract 39 in  
32      San Joaquin County, are more than 70% minority, nearly all Hispanic. Adjacent block groups in the  
33      more urban Census Tract 8.01, part of Stockton west of Interstate 5 and south of the Port of  
34      Stockton, is more than 95% minority, the majority of whom are Hispanic. Hispanic individuals are a  
35      substantial portion of the minority population even where they do not account for 50% or more of  
36      the population. Table 29-1 shows minority populations by census tract and block group.

1 **Table 29-1. Distribution of Minority Populations in the Study Area by Census Tract and Block Group**

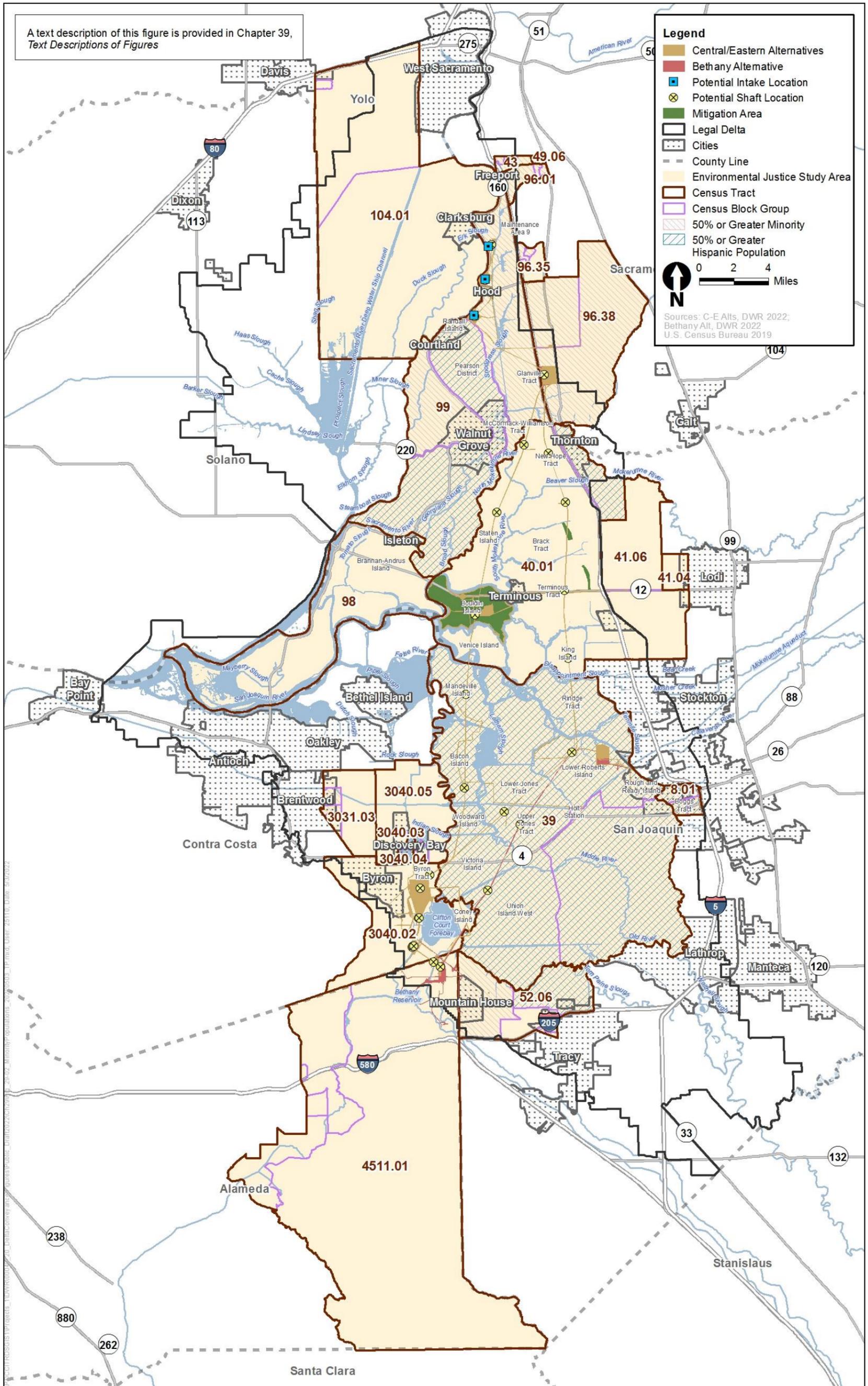
County/Census Tract	Block Group	Total Population	White Non-Hispanic	Black Non-Hispanic	Native American Non-Hispanic	Asian Non-Hispanic	Native Hawaiian Non-Hispanic	Some Other Race Non-Hispanic	Two or More Non-Hispanic	Total Hispanic	Hispanic (% of Total)	Total Minority - Black, Hispanic, Asian/PI, Native American, Native Hawaiian, Other, 2 or More	Minority Population (%)
<b>Alameda</b>													
Census Tract 4511.01	1	2,979	1,562	86	0	1,165	0	0	104	62	2.1	1,417	47.6
Census Tract 4511.01	2	2,876	1,598	0	0	224	55	0	123	876	30.5	1,278	44.4
Census Tract 4511.01	3	1,301	1,008	53	1	3	0	1	48	187	14.4	293	22.5
Census Tract 4511.01	4	0	0	0	0	0	0	0	0	0	0	0	0.0
Census Tract 4511.01	5	1,536	1,187	8	0	73	83	0	48	137	8.9	349	22.7
<b>Contra Costa</b>													
Census Tract 3031.03	1	2,198	1,204	0	0	35	0	0	21	938	42.7	994	45.2
Census Tract 3031.03	2	3,244	1,220	358	0	263	0	0	48	1,355	41.8	2,024	62.4
Census Tract 3031.03	3	3,651	1,627	205	33	683	0	0	206	897	24.6	2,024	55.4
Census Tract 3031.03	4	3,559	1,897	268	171	14	29	0	131	1,049	29.5	1,662	46.7
Census Tract 3040.02	1	1,463	888	43	21	21	0	0	11	479	32.7	575	39.3
Census Tract 3040.03	1	2,130	1,406	85	6	216	0	0	0	417	19.6	724	34.0
Census Tract 3040.03	2	581	528	0	0	10	0	0	0	43	7.4	53	9.1
Census Tract 3040.03	3	1,082	875	10	0	8	0	10	9	170	15.7	207	19.1
Census Tract 3040.04	1	2,669	2,136	20	0	147	0	0	89	277	10.4	533	20.0
Census Tract 3040.04	2	1,445	1,151	0	0	64	0	0	43	187	12.9	294	20.3
Census Tract 3040.05	1	5,199	2,984	363	0	440	0	0	275	1,137	21.9	2,215	42.6
Census Tract 3040.05	2	3,567	2,259	324	0	96	0	15	98	775	21.7	1,308	36.7
<b>Sacramento</b>													
Census Tract 43	1	2,072	112	628	0	494	22	0	80	736	35.5	1,960	94.6
Census Tract 43	2	2,153	191	529	0	679	251	0	298	205	9.5	1,962	91.1
Census Tract 43	3	2,804	202	507	0	711	10	0	461	913	32.6	2,602	92.8
Census Tract 43	4	2,838	222	287	0	1,648	378	0	136	167	5.9	2,616	92.2

County/Census Tract	Block Group	Total Population	White Non-Hispanic	Black Non-Hispanic	Native American Non-Hispanic	Asian Non-Hispanic	Native Hawaiian Non-Hispanic	Some Other Race Non-Hispanic	Two or More Non-Hispanic	Total Hispanic	Hispanic (% of Total)	Total Minority - Black, Hispanic, Asian/PI, Native American, Native Hawaiian, Other, 2 or More	Minority Population (%)
Census Tract 49.06	1	1,613	199	397	0	299	77	0	37	604	37.4	1,414	87.7
Census Tract 49.06	2	1,677	233	492	0	312	0	0	67	573	34.2	1,444	86.1
Census Tract 96.01	1	1,215	30	239	0	763	8	0	0	175	14.4	1,185	97.5
Census Tract 96.01	2	2,658	148	635	0	775	127	0	36	937	35.3	2,510	94.4
Census Tract 96.01	3	2,899	292	836	0	472	290	0	114	895	30.9	2,607	89.9
Census Tract 96.35	1	3,179	975	443	0	1,277	0	19	120	345	10.9	2,204	69.3
Census Tract 96.35	2	3,326	1,066	189	0	1,021	45	0	195	810	24.4	2,260	67.9
Census Tract 96.35	3	53	53	0	0	0	0	0	0	0	0.0	0	0.0
Census Tract 96.38	1	10,688	3,558	1,168	49	3,298	301	0	756	1,558	14.6	7,130	66.7
Census Tract 96.38	2	1,537	496	174	56	286	0	0	0	525	34.2	1,041	67.7
Census Tract 98	1	1,514	1,105	9	19	31	8	0	52	290	19.2	409	27.0
Census Tract 99	1	1,190	472	0	0	30	0	0	37	651	54.7	718	60.3
Census Tract 99	2	1,109	544	139	0	15	0	17	0	394	35.5	565	50.9
Census Tract 99	3	526	132	0	0	73	0	0	14	307	58.4	394	74.9
Census Tract 99	4	746	328	0	0	32	0	75	59	252	33.8	418	56.0
<b>San Joaquin County</b>													
Census Tract 39	1	908	261	0	0	0	0	0	0	647	71.3	647	71.3
Census Tract 39	2	610	179	0	8	11	0	0	0	412	67.5	431	70.7
Census Tract 40.01	1	981	521	14	0	54	0	0	10	382	38.9	460	46.9
Census Tract 40.01	2	1,234	367	7	0	40	0	0	18	802	65.0	867	70.3
Census Tract 41.04	1	3,638	2,834	21	0	174	0	0	152	457	12.6	804	22.1
Census Tract 41.06	1	701	512	0	0	9	0	0	5	175	25.0	189	27.0
Census Tract 41.06	2	903	621	0	6	47	0	0	0	229	25.4	282	31.2

County/Census Tract	Block Group	Total Population	White Non-Hispanic	Black Non-Hispanic	Native American Non-Hispanic	Asian Non-Hispanic	Native Hawaiian Non-Hispanic	Some Other Race Non-Hispanic	Two or More Non-Hispanic	Total Hispanic	Hispanic (% of Total)	Total Minority - Black, Hispanic, Asian/PI, Native American, Native Hawaiian, Other, 2 or More	Minority Population (%)
Census Tract 52.06	1	701	235	0	0	0	0	0	40	426	60.8	466	66.5
Census Tract 52.06	2	546	309	61	0	0	0	0	0	176	43.4	237	43.4
Census Tract 52.06	3	20,030	5,246	1,729	0	8,328	96	0	1,417	3,214	16.0	14,784	73.8
Census Tract 52.06	4	3,561	1,554	121	0	896	171	0	24	795	22.3	2,007	56.4
Census Tract 52.06	5	1,904	1,144	0	0	112	0	0	0	648	34.0	760	39.9
Census Tract 8.01	1	1,769	47	78	0	73	0	0	0	1,571	88.8	1,722	97.3
Census Tract 8.01	2	3,955	180	194	0	755	0	0	286	2,540	64.2	3,775	95.4
Census Tract 8.01	3	1,900	61	63	0	412	7	0	134	1,223	64.4	1,839	96.8
<b>Yolo</b>													
Census Tract 104.01	1	529	478	0	0	0	0	0	8	43	8.1	51	9.6
Census Tract 104.01	2	2,773	1,705	57	13	506	0	0	101	391	14.1	1,068	38.5
Census Tract 104.01	3	1,469	812	0	0	58	0	0	21	578	39.3	657	44.7
Grand Total	-	131,389	50,954	10,840	383	27,153	1,958	137	5,932	34,032	25.9	80,435	61.2

Source: U.S. Census Bureau 2019.

1  
2



1  
2 **Figure 29-2. Minority and Hispanic Population in the Study Area**

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## 1 29.2.1.2 Low-Income Populations

2 A low-income population is one in which median household income (MHI) is at or below the  
 3 Department of Health and Human Services poverty guidelines, or a locally developed threshold that  
 4 is at least as inclusive as the poverty guidelines. A low-income population means any readily  
 5 identifiable group of low-income people who live in geographic proximity and, if circumstances  
 6 warrant, geographically transient persons (such as migrant workers, students, or Native Americans)  
 7 who could be affected by a proposed program, policy, or activity.

8 This analysis uses a locally developed standard, defining *low income* in accordance with the  
 9 California Public Resources Code, Section 75005(g) definition of a *disadvantaged community* as a  
 10 community with an MHI less than 80% of the “statewide average.” This definition of low income also  
 11 captures the *severely disadvantaged community*, defined as a community with MHI less than 60% of  
 12 the statewide average. “Average” for this purpose is interpreted as the 5-year statewide MHI of  
 13 \$75,235 for a four-person household for 2015–2019 as reported by the U.S. Census.<sup>2</sup> Accordingly, a  
 14 low-income household would have an income less than \$60,188. The mapped data is based on U.S.  
 15 Census American Community Survey 5-Year Estimates for 2015–2019, displayed on Figure 29-3 and  
 16 in Table 29-2, and uses an upper MHI boundary of \$60,000 because of the brackets used in the  
 17 census data.

