

23. Environmental Justice

23.1 Introduction

This chapter describes the race, ethnic, and income characteristics of the populations within the Extended, Secondary, and Primary study areas. Descriptions and maps of these three study areas are provided in Chapter 1 Introduction. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (U.S. Environmental Protection Agency [USEPA], 2013).

Permits and authorizations for environmental justice resources are presented in Chapter 4 Environmental Compliance and Permit Summary. The regulatory setting for environmental justice resources is presented in Appendix 4A Environmental Compliance.

This chapter focuses primarily on the Primary Study Area. Potential impacts in the Secondary and Extended study areas were evaluated and discussed qualitatively. Potential local and regional impacts from constructing, operating, and maintaining the alternatives were described and compared to applicable significance thresholds. Specifically, the chapter discusses whether the alternatives would have disproportionately high and adverse human health or environmental effects on minority and/or low-income populations, as defined by State and federal regulations that address environmental justice. Mitigation measures are provided for identified potentially significant impacts, where appropriate. Because none were identified for this resource, no mitigation is included in this chapter.

23.2 Environmental Setting/Affected Environment

23.2.1 Introduction

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 *Federal Register* No. 32), was signed on February 11, 1994, by President Clinton. EO 12898 requires that each federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations (*Federal Register*, 1994).

In addition to EO 12898, the consideration of environmental justice is also underpinned by Title VI of the Civil Rights Act of 1964. The intent of EO 12898 and Title VI is to assess potential impacts from the implementation of development projects, subject to federal permitting requirements, to confirm that no person in the United States shall, on the basis of race, color, national origin, or income, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Where possible, measures should be taken to avoid negative impacts to these communities or mitigate the adverse effects.

The U. S. Census Bureau provides a definition of minority and low-income populations. The term “minority population” includes persons who identify themselves as African American, Asian or Pacific Islander, American Indian or Alaskan Native, or of Hispanic origin (U.S. Census Bureau, 2016a). Race refers to census respondents’ self-identification of racial background, which as of the 2010 Census includes two additional categories: (1) some other race and (2) two or more races. Hispanic origin refers

to ethnicity and language, not race, and may include persons whose heritage is Puerto Rican, Cuban, Mexican, or Central or South American, and other Spanish cultures (Office of Management and Budget, 1997). Individuals of Hispanic/Latino origin may be of any race.

According to the Council on Environmental Quality (CEQ), to be considered a minority population, the population of the affected area must either exceed 50 percent minority, or the minority population percentage of the affected area must be meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds (CEQ, 1997). In addition, according to USEPA guidelines, similar to the CEQ, a minority population refers to a minority group that has a population of greater than 50 percent of the affected area's general population; or the minority population percentage of the affected area must be meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (USEPA, 1998).

To be considered a low-income population, the low-income populations in an affected area should be identified using the annual statistical poverty thresholds from the U.S. Census Bureau. The U. S. Census Bureau does not provide a specific definition for "low-income." Rather, the term "poverty" is used, and poverty thresholds are established each year for statistical purposes (U.S. Census Bureau, 2009a). The U.S. Department of Health and Human Services issues poverty guidelines each year that are a simplification of the U.S. Census Bureau's poverty thresholds. The guidelines are another version of the federal poverty measure; they are used for administrative purposes (for example, such as determining financial eligibility for certain federal programs) (Institute for Research on Poverty, 2008). Because the CEQ guidelines do not include a threshold for determining the presence of a low-income population, the threshold used for determining the presence of minority population is typically used.

23.2.2 Extended Study Area

23.2.2.1 Methodology

To characterize the population, race, and ethnicity of the Extended Study Area, data from the U.S. Census Bureau were obtained for each of the 33 counties that are located within that study area. Table 23-1 presents the total population and population breakdown by race and ethnicity for the counties that are located within the Extended Study Area, as well as for the State of California, based on the 2010 U.S. Census Redistricting Data (U.S. Census Bureau, 2016b).

23.2.3 Secondary Study Area

23.2.3.1 Methodology

To characterize the population, race, and ethnicity of the Secondary Study Area, data from the U.S. Census Bureau were obtained for each of the 18 counties that are located within that study area. Table 23-2 lists the total population and population breakdown by race and ethnicity, based on the 2010 U.S. Census Redistricting Data (U.S. Census Bureau, 2016b). Fourteen of the 18 counties in the Secondary Study Area are also located in the Extended Study Area (Table 23-1), and are not repeated in Table 23-2.

Table 23-1
Race and Ethnicity of the State of California and the Counties that Are Located within the Extended Study Area

County	Race and Ethnicity								
	Total Population	Hispanic Origin (of any race)	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or More Races
Alameda ^a	1,510,271	339,889	649,122	190,451	9,799	394,560	12,802	162,540	90,997
Butte ^a	220,000	31,116	180,096	3,415	4,395	9,057	452	12,141	10,444
Colusa ^b	21,419	11,804	13,854	195	419	281	68	5,838	764
Contra Costa ^a	1,049,025	255,560	614,512	97,161	6,122	151,469	4,845	112,691	62,225
El Dorado ^a	181,058	21,875	156,793	1,409	2,070	6,297	294	7,278	6,917
Fresno	930,450	468,070	515,145	49,523	15,649	89,357	1,405	217,085	42,286
Glenn ^b	28,122	10,539	19,990	231	619	722	24	5,522	1,014
Kern	839,631	413,033	499,766	48,921	12,676	34,846	1,252	204,314	37,856
Kings	152,982	77,866	83,027	11,014	2,562	5,620	271	42,996	7,492
Los Angeles	9,818,605	4,687,889	4,936,599	856,874	72,828	1,346,865	26,094	2,140,632	438,713
Madera	150,865	80,992	94,456	5,629	4,136	2,802	162	37,380	6,300
Merced	255,793	140,485	148,381	9,926	3,473	18,836	583	62,665	11,929
Napa	136,484	44,010	97,525	2,668	1,058	9,223	372	20,058	5,580
Orange	3,010,232	1,012,973	1,830,758	50,744	18,132	537,804	9,354	435,641	127,799
Placer ^a	348,432	44,710	290,977	4,751	3,011	20,435	778	13,375	15,105
Plumas	20,007	1,605	17,797	192	539	134	18	603	724
Riverside	2,189,641	995,257	1,335,147	140,543	23,710	130,468	6,874	448,235	104,664
Sacramento ^a	1,418,788	306,196	815,151	147,058	14,308	203,211	13,858	131,691	93,511
San Benito	55,269	31,186	35,181	483	895	1,443	94	14,471	2,702
San Bernardino	2,035,210	1,001,145	1,153,161	181,862	22,689	128,603	6,870	439,661	102,364
San Diego	3,095,313	991,348	1,981,442	158,213	26,340	336,091	15,337	419,465	158,425
San Joaquin	685,306	266,341	349,287	51,744	7,196	98,472	3,758	131,054	43,795
San Luis Obispo	269,637	55,973	222,756	5,550	2,536	8,507	389	19,786	10,113
Santa Barbara	423,895	181,687	295,124	8,513	5,485	20,665	806	73,860	19,442

County	Race and Ethnicity								
	Total Population	Hispanic Origin (of any race)	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or More Races
Santa Clara ^a	1,781,642	479,210	836,616	46,428	12,960	570,524	7,060	220,806	87,248
Shasta ^a	177,223	14,878	153,726	1,548	4,950	4,391	271	4,501	7,836
Solano ^a	413,344	99,356	210,751	60,750	3,212	60,473	3,564	43,236	31,358
Stanislaus	514,453	215,658	337,342	14,721	5,902	26,090	3,401	99,210	27,787
Sutter ^a	94,737	27,251	57,749	1,919	1,365	13,663	281	14,463	5,297
Tehama ^a	63,463	13,906	51,721	406	1,644	656	76	6,258	2,702
Tulare	442,179	268,065	265,618	7,196	6,993	15,176	509	128,263	18,424
Ventura	823,318	331,567	565,804	15,163	8,068	55,446	1,643	140,253	36,941
Yolo ^a	200,849	60,953	126,883	5,208	2,214	26,052	910	27,882	11,700
California	37,253,956	14,013,719	21,453,934	2,299,072	362,801	4,861,007	144,386	6,317,372	1,815,384

^aThese counties are located in both the Extended and Secondary study areas.

^bThese counties are located in all three study areas (Extended, Secondary, and Primary).

Source: U.S. Census Bureau, 2016b.

Table 23-2
Race and Ethnicity of the State of California and the Counties that Are Located within the Secondary Study Area^a

County	Race and Ethnicity								
	Total Population	Hispanic Origin (of any race)	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or More Races
Del Norte	28,610	5,093	21,098	993	2,244	965	32	1,980	1,298
Humboldt	134,623	13,211	109,920	1,505	7,726	2,944	352	5,003	7,173
Trinity	13,786	959	12,033	59	655	94	16	217	712
Yuba	72,155	18,051	49,332	2,361	1,675	4,862	293	8,545	5,087

^aSee Table 23-1 for 14 additional counties that are located within the Secondary Study Area.

Source: U.S. Census Bureau, 2016b.

23.2.4 Primary Study Area

23.2.4.1 Methodology

To characterize the population, race, ethnicity, income, and poverty of the Primary Study Area, data from the U.S. Census Bureau were obtained for the two counties that are located within that study area.

Unemployment and housing data for the Primary Study Area are presented in Chapter 22 Socioeconomics.

23.2.4.2 Race and Ethnic Character

Table 23-3 lists the population and percent minority population for Glenn and Colusa counties, as well as for the State of California. It also provides the race breakdown and Hispanic or Latino ethnicity percentages (U.S. Census Bureau, 2016b).

Table 23-3
Race and Ethnicity of Glenn and Colusa Counties
and the State of California

Parameter	Glenn County	Colusa County	California
Total Population	28,122	21,419	37,253,956
Total Non-Hispanic White Population	15,717	8,542	14,956,253
Percent Minority ^a	44.1%	60.2%	59.9%
White			
Number	19,990	13,854	21,453,934
Percent	71.1%	64.7%	57.6%
Black or African American			
Number	231	195	2,299,072
Percent	0.8%	0.9%	6.2%
American Indian and Alaska Native^b			
Number	619	419	362,801
Percent	2.2%	2.0%	1.0%
Asian			
Number	722	281	4,861,007
Percent	2.6%	1.3%	13.0%
Native Hawaiian and Other Pacific Islander			
Number	24	68	144,386
Percent	0.1%	0.3%	0.4%
Some Other Race			
Number	5,522	5,838	6,317,372
Percent	19.6%	27.3%	17.0%
Two or More Races			
Number	1,014	764	1,815,384
Percent	3.6%	3.6%	4.9%
Hispanic or Latino (any race)			
Number	10,539	11,804	14,013,719
Percent	37.5%	55.1%	37.6%

^aMinority population was calculated by subtracting the non-Hispanic white population parameter from the total county or state population numbers to conservatively estimate minority population and avoid double-counting individuals of two or more races individuals.