18 **Table 29-2. Median Household Income in Study Area by Census Tract Block Groups 2019**

County/Census Tract/Block Group	Median Household Income	Total Number of Households	Number of Households below \$60,000	Percent of Households below \$60,000
<b>Alameda County</b>				
<b>Census Tract 4511.01</b>				
Block Group 1	\$193,125	1,022	173	16.9%
Block Group 2	\$159,881	788	76	9.6%
Block Group 3	\$112,188	392	43	11.0%
Block Group 4	0	0	0	0.0%
Block Group 5	\$250,001	428	43	10.0%
Census Tract 4511.01 MHI and Total Households	\$170,000	2,630	335	12.7%
Alameda County Study Area Total Households with MHI less than \$60,000	–	2,630	335	12.7%
<b>Contra Costa County</b>				
<b>Census Tract 3031.03</b>				
Block Group 1	\$100,809	672	223	33.2%
Block Group 2	\$92,833	1,063	364	34.2%
Block Group 3	\$89,853	1,036	414	40.0%
Block Group 4	\$96,319	1,136	328	28.9%

<sup>2</sup> Median household income for 2019 was used because the coronavirus pandemic in 2020 caused high levels of unemployment and severely reduced incomes statewide. Lower-income people in services sectors were particularly hard hit.

County/Census Tract/Block Group	Median Household Income	Total Number of Households	Number of Households below \$60,000	Percent of Households below \$60,000
Census Tract 3031.03 MHI and Total Households	\$93,697	3,907	1,329	34.0%
<b><i>Census Tract 3040.02</i></b>				
Block Group 1	\$71,042	475	164	34.5%
Census Tract 3040.02 MHI and Total Households	\$71,042	475	164	34.5%
<b><i>Census Tract 3040.03</i></b>				
Block Group 1	\$136,801	841	193	22.9%
Block Group 2	\$146,848	240	8	3.3%
Block Group 3	\$110,156	429	85	19.8%
Census Tract 3040.03 MHI and Total Households	\$136,912	1,510	286	18.9%
<b><i>Census Tract 3040.04</i></b>				
Block Group 1	\$127,652	1,063	168	15.8%
Block Group 2	\$113,682	614	154	25.1%
Census Tract 3040.04 MHI and Total Households	\$121,688	1,677	322	19.2%
<b><i>Census Tract 3040.05</i></b>				
Block Group 1	\$127,052	1,406	221	15.7%
Block Group 2	\$158,750	1,016	236	23.2%
Census Tract 3040.05 MHI and Total Households	\$129,932	2,422	457	18.9%
Contra Costa County Study Area Total Households with MHI less than \$60,000	-	10,941	2,886	26.4%
<b>Sacramento County</b>				
<b><i>Census Tract 43</i></b>				
Block Group 1	\$35,104	693	506	73.0%
Block Group 2	\$54,875	502	281	56.0%
Block Group 3	\$54,861	652	363	55.7%
Block Group 4	\$60,205	629	310	49.3%
Census Tract 43 MHI and Total Households	\$49,154	2,476	1,460	59.0%
<b><i>Census Tract 49.06</i></b>				
Block Group 1	\$58,571	536	276	51.5%
Block Group 2	\$57,188	416	217	52.2%
Census Tract 49.06 MHI and Total Households	\$58,068	952	493	51.8%

County/Census Tract/Block Group	Median Household Income	Total Number of Households	Number of Households below \$60,000	Percent of Households below \$60,000
<b><i>Census Tract 96.01</i></b>				
Block Group 1	\$58,559	246	157	63.8%
Block Group 2	\$53,725	800	441	55.1%
Block Group 3	\$50,538	890	547	61.5%
Census Tract 96.01 MHI and Total Households	\$53,077	1,936	1,145	59.1%
<b><i>Census Tract 96.35</i></b>				
Block Group 1	\$121,250	886	201	22.7%
Block Group 2	\$113,385	962	210	21.8%
Block Group 3	\$76,250	20	0	0.0%
Census Tract 96.35 MHI and Total Households	\$116,071	1,868	411	22.0%
<b><i>Census Tract 96.38</i></b>				
Block Group 1	\$107,570	3,155	966	30.6%
Block Group 2	\$79,095	522	151	28.9%
Census Tract 96.38 MHI and Total Households	\$96,882	3,677	1,117	30.4%
<b><i>Census Tract 98</i></b>				
Block Group 1	\$40,395	738	471	63.8%
Census Tract 98 MHI and Total Households	\$40,395	738	471	63.8%
<b><i>Census Tract 99</i></b>				
Block Group 1	\$41,759	426	294	69.0%
Block Group 2	\$64,000	342	165	48.2%
Block Group 3	\$57,600	202	125	61.9%
Block Group 4	\$58,092	316	187	59.2%
Census Tract 99 MHI and Total Households	\$54,900	1,286	771	60.0%
Sacramento County Study Area Total Households with MHI less than \$60,000	-	12,933	5,868	45.4%
<b>San Joaquin County</b>				
<b><i>Census Tract 39</i></b>				
Block Group 1	\$47,917	209	171	81.8%
Block Group 2	\$65,385	202	93	46.0%
Census Tract 39 MHI and Total Households	\$52,540	411	264	64.2%
<b><i>Census Tract 40.01</i></b>				
Block Group 1	\$55,938	383	209	54.6%
Block Group 2	\$33,194	343	230	67.1%
Census Tract 40.01 MHI and Total Households	\$46,607	726	439	60.5%

County/Census Tract/Block Group	Median Household Income	Total Number of Households	Number of Households below \$60,000	Percent of Households below \$60,000
<b><i>Census Tract 41.04</i></b>				
Block Group 1	\$109,375	1,337	305	22.8%
Census Tract 41.04 MHI and Total Households	\$109,375	1,337	305	22.8%
<b><i>Census Tract 41.06</i></b>				
Block Group 1	\$57,917	249	127	51.0%
Block Group 2	\$97,404	311	78	25.1%
Census Tract 41.06 MHI and Total Households	\$90,000	560	205	36.6%
<b><i>Census Tract 52.06</i></b>				
Block Group 1	\$75,714	200	59	29.5%
Block Group 2	-	273	88	32.2%
Block Group 3	\$138,563	5,011	436	8.7%
Block Group 4	\$83,155	1,035	398	38.5%
Block Group 5	\$109,007	545	147	27.0%
Census Tract 52.06 MHI and Total Households	\$128,246	7,064	1,128	16.0%
<b><i>Census Tract 8.01</i></b>				
Block Group 1	\$58,688	369	195	52.8%
Block Group 2	\$64,464	897	443	49.4%
Block Group 3	\$61,442	503	244	48.5%
Census Tract 8.01 MHI and Total Households	\$60,160	1,769	882	49.9%
San Joaquin County Study Area Total Households with MHI less than \$60,000	-	11,867	3,223	27.2%
<b><i>Yolo County</i></b>				
<b><i>Census Tract 104.01</i></b>				
Block Group 1	\$131,818	256	45	17.6%
Block Group 2	\$102,454	1,079	283	26.2%
Block Group 3	\$100,833	464	144	31.0%
Census Tract 104.01 MHI and Total Households	\$108,750	1,799	472	26.2%
Yolo County Study Area Total Households with MHI less than \$60,000	-	1,799	472	26.2%
<b><i>Study Area Low-Income Households</i></b>	-	39,220	12,456	31.8%

- 1 Source: U.S. Census Bureau 2019.
- 2 Note: *Low income* is defined as 20% or more of population with household income of less than 80% of 2015–2019 statewide median household income, or approximately \$60,000 (yellow highlighted cells).
- 3 MHI = median household income.
- 4



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1 Low-income residents are spread throughout the study area. Figure 29-3 shows study area census  
2 tracts containing block groups where 20% or more households have an MHI below \$60,000. Table  
3 29-2 shows that even census tracts with relatively high MHIs contain block groups with 20% or  
4 more low-income households. An example of these is Census Tract 3040.04, in Contra Costa County  
5 near Discovery Bay and Byron Tract. In Block Group 2 of this tract, 25.1% of households have MHI of  
6 less than \$60,000, while the MHI of the entire block group is \$113,682 and the total percent of low-  
7 income households in the whole census tract is less than 20%. All the study-area tracts in Contra  
8 Costa County contain one or more block groups that exceed 20% low-income households even  
9 though the MHI for each tract is more than \$60,000. Considered together, however, 26.4% of  
10 households in the Contra Costa County study area have MHI less than \$60,000. These low-income  
11 pockets occur in Isleton; on Brannan, Sherman, and Twitchell Islands; in the eastern portion of  
12 Brentwood; in Knightsen, Byron, and portions of Discovery Bay; and in adjacent unincorporated  
13 areas.

14 In Sacramento County, low-income census tracts encompass the towns of Freeport, Clarksburg,  
15 Hood, Courtland, Walnut Grove, and Locke. In San Joaquin County, low-income communities are  
16 found in Thornton, Terminous, southwest portions of Stockton, and the interior Delta islands.

17 Overall, 31.8% of households in the study area are considered low income (MHI less than  
18 \$60,000/year), and the majority of study area census tracts contain 20% or more low-income  
19 households.

20 Low-income residents are anticipated to be tied socially and economically to the larger nearby  
21 urban areas on the periphery of the Delta including Tracy, Stockton, and the urban centers in the  
22 western end of the Delta because nearby urban centers are expected to provide employment  
23 opportunities, goods, services, and entertainment otherwise unavailable in rural agricultural areas.  
24 Chapter 17, *Socioeconomics*, discusses geographic distribution and community and economic  
25 characteristics in the Delta.

## 26 **29.2.2 Public Outreach**

27 Public outreach is central to the principles of environmental justice, and an important component of  
28 meeting the goals identified in EO 12898 and California environmental justice policies. Chapter 35,  
29 *Public Involvement*, provides a summary of all public involvement and outreach activities conducted  
30 for the project and a summary of some of the public involvement, consultation, and coordination  
31 activities conducted as part of the larger project program independent of any EIR or EIS process.

32 In addition to outreach to the general public, DWR is engaging specifically with disadvantaged,  
33 historically burdened, underrepresented, people of color, and low-income communities of interest  
34 that may be disproportionately affected by the proposed project.

### 35 **29.2.2.1 Tribal Engagement**

36 DWR is conducting several forms of Tribal engagement and consultation with Tribes for the project.  
37 This includes formal consultation about resources with cultural value to Tribes in accordance with  
38 CEQA, that includes Assembly Bill (AB) 52 requirements, and consultation under DWR's Tribal  
39 Engagement Policy with Tribes that are not formally consulting under AB 52.

40 Project notification letters were sent to Tribes inviting them to consult on the project and providing  
41 them with a copy of the NOP for information regarding the scoping process. These notification

1 letters were sent to 121 Tribes using contact information provided by the Native American Heritage  
2 Commission for counties within the study area. The consultation process is different than the public  
3 scoping process, and Tribes could choose to provide comments publicly (through the scoping  
4 process) or through consultation with DWR.

5 The Tribal Engagement Committee (TEC), which is convened by the Shingle Springs Band of Miwok  
6 Indians and made up of Tribal representatives from Tribes with ancestral ties to the Delta, was  
7 formed in late 2019. As invited by Tribal representatives, DWR and Delta Conveyance Design and  
8 Construction Authority (DCA) representatives presented project updates and preliminary  
9 engineering information from DCA Stakeholder Engagement Committee meetings during TEC  
10 meetings.

11 DWR has participated in eight TEC meetings to date. Additionally, DWR hosts annual Tribal  
12 informational meetings and participates in other Tribal informational meetings as requested by  
13 Tribes. Chapter 32, *Tribal Cultural Resources*, and Chapter 35, *Public Involvement*, provide additional  
14 information on the Tribal outreach and engagement process.

### 15 **29.2.2.2 Environmental Justice Community Outreach**

16 DWR is engaging with disadvantaged, historically burdened, underrepresented, people of color, and  
17 low-income communities of interest that may be disproportionately affected by the project—as part  
18 of the project’s ongoing environmental analysis to determine baseline conditions and potential  
19 project-related impacts and benefits for the Delta’s diverse communities. By engaging this way, DWR  
20 is more likely to ensure these communities continue to receive clean, affordable water that flows  
21 through the SWP infrastructure in the Delta for years to come.

22 To best serve the environmental review process, DWR developed and executed a robust outreach  
23 program to ensure participation of disadvantaged communities and environmental justice  
24 organizations in the scoping process. Specific outreach activities included the following.

- 25 • During the project scoping period in 2020, DWR sent a letter formally notifying community  
26 groups of NOP publication and the opportunity to provide scoping comments. The letter was  
27 sent to 45 state and federal agencies, as well as 155 disadvantaged community representatives.  
28 The letter described the project, gave the deadline for providing comments on the NOP,  
29 described the ways in which comments could be provided via email or regular mail, and gave  
30 the dates and locations of public meetings. A full copy of the NOP was enclosed with each letter.
- 31 • Distributing three email notices about scoping participation and comment opportunities to over  
32 500 Delta and Southern California environmental justice organizational contacts in February  
33 and March of 2020.
- 34 • Contacting over 15 Southern California organizations to remind them about the Los Angeles  
35 scoping meeting.
- 36 • Providing information to Contra Costa Supervisor Diane Burgis to alert her constituents/  
37 followers about the opportunity to submit comments.
- 38 • Attending the public scoping meetings and providing a station dedicated to the topic of  
39 environmental justice and to provide guidance about the function of the scoping phase, assist  
40 participants in submitting comments, and engage them in future participation opportunities.

- 1       ● Facilitating a comment workshop with Stockton-based Little Manila Rising’s Environmental  
2       Justice Youth Advocates. They submitted a sign-on scoping letter based on the meeting  
3       proceedings.
- 4       ● Facilitating a comment workshop with the GreenLA Water Committee that included  
5       representatives from Heal the Bay, Sierra Club of Los Angeles and Orange County, Deirdre Des  
6       Jardins from California Water Research, Environmental Water Caucus, Southern California  
7       Watershed Alliance, LA River Project, NRDC, LA WaterKeeper, and the South Bay Chapter of  
8       Surfrider.
- 9       ● Emailing over 500 Delta and Southern California environmental justice organization contacts,  
10      calling 25 environmental justice or Delta-based community organizations and speaking with  
11      contacts at 14 organizations to solicit interest in having facilitated comment submission  
12      workshops and to identify participants.
- 13     ● Conducting briefings with community leaders and representatives of environmental justice and  
14     Delta-based organizations, such as Restore the Delta, East Bay Regional Parks District, Fathers  
15     and Families of San Joaquin, The Freshwater Trust, Community Water Center, and others to  
16     inform them about the project.

17     In addition to the above outreach strategies to underrepresented communities, DWR conducted the  
18     “Your Delta, Your Voice” targeted environmental justice community survey from September 20 to  
19     December 18, 2020 (Figure 29-4). The survey is summarized in Section 29.2.3, *Environmental Justice*  
20     *Survey Findings*, and the full report is provided as Appendix 29A, *Environmental Justice Community*  
21     *Survey Report*.

22



23

24 **Figure 29-4. Your Delta, Your Voice Flyers**

25     Outreach took place during a time when in-person public gatherings were restricted due to the  
26     COVID-19 coronavirus pandemic. Social media was therefore used to gather public input safely. The  
27     electronic *Your Delta, Your Voice* environmental justice survey was developed to gather the  
28     perspectives of members of low-income, minority, indigenous, historically burdened, and otherwise  
29     underrepresented or disadvantaged communities (including limited English speakers) who live or  
30     work in the Delta. Participation was not restricted to these groups, however, and people across the  
31     socioeconomic spectrum and from areas throughout out the state responded.

1 The survey was available in English, Spanish, and Chinese, the languages most spoken in the Delta. It  
2 was publicized by means of a dedicated webpage (YourDeltaYourVoice.org), a webpage on DWR's  
3 website, social media posts on DWR's Facebook page and other platforms, and email blasts to DWR's  
4 mailing list of more than 8,000 people.

5 These were supplemented with paid Facebook ads and boosts that encouraged posts and “shares” of  
6 posts from others. At the request of some social media-savvy local organizations, “How-To” videos  
7 were developed to support both content and a call to action for the survey. Flyers were handed out  
8 at three local food banks during food box pickup times and during school meal pickups at Antioch  
9 Unified School District and River Delta Unified School District. To involve community partners, the  
10 survey outreach team also called more than 390 local community-based organizations, including  
11 nonprofit service providers, government service providers, school districts, clubs with potential  
12 shared interests at local community colleges, food banks and pantries, churches, community groups,  
13 and local elected officials. The survey outreach team made presentations to a group of about 10  
14 organizations in the Stockton area and asked for outreach support from the leaders of the DCA  
15 Stakeholder Engagement Committee and the TEC. Nearly 45 of the local community organizations  
16 and agencies contacted were willing to help publicize the survey. Additional publicity efforts  
17 through social media, flyer distribution, and targeted outreach to Native American communities are  
18 detailed in Appendix 29A.

19 The survey provided a brief introduction to the project, then asked respondents about the places,  
20 activities, and characteristics of the Delta that they valued. A series of screens allowed them to place  
21 markers on maps, rank a list of activities and characteristics, or add their own categories or  
22 comments in text fields. Participants had the opportunity, but were not required, to provide data on  
23 ethnicity, household income, and location (home zip code and whether they lived or worked in the  
24 Delta), which were used to categorize environmental justice status. Respondents also had the option  
25 of providing their email address for future correspondence. Results were sorted to identify  
26 responses by location and environmental justice categories, then anonymized and aggregated.

27 While the concept of a community benefits program was announced after the environmental justice  
28 survey was developed, the information collected through the survey and ongoing engagement will  
29 ultimately help DWR develop a community benefits program. This program will not be considered  
30 mitigation for adverse project effects, but rather a collaboration with the Delta community to help  
31 “protect and enhance the unique cultural, recreational, natural resource and agricultural values of  
32 the Delta as an evolving place” (California Department of Water Resources 2021). Additional  
33 information on the community benefits program is provided in Chapter 34, *Community Benefits*  
34 *Program Analysis*, and Appendix 3G, *Community Benefits Program Framework*.

### 35 **29.2.3 Environmental Justice Survey Findings**

36 This section describes insights to the priorities, preferences, activities, and concerns of the Delta-  
37 area environmental justice community based on the findings of the *Your Delta, Your Voice* online  
38 environmental justice survey conducted for the project in 2020. While participants were diverse and  
39 covered a wide range of the Delta community, the methodology of distribution of the survey resulted  
40 in a self-selected, non-random sample of respondents that may not provide a complete proportional  
41 representation of the population. Nevertheless, the findings illuminate a sample of the priorities and  
42 concerns of a subset of the Delta environmental justice community that help inform the  
43 environmental justice analysis. Unless otherwise indicated, the source of information for the

1 following discussion is Appendix 29A, *Environmental Justice Community Survey Report*, which  
2 provides details of the survey’s methodology, complete findings, and lessons learned.

3 Appendix 29A uses the term *disadvantaged community* (DAC); this term means generally the same  
4 thing as *environmental justice community* used in this chapter. Survey participants were categorized  
5 as part of a DAC based on household income, ethnicity, and residential location. For purposes of this  
6 analysis, the criteria for DAC are comparable to the criteria for determining an environmental justice  
7 community used in this chapter, which are household income below 80% of statewide MHI or non-  
8 white ethnicity of any income bracket, combined with residence in Delta census tracts that contain  
9 any part of the project footprint.

10 Respondents who provided sufficient information were classified as members of DACs if they met  
11 any of the following criteria.

- 12 • Identified their ethnicity as other than white.
- 13 • Indicated a household income of less than \$60,000 (approximately 80% of the statewide  
14 average MHI, the income threshold designated by numerous state laws).
- 15 • Live or work in a zip code that substantially overlaps a census tract designated as DAC in either  
16 CalEnviroScreen or DWR’s Disadvantaged Communities Mapping Tool<sup>3</sup> and their income is less  
17 than \$75,000.

18 Overall, 770 survey participants met the criteria for DAC; of those, 540 DAC members live or work in  
19 the Delta region and comprise the category “DAC” as used in the summaries below. Appendix 29A  
20 provides a comprehensive summary of survey input regardless of DAC status but highlights the  
21 unique perspectives of those identified as DAC respondents from the Delta region. Those  
22 perspectives inform the environmental justice analysis that follows by shedding light on how certain  
23 environmental changes might need to be evaluated for a disproportionate effect on an  
24 environmental justice population in the study area.

### 25 **29.2.3.1 Community Priorities**

26 The environmental justice survey asked respondents to rank their top six priorities for the Delta  
27 region. Top-ranked priorities for DAC respondents were first clean air and drinking water, followed  
28 by the natural environment. Levee maintenance and agricultural preservation were ranked third  
29 and fourth, respectively. DAC respondents commented that issues relating to the natural  
30 environment and the unique place and community of the Delta are all connected. Prominent themes  
31 for DAC respondents were the natural environment, which they connected with their concern for  
32 the potential effects of the diversion of water in the Delta and protection of wildlife and fish habitat;  
33 and preserving the Delta and community.

34 Survey participants could comment or add priorities, and DAC respondents mentioned “Preserve  
35 Delta and Community” in 21 comments. Respondents stated that the region’s beauty and ambience,  
36 the communities and families of the Delta, its history and culture, small-town feel and its agricultural  
37 foundation were important and essential. DAC respondents worried that the tunnel would change

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<sup>3</sup> The survey’s methodology for mapping disadvantaged communities is slightly different than that used for this environmental justice impact analysis. This chapter maps the study area as the U.S. census tracts that the proposed project passes through. Methodology is described in Section 29.4, *Environmental Justice Analysis*.

1 how people related to each other as well as potential physical concerns such as traffic, noise, and air  
2 and water quality.

3 The second most frequently added priority was “No Tunnels.” Respondents expressed concerns  
4 about Delta water flow, saltwater intrusion, and an unfairness about moving water from the Delta to  
5 support farming or cities in Southern California. Respondents also thought that the tunnel would  
6 damage Delta roads, levees, water flow, Delta farms, and communities.

7 Indigenous and Tribal concerns were a third suggested new priority. Eleven of 19 Native American  
8 respondents suggested adding priorities related to concern about Native lands and sacred sites and  
9 restoring stewardship into the hands of indigenous people. Native American respondents also  
10 commented on various issues about the natural environment, in particular salinity and wildlife  
11 habitat.

## 12 29.3 Applicable Laws, Regulations, and Programs

13 The applicable laws, regulations, and programs considered in the assessment of project impacts on  
14 environmental justice are indicated in this section or in Section 29.1, *Introduction*; Section 29.2,  
15 *Environmental Justice Context*; or Section 29.4.1, *Methods for Analysis*, as appropriate. Applicable  
16 laws, regulations, and programs associated with state and federal agencies that have a review or  
17 potential approval responsibility have also been considered in the development of CEQA impact  
18 thresholds or are otherwise considered in the assessment of environmental impacts. A listing of  
19 some of the agencies and their respective potential review and approval responsibilities, in addition  
20 to those under CEQA, is provided in Chapter 1, *Introduction*, Table 1-1. A listing of some of the  
21 federal agencies and their respective potential review, approval, and other responsibilities, in  
22 addition to those under NEPA, is provided in Chapter 1, Table 1-2.

23 The following state policies applicable to this environmental justice analysis are in addition to those  
24 described in Chapter 1 and elsewhere in this chapter.

- 25 • **California Natural Resources Agency (2003) Environmental Justice Policy:** This policy  
26 directs state agencies to fully consider the fair treatment of people of all races, cultures, and  
27 income during the planning, decision making, development and implementation of all CNRA  
28 programs, policies, and activities. The intent of this policy is to ensure that the public, including  
29 minority and low-income populations, are informed of opportunities to participate in the  
30 development and implementation of all CNRA programs, policies, and activities, and that they  
31 are not discriminated against, treated unfairly, or caused to experience disproportionately high  
32 and adverse human health or environmental effects from environmental decisions. Outreach  
33 activities and the *Your Delta, Your Voice* environmental justice survey were conducted in  
34 conformance with this policy and to inform the evaluation of environmental justice effects  
35 analyzed in this chapter.
- 36 • **California Environmental Protection Agency (2004) Environmental Justice Strategy.** This  
37 strategy strives to ensure meaningful public participation and promote community capacity  
38 building for effective participation in environmental decision-making processes and promotes  
39 integration of environmental justice into the formation, implementation, and enforcement of  
40 environmental laws, regulations, and policies, among other goals. This chapter and Appendix  
41 29A describe DWR’s process of community engagement with minority and low-income Delta

1 communities. This chapter also serves to integrate an environmental justice perspective with  
2 the analysis of physical impacts on resources presented in this Draft EIR.

## 3 **29.4 Environmental Justice Analysis**

4 This section describes the methods used to determine whether an environmental justice community  
5 would experience a disproportionately high and adverse effect from the project alternatives.  
6 Disproportionate effects within the environmental justice context that relate more to growth and  
7 certain indirect effects are discussed in Chapter 31, *Growth Inducement*.

8 The No Project Alternative describes future environmental conditions and predictable water  
9 supply-related actions that public water agencies may opt to take if no alternative of the project  
10 were to be implemented and assesses potential effects of those types of actions related to  
11 environmental justice.