^bThere are two federally registered Native American tribes in Colusa County: the Cachil DeHe Band of Wintun Indians of the Colusa Indian Community of the Colusa Rancheria and the Cortina Indian Rancheria of Wintun Indians of California. Members of these two tribes totaled 608 in 2010 (Bureau of Indian Affairs, 2014). Major federally recognized tribes and tribal lands in Glenn County include the Grindstone Indian Rancheria of Wintun-Wailaki Indians of California and lands of the Paskenta Band of Nomlaki Indians of California (National Conference of State Legislatures, 2017).

Source: U.S. Census Bureau, 2016b. Bureau of Indian Affairs, 2014.

As shown in Table 23-3, total minority population (both racial and ethnic minority) in Colusa County is about 60 percent, which is well above the 50 percent threshold indicating the presence of a minority population. The majority of the minority population in the county are individuals of the Hispanic/Latino population—55.1 percent of the population in Colusa County is Hispanic/Latino. The total minority population (racial and ethnic) in Glenn County is below the 50 percent threshold. To provide context to the distribution of the racial/ethnic minority population, a review of the U.S. Census Bureau block groups in the vicinity of all Sites Reservoir Project (Project) facilities within the Primary Study Area was conducted. This review confirmed that the Primary Study Area is sparsely populated. It further confirmed that all Project facilities would be located in areas that are primarily unpopulated or have minority population distributions that are less than 50 percent. The exception to this is the easternmost 3 miles of the proposed Sites/Delevan Overhead Power Line, in which about 60 percent of the population is identified as being minority.

23.2.4.3 Income and Poverty

Table 23-4 provides income and poverty data for Glenn and Colusa counties, as well as for the State of California, based on the 2018–2012 American Community Survey 5-year (U.S. Census Bureau, 2017a; 2017b; 2017c; 2017d).

Table 23-4
Income and Poverty 2008–2012 Five-year Estimate - Glenn and Colusa Counties
and the State of California

Parameter	Glenn County	Colusa County	California
Median Family Income	\$51,646	\$55,753	\$69,883
Per Capita Income	\$21,689	\$21,601	\$29,551
Families Below Poverty Level (#/%)	6,828/13.7%	5,120/12.1%	8,550,034/11.5%
Individuals Below Poverty Level (#/%)	5,383/19.5%	3,206/15.2%	5,590,100/15.3%

Note:

It is noted that the 2016-2017 Community Action Plan for the Community Services Block Grant for Colusa, Glenn, and Trinity counties reports these poverty rates: 2013 poverty rate in Colusa County of 12.5 percent and Glenn County of 18.8 percent (Community Action Partnership, 2017).

Source: U.S. Census Bureau, 2017a; 2017b; 2017c; 2017d.

As shown in Table 23-4,¹ both counties have lower median family and per capita incomes than the State of California. The percentages of individuals living below the poverty level are higher in both counties when compared to the State. The percentage of individuals living below the poverty level is higher in Glenn County than in Colusa County or the State. In addition, all Project facilities would be located in areas where 25 percent or less of the population is identified as low income.

23.3 Environmental Impacts/Environmental Consequences

23.3.1 Evaluation Criteria and Significance Thresholds

Significance criteria represent the thresholds that were used to identify whether an impact would be potentially significant. Appendix G of the *CEQA Guidelines* does not address environmental justice or

¹ Although undocumented individuals are included in the U.S. Census Bureau count it is possible that not all are counted in the American Community Survey data for incomes.

minority and/or low-income populations specifically. Its Mandatory Findings of Significance Question (c) is relevant to the general population, as follows:

- Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

EO 12898 specifies that, “each federal agency shall analyze the environmental effects, including human health, economic, and social effects, of federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA.” For the purposes of this analysis, an alternative would result in a potentially significant environmental justice impact if it would result in the following:

- A Disproportionate Share of an Adverse Impact (such as Recreation, Socioeconomics, Dust and Air Quality, Traffic, Noise, and Public Health and Hazards) on a Minority and/or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures.

Potential adverse environmental impacts associated with this type of major infrastructure project include construction-, operation-, or maintenance-related nuisance effects (e.g., traffic, noise, dust, and/or hazards); and construction, operation, or maintenance effects on local employment opportunities.

23.3.2 Impact Assessment Assumptions and Methodology

Combinations of Project facilities were used to create Alternatives A, B, C, C₁, and D. In all resource chapters, the Authority and Reclamation described the potential impacts associated with the construction, operation, and maintenance of each of the Project facilities for each of the five action alternatives. Some Project features/facilities and operations (e.g., reservoir size, overhead power line alignments, provision of water for local uses) differ by alternative, and are evaluated in detail within each of the resource areas chapters. As such, the Authority has evaluated all potential impacts with each feature individually, and may choose to select or combine individual features as determined necessary.

Impacts associated with the construction, operation, and maintenance for Alternative C₁ would be the same as Alternative C and are therefore not discussed separately below.

23.3.2.1 Assumptions

The following assumptions were made regarding Project-related construction, operation, and maintenance impacts to minority and/or low-income populations:

- Direct Project-related construction, operation, and maintenance activities would occur in the Primary Study Area.
- Direct Project-related operational effects would occur in the Secondary Study Area.
- The only direct Project-related construction activity that would occur in the Secondary Study Area would be the installation of two additional pumps into existing bays at the Red Bluff Pumping Plant.
- The only direct Project-related maintenance activity that would occur in the Secondary Study Area would be the sediment removal and disposal at the intakes of the Glenn-Colusa Irrigation District (GCID) Main Canal and Tehama-Colusa Canal.