### 12 **29.4.1 Methods for Analysis**

13 NEPA methodology is used as a template for providing a description of environmental justice  
14 outreach activities and analysis conducted per State recommendations, described in Section 29.1,  
15 *Introduction*. The analysis follows guidance in the CEQ Guidance (Section 29.2, *Environmental Justice*  
16 *Context*) and *Promising Practices for EJ Methodologies in NEPA Reviews* (Interagency Working Group  
17 on Environmental Justice & NEPA Committee 2016). Data was acquired from the U.S. Census and  
18 other government sources. Typically, an environmental justice analysis focuses on adverse effects  
19 from other resource analyses to determine if they have the potential to disproportionately affect  
20 environmental justice communities. Because this is a Draft EIR, and not an EIS, this analysis  
21 considers findings of significant environmental impacts as surrogates for adverse effects from a  
22 NEPA analysis. Where these resource chapters identify significant impacts before mitigation and  
23 significant and unavoidable impacts with or without mitigation, the potential effect on  
24 environmental justice is analyzed under the relevant subheading below.

25 The study area consists of the census tracts and block groups intersected by the footprint of the  
26 project (Figure 29-1). The environmental justice populations in the study area were defined as  
27 described in Section 29.2.1, *Identification of Environmental Justice Populations in the Study Area*,  
28 using minority and income data from the U.S. Census Bureau American Community Survey 5-Year  
29 Estimates for 2015–2019. These data were processed in GIS to determine where these populations  
30 occur in the study area (Figures 29-2 and 29-3). The environmental justice analysis also captures  
31 impacts found for resource topics that were analyzed on a broader or regional scale (e.g., air quality)  
32 that may extend beyond the environmental justice study area.

33 Certain resource topics were not carried forward for further analysis in Section 29.4.2, *Analysis of*  
34 *Disproportionately High and Adverse Effects*, for various reasons described here.

#### 35 **29.4.1.1 Resource Topics without CEQA Impact Conclusions**

36 Water supply, socioeconomic, and climate change are discussed in this section and not carried  
37 forward for further analysis in Section 29.4.2, because these resource topics are not considered  
38 environmental impacts under CEQA. As such, no specific impact assessment results are presented  
39 for these resource topics in this Draft EIR.

## 1 **Water Supply**

2 Chapter 6, *Water Supply*, describes the changes associated with water supply that would result from  
3 construction, operation, and maintenance of the project. The chapter analyzes potential changes in  
4 delivery patterns and reliability for agricultural, municipal, and industrial users that receive water  
5 from the SWP (and Central Valley Project [CVP] if Reclamation participates). No specific impact  
6 assessment results are presented for water supply because the direct effects of these changes are  
7 not considered a physical effect on the environment and therefore not environmental impacts under  
8 CEQA. Changes in water supply that do lead, indirectly, to physical effects on the environment are  
9 described in the relevant resource chapters: Chapters 7, *Flood Protection*; Chapter 8, *Groundwater*;  
10 Chapter 9, *Water Quality*; Chapter 12, *Fish and Aquatic Resources*; Chapter 13, *Terrestrial Biological*  
11 *Resources*; and Chapter 15, *Agricultural Resources*.

12 SWP water supplies are managed and delivered by DWR to export service areas where public water  
13 agencies make decisions at the local level as to how they will meet the diverse needs of their  
14 member agencies or end-use customers. Those end users include minority communities and low-  
15 income communities and, as a result, changes in SWP water delivery or reliability could result in  
16 effects on environmental justice in these populations. For example, increased water delivery would  
17 result in beneficial impacts on historically marginalized communities or low-income communities,  
18 and reductions in deliveries or the reduced reliability of those deliveries would result in  
19 disproportionate impacts on historically marginalized communities or low-income communities.  
20 Minority residents and low-income residents in the service areas of the participating SWP  
21 contractors rely on the sustained, relatively affordable, and high-quality SWP water supplies.

22 Minority populations and low-income populations in the SWP export service areas were identified  
23 using the same criteria as described in Section 29.2.1, *Identification of Environmental Justice*  
24 *Populations in the Study Area*—presence of minority populations of 50% or more and/or low-  
25 income households composing 20% or more of the study area population. Because of the extensive  
26 geography of the export service area, the unit of analysis is census tract rather than census block  
27 group. The low-income threshold of 80% of statewide MHI in 2019 (approximately \$60,000) is also  
28 retained for consistency. If the income threshold was based on 80% of MHI in each individual county  
29 in the SWP export service area, more households would be considered low income because some  
30 counties have MHI higher than the statewide MHI.

31 Public water agencies located in 16 counties of the overall SWP export service area are anticipated  
32 to participate in the project, based on their agreement to fund the environmental review. The census  
33 tracts in the service areas of the public water agencies in those 16 counties form the study area for  
34 environmental justice analysis of water supply. These counties are spread across Northern  
35 California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern  
36 California and include the Tulare Lake Basin, Solano County, and Napa County.

37 Tables 29-3 and 29-4 present the number of minority communities and low-income communities  
38 within the study area. In some cases, the SWP export service area does not cover entire counties;  
39 only portions of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties  
40 are served by SWP, and only census tracts in those portions served are represented in Tables 29-3  
41 and 29-4. Using the census tract data overlaid with SWP export service area boundaries described in  
42 the NOP, the following data were gathered.

43 Out of a total population of 26,750,213 in SWP export service area census tracts served by public  
44 water agencies anticipated to participate in the project, a total of 17,709,427 individuals that are

1 classified as members of minority populations receive SWP water supplies, or 66.20% of the total  
2 population of the study area (Table 29-3).

3 **Table 29-3. Minority Population in the State Water Project Export Service Areas Served by Public**  
4 **Water Agencies Anticipated to Participate in the Delta Conveyance Project**

County	Total Population	Total Minority Population	Percent Minority
Alameda	622,822	426,467	68.47%
Imperial	20,232	16,594	82.02%
Kern	887,641	584,416	65.84%
Kings	150,691	102,154	67.79%
Los Angeles	9,997,548	7,362,728	73.65%
Napa	139,623	66,413	47.57%
Orange	3,168,044	1,882,189	59.41%
Riverside	2,390,148	1,544,231	64.61%
San Bernadino	2,112,930	1,521,037	71.99%
San Diego	3,303,617	1,800,331	54.50%
San Luis Obispo	282,165	87,790	31.11%
Santa Barbara	444,819	246,828	55.49%
Santa Clara	1,927,470	1,319,567	68.46%
Solano	441,829	273,769	61.96%
Tulare	13,371	12,468	93.25%
Ventura	847,263	462,445	54.58%
<b>TOTAL</b>	<b>26,750,213</b>	<b>17,709,427</b>	<b>66.20%</b>

5 Source: U.S. Census Bureau 2019.

6 Out of a total of 8,673,878 households within SWP export service area census tracts, 2,549,268  
7 households with an MHI of less than \$60,000 receive SWP water supplies, accounting for 29.39% of  
8 all households in the study area (Table 29-4).

9 **Table 29-4. Low-Income Households in the State Water Project Export Service Areas Served by Public**  
10 **Water Agencies Anticipated to Participate in the Delta Conveyance Project**

County	Total Number of Households in SWP Export Service Areas	Total Number of Households in SWP Export Service Areas with MHI of <\$60,000.00	Percent of Households in SWP Export Service Areas with MHI of <\$60,000
Alameda <sup>a</sup>	202,405	0	0%
Imperial	4,249	4,249	100%
Kern	270,282	165,145	61.10%
Kings	43,452	24,138	55.55%
Los Angeles	3,289,109	1,259,273	38.29%
Napa	48,705	49	0.10%
Orange	1,037,492	133,543	12.87%
Riverside	719,326	290,245	40.35%
San Bernardino	621,270	277,083	43.60%
San Diego	1,120,973	255,361	22.78%

County	Total Number of Households in SWP Export Service Areas	Total Number of Households in SWP Export Service Areas with MHI of <\$60,000.00	Percent of Households in SWP Export Service Areas with MHI of <\$60,000
San Luis Obispo	105,981	13,789	13.01%
Santa Barbara	145,856	37,610	25.79%
Santa Clara	640,215	23,702	3.70%
Solano	149,865	25,758	17.19%
Tulare	3,658	3,658	100%
Ventura	271,040	35,665	13.16%
<b>TOTAL</b>	<b>8,673,878</b>	<b>2,549,268</b>	<b>29.39%</b>

1 Source: U.S. Census Bureau 2019.

2 MHI = median household income; SWP = State Water Project.

3 <sup>a</sup> Alameda County does not have census tracts with an MHI of less than \$60,000 that overlap with SWP export service  
4 areas.

5  
6 Current and future actions by public water agencies would indirectly and directly ensure meeting  
7 the water supply needs of end users, including minority customers and low-income customers,  
8 within their service areas. Actions include collaborating with the local communities and DWR on  
9 projects aimed at serving minority communities and low-income communities by working through  
10 implementation challenges with the community, interested parties, and funding agencies.  
11 Groundwater management actions are among the projects underway or likely to be undertaken with  
12 or without the project. The success of many of those projects relies on sustained SWP water supplies  
13 for groundwater replenishment. Lower-income customers within public water agency service areas  
14 rely on the relatively affordable water imported from the SWP to keep the total cost of the water  
15 supply portfolio, and thus water rates, affordable. The project would sustain SWP water supplies  
16 that include those needed for groundwater replenishment and affordable water rates.

17 Overall, the project would provide broad benefits to minority communities and low-income  
18 communities within the SWP export service areas by sustaining and improving water supply  
19 reliability and supplementing or reducing groundwater use. Expected increases in reliability of the  
20 total existing water portfolio for participating SWP contractors would increase water supply  
21 reliability in the export service areas that ultimately serve environmental justice communities. The  
22 project would have beneficial effects on water supply conditions in these regions, with associated  
23 benefits for constituent populations that consume water or that work in water consumptive  
24 industries (e.g., agriculture-related industries) and economic security for those industries that rely  
25 on water. Sustaining agriculture, for instance, in turn sustains the agriculture labor force that is  
26 primarily composed of minority workers or low-income workers (Aguirre International 2005:vii-  
27 viii) and would result in positive effects on associated employment and income levels.

## 28 **Socioeconomics**

29 Under CEQA, the socioeconomics analysis discusses the socioeconomic implications of reasonably  
30 foreseeable adverse physical changes by the project in other resource chapters. For example, the  
31 socioeconomics analysis considers the regional social or economic effects of physical changes  
32 identified in analyses for aesthetics and visual resources, agriculture, and recreation.

33 The project's community benefits program would help protect and support the cultural,  
34 recreational, natural resource, and agricultural values of the Delta. Minority and low-income

1 communities and individuals that live, work, or recreate in the Delta would experience these  
2 benefits in the same or greater proportion than the general population.

### 3 **Climate Change**

4 Chapter 30, *Climate Change*, analyzes how climate change would affect the study area, how  
5 anticipated resource impacts from the project would be affected by climate change, and how project  
6 alternatives may improve the study area's resiliency and adaptability to climate change. Table 30-1  
7 in Chapter 30 shows the linkages between resource topics and climate change. Elements of climate  
8 change that are linked to resource impacts include the increase in temperature and frequency of  
9 extreme heat events, frequency and severity of flood events, frequency and severity of droughts,  
10 salinity intrusion, and fire events as well as sea level rise and the spreading of pests and vector-  
11 borne diseases.

12 Climate change is a threat to the general population in terms of physical and mental health, air,  
13 water, food, and shelter, but socially and economically marginalized communities are differentially  
14 exposed and vulnerable because of where they live (e.g., rural or low-income areas), their health  
15 status, income, language barriers, and limited access to resources (Intergovernmental Panel on  
16 Climate Change 2012:7; Columbia Climate School 2020). Adaptation measures that benefit one  
17 population can have negative effects on others. For example, farm owners may adapt to drought  
18 conditions by increasing groundwater pumping and changing to tree crops that require less labor,  
19 but these actions can increase the vulnerability of farmworkers and rural communities (Greene  
20 2018; Swain 2015). Swain (2015:10,001) documented how when surface water allocations were  
21 restricted during the drought years of 2012 to 2015, groundwater overdraft due to agricultural  
22 pumping in the Central Valley caused taps to run dry in homes in small, mostly low-income  
23 agricultural communities that relied on local wells. Greene (2018:285) reported the loss of nearly  
24 43,000 agricultural sector jobs in the San Joaquin Valley during approximately the same period  
25 (2014, 2015, and 2016) due to land fallowing and conversion to more-profitable tree crops. The loss  
26 of reliable domestic water and income translates to adverse impacts on food security, water  
27 security, and health for environmental justice communities.

28 To the extent that the project would provide greater reliability in water deliveries and water quality  
29 that would help avoid or reduce groundwater pumping and allow farmers to keep crop land in  
30 production in the study area, which would allow farm employment to continue under changed  
31 conditions, the project would not have a disproportionately high and adverse effect and could have a  
32 beneficial effect on environmental justice communities in terms of climate change.