- No direct Project-related construction or maintenance activities would occur in the Extended Study Area.
- Direct Project-related operational effects that would occur in the Extended Study Area would be related to recreational opportunities at San Luis Reservoir operation; increased reliability of water supply to agricultural, municipal, and industrial water users; and the provision of an alternate Level 4 wildlife refuge water supply. Indirect effects to the operation of certain facilities that are located in the Extended Study Area, and indirect effects to the consequent water deliveries made by those facilities, would occur as a result of implementing the alternatives.
- The existing bank protection located upstream of the proposed Delevan Pipeline Intake/Discharge Facilities would continue to be maintained and remain functional.
- No additional channel stabilization, grade control measures, or dredging in the Sacramento River at or upstream of the Delevan Pipeline Intake/Discharge Facilities would be required.
- All residences located outside of Project facility footprints, but within the Project Buffer, would be acquired, vacated, and demolished, as necessary, prior to the start of Project construction.

23.3.2.2 Methodology

Existing conditions and the future No Project/No Action alternatives were assumed to be similar in the Primary Study Area given the generally rural nature of the area and limited potential for growth and development in Glenn and Colusa counties within the 2030 study period used for this EIR/EIS as further described in Chapter 2 Alternatives Analysis. As a result, within the Primary Study Area, it is anticipated that the No Project/No Action Alternative would not entail material changes in conditions as compared to the existing conditions baseline.

With respect to the Extended and Secondary study areas, the effects of the proposed action alternatives would be primarily related to changes to available water supplies in the Extended and Secondary study areas and the Project's cooperative operations with other existing large reservoirs in the Sacramento watershed, and the resultant potential impacts and benefits to biological resources, land use, recreation, socioeconomic conditions, and other resource areas. The Department of Water Resources has projected future water demands through 2030 conditions that assume the vast majority of Central Valley Project (CVP) and State Water Project (SWP) water contractors would use their total contract amounts, and that most senior water rights users also would fully use most of their water rights. This increased demand in addition to the projects currently under construction and those that have received approvals and permits at the time of preparation of the EIR/EIS would constitute the No Project/No Action Condition. As described in Chapter 2 Alternative Analysis, the primary difference in these projected water demands would be in the Sacramento Valley; and as of the time of preparation of this EIR/EIS, the water demands have expanded to the levels projected to be achieved on or before 2030.

Accordingly, existing conditions and the No Project/No Action alternatives are assumed to be the same for this EIR/EIS and as such are referred to as the Existing Conditions/No Project/No Action Condition, which is further discussed in Chapter 2 Alternatives Analysis. With respect to applicable reasonably foreseeable plans, projects, programs and policies that may be implemented in the future but that have not yet been approved, these are included as part of the analysis of cumulative impacts in Chapter 35 Cumulative Impacts.

The analysis characterizes the distributional patterns of minority and low-income populations in the Primary Study Area and describes whether Project impacts to minority and/or low-income populations would be disproportionately high and adverse.

In accordance with CEQ and USEPA guidelines established to assist federal and State agencies, the first step undertaken in this environmental justice analysis was to define minority and low-income populations. For this analysis, a minority population was defined to be present in the Primary Study Area if: (1) the minority population of the affected area exceeds 50 percent or (2) the minority population percentage of the affected area is at least 10 percentage points greater than that of the general population in the State. By the same rule, a low-income population exists in the Primary Study Area if it consists of 50 percent or more people living below the poverty threshold, as defined by the U.S. Census Bureau, or is significantly greater than the poverty percentage of the general population or other appropriate unit of geographic analysis.

The second step undertaken in this environmental justice analysis was to determine if a “high and adverse” impact would occur. The CEQ guidance indicates that, when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact “are significant or above generally accepted norms.”

The final step undertaken in this analysis was to determine if the impact on the minority and/or low-income population would be disproportionately high and adverse. The CEQ includes a non-quantitative definition stating that an effect is disproportionate if it appreciably exceeds the risk or rate to the general population.

23.3.3 Topics Eliminated from Further Analytical Consideration

No Project facilities or topics that are included in the significance criteria listed above were eliminated from further consideration in this chapter.

23.3.4 Impacts Associated with Alternative A

23.3.4.1 Extended Study Area – Alternative A

Construction, Operation, and Maintenance Impacts

Agricultural Water Use, Municipal and Industrial Water Use, Wildlife Refuge Water Use, and San Luis Reservoir

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority and/or Low-income Population, Including the Potential for Minority and/or Low-income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

There would be no direct Project-related construction or maintenance occurring within the CVP and SWP service areas of the Extended Study Area. As a result, there would be no traffic, noise, dust, hazards, and/or socioeconomic effects in the Extended Study Area that would affect a minority and/or low-income population. Therefore, there would be **no impact** on a minority and/or low-income population, when compared to the Existing Conditions/No Project/No Action Condition.

Improvement in surface water supply reliability for agricultural, municipal, and industrial users, and the provision of an alternate Level 4 water supply source for wildlife refuge users resulting from Project

operation would reduce the need for extracting groundwater and/or provide some additional applied water for deep percolation recharge of the aquifer system. Operation at San Luis Reservoir would be altered to accommodate Project operation, which would result in more frequent and larger surface water elevation fluctuations at the reservoir than currently occurs there. These operational changes would not have a disproportionately high or adverse impact on a minority and/or low-income population, resulting in **no impact**, when compared to the Existing Conditions/No Project/No Action Condition.