#### 33 **29.4.1.2 Resource Topics with CEQA Impact Conclusions**

34 The resource topics analyzed in this section are considered environmental impacts under CEQA and  
35 include results of specific impact assessments presented in this Draft EIR.

36 No significant impacts regarding water quality, geology and seismicity, land use, recreation, public  
37 services and utilities, energy, and mineral resources were identified and therefore are assumed to  
38 not have a disproportionately high and adverse effect on environmental justice. For that reason,  
39 they were not carried forward in this environmental justice assessment.

40 Significant impacts were identified for flood protection; groundwater; soils; fish and aquatic  
41 resources; terrestrial biological resources; hazards, hazardous materials, and wildfire; and  
42 paleontological resources, but they were not carried forward for detailed analysis in this

1 environmental justice assessment because environmental commitments or mitigation measures  
2 would reduce impacts to a less-than-significant level. (An exception is the significant unavoidable  
3 impact of boring the tunnel on paleontological resources, discussed under *Paleontological Resources*  
4 below; this impact would not physically affect humans at the surface.) Therefore, these significant  
5 impacts would not contribute to disproportionately adverse effects on environmental justice. The  
6 impacts and mitigation measures identified for these resource topics would not affect minority or  
7 low-income populations more than the general population and therefore are not considered adverse  
8 effects on environmental justice.

## 9 **Flood Protection**

10 Chapter 7, *Flood Protection*, analyzes the potential of construction activities to affect the level of  
11 flood protection in the study area. The project's water intake structures require placement along the  
12 bank of the Sacramento River, which effectively constricts a portion of the conveyance capacity of  
13 the river along the respective length of each intake. This in turn may cause a rise in water surface  
14 elevation in the Sacramento River between the American River confluence and Sutter Slough. To  
15 prevent flood protection impacts, additional hydraulic modeling would be performed (Mitigation  
16 Measure FP-1: *Phased Construction of the Proposed North Delta Intakes*) to ensure the water surface  
17 elevation remains below the defined threshold (an increase greater than 0.10 foot), which reduces  
18 the impact to a less-than-significant level.

19 Disproportionally adverse effects related to flood protection during construction are not anticipated  
20 on environmental justice communities because effects would be experienced equally for  
21 environmental justice populations and the general population. Since the impact and mitigation  
22 identified for flood protection would not affect minority or low-income populations more than the  
23 general population, this is not considered an adverse effect on environmental justice.

## 24 **Groundwater**

25 Chapter 8, *Groundwater*, addresses changes in groundwater conditions in the vicinity of the project  
26 facilities within the Delta due to construction and maintenance activities. Dewatering activities  
27 would take place as part of project construction and maintenance of the water conveyance facilities,  
28 which have the potential to significantly affect local groundwater elevations and, in turn, the use of  
29 nearby supply wells. Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas*  
30 would reduce these impacts to less than significant by maintaining groundwater supplies in areas  
31 affected by dewatering.

32 Effects on local groundwater resources would not result in a disproportionate effect on  
33 environmental justice populations because local groundwater changes and effects on wells adjacent  
34 to dewatering areas would be experienced equally for environmental justice populations and the  
35 general population. Because mitigation would reduce the impact and identified impacts and  
36 mitigation would not affect minority or low-income populations more than the general population,  
37 this is not considered an adverse effect on environmental justice.

## 38 **Soils**

39 Chapter 11, *Soils*, analyzes potential impacts of the use of septic tanks or alternative wastewater  
40 disposal systems that would occur during construction and operations and maintenance. If a  
41 conventional disposal system were to be constructed on soils with a rating of very limited for septic  
42 tank absorption fields, use of the system could contaminate surface water and groundwater, which

1 could create objectional odors and raise the risk of disease transmission and human exposure to  
2 pathogens. Along with compliance with county requirements, implementation of Mitigation Measure  
3 SOILS-5: *Conduct Site-Specific Soil Analysis and Construct Alternative Wastewater Disposal System as*  
4 *Required* would reduce the impact to a less-than-significant level.

5 Disproportionately adverse effects on environmental justice from soils impacts are not anticipated  
6 because effects would be experienced equally by minority and low-income populations and the  
7 general population. Since the impact and mitigation identified for soils would not affect minority or  
8 low-income populations more than the general population, this is not considered an adverse effect  
9 on environmental justice.

## 10 **Fish and Aquatic Resources**

11 Chapter 12, *Fish and Aquatic Resources*, examines the impacts that construction and operation of  
12 water conveyance features and implementation of conservation measures may have on fish and the  
13 aquatic environment. Construction impacts on fish and aquatic species would be significant on some  
14 focal species' populations (e.g., adult steelhead [*Oncorhynchus mykiss*]) and would result in the loss  
15 of aquatic habitat. Operations and maintenance of the north Delta intakes would have negative  
16 effects on fish and aquatic species including Chinook salmon (*Oncorhynchus tshawytscha*), steelhead,  
17 delta smelt (*Hypomesus transpacificus*), and longfin smelt (*Spirinchus thaleichthys*) through flow-  
18 survival and habitat impacts. Impacts on Chinook salmon would result in negative effects on the  
19 Southern Resident killer whale (*Orcinus orca*) as their diet in the Pacific Ocean is largely Chinook  
20 salmon. Mitigation measures would be implemented to address impacts and would reduce them to a  
21 less-than-significant level.

22 Impacts on fish and aquatic resources would not directly result in effects on minority and low-  
23 income populations. Indirect public health effects, such as the potential for increased uptake of  
24 bioaccumulative constituents (e.g., methylmercury, organochlorines and other legacy pesticides, and  
25 polychlorinated biphenyls) in species of fish pursued by subsistence fishermen in the Delta, are  
26 examined in Chapter 26, *Public Health*. Construction and operation of the project alternatives are not  
27 expected to create conditions that would substantially increase bioaccumulative pesticides or  
28 methylmercury in Delta fish species. Therefore, no public health issues related to subsistence fishing  
29 by minority and low-income populations would occur.

30 Construction of one or more intakes on the Sacramento River would obstruct access to fishing spots  
31 along the east riverbank at intake locations. However, there is ample access to the river for bank  
32 fishing from numerous other locations. Therefore, the project would not substantially affect  
33 recreational and subsistence fishing for minority or low-income populations and there would be no  
34 disproportionately adverse effect on environmental justice.

## 35 **Terrestrial Biological Resources**

36 Chapter 13, *Terrestrial Biological Resources*, analyzes the impacts that construction and operation of  
37 water conveyance facilities and implementation of conservation actions would have on natural  
38 communities and habitats, wildlife, and plants. Potential impacts were identified for a number of  
39 plant and wildlife species and habitats; however, all identified impacts would be reduced to less  
40 than significant with implementation of resource-specific mitigation measures, environmental  
41 commitments, and compensatory mitigation. Impacts on these resources would not result in direct  
42 or discernible indirect effects on environmental justice populations.

1 The project's species protection measures and compensatory mitigation would enhance the Delta  
2 environment. Minority and low-income communities and individuals that live, work, or recreate in  
3 the Delta would experience these benefits in the same or greater proportion than the general  
4 population (depending on their relative use of such resources). Accordingly, there would be no  
5 disproportionately adverse effects on environmental justice.

## 6 **Hazards, Hazardous Materials, and Wildfire**

7 Chapter 25, *Hazards, Hazardous Materials, and Wildfire*, analyzes the impacts for hazards and  
8 hazardous materials that have the potential to occur in the construction footprint of all project  
9 alternatives. Impacts identified include the potential for accidental spills and exposure to hazardous  
10 materials during construction, operation, and maintenance of the project alternatives; constructing  
11 facilities on or near Cortese List sites potentially exposing workers and the public to contaminated  
12 soil and/or groundwater; potential conflicts regarding the proximity of airports to the project; and  
13 project construction resulting in short-term, temporary traffic delays potentially interfering with  
14 implementation of an emergency response plan and delaying emergency responders.

15 All identified impacts would be reduced to less than significant with implementation of mitigation  
16 measures and environmental commitments and would not result in direct or discernible indirect  
17 effects on environmental justice populations greater than those on the general population.  
18 Mitigation Measure TRANS-1: *Implement Site-Specific Construction Transportation Demand*  
19 *Management and Traffic Management Plans* is proposed to mitigate the temporary impacts of  
20 construction on the transportation system. Among its other provisions, this mitigation measure  
21 would require public signage and notifications be provided in multiple languages spoken in the  
22 Delta and notices be published in appropriate foreign-language and other targeted media sources  
23 (e.g., radio and community newsletters) to provide equal access to the information for minority and  
24 low-income residents with limited English proficiency or limited internet access. Other measures  
25 would be implemented to maintain adequate emergency access in the vicinity of construction sites  
26 for all communities. This topic is discussed in the *Transportation* subsection of this chapter in  
27 Section 29.4.2.2, *Project Alternatives*.

## 28 **Paleontological Resources**

29 Chapter 28, *Paleontological Resources*, analyzes the potential for the construction of conveyance  
30 facilities to significantly impact fossils and other paleontological resources that may be scientifically  
31 important or of interest to the public. Construction includes excavation and ground-disturbing  
32 activities that could destroy unique paleontological resources (i.e., in geologic units with high or  
33 undetermined sensitivity). The finding of significant and unavoidable impact of boring the water  
34 conveyance tunnel on buried paleontological resources would have no physical effect on humans at  
35 the surface. The loss of paleontological resources would affect environmental justice populations  
36 and the population at large equally; there would be no disproportionately adverse effect on  
37 environmental justice. Therefore, these effects are not carried forward for environmental justice  
38 analysis.

## 39 **Tribal Cultural Resources**

40 Public Resources Code Section 21084.2 specifies that a proposed project with an effect that may  
41 cause a substantial adverse change in the significance of a Tribal cultural resource may have a

1 significant effect on the environment. Statute defines Tribal cultural resources as a part of the  
2 environment requiring consideration under CEQA.

3 Chapter 32, *Tribal Cultural Resources*, of this Draft EIR, defines and identifies significant impacts on  
4 the Delta Tribal Cultural Landscape (Delta TCL), a Tribal cultural resource that encompasses  
5 important interrelated and interdependent natural and cultural elements, both mapped and  
6 unmapped. Impacts include the potential to limit or eliminate an affiliated Tribe's ability to  
7 physically, spiritually, or ceremonially experience each of the character-defining features of the  
8 Delta TCL. (Chapter 32 discusses these character-defining features and impacts in detail.) Proposed  
9 Mitigation Measures TCR-1: *Avoidance of Impacts on Tribal Cultural Resources*, TCR-2: *Tribal Input*  
10 *on the Archaeological Resources Management Plan for Native American Archaeological Resources*,  
11 TCR 3: *Implement Measures to Restore and Enhance the Physical, Spiritual, and Ceremonial Qualities*  
12 *of Affected Tribal Cultural Resources*, and TCR-4: *Incorporate Tribal Ecological Knowledge into*  
13 *Compensatory Mitigation Planning (Restoration)* would reduce the significant impacts, but the  
14 impact would remain significant and unavoidable.

15 Effects on Tribal cultural resources, however, cannot be analyzed with the methods applied to  
16 environmental justice analysis. The environmental justice analysis examines an identified  
17 environmental impact for whether it would have disproportionate effects on an environmental  
18 justice community compared to effects on the general population of the study area (Section 29.4.1.3,  
19 *Analysis of Disproportionate Effects on Environmental Justice Communities*). In this case, there is no  
20 comparison group for determining whether the effect is disproportionate—the impacts are specific  
21 to Native Americans only. Accordingly, this chapter does not assess Tribal cultural resources in this  
22 comparative environmental justice context; Chapter 32 thoroughly analyzes project impacts on  
23 Tribal cultural resources.

### 24 **29.4.1.3 Analysis of Disproportionate Effects on Environmental Justice** 25 **Communities**

26 Minority and low-income communities (and others), both in and outside the study area, use and  
27 value the Delta, as demonstrated by the range of respondents to and findings of the *Your Delta, Your*  
28 *Voice* online environmental justice survey (Appendix 29A, *Environmental Justice Community Survey*  
29 *Report*). While most project benefits would accrue outside the Delta, the census tracts and block  
30 groups where the physical components of the project would be located are where communities are  
31 most likely to experience environmental changes or direct adverse effects as a result of the project.

32 CEQ Guidance identifies the following three factors to be considered to the extent practicable when  
33 determining whether environmental effects are disproportionately high and adverse (Council on  
34 Environmental Quality 1997:26–27).