23.3.4.2 Secondary Study Area – Alternative A

Construction, Operation, and Maintenance Impacts

Trinity Lake, Lewiston Lake, Trinity River, Klamath River Downstream of the Trinity River, Whiskeytown Lake, Spring Creek, Shasta Lake, Sacramento River, Keswick Reservoir, Clear Creek, Lake Oroville, Thermalito Complex (Thermalito Diversion Pool, Thermalito Forebay, and Thermalito Afterbay); Feather River; Sutter Bypass; Yolo Bypass; Folsom Lake; Lake Natoma; American River; Sacramento-San Joaquin Delta; Suisun Bay; San Pablo Bay; and San Francisco Bay

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority and/or Low-income Population, Including the Potential for Minority and/or Low-income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

There would be no direct Project-related construction or maintenance occurring at any of the above-listed facilities or areas within the Secondary Study Area. Therefore, **no impact** on a minority and/or low-income population would occur, when compared to the Existing Conditions/No Project/No Action Condition.

Project operational activities would result in improved surface water storage in reservoir facilities within the Secondary Study Area, and also changes to the flow regime of the rivers, creeks, and bypasses within that area. These changes are not expected to result in substantial increases in the amount of water (surface or groundwater) that would be available to people (including minority and/or low-income populations) residing within the Secondary Study Area. Additionally, changes in flow regime or surface water elevations would not result in traffic, noise, air quality, hazards, and/or socioeconomic impacts to people (including minority and/or low-income populations). Therefore, there would be **no impact**, when compared to the Existing Conditions/No Project/No Action Condition.

Pump Installation at the Red Bluff Pumping Plant

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority and/or Low-income Population, Including the Potential for Minority and/or Low-income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

The only direct Project-related construction that would occur in the Secondary Study Area is the installation of two additional pumps into existing bays at the Red Bluff Pumping Plant. The only direct Project-related maintenance activity that would occur in the Secondary Study Area is the removal of sediment from the existing GCID Main Canal and Red Bluff Pumping Plant intakes. Neither of these activities would result in traffic, noise, air quality, hazards, and/or socioeconomic impacts to people (including minority and/or low-income populations) due to the facilities' locations away from residences

and businesses (e.g., they are separated from the Red Bluff Pumping Plant construction site by streets and an elevated railroad track). There would, therefore, be **no impact**, when compared to the Existing Conditions/No Project/No Action Condition.

23.3.4.3 Primary Study Area – Alternative A

Construction, Operation, and Maintenance Impacts

All Primary Study Area Project Facilities

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority and/or Low-income Population, Including the Potential for Minority and/or Low-income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

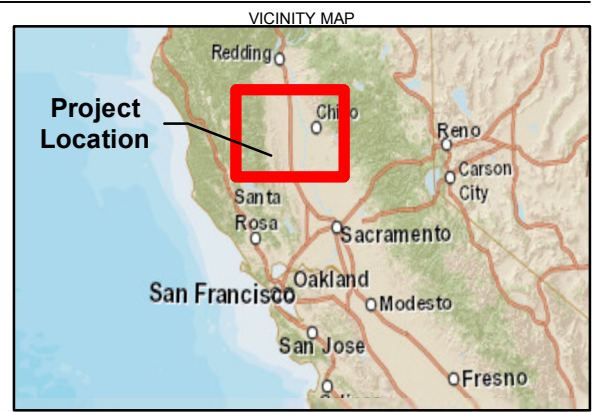
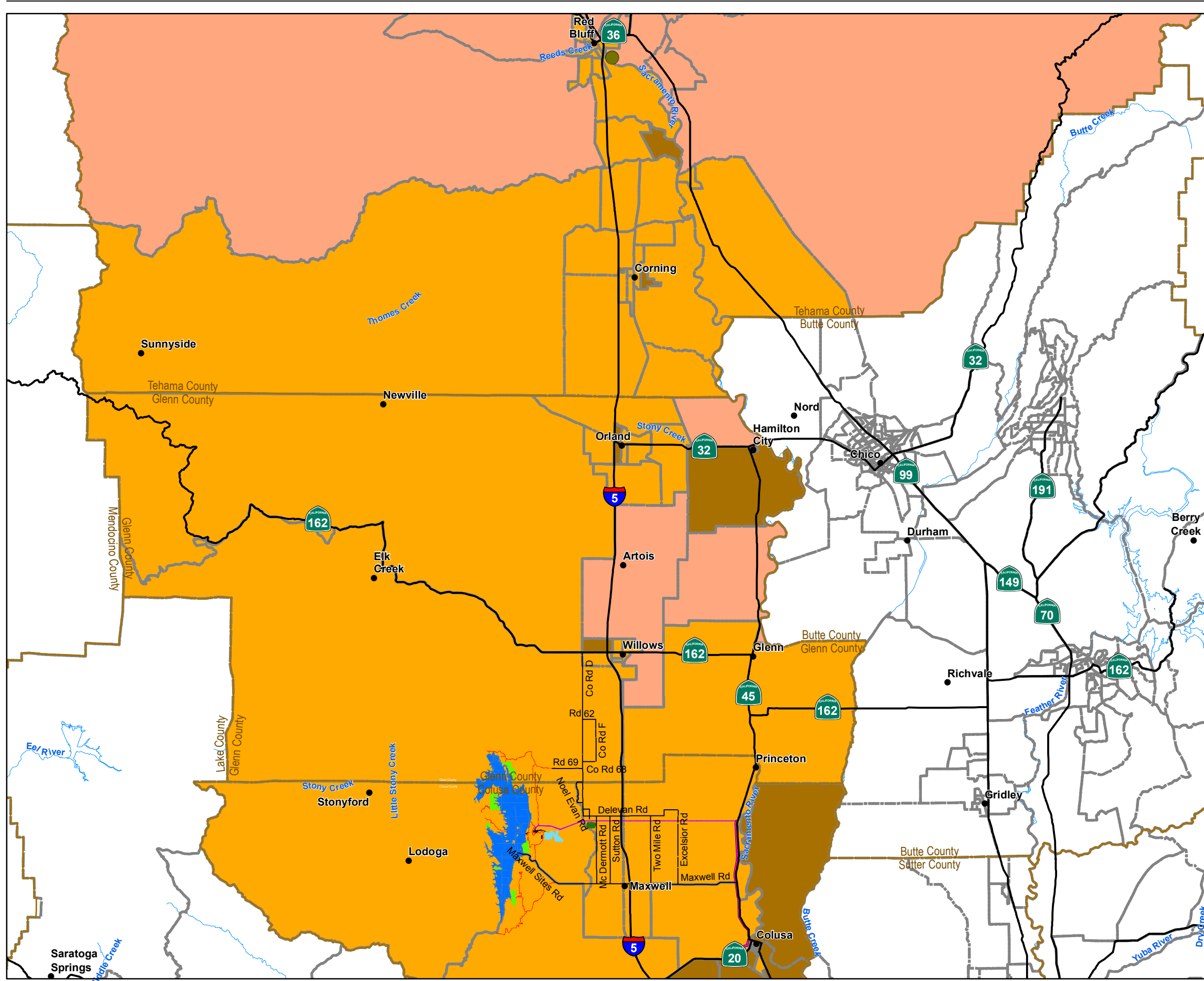
Minority Population

Project construction impacts would occur during the defined construction period at each Project facility. The distribution and location of minority population relative to all Project facility locations is shown on Figure 23-1. Construction of the Project would require the demolition of all existing structures within the reservoir inundation area and the surrounding Project Buffer, and the relocation of all residents within those boundaries. The Project would be located in an area that has a very low population; many areas of the reservoir footprint are unpopulated. A total of 26 residences and two mobile homes would be displaced by the Project.

In the areas that are populated, most of the reservoir site has 10 percent or less minority population, with a few areas having 10.1 to 25 percent minority population, and a very small area having 25.1 to 50 percent minority population.

All other Project facilities would be located in areas classified as being unpopulated, or having 25 percent or less minority in areas that have population, except for the easternmost 3 miles of the proposed Sites/Delevan Overhead Power Line, in which the area is classified as being 62 percent minority (U.S. Census Bureau, 2016b). The easternmost 3 miles of proposed Sites/Delevan Overhead Line and Delevan Pipeline alignment has one residence in the vicinity. Siting of the Sites/Delevan Overhead Power Line towers and pipeline installation would not affect that residence, resulting in **no impact** to residents, and particularly **no disproportionate impact** to a minority population, when compared to the Existing Conditions/No Project/No Action Condition.

Although the Hispanic population in Colusa County is greater than 50 percent of the county's population, as shown in Table 23-3, the county's population is low and widely distributed. As discussed above, the areas where Project facilities would be constructed do not have high percentages of the two counties' populations, or of minorities. Along the portion of the Sites/Delevan Overhead Power Line and Delevan Pipeline alignment, which is classified as being high minority percentage by the U.S. Census Bureau, there is one residence, which would not be affected during Project construction, operation, or maintenance. Therefore, there would be **no impact** to residents at this location within the Primary Study Area, and particularly **no disproportionate impact** to a minority population, from construction, operation, or maintenance in the Primary Study Area, when compared to the Existing Conditions/No Project/No Action Condition.



LEGEND

- Cities and Towns
- Red Bluff Pumping Plant
- Existing Roads
- Major River
- Delevan Overhead Power Line
- Substation
- ▭ Block Group Level Boundary
- ▭ Counties
- Delevan Pipeline Intake Facilities
- Sites/Delevan Overhead Power Line
- Holthouse Reservoir Complex and new Switchyard
- Recreation Areas
- Road Relocations and South Bridge
- Sites Reservoir Inundation Area and Sites Reservoir Dams
- Sites and Reservoir Facilities
- TRR, TRR Pump/Gen and GCID Canal Connection to TRR

Percent Minority Population in Census Block Group Level

- 0% - 10.0%
- 10.1% - 25.0%
- 25.1% - 50.0%
- 50.1% - 75.0%
- 75.1% - 100%

0 3.5 7 14 Miles

FIGURE 23-1
Primary Study Area Minority
Population Distribution
Sites Reservoir Project EIR/EIS

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Low-income Population

The distribution and location of low-income population relative to all Project facility locations is shown on Figure 23-2. The Project would be located in an area that is classified as primarily 10.1 to 25 percent low income, with a small area that is 0 to 10 percent low income (U.S. Census Bureau, 2017a). All Project facilities, other than Sites Reservoir, would be located in areas classified as being 10.1 to 25 percent low income (U.S. Census Bureau, 2017a). The areas where Project facilities would be constructed do not have high percentages of the two counties' populations or of low-income populations. Therefore, there would be **no impact** to residents, and particularly **no disproportionate impact** to a low-income population, from construction, operation, or maintenance in the Primary Study Area, when compared to the Existing Conditions/No Project/No Action Condition.