- 35 • *Whether there is or would be an effect on the natural or physical environment that adversely*  
36 *affects a minority population, or low-income population. Such effects may include ecological,*  
37 *cultural, human health, economic, or social effects on minority communities, low-income*  
38 *communities, or Indian tribes when those effects are interrelated to effects on the natural or*  
39 *physical environment.*
- 40 • *Whether the environmental effects may have an adverse effect on minority populations, or low-*  
41 *income populations, which appreciably exceeds or is likely to appreciably exceed those on the*  
42 *general population or other appropriate comparison group.*

- 1 • *Whether the environmental effects occur or would occur in a minority population or low-income*  
2 *population affected by cumulative or multiple adverse exposures from environmental hazards that*  
3 *appreciably exceed the cumulative or adverse exposure of the population at large.*

4 Section 29.4.2, *Analysis of Disproportionately High and Adverse Effects*, identifies specific resources  
5 where analysis of physical environmental impacts found significant impacts of implementing a  
6 project alternative and discusses whether the mitigation measures proposed for that resource  
7 reduce the significant impact. Where mitigation would not sufficiently reduce an environmental  
8 impact to less than significant, this chapter assesses whether the physical change would have a  
9 *disproportionately* high and adverse effect on a minority or low-income community, and how.  
10 Mitigation measures, environmental commitments, and best management practices (Appendix 3B,  
11 *Environmental Commitments and Best Management Practices*) were also examined to determine if  
12 they would potentially result in a disproportionately high and adverse effect on a minority or low-  
13 income population.

14 Significant environmental impacts would be disproportionate if they occur in census tracts or blocks  
15 with greater than 50% total minority populations or in census block groups where low-income  
16 households (i.e., below the defined income threshold) constitute 20% or more of the total  
17 population (Figure 29-3). The 20% threshold for low-income households was used because the cost  
18 of living in California is higher than elsewhere in the country (Public Policy Institute of California  
19 2019), and the use of a 50% threshold might incorrectly under-identify low-income populations in  
20 the study area.

21 The qualitative information supplied through the Environmental Justice Survey identified topics and  
22 resources of concern to minority and low-income communities. For purposes of this analysis, where  
23 any of these identified resources were found to be affected by construction or operation of the  
24 project alternatives, further evaluation was undertaken to determine if the impact on that resource  
25 resulted in a disproportionate effect on minority or low-income communities, since the resource had  
26 been specifically identified as being important to these communities.

27 For impacts that were determined not significant, no additional evaluation is needed because those  
28 impacts would not result in disproportionate effects on minority and low-income populations. This  
29 method of screening impacts is consistent with the CEQ Guidance (Council on Environmental Quality  
30 1997:25).

31 These criteria are compatible with federal EO 12898 and other plans, policies, and regulations in  
32 effect, and the standards of the CNRA environmental justice policy. This policy states that the CNRA  
33 and the constituent departments shall undertake the following (California Natural Resources Agency  
34 2003:2).

- 35 • Identify relevant populations that might be adversely affected by programs or projects  
36 submitted by outside parties, as appropriate.
- 37 • Work in conjunction with other federal, state, regional, and local agencies to ensure  
38 consideration of disproportionate impacts on relevant populations.

## 29.4.2 Analysis of Disproportionately High and Adverse Effects

### 29.4.2.1 No Project Alternative

As described in Chapter 3, *Description of the Proposed Project and Alternatives*, CEQA Guidelines Section 15126.6 directs that an EIR evaluate a specific alternative of “no project” along with its impact. The No Project Alternative in this Draft EIR represents the circumstances under which the project (or project alternative) does not proceed and considers predictable actions, such as projects, plans, and programs, that would be predicted to occur in the foreseeable future if the project is not constructed and operated. This description of the environmental conditions under the No Project Alternative first considers how environmental justice could change over time and then discusses how other predictable actions could affect environmental justice.

### Future Environmental Justice Conditions

Future conditions of environmental resources that affect environmental justice populations are likely to change whether or not the project (or project alternative) proceeds. Direct and indirect impacts on environmental justice communities within the Delta may occur under the No Project Alternative as the result of changes in upstream hydrologic conditions, sea level rise, rising temperatures, and continuing seismic risk to Delta levees. Minority and low-income communities are generally more vulnerable to harm from adverse environmental events than the general population. It is too speculative, however, to assess how such environmental changes would affect environmental justice communities because the type and extent of changes that might occur in any given region and the individual and institutional responses to such changes are wide-ranging and uncertain.

### Predictable Actions by Others

A list and description of actions included as part of the No Project Alternative are provided in Appendix 3C, *Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions*. As described in Chapter 4, *Framework for the Environmental Analysis*, the No Project Alternative analyses focus on identifying the additional water supply-related actions public water agencies may opt to follow if the project does not occur.

Public water agencies participating in the project have been grouped into four geographic regions. The water agencies within each geographic region would likely pursue a similar suite of water supply projects under the No Project Alternative (see Appendix 3C). Effects of these projects would accrue to the water customers in each agency’s service area more than to Delta populations.

Examples of the types of water supply projects that are evaluated under the No Project Alternative and the potential effects on environmental justice populations are summarized in Table 29-5. While it cannot be anticipated what ultimate suite of projects would be chosen by water agencies, it would likely be a mix of various types of projects reasonably feasible within their service area, as outlined in Chapter 3 and Appendix 3C.

1 **Table 29-5. Types of Water Supply Projects Considered Under the No Project Alternative and**  
 2 **Resulting Effects on Minority and Low-income Populations**

Project Type	Potential Effects on Minority and Low-Income Populations
Desalination	Temporary construction effects on noise, traffic, air quality, public health. Potential permanent damage, destruction, or obstruction of access to coastal cultural resources. Temporary or permanent obstruction of recreational resources. Potential permanent alterations in marine biological resources, aesthetic values. Some mitigation would be available to reduce effects.
Water recycling	Temporary construction effects on noise, traffic, air quality, public health. Potential aesthetic, biological, water quality, and cultural resources effects, depending on project location. Mitigation would be available to reduce effects.
Groundwater recovery (brackish water desalination)	Farmland conversion and resulting employment losses within the agriculture sector. Benefits such as more reliable water supply.
Groundwater management	Beneficial effects. Could enhance groundwater quality by giving water providers ability to blend cleaner recharge water with local contaminated groundwater to improve water quality for households dependent on well water. Decrease groundwater overdraft.
Water use efficiency	Reduced or enhanced employment or business opportunities. Possible economic benefits if reduced water use results in lower water bills.

3  
 4 Projects implemented in lieu of the Delta Conveyance Project would generally be intended to benefit  
 5 water quality or water supply in the SWP service area. Such improvements would benefit both the  
 6 general population and environmental justice communities. Construction of local water supply  
 7 reliability projects such as desalination plants, groundwater storage, or water recycling facilities  
 8 could result in disproportionate effects on low income or minority communities from construction  
 9 noise and traffic; air quality effects; damage or destruction to archaeological resources or traditional  
 10 use sites; obstruction or loss of recreational resources; and significant impacts on agricultural land  
 11 and biological resources used for food, income-generating activities, or traditional uses. Large  
 12 infrastructure could permanently change the aesthetic values in the immediate project vicinity.

13 Construction effects on noise, traffic, and air quality would be temporary and projects would be  
 14 required to mitigate significant impacts, where feasible. Impacts on aesthetic values could be  
 15 temporary or permanent and are often mitigable. Temporary significant impacts would likely affect  
 16 both the general and environmental justice populations equally.

17 Desalination plants in coastal areas could temporarily or permanently obstruct access to coastal  
 18 recreational and cultural resources. Coastal cultural resources such as archaeological sites could be  
 19 damaged or destroyed, and access to traditional use areas could be restricted or entirely prohibited.  
 20 These would be adverse effects on environmental justice populations if they are present in or use  
 21 the project area or service area.

22 Wastewater recycling or reclamation projects would be located near water treatment facilities.  
 23 Construction techniques for water recycling projects would vary depending on the type of project  
 24 (e.g., landscape irrigation, groundwater recharge, dust control, industrial processes). Such projects  
 25 would have the same or similar significant impacts during construction as described above, which  
 26 would be mitigated. The public health and safety benefits of such projects, however, would accrue  
 27 equally to general and environmental justice populations. Benefits could include a contribution to

1 the total water supply available to the community and sufficient wastewater treatment capacity to  
2 ensure compliance with existing and anticipated regulatory requirements.

3 Groundwater recharge or management projects could result in farmland conversion with temporary  
4 or permanent loss of crop production. This could have an adverse effect on low-income  
5 farmworkers. New potable water supplies created where existing water supply limits growth could  
6 induce growth and affect housing availability and affordability for lower income residents. Beneficial  
7 effects would include more reliable, better-quality water supply and potentially less groundwater  
8 overdraft, which would benefit all populations.

9 Water efficiency projects could have adverse or beneficial effects. Effects could be adverse for  
10 minority or low-income individuals or businesses if projects limit water uses in a way that reduces  
11 employment opportunities, such as by taking agricultural land out of production. Effects could be  
12 beneficial if projects lead to increased employment opportunities, such as installing water-efficient  
13 building fixtures or upgrades to waterwise infrastructure. Benefits of water efficiency projects  
14 would likely be similar for the general and environmental justice populations.

15 As detailed above, all project types would involve relatively typical construction techniques (i.e., no  
16 large-scale tunnels) and would be required to conform with the requirements of CEQA and/or state  
17 and local regulations, and with NEPA when a federal nexus exists. Mitigation measures developed to  
18 protect resources could have incidental effects on environmental justice populations; since specific  
19 projects, impacts, and mitigation measures are unknown, estimating these effects would be  
20 speculative and, as such, are not addressed in this discussion.

## 21 **29.4.2.2 Project Alternatives**

22 Table 29-6 represents resource topics analyzed for the project alternatives that could have  
23 disproportionately high and adverse effects on environmental justice populations. Resource topics  
24 identified as having significant impacts both before or after mitigation were considered and  
25 analyzed to determine if they could result in a disproportionately high and adverse effect on an  
26 environmental justice population. Resources found to have no or less-than-significant impacts under  
27 CEQA (i.e., water quality, geology and seismicity, land use, recreation, public services and utilities,  
28 energy, and mineral resources), are assumed to not have a disproportionately high and adverse  
29 effect on environmental justice.

30 **Table 29-6. Level of Effect on Environmental Justice Populations, by Resource and Alternative**

Resource Topic	Alt 1	Alt 2a	Alt 2b	Alt 2c	Alt 3	Alt 4a	Alt 4b	Alt 4c	Alt 5
Water Supply (Ch. 6)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Flood Protection (Ch 7)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Groundwater (Ch. 8)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Water Quality (Ch. 9)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Geology and Seismicity (Ch. 10)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Soils (Ch. 11)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Fish and Aquatic Resources (Ch. 12)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Terrestrial Biological Resources (Ch. 13)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Land Use (Ch. 14)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Agricultural Resources (Ch. 15)	X	X	X	X	X	X	X	X	X

Resource Topic	Alt 1	Alt 2a	Alt 2b	Alt 2c	Alt 3	Alt 4a	Alt 4b	Alt 4c	Alt 5
Recreation (Ch. 16)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Socioeconomics (Ch. 17)	X	X	X	X	X	X	X	X	X
Aesthetics and Visual Resources (Ch. 18)	X	X	X	X	X	X	X	X	X
Cultural Resources (Ch. 19)	X	X	X	X	X	X	X	X	X
Transportation (Ch. 20)	X	X	X	X	X	X	X	X	X
Public Services and Utilities (Ch. 21)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Energy (Ch. 22)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Air Quality and Greenhouse Gases (Ch. 23)	X	X	X	X	X	X	X	X	X
Noise and Vibration (Ch. 24)	X	X	X	X	X	X	X	X	X
Hazards, Hazardous Materials, and Wildfire (Ch. 25)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Public Health (Ch. 26)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Mineral Resources (Ch. 27)	NE	NE	NE	NE	NE	NE	NE	NE	NE
Paleontological Resources (Ch. 28)	X*	X*	X*	X*	X*	X*	X*	X*	X*
Climate Change (Ch. 30)	X*	X*	X*	X*	X*	X*	X*	X*	X*

Alt = Alternative; Ch. = Chapter; NE = no effect; X = potential adverse effect; X\* = potential adverse effect that does not disproportionately affect environmental justice communities.

#### Effects of the Project Alternatives on Environmental Justice

This section presents the resources with significant environmental impacts that are carried forward for detailed analysis of whether they would potentially result in a disproportionately high and adverse effect on minority or low-income populations. Each subsection begins with a list of the resource's impacts and associated mitigation measures. Then each subsection provides an evaluation (under the *Environmental Justice Effects—All Project Alternatives* headings) of whether there would be a disproportionately high and adverse effect on environmental justice. Full descriptions of the resources' impacts and mitigation measures listed in this section are located in the resource chapters. Appendix 3B, *Environmental Commitments and Best Management Practices*, includes full descriptions of the environmental commitments (actions that are incorporated into the engineering or design of a project alternative to avoid, reduce, or minimize general environmental impacts not specific to a resource impact) and best management practices (standard construction practices or design elements incorporated into the project description to generally address environmental concerns that typically occur for most construction actions) listed in this section.