Job and Recreational Opportunities

This alternative has the potential to create jobs for minorities who have the appropriate construction, operation, or maintenance skillset for the Project. Further, this alternative would increase recreational opportunities in Glenn and Colusa counties for all recreationists, including minority and low-income populations. However, the potential for these benefits would be slight and would result in essentially **no impact** when compared to the Existing Conditions/No Project/No Action Condition.

23.3.5 Impacts Associated with Alternative B

23.3.5.1 Extended and Secondary Study Areas – Alternative B

Construction, Operation, and Maintenance Impacts

The impacts associated with Alternative B, as they relate to disproportionate adverse impacts on a minority or low-income population (**Impact Env Jus-1**), would be the same as described for Alternative A for the Extended and Secondary study areas.

23.3.5.2 Primary Study Area – Alternative B

Construction, Operation, and Maintenance Impacts

Most Primary Study Area Project facilities would be the same for Alternatives B as for Alternative A (see Table 3-1, Chapter 3 Description of the Sites Reservoir Project and Alternatives). These facilities would require the same construction methods and operation and maintenance activities regardless of alternative, and would, therefore, result in the same construction, operation, and maintenance impacts to a minority and/or low-income population. Therefore, facilities common to both alternatives are not included below.

If Alternative B is implemented, the footprint or construction disturbance area of Sites Reservoir Inundation Area, Sites Reservoir Dams, South Bridge, Road Relocations, and the Sites/Delevan Overhead Power Line would differ from Alternative A. In addition, the Delevan Pipeline Intake/Discharge Facilities would be replaced by the Delevan Pipeline Discharge Facility (No Intake). However, these differences in the size of the footprint or alignment of the construction disturbance area would require the same type of construction, operation, and activities as was described for Alternative A. They would, therefore, have the same impact on a minority and/or low-income population (**Impact Env Jus-1**) as described for Alternative A.

The boundary of the Project Buffer would be the same for Alternatives A and B, but because the footprints of some of the Project facilities that are included in the Project Buffer would differ between the

alternatives, the acreage of land within the Project Buffer would also differ. However, these differences in the size of the area included within the buffer would not change the type of construction, operation, and maintenance activities, and associated impacts on a minority and/or low-income population (**Impact Env Jus-1**) as described for Alternative A.

23.3.6 Impacts Associated with Alternative C

23.3.6.1 Extended and Secondary Study Areas – Alternative C

Construction, Operation, and Maintenance Impacts

The impacts associated with Alternative C, as they relate to disproportionate adverse impacts on a minority and/or low-income population (**Impact Env Jus-1**), would be the same as described for Alternative A for the Extended and Secondary study areas.

23.3.6.2 Primary Study Area – Alternative C

Construction, Operation, and Maintenance Impacts

Most Primary Study Area Project facilities would be the same for Alternatives A and C (see Table 3-1, Chapter 3 Description of the Sites Reservoir Project Alternatives). These facilities would require the same construction methods and operation and maintenance activities regardless of alternative, and would result in the same construction, operation, and maintenance impacts to a minority and/or low-income population (**Impact Env Jus-1**) as described for Alternative A.