1       **Agricultural Resources**

2       **Impact AG-1: Convert a Substantial Amount of Prime Farmland, Unique Farmland, Farmland**  
3       **of Local Importance, or Farmland of Statewide Importance as a Result of Construction of**  
4       **Water Conveyance Facilities**

5       **Impact AG-2: Convert a Substantial Amount of Land Subject to Williamson Act Contract or**  
6       **under Contract in Farmland Security Zones to a Nonagricultural Use as a Result of**  
7       **Construction of Water Conveyance Facilities**

8       Impacts AG-1 and AG-2 were found significant for project construction. Even with implementation of  
9       Mitigation Measure AG-1, these impacts remain significant and unavoidable.

10       **Mitigation Measure AG-1: Preserve Agricultural Land**

11       **Impact AG-3: Other Impacts on Agriculture as a Result of Constructing and Operating the**  
12       **Water Conveyance Facilities Prompting Conversion of Prime Farmland, Unique Farmland,**  
13       **Farmland of Local Importance, or Farmland of Statewide Importance**

14       Impact AG-3 was found significant for project construction. Implementation of Mitigation  
15       Measure AG-3 would reduce the impact to a less-than-significant level.

16       **Mitigation Measure AG-3: Replacement or Relocation of Affected Infrastructure**  
17       **Supporting Agricultural Properties**

18       ***Environmental Justice Effects—All Project Alternatives***

19       The loss of productive agricultural land would change agricultural production and result in loss of  
20       full-time and seasonal agricultural employment in the study area (Chapter 17, *Socioeconomics*).  
21       Implementing Mitigation Measure AG-1 would not avoid a net loss of Important Farmland,  
22       Williamson Act, or Farmland Security Zone lands in the project study area. Even if conservation  
23       easements on agricultural lands or replacement lands were acquired as mitigation, these lands could  
24       be outside the Delta and difficult or more costly (in time and expense) for workers in the study area  
25       to access or might not require the same amount of labor as the converted lands.

26       Low-income and minority agricultural workers comprise a substantial proportion of the  
27       environmental justice communities of the Delta. In California, a full-time agricultural employee  
28       would have earned \$30,300 per year in 2015. However, few workers are employed full time year-  
29       round, resulting in an average annual wage of \$20,500 for workers with at least one farm job in  
30       2015 (Martin et al. 2017:1). The median annual wage for farm laborers, including crop, nursery, and  
31       greenhouse workers, in 2021 was \$29,379 (California Employment Development Department  
32       2022). Minorities compose about 95% of agricultural workers (California Research Bureau 2013).  
33       Accordingly, the loss of productive agricultural land would potentially have a disproportionately  
34       high and adverse effect on minority and low-income populations.

35       Impacts on agricultural resource also include effects on local infrastructure supporting agricultural  
36       properties including drainage and irrigation facilities. This impact is reduced by Mitigation Measure  
37       AG-3 to a less-than-significant level by fully compensating affected landowners for any financial  
38       losses resulting from the disruption. This effect on minority and low-income populations would not

1 exceed those than on the general population and is therefore not considered a disproportionately  
2 adverse effect on environmental justice.

### 3 **Aesthetics and Visual Resources**

#### 4 **Impact AES-1: Substantially Degrade the Existing Visual Character or Quality of Public Views** 5 **(from Publicly Accessible Vantage Points) of the Construction Sites and Visible Permanent** 6 **Facilities and Their Surroundings in Nonurbanized Areas**

#### 7 **Impact AES-3: Have Substantial Adverse Effects on Scenic Vistas**

8 Impacts AES-1 and AES-3 were found significant for project construction. Even with implementation  
9 of Mitigation Measures AES-1a through AES-1c, these impacts remain significant and unavoidable.

10 **Mitigation Measure AES-1a: Install Visual Barriers between Construction Work Areas and**  
11 **Sensitive Receptors**

12 **Mitigation Measure AES-1b: Apply Aesthetic Design Treatments to Project Structures**

13 **Mitigation Measure AES-1c: Implement Best Management Practices to Implement Project**  
14 **Landscaping Plan**

#### 15 **Impact AES-2: Substantially Damage Scenic Resources including, but Not Limited to, Trees,** 16 **Rock Outcropping, and Historic Buildings Visible from a State Scenic Highway**

17 Impact AES-2 was found significant for construction of intake structures. Although Mitigation  
18 Measures AES-1b and AES-1c would reduce some aspects of the effects, mitigation would not reduce  
19 the level of the impact to less than significant in all instances and, therefore, impacts remain  
20 significant and unavoidable.

21 **Mitigation Measure AES-1b: Apply Aesthetic Design Treatments to Project Structures**

22 **Mitigation Measure AES-1c: Implement Best Management Practices to Implement Project**  
23 **Landscaping Plan**

#### 24 **Impact AES-4: Create New Sources of Substantial Light or Glare That Would Adversely Affect** 25 **Day or Nighttime Views of the Construction Areas or Permanent Facilities**

26 Impact AES-4 was found significant for construction and operations and maintenance.  
27 Implementation of Mitigation Measures AES-1b, AES-1c, and AES-4a through AES-4c, would reduce  
28 the impact to a less-than-significant level.

29 **Mitigation Measure AES-4a: Limit Construction Outside of Daylight Hours within 0.25 Mile**  
30 **of Residents at the Intakes**

31 **Mitigation Measure AES-4b: Minimize Fugitive Light from Portable Sources Used for**  
32 **Construction**

33 **Mitigation Measure AES-4c: Install Visual Barriers along Access Routes, Where Necessary,**  
34 **to Prevent Light Spill from Truck Headlights toward Residences**

## 1 ***Environmental Justice Effects—All Project Alternatives***

2 Construction and operation of the project would introduce visual elements such as construction  
3 equipment and large industrial structures that would reduce the scenic quality throughout the study  
4 area. These elements would alter the visual experience of the surrounding area and along SR 160 (a  
5 designated state scenic highway) by conflicting with the forms, patterns, and colors of the existing  
6 landscape and by dominating riverfront views and altering the broad views presently available.  
7 Furthermore, the size of the study area and the nature of changes introduced by the project would  
8 result in permanent changes to the regional landscape such that there would be noticeable changes  
9 that would not blend with the existing visual environment. While implementing Mitigation Measures  
10 AES-1a through AES-1c would help reduce the effects of Impacts AES-1 through AES-3, these  
11 impacts would remain significant. The project would also introduce significant light and glare;  
12 however, this impact would be mitigated through implementation of Mitigation Measures AES-1a  
13 through AES-1c and AES-4a through AES-4c to a less-than-significant level.

14 The project's significant visual effects identified in the study area would disproportionately affect  
15 low-income and minority populations because of their substantial presence throughout the study  
16 area (Figures 29-2 and 29-3), and therefore these communities would be affected by the reduced  
17 scenic quality. Low-income and minority respondents to the *Your Delta, Your Voice* online  
18 environmental justice survey indicated that the region's beauty, ambience, and small-town feel were  
19 very important to them. Comments from the survey expressed concern to preserve the Delta's  
20 quality of life and scenic beauty. Accordingly, visual effects from construction and operation of the  
21 project would have a disproportionately adverse effect on environmental justice communities.

## 22 **Cultural Resources**

### 23 **Impact CUL-1: Impacts on Eligible Built-Environment Historical Resources from Construction** 24 **and Operation of the Project**

25 Impact CUL-1 was found significant for construction of project facilities. Even with implementation  
26 of Mitigation Measure CUL-1, this impact would remain significant and unavoidable.

#### 27 **Mitigation Measure CUL-1: Prepare and Implement a Built-Environment Treatment Plan** 28 **in Consultation with Interested Parties**

### 29 **Impact CUL-2: Impacts on Unidentified and Unevaluated Built-Environment Historical** 30 **Resources Resulting from Construction and Operation**

31 Impact CUL-2 was found significant for construction of project facilities. Even with implementation  
32 of Mitigation Measure CUL-2, this impact would remain significant and unavoidable.

#### 33 **Mitigation Measure CUL-2: Conduct a Survey of Inaccessible Properties to Assess** 34 **Eligibility, Determine If These Properties Will Be Adversely Affected by the Project, and** 35 **Develop Treatment to Resolve or Mitigate Adverse Impacts**

1 **Impact CUL-3: Impacts on Identified Archaeological Resources Resulting from Project**  
2 **Construction and Operation**

3 **Impact CUL-4: Impacts on Unidentified Archaeological Resources that May Be Encountered in**  
4 **the Course of the Project**

5 Impacts CUL-3 and CUL-4 were found significant for project construction because access to private  
6 properties for comprehensive survey was not provided. Even with implementation of Mitigation  
7 Measures CUL-3a through CUL-3c, this impact would remain significant and unavoidable.

8 **Mitigation Measure CUL-3a: Prepare and Implement an Archaeological Resources**  
9 **Management Plan**

10 **Mitigation Measure CUL-3b: Conduct Cultural Resources Sensitivity Training**

11 **Mitigation Measure CUL-3c: Implement Archaeological Protocols for Field Investigations**

12 **Impact CUL-5: Impacts on Buried Human Remains**

13 Impact CUL-5 was found significant for construction of project facilities. Even with implementation  
14 of Mitigation Measures CUL-3a through CUL-3c and CUL-5, this impact would remain significant and  
15 unavoidable.

16 **Mitigation Measure CUL-3a: Prepare and Implement an Archaeological Resources**  
17 **Management Plan**

18 **Mitigation Measure CUL-3b: Conduct Cultural Resources Sensitivity Training**

19 **Mitigation Measure CUL-3c: Implement Archaeological Protocols for Field Investigations**

20 **Mitigation Measure CUL-5: Follow State and Federal Law Governing Human Remains If**  
21 **Such Resources Are Discovered during Construction**

22 ***Environmental Justice Effects—All Project Alternatives***

23 Construction of conveyance facilities could have significant impacts on historic built-environment  
24 resources (i.e., National Register of Historic Places- or California Register of Historical Resources-  
25 eligible historic properties/historical resources), previously identified or unknown precontact  
26 archaeological resources, historic archaeological sites, and unidentified buried human remains.  
27 Ground-disturbing construction has the potential to damage both known and previously unrecorded  
28 examples of each of these resources. Some resources potentially subject to Impacts CUL-2, CUL-4,  
29 and CUL-5 have not been comprehensively analyzed because they are on private properties that  
30 have not granted access to project staff for evaluation, or because the locations have not been  
31 previously surveyed, and the presence of sites is unknown. The current location and extent of  
32 archaeological sites recorded in the early and mid-twentieth century and subject to Impact CUL-3  
33 cannot be verified for similar reasons, or because subsequent land disturbance has disrupted or  
34 destroyed them, and additional surveys are necessary. Mitigation Measure CUL-2 is proposed to  
35 identify these unknown resources and address potential impacts prior to construction. Because the  
36 nature of the sites and the impacts are currently unknown, disproportionate effects on  
37 environmental justice populations cannot be determined.

1 Indirect effects such as introduction of new elements or inconsistent changes to the setting may  
2 diminish the significance of cultural resources. Implementing Mitigation Measures CUL-1a through  
3 CUL-3c and CUL-5 would help reduce the impacts of Impacts CUL-1 through CUL-5; however,  
4 impacts on each of these resources would remain significant.

5 Historic built and archaeological resources may reflect the heritage of various ethnic communities  
6 present in the study area. Precontact resources, especially sites containing human remains, are of  
7 special significance to the Native American community. The number of known resources affected in  
8 the study area and the geographic distribution of their sites is described in Chapter 19, *Cultural*  
9 *Resources*. These resources are an important link to the Native American community's past, and sites  
10 containing human remains are a resting place for their ancestors. As described previously, the  
11 dominant themes from Native American respondents to the *Your Delta, Your Voice* online  
12 environmental justice survey were related to protecting the natural environment, indigenous and  
13 Tribal concerns, and protecting cultural resources. While built-environment and historic and  
14 archaeological cultural resources can be of interest to the general public (including low-income  
15 populations), the importance to the general public is typically limited to the scientific or historic  
16 value of the resources. Significant impacts on resources that are associated with the heritage of  
17 Native Americans or other ethnic minority groups present in high proportions could potentially  
18 result in a disproportionately high and adverse effect on these populations in the study area.

19 Ethnically diverse minority and low-income respondents to the *Your Delta, Your Voice*  
20 environmental justice community online survey (as well as other respondents) identified the  
21 historic town of Locke as a special historic and cultural site, particularly for the Chinese community.  
22 They expressed both a desire that the town be preserved and protected and concerns about the  
23 effects of project construction. The town is outside the area of impact for built-environment  
24 resources analyzed in Chapter 19, and no cultural resources impacts on the historic characteristics  
25 of the town were identified. Accordingly, there would not be a disproportionately high and adverse  
26 effect on an environmental justice community related in terms of the cultural resources of Locke.

## 27 **Transportation**

### 28 **Impact TRANS-1: Increased Average VMT Per Construction Employee Versus Regional** 29 **Average**

### 30 **Impact TRANS-3: Substantially Increase Hazards from a Geometric Design Feature (e.g.,** 31 **Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)**

### 32 **Impact TRANS-4: Result in Inadequate Emergency Access**

33 Impacts TRANS-1, TRANS-3, and TRANS-4 were found significant for construction. Implementation  
34 of Mitigation Measure TRANS-1 would reduce these impacts to a less-than-significant level.

### 35 **Mitigation Measure TRANS-1: Implement Site-Specific Construction Transportation** 36 **Demand Management Plan and Transportation Management Plan**

## 37 ***Environmental Justice Effects—All Project Alternatives***

38 Construction of the project alternatives would result in additional vehicle miles traveled on the  
39 regional and local transportation system and increase the total amount of driving and distances  
40 traveled that exceeds the regional VMT average over the course of the construction period. The

1 added construction traffic could potentially increase safety hazards or conflict with emergency  
2 vehicle access at ingress and egress locations at construction sites.

3 Prior to construction, DWR will be responsible for verifying that the site-specific construction  
4 transportation demand management plans and traffic management plans are implemented, as  
5 described for Mitigation Measure TRANS-1 in Chapter 20, *Transportation*. This mitigation would  
6 reduce potential significant traffic-related impacts to less than significant. Mitigation Measure  
7 TRANS-1 would not result in direct or discernible indirect effects on environmental justice  
8 populations greater than those on the general population because public signage and notifications  
9 will be provided in multiple languages spoken in the Delta and notices will be published in  
10 appropriate foreign-language and other targeted media sources (e.g., radio and community  
11 newsletters), providing equal access to the information for minority and low-income residents with  
12 limited English proficiency or limited internet access. The plan would also provide specific actions  
13 and coordination with emergency responders at construction sites to maintain adequate emergency  
14 access in the vicinity of construction sites so that emergency access would not be compromised in  
15 any local communities.

## 16 **Air Quality and Greenhouse Gases**

### 17 **Impact AQ-1: Result in Impacts on Regional Air Quality within the Sacramento Metropolitan** 18 **Air Quality Management District**

19 Impact AQ-1 was found significant for construction. Implementation of Mitigation Measure AQ-1 and  
20 Environmental Commitments EC-7 through EC-13 would reduce this impact to a less-than-  
21 significant level.

### 22 **Mitigation Measure AQ-1: Offset Construction-Generated Criteria Pollutants in the** 23 **Sacramento Valley Air Basin**

#### 24 **Environmental Commitment EC-7: Off-Road Heavy-Duty Engines**

#### 25 **Environmental Commitment EC-8: On-Road Haul Trucks**

#### 26 **Environmental Commitment EC-9: On-Site Locomotives**

#### 27 **Environmental Commitment EC-10: Marine Vessels**

#### 28 **Environmental Commitment EC-11: Fugitive Dust Control**

#### 29 **Environmental Commitment EC-12: On-Site Concrete Batching Plants**

#### 30 **Environmental Commitment EC-13: DWR Best Management Practices to Reduce GHG** 31 **Emissions**

### 32 **Impact AQ-2: Result in Impacts on Regional Air Quality within the San Joaquin Valley Air** 33 **Pollution Control District**

34 Impact AQ-2 was found significant for construction. Implementation of Mitigation Measure AQ-2 and  
35 Environmental Commitments EC-7 through EC-13 would reduce this impact to a less-than-  
36 significant level.

1           **Mitigation Measure AQ-2: Offset Construction-Generated Criteria Pollutants in the San**  
2           **Joaquin Valley Air Basin**

3           **Environmental Commitments: Same as listed for Impact AQ-1.**

4           **Impact AQ-3: Result in Impacts on Regional Air Quality within the Bay Area Air Quality**  
5           **Management District**

6           Impact AQ-3 was found significant for construction. Implementation of Mitigation Measure AQ-3 and  
7           Environmental Commitments EC-7 through EC-13 would reduce this impact to a less-than-  
8           significant level.

9           **Mitigation Measure AQ-3: Offset Construction-Generated Criteria Pollutants in the San**  
10          **Francisco Bay Area Air Basin**

11          **Environmental Commitments: Same as listed for Impact AQ-1.**

12          **Impact AQ-5: Result in Exposure of Sensitive Receptors to Substantial Localized Criteria**  
13          **Pollutant Emissions**

14          Impact AQ-5 was found significant for construction. Even with implementation of Mitigation  
15          Measure AQ-5 and Environmental Commitments EC-7 through EC-13, this impact would remain  
16          significant and unavoidable.

17          **Mitigation Measure AQ-5: Avoid Public Exposure to Localized Particulate Matter and**  
18          **Nitrogen Dioxide Concentrations**

19          **Environmental Commitments: Same as listed for Impact AQ-1.**

20          **Impact AQ-6: Result in Exposure of Sensitive Receptors to Substantial Toxic Air Contaminant**  
21          **Emissions**

22          Impact AQ-6 was found significant for construction. Even with implementation of Mitigation  
23          Measure AQ-6 and Environmental Commitments EC-7 through EC-13, this impact would remain  
24          significant and unavoidable.

25          **Mitigation Measure AQ-6: Avoid Residential Exposure to Localized Diesel Particulate**  
26          **Matter**

27          **Environmental Commitments: Same as listed for Impact AQ-1.**

28          **Impact AQ-9: Result in Impacts on Global Climate Change from Construction and O&M**

29          Impact AQ-9 was found significant for construction. Implementation of Mitigation Measure AQ-9 and  
30          environmental commitments would reduce this impact to a less-than-significant level.

31          **Mitigation Measure AQ-9: Develop and Implement a GHG Reduction Plan to Reduce GHG**  
32          **Emissions from Construction and Displaced Purchases of CVP Electricity to Net Zero**

33          **Environmental Commitment EC-7: Off-Road Heavy-Duty Engines**

1           **Environmental Commitment EC-8: On-Road Haul Trucks**

2           **Environmental Commitment EC-9: On-Site Locomotives**

3           **Environmental Commitment EC-10: Marine Vessels**

4           **Environmental Commitment EC-13: DWR Best Management Practices to Reduce GHG**  
5           **Emissions**

6           **Impact AQ-10: Result in Impacts on Global Climate Change from Land Use Change**

7           Impact AQ-10 was found significant for construction. Implementation of Mitigation Measure CMP  
8           would reduce this impact to a less-than-significant level.

9           **Mitigation Measure CMP: Compensatory Mitigation Plan**

10          ***Environmental Justice Effects—All Project Alternatives***

11          Impacts AQ-1 through AQ-3 would be significant under CEQA for all project alternatives because  
12          construction could result in exceedances of Sacramento Metropolitan Air Quality Management  
13          District's, San Joaquin Valley Air Pollution Control District's, and Bay Area Air Quality Management  
14          District's maximum daily criteria pollutant thresholds before mitigation. Mitigation and  
15          environmental commitments would be implemented to reduce these impacts to less than significant.

16          Impacts AQ-5 and AQ-6 would result in exposure of sensitive receptors to substantial localized  
17          criteria pollutant emissions and exposure of sensitive receptors to substantial toxic air contaminant  
18          emissions, respectively. While mitigation and environmental commitments would be implemented  
19          to lower receptor exposure to project-generated air pollution, it may not be feasible to completely  
20          eliminate all localized exceedances of criteria pollutants, or receptors may not elect to accept DWR's  
21          assistance. Accordingly, these impacts are determined to be significant and unavoidable.

22          Construction of the project alternatives would generate GHG emissions. Impact AQ-9 would be  
23          significant for all project alternatives because GHG emissions from construction and displaced  
24          purchases of CVP electricity would exceed the net zero analysis threshold for GHG emissions before  
25          mitigation. Additionally, Impact AQ-10 would be significant for Alternatives 3, 4, 4b, and 4c because  
26          cumulative GHG emissions from the land use change of constructing these project alternatives  
27          would exceed the net zero analysis threshold for GHG emissions before mitigation (Chapter 22,  
28          *Energy*, and Chapter 23, *Air Quality and Greenhouse Gases*). GHG emissions are global pollutants and  
29          disperse widely in the atmosphere; therefore, GHG emissions have global effects and cannot be  
30          analyzed at the level of the air district as done for criteria pollutants and ozone precursors nor can  
31          effects of GHG emissions be quantified at the level of census tract as the environmental justice study  
32          area is defined. The GHG emissions results reported in Chapter 23 assume implementation of  
33          Environmental Commitments EC-7: *Off-Road Heavy-Duty Engines*, EC-9: *On-Site Locomotives*, and EC-  
34          10: *Marine Vessels*. (Other environmental commitments that would reduce GHGs, EC-8: *On-Road*  
35          *Haul Trucks* and EC-13: *DWR Best Management Practices to Reduce GHG Emissions*, were not  
36          quantified.) Implementation of Mitigation Measure AQ-9 and Mitigation Measure CMP would  
37          mitigate these emissions to net zero through the development and implementation of a GHG  
38          mitigation program and offsetting GHG emissions from construction land use change through  
39          expanded habitat creation. These measures ensure net additional emissions would not result in a  
40          significant GHG impact. (Chapter 23 provides extensive detail on methods used to analyze GHGs.)

1 Mitigation measures and environmental commitments would be available to reduce air quality  
2 impacts; however, it is not anticipated that feasible measures would be available in all situations to  
3 reduce impacts below the applicable thresholds. The impact of exposing sensitive receptors to air  
4 quality emissions increases above thresholds is considered significant. Although mitigation  
5 measures are available to address these temporary impacts, the air quality effects would occur in  
6 areas with meaningfully greater minority and low-income populations and therefore represent a  
7 disproportionately adverse effect on environmental justice.

## 8 **Noise**

### 9 **Impact NOI-1: Generate a Substantial Temporary or Permanent Increase in Ambient Noise** 10 **Levels in the Vicinity of the Project in Excess of Standards Established in the Local General** 11 **Plan or Noise Ordinance, or Applicable Standards of Other Agencies**

12 Impact NOI-1 was found significant for construction. Even with implementation of Mitigation  
13 Measure NOI-1, this impact would remain significant and unavoidable.

#### 14 **Mitigation Measure NOI-1: Develop and Implement Noise Control Plan**

#### 15 *Environmental Justice Effects—All Project Alternatives*

16 Construction of project facilities would involve the use of heavy equipment at associated  
17 construction sites for several years (up to 14 years accounting for all project components), as the  
18 tunnels, intakes, and Southern or Bethany Complex facilities are built. Heavy equipment noise levels  
19 at these construction sites would potentially exceed daytime and nighttime noise thresholds under  
20 all alternatives, but the number of receptors affected would vary. Noise levels would potentially  
21 exceed daytime thresholds at the greatest number of residences under Alternative 2a and  
22 potentially exceed nighttime noise thresholds at the greatest number of residences under  
23 Alternative 4a.

24 Because construction would exceed thresholds at intakes, shaft sites, the Southern Forebay,  
25 Southern Complex, and associated infrastructure under all alternatives, impacts would be  
26 significant. Mitigation Measure NOI-1 is available to reduce noise levels during construction, but not  
27 to a less-than-significant level in all cases. This impact would be, therefore, significant and  
28 unavoidable.

29 Although Mitigation Measure NOI-1 would be available to reduce these effects, it is not anticipated  
30 that feasible measures would be available in all situations to reduce construction noise to levels  
31 below the applicable thresholds. The effect of exposing noise-sensitive land uses to noise increases  
32 above thresholds is considered significant. Because effects would occur in areas with meaningfully  
33 greater minority and low-income populations, this represents a disproportionately adverse effect on  
34 environmental justice.

## 35 **Public Health**

### 36 **Impact PH-1: Increase in Vector-Born Diseases**

37 Impact PH-1 was found significant for construction. Implementation of Mitigation Measure PH-1a  
38 would reduce this impact to a less-than-significant level.

1           **Mitigation Measure PH-1a: Avoid Creating Areas of Standing Water During**  
2           **Preconstruction Field Investigations and Project Construction**

3           ***Environmental Justice Effects—All Project Alternatives***

4           Under all project alternatives, ponding in construction and staging areas, as well as at sites where  
5           preconstruction field investigations are performed, could develop after heavy precipitation events  
6           and temporarily create areas conducive to mosquito breeding, which may temporarily increase the  
7           public’s exposure to vector-borne diseases in the study area. With implementation of Mitigation  
8           Measure PH-1a, DWR would eliminate standing water to reduce potential suitable mosquito  
9           breeding areas at field investigation sites and construction sites. This impact would be reduced to a  
10          less-than-significant level. The effect on environmental justice populations would not exceed those  
11          than on the general population and is therefore not considered an adverse effect.

12       **29.4.2.3           Environmental Justice Effects of Mitigation Measures**

13          Mitigation measures are designed to avoid, reduce, or minimize significant impacts of the project on  
14          the environment. Such reductions would generally affect the general population and minority and  
15          low-income populations equally.