23.3.7 Impacts Associated with Alternative D

23.3.7.1 Extended and Secondary Study Areas – Alternative D

Construction, Operation, and Maintenance Impacts

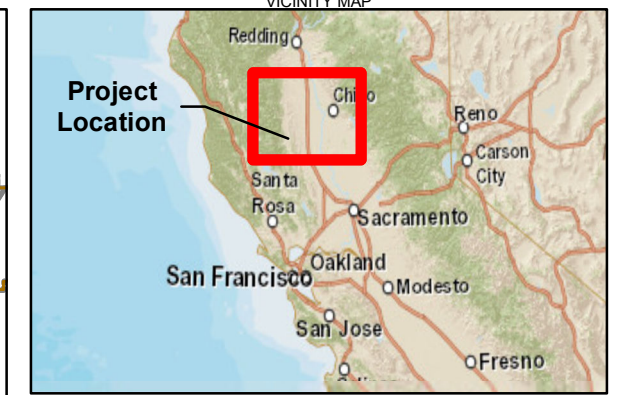
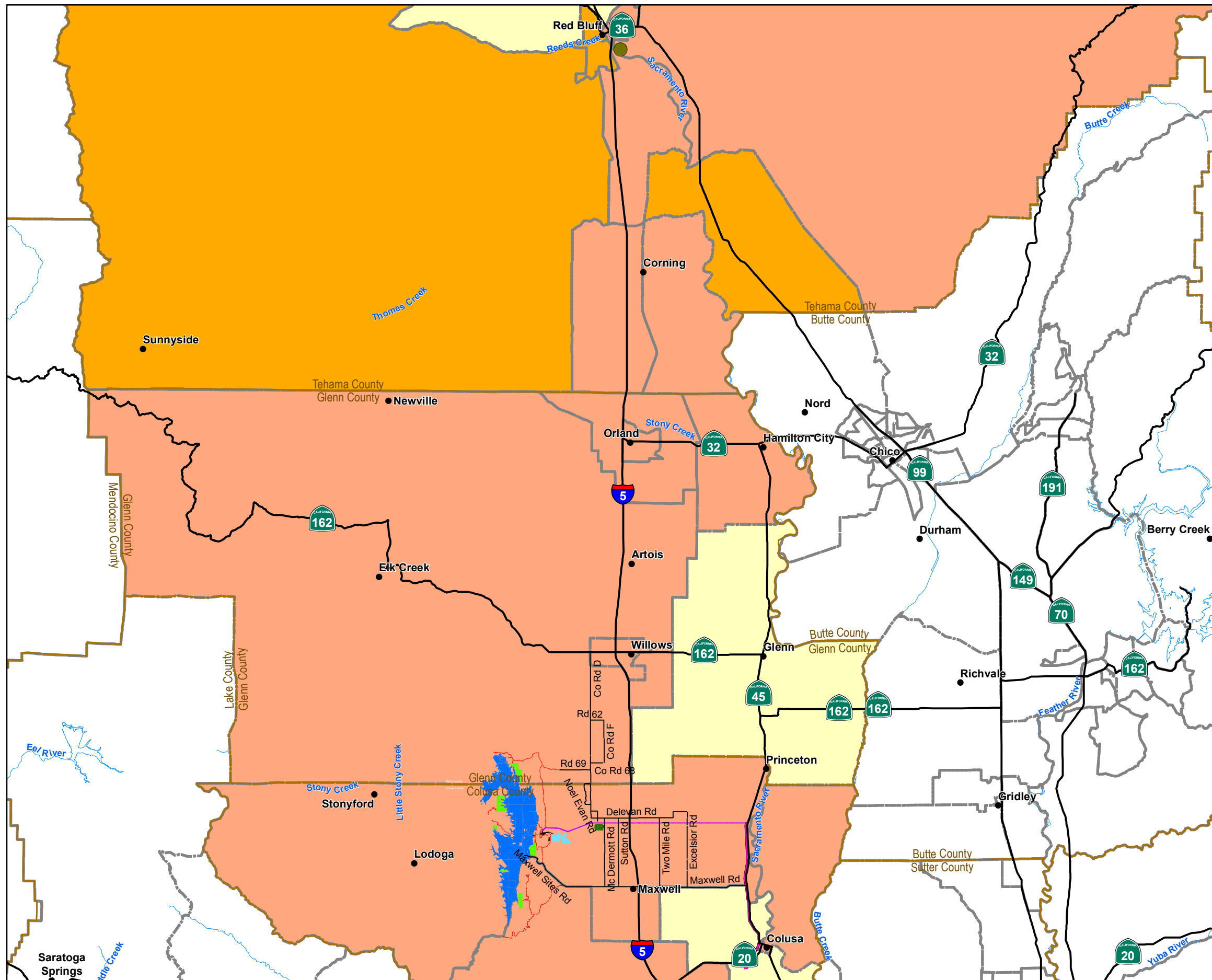
The impacts associated with Alternative D, as they relate to disproportionate adverse impacts on a minority and/or low-income population (**Impact Env Jus-1**), would be the same as described for Alternative A for the Extended and Secondary study areas.

23.3.7.2 Primary Study Area – Alternative D

Construction, Operation, and Maintenance Impacts

Most Primary Study Area Project facilities would be the same for Alternatives C and D (see Table 3-18, Chapter 3 Description of the Sites Reservoir Project Alternatives). These facilities would require the same construction methods and operation and maintenance activities regardless of alternative, and would result in the same construction, operation, and maintenance impacts to a minority and/or low-income population. Therefore, facilities common to both alternatives are not included below.

Alternative D includes a separate Overhead Power Line with a north-south alignment. The Overhead Power Line would originate from a new substation west of Colusa and would parallel Highway 45, providing an interconnect to the existing Western Area Power Administration or Pacific Gas and Electric Company transmission line. Alternative D includes a southern alignment of the Delevan Pipeline, located approximately 50 to 150 feet south of the alignment for Alternatives A, B, and C) that would use existing easements.



LEGEND

- Cities and Towns
- Red Bluff Pumping Plant
- Existing Roads
- Major River
- Delevan Overhead Power Line
- Substation
- Census Tract Level Boundary
- Counties
- Delevan Pipeline Intake Facilities
- Sites/Delevan Overhead Power Line
- Holthouse Reservoir Complex and new Switchyard
- Recreation Areas
- Road Relocations and South Bridge
- Sites Reservoir Inundation Area and Sites Reservoir Dams
- Sites and Reservoir Facilities
- TRR, TRR Pump/Gen and GCID Canal Connection to TRR

Percent Low-Income by Census Tract

- 0% - 10.0%
- 10.1% - 25.0%
- 25.1% - 50.0%
- 50.1% - 75.0%
- 75.1% - 100%

0 3.5 7 14
Miles

FIGURE 23-2
Primary Study Area Low-income
Population Distribution
Sites Reservoir Project EIR/EIS

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The Alternative D design of the Sites Reservoir Inundation Area, Sites Reservoir Dams, and South Bridge is the same as for Alternative C. With Alternative D, the capacity of the terminal regulating reservoir (TRR) would be reduced to 1,200 acre-feet. The design of Alternative D only includes two recreation areas and a boat ramp and modified road relocations. These facilities would require the same construction, operation, and maintenance activities regardless of alternative, and would, therefore, result in the same construction, operation, and maintenance impacts associated with a minority and/or low-income population (**Impact Env Jus-1**) as those described for Alternative B.

The boundary of the Project Buffer would be the same for all alternatives, but because the footprints of some of the Project facilities that are surrounded by the Project Buffer would differ between the alternatives, the acreage of land within the Project Buffer would also differ. However, this difference in the size of the area included within the buffer would not change the type of construction, operation, and maintenance activities that were described for Alternative A. Alternative D would, therefore, have the same impact associated with a minority and/or low-income population (**Impact Env Jus-1**) as that described for Alternative A.

23.4 Mitigation Measures

Because no potentially significant impacts were identified, no mitigation is required or recommended.

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